



November 8, 2018  
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Mr. Bradford Billings  
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**SUBJECT**      **Report for the Installation of Six Off-Site Groundwater Monitoring Wells**  
Gladiola Station  
Lea County, New Mexico  
OCD No. AP038

Mr. Billings:

At the request of ExxonMobil Environmental Services Company (EMES) on behalf of ExxonMobil US Production Company, Cardno is submitting this Report for the Installation of Six Off-Site Groundwater Monitoring Wells for the subject site. This report documents the field work completed in accordance with Cardno's *Work Plan for the Installation of Six Off-Site Groundwater Monitoring Wells*, dated May 25, 2018, and subsequently approved by the NMOCD in an email dated June 1, 2018.

Please call the undersigned at 949 457 8941 if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. M. Purdy", with a stylized flourish at the end.

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cc:      Ms. Marla D. Madden, EMES

# Report for the Installation of Six Off-Site Groundwater Monitoring Wells

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# 1 Introduction

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At the request of ExxonMobil Environmental Services Company (EMES), on behalf ExxonMobil US Production Company (ExxonMobil), Cardno prepared this report for the site. The purpose of the report is to document field observations and laboratory analytical data obtained from the drilling and installation of six off-site groundwater monitoring wells in order to assess the lateral extent of constituents of concern beneath and surrounding the site, as requested by the New Mexico Oil Conservation Division (NMOCD) in electronic correspondence dated May 9, 2018 (Appendix A).

# 2 Site Description

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Gladiola Station is located in northeast Lea County, New Mexico (Plate 1). The site is located at latitude 33.300745 degrees (°) and longitude -103.111117° and consists of 0.54 acre of land (Plate 2). The site was operated as a crude oil pipeline pumping station under ExxonMobil Pipeline Company until it was purchased by Trojan Pipeline L.P. in February 2004. Trojan changed its name to Centurion Pipeline L.P. (Centurion) in July 2004, and the site is currently operated by Centurion (AECOM, 2014a).

# 3 Geology and Hydrogeology

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The site is located in northeast Lea County, New Mexico, within the Llano Estacado (staked plains) physiographic province. Surface soils at the site are Quaternary windblown (eolian) sediments comprised of sands, silts, and clays. This sediment can accumulate to a thickness of 20 feet in this portion of Lea County. The Quaternary sediment unconformably overlies the Tertiary Ogallala formation (AECOM, 2014a).

The Ogallala formation is comprised of variably cemented calcic sands, silts, caliche, gravel and some clays, and ranges in thickness from 50 to 300 feet. Groundwater in northern Lea County is primarily produced from the Ogallala formation. The saturated thickness ranges from 25 to 200 feet, with the depth to groundwater ranging from less than 30 to approximately 260 feet. The Ogallala formation unconformably overlies the Triassic Dockum group. The Dockum group consists of red shale and sandstone and is commonly referred to as red beds. The red beds can exceed 1,000 feet in thickness in this region and may produce small amounts of water at the bottom of the formation. Water wells in the vicinity of the site have a total depth of approximately 100 feet bgs, with depth to groundwater ranging from 35 to 70 feet bgs (AECOM, 2014a).

The surface soils encountered at the site are silty clays approximately 2 to 3 feet thick. This surface soil is consistent with the surface soil description (Quaternary sediment) for this physiographic province. The next three soil types encountered at the site are consistent with the description of the Ogallala formation (caliche, limestone, and silty sands). The Dockum group was not encountered at the site (AECOM, 2014a).

The first occurrence of groundwater encountered at the site is found within the Ogallala formation and would likely be classified as the Ogallala Aquifer. The characteristics of the Ogallala Aquifer as described in the scientific literature match the characteristics of subsurface conditions beneath the site (produces small amounts of good-quality water). The DTW beneath the site has ranged historically from approximately 29 to 43 feet bgs (AECOM, 2014a).

## 4 Regulatory Framework and Site Classification

The NMOCD has regulatory jurisdiction over oil and gas production operations including crude-oil pipeline releases and closure activities in the State of New Mexico. Work at the site is conducted in accordance with a "revised Stage 1 Abatement Plan," submitted to the NMOCD on March 2, 2006. The NMOCD requires that soil affected by a crude oil release be remediated in such a manner that the potential for future effects to groundwater or the environment are minimized. The NMOCD hydrocarbon recommended remediation action levels (RRALs) for soil are determined by ranking criteria on a site-by-site basis, outlined in the NMOCD *Guidelines for Remediation of Spills, Leaks, and Releases*, dated August 13, 1993 (NMOCD, 1993). The ranking criteria are based on three site characteristics: depth to groundwater, wellhead protection, and distance to surface water (AECOM, 2014a).

The NMOCD guidelines require groundwater to be analyzed for potential constituents of concern as defined by New Mexico Water Quality Control Commission (NMWQCC) regulatory limits. Human health standards for groundwater with a total dissolved solids (TDS) concentration of less than 10,000 mg/L can be found in New Mexico Administrative Code (NMAC) 20.6.2.3103, Sections A and B (AECOM, 2014a).

A water well search was conducted on May 28, 2008. According to the New Mexico Office of the State Engineer Water Administration Technical Engineering Resource System database, 18 wells are located within approximately 1 mile of the site. Three of those wells are within 2,000 feet of the site. Two were natural resource exploratory wells (likely petroleum exploration), and one was installed as a livestock watering well. According to the Water Administration Technical Engineering Resource System database, no wells are located within 1,000 feet of the site (AECOM, 2014a).

On March 13 and April 15, 2009, Kleinfelder West, Inc. (Kleinfelder) contacted an adjacent property owner, Mr. Tommy Burrus, to obtain information regarding water well locations and usage (AECOM, 2014a). According to Mr. Burrus, water supply wells are located as indicated in the following table.

| Location                                                      | Usage                                                  | Owner           |
|---------------------------------------------------------------|--------------------------------------------------------|-----------------|
| Approximately 0.5 mile northeast                              | Livestock watering well                                | Tommy Burrus    |
| Between approximately 0.5 and 0.75 mile southeast of the site | Livestock watering well                                | Tommy Burrus    |
| Approximately 0.4 mile east of the site                       | Domestic well at an abandoned ranch (no longer in use) | Tommy Burrus    |
| Between approximately 0.5 and 0.75 mile northwest of the site | Livestock watering well                                | Clinton Houston |

Data collected during groundwater monitoring and sampling events indicates that the historic DTW at the site has ranged from approximately 29 to 43 feet bgs. The site is not within 1,000 feet of a wellhead protection area, and surface water is more than 1,000 feet from the site, giving the site a ranking criteria score of 20 as summarized in the following table (AECOM, 2014a).

| Characterization          | Selection               | Score |
|---------------------------|-------------------------|-------|
| Depth to Groundwater      | Less than 50 feet       | 20    |
| Wellhead Protection Area  | Greater than 1,000 feet | 0     |
| Distance to Surface Water | Greater than 1,000 feet | 0     |
| Total Score               | NA                      | 20    |

Based on a total score of 20, the following soil hydrocarbon RRALs apply to this site:

| Constituent of Concern | RRALs (mg/kg) |
|------------------------|---------------|
| Benzene                | 10            |
| Total BTEX             | 50            |
| TPH                    | 100           |

Groundwater samples collected as part of assessment activities are evaluated using NMWQCC regulatory limits for the analytical parameters listed in the following table.

| Constituent of Concern         | Concentration (mg/L) |
|--------------------------------|----------------------|
| Benzene                        | 0.01                 |
| Toluene                        | 0.75                 |
| Ethylbenzene                   | 0.75                 |
| Total Xylenes                  | 0.62                 |
| Benzo(a)pyrene                 | 0.0007               |
| Total Naphthalene <sup>1</sup> | 0.03                 |
| Arsenic                        | 0.1                  |
| Barium                         | 1.0                  |
| Cadmium                        | 0.01                 |
| Chromium                       | 0.05                 |
| Lead                           | 0.05                 |
| Mercury                        | 0.002                |
| Selenium                       | 0.05                 |
| Silver                         | 0.05                 |
| Chloride                       | 250.0                |
| Sulfate                        | 600.0                |
| TDS                            | 1,000.0              |

<sup>1</sup>Total Naphthalene = naphthalene + 1-methylnaphthalene + 2-methylnaphthalene

## 5 Previous Work

Soil and groundwater investigations have been conducted at the site since 2002. Previous work has included the drilling of soil borings, installation of wells, soil excavation, and NAPL bailing (Plate 2). For detailed information regarding these investigations, refer to the documents listed in the reference section. Cumulative groundwater and soil analytical results are summarized in Tables 1 through 8.

### 5.1 Pumping Station Activities

**November 18, 2002.** A crude oil release of approximately 15 barrels occurred as a result of a leak from the former western sump overflow/bleeder valve, located to the northeast of well MW-1. Approximately 5 barrels of crude oil were recovered from the release (ExxonMobil, 2002).

**May 21, 2007.** Centurion reported a crude oil release resulting from a strainer valve failure, which caused the eastern sump, located to the north of well MW-2, to overflow (AECOM, 2014a).

**March 2009.** In March 2009, NAPL was observed in off-site groundwater monitoring well MW-15 at a thickness of 0.16 foot. On October 11, 2011, NAPL thickness had increased in well MW-15 to 2.24 feet. In addition, NAPL was observed in well MW-13, located northwest of MW-15, at a thickness of 0.95 foot. By October 2012, NAPL thickness had increased in well MW-15 to 3.35 feet and was first observed in off-site groundwater monitoring well MW-24 at a thickness of 4.35 feet. Based on the levels of NAPL in wells MW-15 and MW-24, ExxonMobil theorized that observation of NAPL in wells MW-13, MW-15, and MW-24 could be indicative of a third release of crude oil.

## 5.2 Site Assessment Activities

**2004.** BNC Environmental Services, Inc. conducted soil and groundwater activities, which included the installation of monitoring wells MW-1 through MW-3. NAPL was encountered in the wells. A water well search was also conducted, which did not identify water wells located on or immediately adjacent to the site (BNC, 2004).

**2006.** Conestoga-Rovers & Associates (CRA) advanced soil borings SB-9 and SB-11, installed groundwater monitoring wells MW-4 through MW-10, and conducted a site-wide groundwater monitoring and sampling event at the site. NAPL was encountered in wells MW-1, MW-2, and MW-3 (AECOM, 2014a).

**April 2008.** Kleinfelder oversaw the installation of monitoring wells MW-11 through MW-16 (Kleinfelder, 2008).

**August 2009.** Kleinfelder oversaw the installation of monitoring wells MW-17 through MW-21 (AECOM, 2014a).

**October 26-28, 2011.** Groundwater & Environmental Services, Inc. (GES) advanced soil borings SB-1 through SB-7 at the site and installed temporary groundwater monitoring wells in the borings. GES then gauged and sampled the temporary monitoring wells. Measurable NAPL was not encountered in the wells (AECOM, 2014a).

**December 13-15, 2011.** GES installed permanent monitoring wells MW-23 through MW-26 (AECOM, 2014a).

## 5.3 Remediation Activities

**August 2003.** E. D. Walton conducted initial remedial excavation activities and B&H Maintenance and Construction conducted a soil boring investigation (B&H, 2003).

**May-June 2007.** Soil remediation activities, including excavation, were conducted at the site (AECOM, 2014a).

**April 2, 2009.** NOVA Safety and Environment, on behalf of Centurion, recommended to the NMOCD no further action for the May 2007 release (AECOM, 2014a).

**April 28-29, 2016.** Cardno conducted a NAPL baildown test on wells MW-13, MW-14, and MW-24. Cardno also bailed NAPL from wells MW-4, MW-5, MW-12, MW-15, MW-16, MW-18, MW-20, and MW-25 using disposable Teflon® bailers. Approximately 6 gallons of NAPL were removed. Samples of the NAPL from wells MW-13, MW-14, and MW-24 were collected for laboratory analysis (Cardno, 2016b).

**October 26, 2016.** Cardno conducted a NAPL pumping test to assess whether sustained flow of NAPL is possible by pumping. To begin the test, Cardno adjusted the pump to a rate of 0.1 gpm to conduct a step test to gradually increase the flow rate and determine the appropriate flow rate for a constant rate pumping test; however, Cardno was not able to sustain the desired flow rates during the step test and the constant rate test, therefore, was not performed. Approximately 100 gallons of LNAPL mixed with water was removed (Cardno, 2017a).

**May 24-25, 2017.** Cardno conducted a NAPL recovery test using a Xitech Instruments, Inc. ADJ210 High Performance Smart Skimmer® pump equipped with an electronic controller to assess whether sustained flow of NAPL is possible by pumping. During the test, approximately 10 to 15 gallons of NAPL were removed over a 24 hour period (Cardno, 2017b).

## 5.4 Groundwater Monitoring Activities

**2006.** CRA conducted site-wide groundwater monitoring and sampling activities. NAPL was encountered in wells MW-1 through MW-3 (AECOM, 2014a).

**April 2008-February 2009.** Kleinfelder conducted groundwater monitoring activities at the site. The groundwater monitoring data indicated that hydrocarbons related to the Centurion May 2007 release were still present on site (AECOM, 2014a).

**October 12-13, 2011.** GES performed groundwater monitoring and sampling activities for wells MW-1 through MW-22. Monitoring wells with NAPL were gauged and bailed (AECOM, 2014a).

**October 28, 2011.** GES gauged and sampled temporary monitoring wells SB-1 through SB-7. No measureable NAPL was encountered in the wells (AECOM, 2014b).

**February 22, 2012.** GES performed groundwater monitoring and sampling activities for wells MW-1 through MW-26. Monitoring wells with NAPL were gauged and bailed (AECOM, 2014a).

**July 17, 2012.** GES performed groundwater monitoring and sampling activities at the site. Monitoring wells with NAPL were gauged and bailed. NAPL samples from wells MW-2 and MW-13 were collected for fingerprint analysis. Borbas Surveying and Mapping LLC surveyed the 26 monitoring wells and select features on the site (AECOM, 2014a).

**October 3, 2012.** GES performed groundwater monitoring and sampling activities at the site. Monitoring wells with NAPL were gauged and bailed. NAPL samples were collected from wells MW-2, MW-13, MW-18, and MW-26 for fingerprint analysis (AECOM, 2014a).

**May 13-16, 2013.** AECOM conducted a groundwater monitoring and sampling event at the site, including the removal of bailed NAPL. Approximately 17 gallons of NAPL were recovered from affected monitoring wells. Monitoring well MW-8 was not found and was presumed to be destroyed. Large pieces of concrete were found in the vicinity of the well (AECOM, 2014a).

**January 27-29, 2014.** AECOM conducted a groundwater monitoring and sampling event at the site, including the removal of bailed product. Approximately 20 gallons of NAPL were recovered from affected monitoring wells (AECOM, 2014a).

**June 16-19, 2014.** AECOM conducted a groundwater monitoring and sampling event at the site, including the removal of bailed NAPL. Approximately 25 gallons of NAPL were recovered from affected monitoring wells. Monitoring well MW-2 was found damaged and could not be gauged or sampled (AECOM, 2014a).

**November 17-19, 2014.** AECOM conducted a groundwater monitoring and sampling event at the site, including the removal of bailed NAPL. Approximately 25 gallons of NAPL were recovered from affected monitoring wells (AECOM, 2014b).

**December 7-9, 2015.** Cardno conducted a groundwater monitoring and sampling event at the site, including the removal of bailed NAPL. Approximately 30 gallons of NAPL were removed from affected monitoring wells (Cardno, 2016a).

**April 26-27, 2016.** Cardno conducted a groundwater monitoring and sampling event at the site (Cardno, 2016a).

**April 28-29, 2016.** Cardno conducted a NAPL baildown test on wells MW-13, MW-14, and MW-24. Cardno also bailed NAPL from wells MW-4, MW-5, MW-12, MW-15, MW-16, MW-18, MW-20, and MW-25 using disposable Teflon® bailers. Approximately 6 gallons of NAPL were removed. Samples of the NAPL from wells MW-13, MW-14, and MW-24 were collected for laboratory analysis (Cardno, 2016a).

**October 24-26, 2016.** Cardno conducted a groundwater monitoring and sampling event (Cardno, 2017a).

**May 24-25, 2017.** Cardno conducted a groundwater monitoring and sampling event at the site (Cardno, 2017b).



**November 28-29, 2017.** Cardno conducted a groundwater monitoring and sampling event at the site bailed NAPL from wells MW5 (1 gallon), MW14 (3 gallons), MW24 (2 gallons), and MW25 (2 gallons). Approximately 30 gallons of NAPL were removed from affected monitoring wells (Cardno, 2018a).

**November 30, 2017.** Cardno collected additional DTW and depth to product (DTP) measurements from select bailed wells (Cardno, 2018a).

**July 17-20, 2018.** Cardno conducted a groundwater monitoring and sampling event at the site where newly-installed groundwater wells B1/MW27 through B6/MW32 were incorporated into the existing monitoring program (Cardno, 2018c).

## 6 Subsurface Investigation

Cardno performed the fieldwork in accordance with Cardno's *Work Plan for the Installation of Six Off-Site Groundwater Monitoring Wells* (Work Plan) dated May 25, 2018, Cardno's standard field protocol (Appendix B), a site-specific health and safety plan, and applicable regulatory guidelines. Cardno's Work Plan was approved by the NMOCD in an email dated June 1, 2018 (Appendix A).

The procedures for drilling, decontamination, and well construction are described in the field protocol contained in Appendix C. The fieldwork was conducted under the supervision of a professional geologist and in accordance with applicable regulatory guidelines.

### 6.1 Pre-Field Activities

Prior to the onset of field activities, Cardno obtained a well installation permit from the New Mexico Office of the State Engineer (NMOSE) (Appendix C). Cardno personnel visited the site to check for obstructions and to mark the proposed locations. New Mexico One Call was contacted and affected utility companies marked any underground lines. The property owner, NMOSE, and OCD were notified at least 48 hours prior to the onset of field activities.

### 6.2 Sampling and Well Installation Activities

On June 11 and 12, 2018, Cardno cleared four boreholes for subsurface utilities to 5 feet bgs using an air knife rig in accordance with EMES' subsurface clearance protocols. Two boreholes were only cleared to 2 feet bgs due to the presence of condensed caliche rock.

On June 18 through 26, 2018, Cardno supervised Yellow Jacket Drilling (Yellow Jacket) install groundwater monitoring wells B1/MW27 through B6/MW32 using a Speedstar 50K CH air rotary drill rig equipped with 6-inch diameter rods. Soil samples were collected at capillary fringe and at the total depth of each boring, with the exception of borings B1/MW27 and B3/MW29 where samples were collected at every 5 feet, and were preserved for laboratory analysis. Groundwater was encountered at approximately 40 feet bgs in all borings during drilling. Each groundwater well was installed to a total depth of 50 feet bgs with 4-inch diameter Schedule 40 PVC casing and 0.010-inch slotted PVC screen, and screened from 30 to 50 feet bgs. Lithologic descriptions of the soil cuttings and well construction details are presented on the boring logs in Appendix D.

### 6.3 Laboratory Analyses

Cardno submitted soil and groundwater samples for analysis to Eurofins Scientific, Inc. Laboratory analytical reports and COC records are provided in Appendix E. Soil and groundwater samples were analyzed for BTEX and fuel oxygenates including MTBE by EPA Method 8260B. In addition, soil samples were analyzed for TPHg by EPA Method 8015C and naphthalene by EPA Method 8270C. Groundwater samples were analyzed for VOCs by EPA Method 8260B, PAHs by EPA Method 8270C, RCRA metals by EPA Method 6010B, mercury by EPA Method 7470A, chloride by Standard Method 4500 Cl-E, sulfate by EPA Method

D516-90, total alkalinity by SM 2320B, and TDS by SM 2540C. Cumulative groundwater analytical data is provided in Tables 1 through 7. Cumulative soil analytical data is provided in Table 8.

## 6.4 Well Development

On June 23 and 24, 2018, Cardno supervised Yellow Jacket Drilling develop monitoring wells B1/MW27 through B6/MW32 using a development rig equipped with a surge block and stainless steel bailer. Field data is included in Appendix F.

## 6.5 Site Survey

On July 20, 2018, Cardno supervised John West Surveying Company, of Hobbs, New Mexico, survey the location and TOC elevation for all active monitoring wells in reference to the subject location. The survey data is included in Appendix G.

## 6.6 Waste Management Plan

The soil and decontamination water generated during drilling activities were temporarily stored on site in DOT-approved, 55-gallon drums. Soil cuttings were transported to Contract Environmental Services, Inc. disposal facility in San Juan County, Utah for recycling. Decontamination water was transported and disposed of at Thermo Fluids, Inc., in Phoenix, Arizona. Copies of the waste manifests for the disposal of soil and water were not available at the time this report was prepared, but will be included in the next groundwater monitoring and status report.

# 7 Results of Investigation

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This section summarizes the results of the subsurface investigation including soil lithology, soil and groundwater sample laboratory analytical results and Cardno's conclusions and recommendations.

## 7.1 Site Lithology

During this investigation, soil cuttings observed consisted of poorly graded sand, silt, and traces of clay and gravel with caliche rock layers, which is consistent with past investigations conducted at that location. It is of note that the depths in lithology change and soil types may not be accurate since only the soil cuttings were logged. Soil observed in borings B1/MW27 through B6/MW32 consisted of sand, silt, and mixtures of sand, silt, and clay from the surface to 50 feet bgs, the maximum depth investigated. Groundwater was encountered at an average of 40 feet bgs during drilling.

## 7.2 Hydrocarbons In Soils

Ethylbenzene, total xylenes, TPHd, and TPHg were the only constituents reported at concentrations above the laboratory reporting limit in soil samples collected during this investigation. The highest concentrations of ethylbenzene, total xylenes, TPHd, and TPHg are as follows: 0.0071 mg/kg (B1/MW27), 0.021 JA mg/kg (B5/MW31), 220 HD mg/kg (B1/MW27), and 7.4 mg/kg (B5/MW31), respectively. Cumulative soil analytical data is provided in Table 8.

## 7.3 Hydrocarbons In Groundwater

Newly-installed groundwater monitoring wells MW27 through MW32 were incorporated into the semi-annual groundwater monitoring and sampling program at the site and were gauged and sampled from July 18 to 20, 2018, along with the previously-existing wells. Neither NAPL nor sheen was observed in any of the newly-installed groundwater monitoring wells during this sampling event. The maximum benzene



concentration (0.12 mg/l) was detected in well MW26. Petroleum hydrocarbon concentrations were not reported above reporting limits in wells MW28 through MW31 (Table 1, Plate 4).

## 7.4 Conclusions

The lithology of soil samples collected during the advancements of B1/MW27 through B6/MW32 was consistent with observations made during previous investigations at the site. The lateral assessment of NAPL in groundwater appears to be delineated as no NAPL or sheen observed in newly installed groundwater monitoring wells B1/MW27 through B6/MW32 during the third quarter 2018 groundwater monitoring and sampling event. No dissolved-phase hydrocarbons were detected in groundwater samples collected from the newly installed wells, although hydrocarbons were detected in soil samples collected from the well borings..

## 7.5 Recommendations

Cardno recommends conducting a meeting with Centurion Pipeline to discuss a remediation plan for the removal and lateral control of NAPL in groundwater. In addition, Cardno recommends continued semi-annual groundwater monitoring at the site.

# 8 Contact Information

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The responsible party contact is Ms. Marla D. Madden, EMES, 18685 Main Street, Suite 101 PMB 601, Huntington Beach, California, 92648-1719.

The consultant contact is Mr. David M. Purdy, Cardno, 20505 Crescent Bay Drive, Lake Forest, California, 92630.

The agency contact is Mr. Bradford Billings, NMOCD, State of New Mexico Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505.

# 9 Limitations

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For documents cited that were not generated by Cardno, the data taken from those documents is used “as is” and is assumed to be accurate. Cardno does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability and specialized knowledge necessary to perform the work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services in New Mexico at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

# 10 References

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AECOM. March 3, 2014a. Technical Memorandum – Review of Forensic Laboratory Reports.

AECOM. December 2014b. *2014 Annual Groundwater Monitoring Report*, Gladiola Station, Sec 5, T-12-S, R-38-E, Tatum, Lea County, New Mexico.

B & H Environmental Services (B&H). 2003. *Soil Coring Investigation Report, Gladiola Station, Lea County, New Mexico.*

BNC Environmental Services, Inc. (BNC). August 20, 2004. *Soil and Groundwater Assessment Report, Gladiola Station, Section 5, T-12-S, R-38-E, Lea County, New Mexico.*

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Cardno. April 3, 2016b. *First and Second Quarter 2016 Semi-Annual Groundwater Monitoring Report, Gladiola Station, Lea County, New Mexico.*

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Cardno. March 29, 2018a. *Third and Fourth Quarter 2017 Semi-Annual Groundwater Monitoring Report, Gladiola Station, Lea County, New Mexico.*

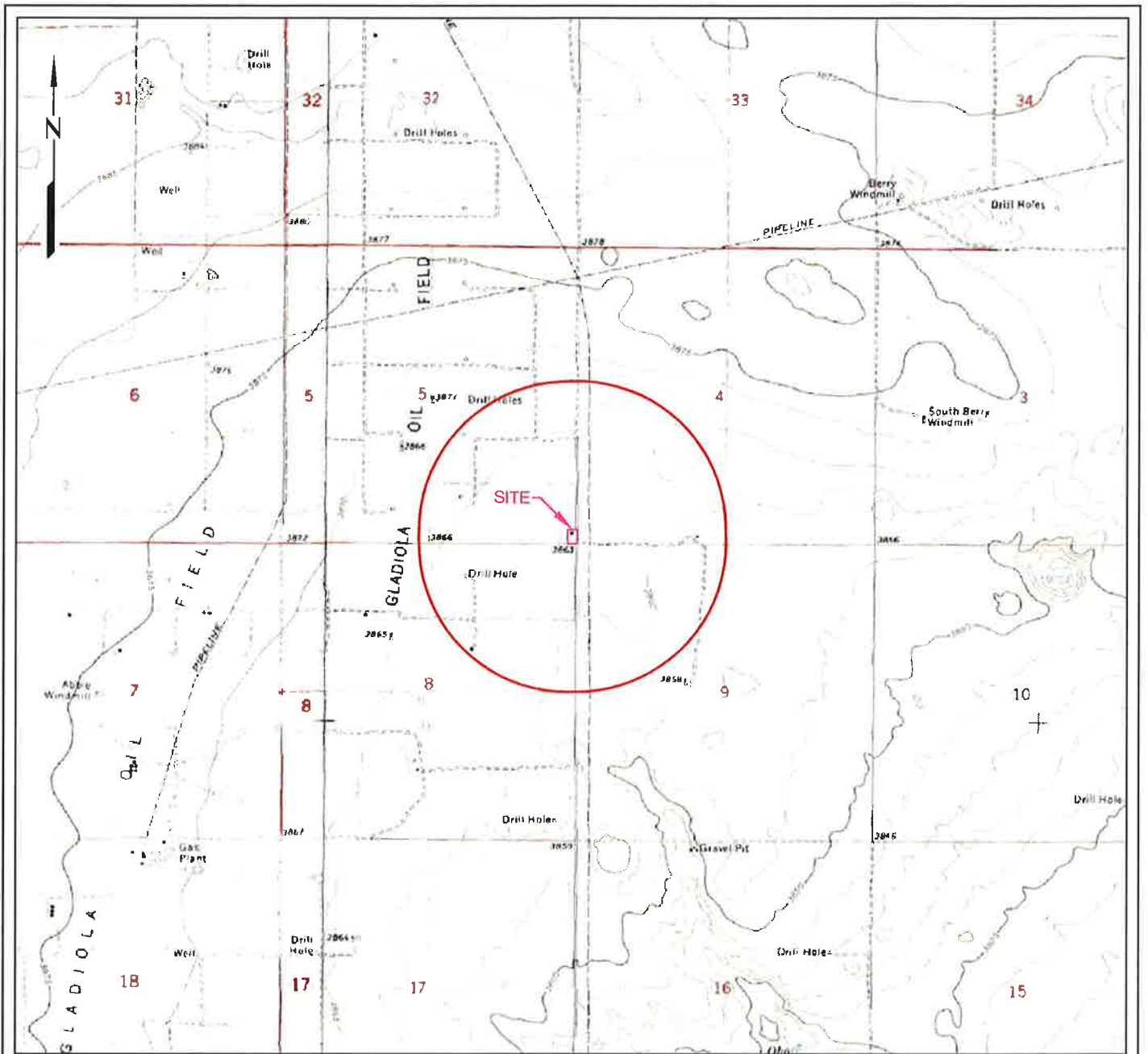
Cardno. May 25, 2018b. *Work Plan for the Installation of Six Off-Site Groundwater Monitoring Wells, Gladiola Station, Lea County, New Mexico.*

Cardno. October 15, 2018c. *First through Third Quarter 2018 Semi-Annual Groundwater Monitoring Report, Gladiola Station, Lea County, New Mexico.* ExxonMobil Pipeline Company (ExxonMobil). November 18, 2002. *Leak, Maintenance, and Exposed Pipe Report for Gladiola Station, Lea County, New Mexico.*

New Mexico Oil Conservation Division (NMOCD). August 13, 1993. *Guidelines for Remediation of Spills, Leaks, and Releases.*

# 11 Acronym List

|                   |                                                   |       |                                                   |
|-------------------|---------------------------------------------------|-------|---------------------------------------------------|
| µg/L              | Micrograms per liter                              | NAPL  | Non-aqueous phase liquid                          |
| µg/m <sup>3</sup> | Micrograms per cubic meter                        | NEPA  | National Environmental Policy Act                 |
| µs                | Microsiemens                                      | NGVD  | National Geodetic Vertical Datum                  |
| 1,2-DCA           | 1,2-dichloroethane                                | NPDES | National Pollutant Discharge Elimination System   |
| acfm              | Actual cubic feet per minute                      | O&M   | Operations and Maintenance                        |
| AS                | Air sparge                                        | ORP   | Oxidation-reduction potential                     |
| AST               | Aboveground storage tank                          | OSHA  | Occupational Safety and Health Administration     |
| bgs               | Below ground surface                              | OVA   | Organic vapor analyzer                            |
| BTEX              | Benzene, toluene, ethylbenzene, and total xylenes | P&ID  | Process and Instrumentation Diagram               |
| cfm               | Cubic feet per minute                             | PAH   | Polycyclic aromatic (or polyaromatic) hydrocarbon |
| COC               | Chain-of-Custody                                  | PCB   | Polychlorinated biphenyl                          |
| CPT               | Cone Penetration (Penetrometer) Test              | PCE   | Tetrachloroethene or perchloroethylene            |
| DIPE              | Di-isopropyl ether                                | PID   | Photo-ionization detector                         |
| DO                | Dissolved oxygen                                  | PLC   | Programmable logic control                        |
| DOT               | Department of Transportation                      | POTW  | Publicly-owned treatment works                    |
| DPE               | Dual-phase extraction                             | ppmv  | Parts per million by volume                       |
| DTW               | Depth to water                                    | PQL   | Practical quantitation limit                      |
| EDB               | 1,2-dibromoethane                                 | psi   | Pounds per square inch                            |
| EPA               | Environmental Protection Agency                   | PVC   | Polyvinyl chloride                                |
| ESL               | Environmental screening level                     | QA/QC | Quality assurance/quality control                 |
| ETBE              | Ethyl tertiary butyl ether                        | RBSL  | Risk-based screening levels                       |
| FID               | Flame-ionization detector                         | RCRA  | Resource Conservation and Recovery Act            |
| fpm               | Feet per minute                                   | RL    | Reporting limit                                   |
| GAC               | Granular activated carbon                         | scfm  | Standard cubic feet per minute                    |
| gpd               | Gallons per day                                   | SSTL  | Site-specific target level                        |
| gpm               | Gallons per minute                                | STLC  | Soluble threshold limit concentration             |
| GWPTS             | Groundwater pump and treat system                 | SVE   | Soil vapor extraction                             |
| HIT               | High-intensity targeted                           | SVOC  | Semi-volatile organic compound                    |
| HVOC              | Halogenated volatile organic compound             | TAME  | Tertiary amyl methyl ether                        |
| J                 | Estimated value between MDL and PQL (RL)          | TBA   | Tertiary butyl alcohol                            |
| LEL               | Lower explosive limit                             | TCE   | Trichloroethene                                   |
| LPC               | Liquid-phase carbon                               | TOC   | Top of well casing elevation; datum is msl        |
| LRP               | Liquid-ring pump                                  | TOG   | Total oil and grease                              |
| LUFT              | Leaking underground fuel tank                     | TPH   | Total petroleum hydrocarbons                      |
| LUST              | Leaking underground storage tank                  | TPHd  | Total petroleum hydrocarbons as diesel            |
| MCL               | Maximum contaminant level                         | TPHg  | Total petroleum hydrocarbons as gasoline          |
| MDL               | Method detection limit                            | TPHmo | Total petroleum hydrocarbons as motor oil         |
| mg/kg             | Milligrams per kilogram                           | TPHS  | Total petroleum hydrocarbons as stoddard solvent  |
| mg/L              | Milligrams per liter                              | TRPH  | Total recoverable petroleum hydrocarbons          |
| mg/m <sup>3</sup> | Milligrams per cubic meter                        | UCL   | Upper confidence level                            |
| MPE               | Multi-phase extraction                            | USCS  | Unified Soil Classification System                |
| MRL               | Method reporting limit                            | USGS  | United States Geologic Survey                     |
| msl               | Mean sea level                                    | UST   | Underground storage tank                          |
| MTBE              | Methyl tertiary butyl ether                       | VCP   | Voluntary Cleanup Program                         |
| MTCA              | Model Toxics Control Act                          | VOC   | Volatile organic compound                         |
| NAI               | Natural attenuation indicators                    | VPC   | Vapor-phase carbon                                |



FN 3612.TOP002

### EXPLANATION



1/2-mile distance from  
property border

### APPROXIMATE SCALE



SOURCE:  
Modified from a map  
provided by  
MapPass



## SITE LOCATION MAP

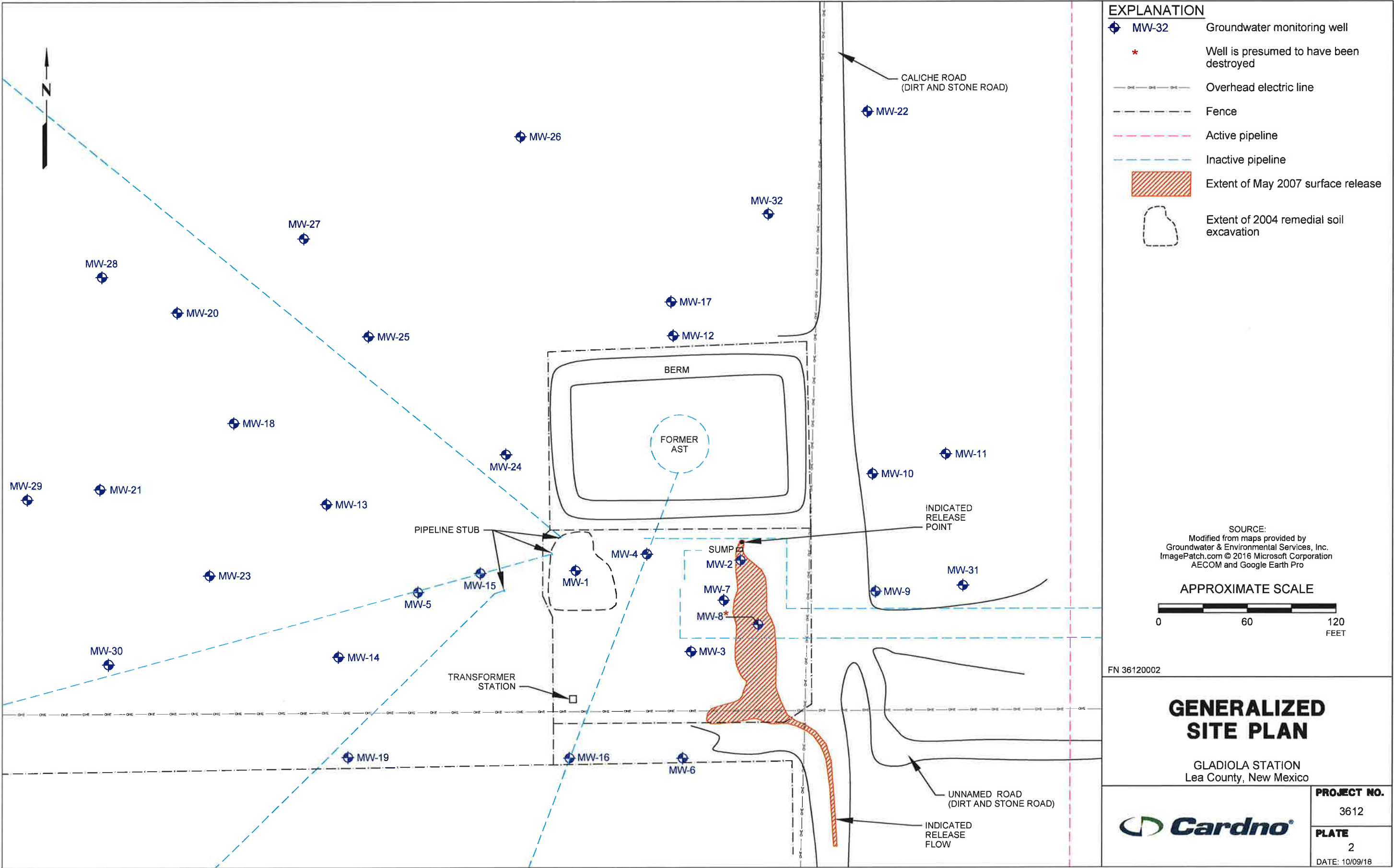
GLADIOLA STATION  
Lea County, New Mexico

PROJECT NO.

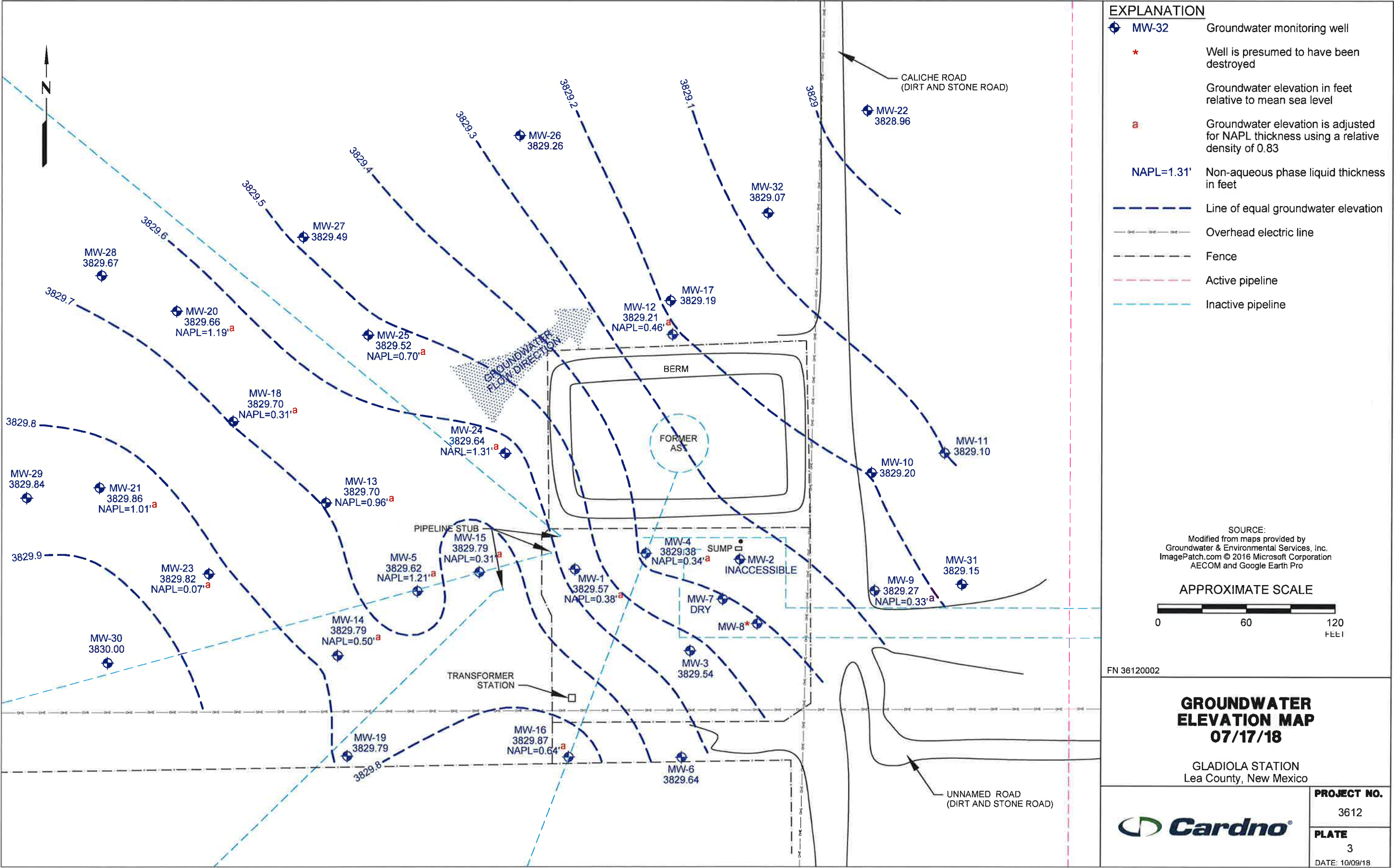
3612

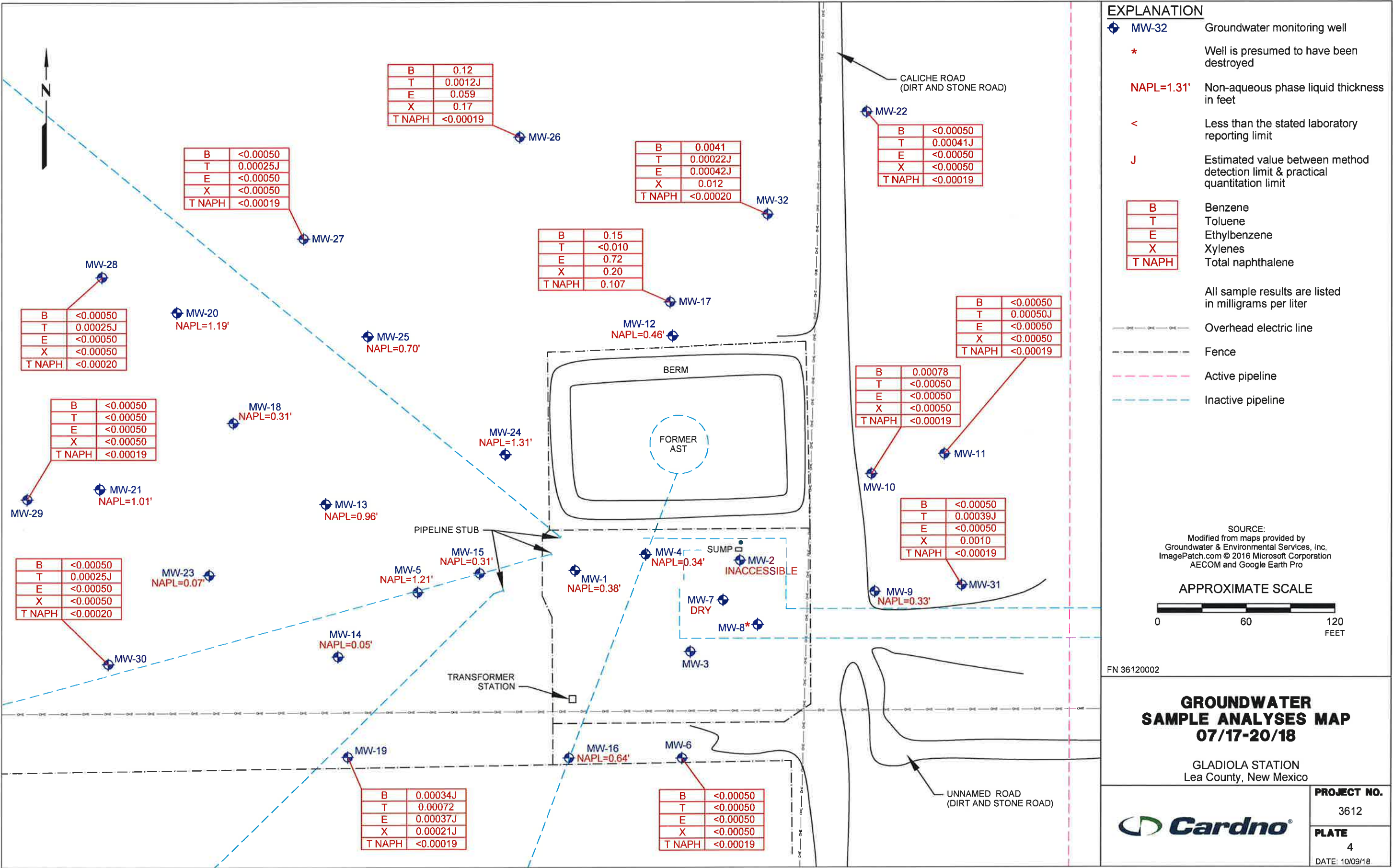
PLATE

1









**TABLE 1**  
**WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet)                         | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------------------------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                                        | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-1</b>  | <b>Well Screen Interval (feet): 22.71-42.71</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3866.77                                         | 37.52              | 3829.57           | 0.38                                   |                   |                   |                        |                   |
| <b>Field Point MW-3</b>  | <b>Well Screen Interval (feet): 24.20-44.20</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3865.34                                         | 35.80              | 3829.54           | No                                     |                   |                   |                        |                   |
| <b>Field Point MW-4</b>  | <b>Well Screen Interval (feet): 23.97-38.97</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3866.32                                         | 37.22              | 3829.38           | 0.34                                   |                   |                   |                        |                   |
| <b>Field Point MW-5</b>  | <b>Well Screen Interval (feet): 27.19-47.19</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.65                                         | 40.03              | 3829.62           | 1.21                                   |                   |                   |                        |                   |
| <b>Field Point MW-6</b>  | <b>Well Screen Interval (feet): 27.05-42.05</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.66                                         | 39.02              | 3829.64           | No                                     |                   |                   |                        |                   |
| 07/20/18                 | 3868.66                                         |                    |                   | No                                     | <0.00050          | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-8</b>  | <b>Well Screen Interval (feet): 23.05-38.05</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | NE                                              |                    |                   | Unable to locate - Presumed destroyed. |                   |                   |                        |                   |
| <b>Field Point MW-9</b>  | <b>Well Screen Interval (feet): 27.64-42.64</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3869.90                                         | 40.90              | 3829.27           | 0.33                                   |                   |                   |                        |                   |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3870.47                                         | 41.27              | 3829.20           | No                                     |                   |                   |                        |                   |
| 07/20/18                 | 3870.47                                         | 41.30              | 3829.17           | No                                     | 0.00078           | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3869.68                                         | 40.58              | 3829.10           | No                                     |                   |                   |                        |                   |
| 07/18/18                 | 3869.68                                         | 40.58              | 3829.10           | No                                     | <0.00050          | 0.00050 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3869.40                                         | 40.57              | 3829.21           | 0.46                                   |                   |                   |                        |                   |
| <b>Field Point MW-13</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.76                                         | 39.86              | 3829.70           | 0.96                                   |                   |                   |                        |                   |
| <b>Field Point MW-14</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.62                                         | 39.25              | 3829.79           | 0.50                                   |                   |                   |                        |                   |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.86                                         | 39.33              | 3829.79           | 0.31                                   |                   |                   |                        |                   |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.68                                         | 39.34              | 3829.87           | 0.64                                   |                   |                   |                        |                   |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3869.27                                         | 40.08              | 3829.19           | No                                     |                   |                   |                        |                   |
| 07/18/18                 | 3869.27                                         |                    |                   | No                                     | 0.15              | <0.010            | 0.72                   | 0.20              |
| <b>Field Point MW-18</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                                        |                   |                   |                        |                   |
| 07/17/18                 | 3868.94                                         | 39.50              | 3829.70           | 0.31                                   |                   |                   |                        |                   |



**TABLE 1**  
**WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3868.90                                         | 39.11              | 3829.79           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3868.90                                         |                    |                   | No             | 0.00034 J         | 0.00072           | 0.00037 J              | 0.00021 J         |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.15                                         | 40.48              | 3829.66           | 1.19           |                   |                   |                        |                   |
| <b>Field Point MW-21</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.07                                         | 40.05              | 3829.86           | 1.01           |                   |                   |                        |                   |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.86                                         | 40.90              | 3828.96           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3869.86                                         | 40.90              | 3828.96           | No             | <0.00050          | 0.00041 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-23</b> | <b>Well Screen Interval (feet): 31.00-46.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.22                                         | 39.46              | 3829.82           | 0.07           |                   |                   |                        |                   |
| <b>Field Point MW-24</b> | <b>Well Screen Interval (feet): 28.00-43.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3868.04                                         | 39.49              | 3829.64           | 1.31           |                   |                   |                        |                   |
| <b>Field Point MW-25</b> | <b>Well Screen Interval (feet): 28.00-43.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.14                                         | 40.20              | 3829.52           | 0.70           |                   |                   |                        |                   |
| <b>Field Point MW-26</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.15                                         | 39.89              | 3829.26           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3869.15                                         |                    |                   | No             | 0.12              | 0.0012 J          | 0.059                  | 0.17              |
| <b>Field Point MW-27</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.12                                         | 39.63              | 3829.49           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3869.12                                         | 39.60              | 3829.52           | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-28</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.32                                         | 39.65              | 3829.67           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3869.32                                         |                    |                   | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-29</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.36                                         | 39.52              | 3829.84           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3869.36                                         | 39.47              | 3829.89           | No             | <0.00050          | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-30</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.10                                         | 39.10              | 3830.00           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3869.10                                         |                    |                   | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-31</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.05                                         | 39.90              | 3829.15           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3869.05                                         |                    |                   | No             | <0.00050          | 0.00039 J         | <0.00050               | 0.0010            |
| <b>Field Point MW-32</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3870.35                                         | 41.28              | 3829.07           | No             |                   |                   |                        |                   |
| 07/19/18                 | 3870.35                                         |                    |                   | No             | 0.0041            | 0.00022 J         | 0.00042 J              | 0.012             |

**TABLE 1**  
**WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

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Notes: Data collected prior to December 8, 2015 provided by AECOM.

ELEV = Elevation.

GW = Groundwater.

NAPL = Non-aqueous phase liquid.

Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.

NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.

Bolded values equal or exceed applicable regulatory limits.

Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.

Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.

TDS = Total dissolved solids.

mg/l = Milligrams per liter.

BDL = Below laboratory detection limits.

< = Not detected at or above stated laboratory reporting limit.

A-01 = Could not obtain constant weight.

D = Duplicate sample.

J = Estimated value between method detection limit and practical quantitation limit.

R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.

R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.

R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.

X = Pre-purge/no-purge sample.

(a) = Analyzed by EPA Method 8310.

(b) = Analyzed by EPA Method 8260B.

(c) = Analyzed method unknown.

(d) = Analyzed to determine the presense of NAPL.

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS FOR SVOCs**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                          | Acenaphthene<br>(mg/l)                   | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|-------------------------------|------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS                 | NA                                       | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| Field Point MW-6<br>07/20/18  | Well Screen Interval (feet): 27.05-42.05 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-10<br>07/20/18 | Well Screen Interval (feet): 28.08-43.08 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00017 J          | <0.00019                         |
| Field Point MW-11<br>07/18/18 | Well Screen Interval (feet): 29.00-44.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-17<br>07/18/18 | Well Screen Interval (feet): 29.50-44.50 |                          |                      | 0.000077 J                   | 0.00011 J                | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.0015             | <0.00019                         |
| Field Point MW-19<br>07/18/18 | Well Screen Interval (feet): 27.00-42.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-22<br>07/18/18 | Well Screen Interval (feet): 30.00-45.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-26<br>07/18/18 | Well Screen Interval (feet): 30.00-45.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-27<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-28<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |
| Field Point MW-29<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-30<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |
| Field Point MW-31<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00017 J          | <0.00019                         |
| Field Point MW-32<br>07/19/18 | Well Screen Interval (feet): 35.00-50.00 |                          |                      | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS FOR SVOCs**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-6</b>  | <b>Well Screen Interval (feet): 27.05-42.05</b> |                  |                       |                               |                               |                             |
| 07/20/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                  |                       |                               |                               |                             |
| 07/20/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                       |                               |                               |                             |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                       |                               |                               |                             |
| 07/18/18                 | 0.00073                                         | <0.00019         | 0.053                 | 0.026                         | 0.028                         | <b>0.107</b>                |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                       |                               |                               |                             |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-26</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-27</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-28</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00020                                        | <0.00020         | <0.00020              | <0.00020                      | <0.00020                      | <0.00020                    |
| <b>Field Point MW-29</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-30</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00020                                        | <0.00020         | <0.00020              | <0.00020                      | <0.00020                      | <0.00020                    |
| <b>Field Point MW-31</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-32</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00020                                        | <0.00020         | <0.00020              | <0.00020                      | <0.00020                      | <0.00020                    |

TABLE 2  
GROUNDWATER ANALYTICAL RESULTS FOR SVOCs  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.  
ELEV = Elevation.  
GW = Groundwater.  
NAPL = Non-aqueous phase liquid.  
Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.  
NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.  
Bolded values equal or exceed applicable regulatory limits.  
Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.  
Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.  
TDS = Total dissolved solids.  
mg/l = Milligrams per liter.  
BDL = Below laboratory detection limits.  
< = Not detected at or above stated laboratory reporting limit.  
A-01 = Could not obtain constant weight.  
D = Duplicate sample.  
J = Estimated value between method detection limit and practical quantitation limit.  
R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.  
R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.  
R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.  
X = Pre-purge/no-purge sample.  
(a) = Analyzed by EPA Method 8310.  
(b) = Analyzed by EPA Method 8260B.  
(c) = Analyzed method unknown.  
(d) = Analyzed to determine the presense of NAPL.



**TABLE 3**  
**GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                                 | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| <b>NMED WQCC HHS</b>                 | <b>0.1</b>                                      | <b>1</b>         | <b>0.01</b>       | <b>0.05</b>        | <b>0.05</b>    | <b>0.002</b>      | <b>0.05</b>        | <b>0.05</b>      | <b>250.0</b>       | <b>600.0</b>      | <b>NA</b>            | <b>1000.0</b> |
| <b>Field Point MW-6</b><br>07/20/18  | <b>Well Screen Interval (feet):</b> 27.05-42.05 |                  | <0.0100           | 0.00674 J          | 0.00430 J      | 0.000190 B,J      | 0.0344             | <0.00500         | 4.6                | 180               | 430                  | 525           |
| <b>Field Point MW-10</b><br>07/20/18 | <b>Well Screen Interval (feet):</b> 28.08-43.08 |                  | <0.0100           | 0.00305 J          | 0.00666 J      | 0.000779 B        | 0.0235             | <0.00500         | 140                | 100               | 600                  | <b>1110</b>   |
| <b>Field Point MW-11</b><br>07/18/18 | <b>Well Screen Interval (feet):</b> 29.00-44.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000163 B,J      | <0.0150            | 0.00260 J        | 170                | 68                | 440                  | <b>1040</b>   |
| <b>Field Point MW-17</b><br>07/18/18 | <b>Well Screen Interval (feet):</b> 29.50-44.50 |                  | <0.0100           | 0.00471 J          | <0.0100        | 0.0000984 B,J     | <0.0150            | <0.00500         | 5.6                | <1.0              | 850                  | <b>1000</b>   |
| <b>Field Point MW-19</b><br>07/18/18 | <b>Well Screen Interval (feet):</b> 27.00-42.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000112 B,J      | <0.0150            | <0.00500         | 36                 | 120               | 300                  | 610           |
| <b>Field Point MW-22</b><br>07/18/18 | <b>Well Screen Interval (feet):</b> 30.00-45.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000161 B,J      | 0.0432             | <0.00500         | 34                 | 19                | 240                  | 615           |
| <b>Field Point MW-26</b><br>07/18/18 | <b>Well Screen Interval (feet):</b> 30.00-45.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000129 B,J      | 0.0144 J           | 0.00155 J        | 30                 | 170               | 320                  | 720           |
| <b>Field Point MW-27</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000115 B,J      | <b>0.0519</b>      | <0.00500         | <b>280</b>         | 130               | 170                  | 980           |
| <b>Field Point MW-28</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000104 B,J      | 0.0300             | 0.00196 J        | 220                | 430               | 140                  | <b>1060</b>   |
| <b>Field Point MW-29</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000116 B,J      | 0.0282             | 0.00145 J        | 190                | 100               | 170                  | 805           |
| <b>Field Point MW-30</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000102 B,J      | <0.0150            | <0.00500         | 170                | 100               | 170                  | 725           |
| <b>Field Point MW-31</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000103 B,J      | 0.0202             | 0.00222 J        | 120                | 150               | 250                  | 735           |
| <b>Field Point MW-32</b><br>07/19/18 | <b>Well Screen Interval (feet):</b> 35.00-50.00 |                  | <0.0100           | <0.0100            | <0.0100        | 0.000153 B,J      | 0.0187             | <0.00500         | 47                 | 53                | 450                  | 705           |

TABLE 3  
GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.  
ELEV = Elevation.  
GW = Groundwater.  
NAPL = Non-aqueous phase liquid.  
Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.  
NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.  
Bolded values equal or exceed applicable regulatory limits.  
Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.  
Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.  
TDS = Total dissolved solids.  
mg/l = Milligrams per liter.  
BDL = Below laboratory detection limits.  
< = Not detected at or above stated laboratory reporting limit.  
A-01 = Could not obtain constant weight.  
D = Duplicate sample.  
J = Estimated value between method detection limit and practical quantitation limit.  
R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.  
R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.  
R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.  
X = Pre-purge/no-purge sample.  
(a) = Analyzed by EPA Method 8310.  
(b) = Analyzed by EPA Method 8260B.  
(c) = Analyzed method unknown.  
(d) = Analyzed to determine the presense of NAPL.

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l)                                      | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------|-------------------|----------------|--------------------------------------------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS           |                                                 |                    |                   |                | 0.01                                                   | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-1</b> | <b>Well Screen Interval (feet): 22.71-42.71</b> |                    |                   |                |                                                        |                   |                        |                   |
| 05/17/04                | 3863.81                                         | 32.74              | 3831.07           | No             |                                                        |                   |                        |                   |
| 11/30/04                | 3863.81                                         | 30.83              | 3835.00           | 2.43           |                                                        |                   |                        |                   |
| 05/05/05                | 3863.81                                         | 29.20              | 3835.25           | 0.77           |                                                        |                   |                        |                   |
| 07/24/06                | 3863.81                                         | 28.71              | 3835.58           | 0.58           | 1.6                                                    | 0.236             | 0.181                  | 0.815             |
| 02/08/07                | 3863.81                                         | 28.92              | 3835.27           | 0.46           | 1.1                                                    | 0.106             | 0.362                  | 1.46              |
| 04/15/08                | 3863.81                                         | 29.45              | 3834.68           | 0.39           |                                                        |                   |                        |                   |
| 09/21/08                | 3863.81                                         |                    |                   | No             |                                                        |                   |                        |                   |
| 09/26/08                | 3863.81                                         | 29.58              | 3834.51           | 0.34           | 1.03                                                   | 0.00434           | 0.551                  | 1.63              |
| 02/15/09                | 3863.81                                         | 30.50              | 3833.60           | 0.35           |                                                        |                   |                        |                   |
| 05/19/09                | 3863.81                                         | 30.85              | 3833.32           | 0.43           | 1.12                                                   | 0.00132           | 0.563                  | 1.22              |
| 08/19/09                | 3865.14                                         | 31.75              | 3833.68           | 0.35           | 1.06                                                   | 0.227             | 0.67                   | 1.51              |
| 10/30/09                | 3865.14                                         | 31.73              | 3833.64           | 0.28           | 1.01                                                   | 0.00225           | 0.774                  | 1.63              |
| 10/12/11                | 3865.14                                         | 34.60              | 3831.00           | 0.55           |                                                        |                   |                        |                   |
| 02/22/12                | 3865.14                                         | 34.85              | 3830.66           | 0.45           |                                                        |                   |                        |                   |
| 07/17/12                | 3866.63                                         | 35.26              | 3831.77           | 0.48           |                                                        |                   |                        |                   |
| 10/03/12                | 3866.63                                         | 35.42              | 3831.58           | 0.45           |                                                        |                   |                        |                   |
| 05/14/13                | 3866.63                                         | 35.83              | 3831.12           | 0.39           |                                                        |                   |                        |                   |
| 01/27/14                | 3866.63                                         | 36.83              | 3830.57           | 0.93           |                                                        |                   |                        |                   |
| 06/17/14                | 3866.63                                         | 36.92              | 3830.19           | 0.58           |                                                        |                   |                        |                   |
| 11/18/14                | 3866.63                                         | 36.94              | 3830.19           | 0.60           |                                                        |                   |                        |                   |
| 12/07/15                | 3866.63                                         | 36.87              | 3830.11           | 0.42           |                                                        |                   |                        |                   |
| 04/26/16                | 3866.63                                         | 37.20              | 3829.73           | 0.36           |                                                        |                   |                        |                   |
| 10/24/16                | 3866.63                                         | 36.64              | 3830.17           | 0.22           |                                                        |                   |                        |                   |
| 05/22/17                | 3866.63                                         | 37.41              | 3829.56           | 0.41           |                                                        |                   |                        |                   |
| 11/28/17                | 3866.63                                         | 37.18              | 3829.67           | 0.27           |                                                        |                   |                        |                   |
| 07/17/18                | 3866.77                                         | 37.52              | 3829.57           | 0.38           |                                                        |                   |                        |                   |
| <b>Field Point MW-2</b> | <b>Well Screen Interval (feet): 27.59-47.59</b> |                    |                   |                |                                                        |                   |                        |                   |
| 05/17/04                | 3867.89                                         | 37.04              | 3830.85           | No             |                                                        |                   |                        |                   |
| 11/30/04                | 3867.89                                         | 35.61              | 3833.88           | 1.93           |                                                        |                   |                        |                   |
| 05/05/05                | 3867.89                                         | 33.36              | 3834.90           | 0.45           |                                                        |                   |                        |                   |
| 07/25/06                | 3867.89                                         | 33.14              | 3834.95           | 0.24           | 0.00492                                                | 0.0142            | 0.142                  | 0.166             |
| 02/08/07                | 3867.89                                         | 33.07              | 3834.92           | 0.12           | 0.0550                                                 | 0.0111            | 0.0726                 | 0.105             |
| 04/15/08                | 3867.89                                         | 38.81              | 3834.43           | 6.44           |                                                        |                   |                        |                   |
| 09/22/08                | 3867.89                                         |                    |                   | No             |                                                        |                   |                        |                   |
| 09/26/08                | 3867.89                                         | 38.97              | 3833.94           | 6.05           | 2.57                                                   | 2.66              | 0.504                  | 1.210             |
| 02/15/09                | 3867.89                                         | 38.95              | 3833.45           | 5.43           |                                                        |                   |                        |                   |
| 05/19/09                | 3867.89                                         | 38.63              | 3833.09           | 4.62           | Not sampled - NAPL entered bailer during each attempt. |                   |                        |                   |
| 08/19/09                | 3867.89                                         | 39.00              | 3832.92           | 4.85           | 2.70                                                   | 2.44              | 0.495                  | 1.110             |
| 10/30/09                | 3867.89                                         | 38.98              | 3832.87           | 4.77           | 3.25                                                   | <0.00100          | 0.381                  | 0.675             |
| 10/12/11                | 3867.89                                         | 39.46              | 3830.82           | 2.88           |                                                        |                   |                        |                   |
| 02/22/12                | 3867.89                                         | 39.73              | 3830.48           | 2.80           |                                                        |                   |                        |                   |
| 07/17/12                | 3869.40                                         | 40.19              | 3831.64           | 2.93           |                                                        |                   |                        |                   |
| 10/03/12                | 3869.40                                         | 40.29              | 3831.45           | 2.82           |                                                        |                   |                        |                   |
| 05/14/13                | 3869.40                                         | 40.72              | 3830.96           | 2.75           |                                                        |                   |                        |                   |
| 01/27/14                | 3869.40                                         | 40.11              | 3830.39           | 1.33           |                                                        |                   |                        |                   |
| 06/17/14                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |
| 12/07/15                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |
| 04/26/16                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |
| 10/24/16                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |
| 05/22/17                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |
| 11/28/17                | 3869.40                                         |                    |                   |                | Inaccessible - Stick-up well casing damaged.           |                   |                        |                   |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l)             | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS           |                                                 |                    |                   |                | 0.01                          | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-3</b> | <b>Well Screen Interval (feet): 24.20-44.20</b> |                    |                   |                |                               |                   |                        |                   |
| 05/17/04                | 3863.72                                         | 32.79              | 3830.93           | No             |                               |                   |                        |                   |
| 11/30/04                | 3863.72                                         | 30.08              | 3834.01           | 0.44           |                               |                   |                        |                   |
| 05/05/05                | 3863.72                                         | 28.90              | 3835.02           | 0.24           |                               |                   |                        |                   |
| 07/24/06                | 3863.72                                         | 28.87              | 3835.06           | 0.25           | 0.0452                        | 0.00715           | 0.0974                 | 0.015             |
| 02/08/07                | 3863.72                                         | 28.79              | 3835.02           | 0.11           | 0.586                         | 0.00522           | 0.114                  | 0.360             |
| 04/15/08                | 3863.72                                         | 29.42              | 3834.48           | 0.22           |                               |                   |                        |                   |
| 09/22/08                | 3863.72                                         |                    |                   | No             |                               |                   |                        |                   |
| 09/26/08                | 3863.72                                         | 29.99              | 3833.90           | 0.20           | 1.55                          | <0.00100          | 0.133                  | 0.310             |
| 02/15/09                | 3863.72                                         | 29.90              | 3833.94           | 0.15           |                               |                   |                        |                   |
| 05/19/09                | 3863.72                                         | 30.82              | 3833.14           | 0.29           | 1.2                           | <0.00100          | 0.116                  | 0.206             |
| 08/19/09                | 3863.72                                         | 31.15              | 3832.86           | 0.35           | 2.05                          | <0.00100          | 0.174                  | 0.317             |
| 10/30/09                | 3863.72                                         | 31.16              | 3832.83           | 0.33           | 1.96                          | <0.00100          | 0.166                  | 0.320             |
| 10/12/11                | 3863.72                                         | 33.10              | 3830.94           | 0.38           |                               |                   |                        |                   |
| 02/22/12                | 3863.72                                         | 33.30              | 3830.58           | 0.19           |                               |                   |                        |                   |
| 07/17/12                | 3865.25                                         | 33.80              | 3831.71           | 0.31           |                               |                   |                        |                   |
| 10/03/12                | 3865.25                                         | 33.94              | 3831.51           | 0.24           |                               |                   |                        |                   |
| 05/14/13                | 3865.25                                         | 34.31              | 3831.04           | 0.12           |                               |                   |                        |                   |
| 01/27/14                | 3865.25                                         | 35.04              | 3830.47           | 0.31           |                               |                   |                        |                   |
| 06/17/14                | 3865.25                                         | 35.33              | 3830.13           | 0.25           |                               |                   |                        |                   |
| 11/18/14                | 3865.25                                         | 35.34              | 3830.02           | 0.13           |                               |                   |                        |                   |
| 12/07/15                | 3865.25                                         | 35.39              | 3829.93           | 0.09           |                               |                   |                        |                   |
| 04/26/16                | 3865.25                                         | 35.69              | 3829.71           | 0.18           |                               |                   |                        |                   |
| 10/24/16                | 3865.25                                         | 35.42              | 3829.93           | 0.12           |                               |                   |                        |                   |
| 05/22/17                | 3865.25                                         | 35.80              | 3829.52           | 0.09           |                               |                   |                        |                   |
| 11/28/17                | 3865.25                                         | 35.70              | 3829.57           | 0.02           | Insufficient water to sample. |                   |                        |                   |
| 07/17/18                | 3865.34                                         | 35.80              | 3829.54           | No             |                               |                   |                        |                   |
| <b>Field Point MW-4</b> | <b>Well Screen Interval (feet): 23.97-38.97</b> |                    |                   |                |                               |                   |                        |                   |
| 07/25/06                | 3864.66                                         | 29.57              | 3835.09           | No             | 3.14                          | 0.0387            | 0.153                  | 0.318             |
| 02/07/07                | 3864.66                                         | 29.66              | 3835.00           | No             | 2.78                          | 0.0239            | 0.215                  | 0.451             |
| 04/15/08                | 3864.66                                         | 30.21              | 3834.45           | No             | 3.39                          | 0.0151            | 0.337                  | 0.662             |
| 09/21/08                | 3864.66                                         |                    |                   | No             |                               |                   |                        |                   |
| 09/26/08                | 3864.66                                         | 30.75              | 3833.93           | 0.02           | 2.95                          | 0.0276            | 0.328                  | 0.688             |
| 02/15/09                | 3864.66                                         | 31.09              | 3833.58           | 0.01           |                               |                   |                        |                   |
| 05/19/09                | 3864.66                                         | 31.73              | 3833.10           | 0.20           | 1.93                          | 0.00189           | 0.170                  | 0.546             |
| 08/19/09                | 3864.66                                         | 31.82              | 3832.98           | 0.17           | 2.89                          | <0.00100          | 0.336                  | 0.600             |
| 10/30/09                | 3864.66                                         | 31.80              | 3832.96           | 0.12           | 2.92                          | 0.0011            | 0.347                  | 0.619             |
| 10/12/11                | 3864.66                                         | 34.09              | 3830.91           | 0.41           |                               |                   |                        |                   |
| 02/22/12                | 3864.66                                         | 34.58              | 3830.54           | 0.56           |                               |                   |                        |                   |
| 07/17/12                | 3866.18                                         | 35.21              | 3831.78           | 0.97           |                               |                   |                        |                   |
| 10/03/12                | 3866.18                                         | 36.07              | 3831.51           | 1.69           |                               |                   |                        |                   |
| 05/14/13                | 3866.18                                         | 35.53              | 3831.22           | 0.69           |                               |                   |                        |                   |
| 01/27/14                | 3866.18                                         | 36.77              | 3830.47           | 1.28           |                               |                   |                        |                   |
| 06/17/14                | 3866.18                                         | 36.76              | 3830.12           | 0.84           |                               |                   |                        |                   |
| 11/18/14                | 3866.18                                         | 36.79              | 3830.04           | 0.78           |                               |                   |                        |                   |
| 12/07/15                | 3866.18                                         | 36.71              | 3829.99           | 0.63           |                               |                   |                        |                   |
| 04/26/16                | 3866.18                                         | 36.78              | 3829.72           | 0.38           |                               |                   |                        |                   |
| 10/24/16                | 3866.18                                         | 36.60              | 3829.89           | 0.37           |                               |                   |                        |                   |
| 05/22/17                | 3866.18                                         | 37.15              | 3829.53           | 0.60           |                               |                   |                        |                   |
| 11/28/17                | 3866.18                                         | 37.03              | 3829.59           | 0.53           |                               |                   |                        |                   |
| 07/17/18                | 3866.32                                         | 37.22              | 3829.38           | 0.34           |                               |                   |                        |                   |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l)                     | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------|-------------------|----------------|---------------------------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS           |                                                 |                    |                   |                | 0.01                                  | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-5</b> | <b>Well Screen Interval (feet): 27.19-47.19</b> |                    |                   |                |                                       |                   |                        |                   |
| 07/20/06                | 3866.99                                         | 31.82              | 3835.17           | No             | 6.93                                  | 0.374             | 0.567                  | 1.14              |
| 02/07/07                | 3866.99                                         | 31.93              | 3835.06           | No             | 6.91                                  | 0.297             | 0.905                  | 1.74              |
| 04/15/08                | 3866.99                                         | 32.45              | 3834.54           | No             | 5.44                                  | 0.0686            | 0.763                  | 1.33              |
| 09/21/08                | 3866.99                                         |                    |                   | No             |                                       |                   |                        |                   |
| 09/26/08                | 3866.99                                         | 33.07              | 3833.92           | No             | 6.17                                  | 0.0979            | 0.736                  | 1.220             |
| 02/06/09                | 3866.99                                         | 33.54              | 3833.45           | No             | 5.61                                  | 0.0514            | 0.849                  | 1.410             |
| 02/06/09 D              | 3866.99                                         | 33.54              | 3833.45           | No             | 5.26                                  | 0.0438            | 0.835                  | 1.320             |
| 05/19/09                | 3866.99                                         | 33.83              | 3833.16           | No             | 5.08                                  | 0.0436            | 0.681                  | 1.180             |
| 08/19/09                | 3866.99                                         | 34.15              | 3832.84           | No             | 4.68                                  | 0.0567            | 0.726                  | 0.932             |
| 08/19/09 D              | 3866.99                                         | 34.15              | 3832.84           | No             | 4.79                                  | 0.0732            | 0.709                  | 1.100             |
| 10/30/09                | 3866.99                                         | 34.35              | 3832.64           | No             | 5.01                                  | 0.0933            | 0.713                  | 1.25              |
| 10/12/11                | 3866.99                                         | 36.02              | 3830.97           | No             | 3.5                                   | 0.00678           | 0.521                  | 0.431             |
| 10/12/11 D              | 3866.99                                         | 36.02              | 3830.97           | No             | 3.47                                  | 0.00666           | 0.52                   | 0.407             |
| 02/22/12                | 3866.99                                         | 36.85              | 3830.14           | No             | 3.75                                  | 0.00125           | 0.54                   | 0.626             |
| 02/22/12 D              | 3866.99                                         | 36.85              | 3830.14           | No             | 3.65                                  | <0.00100          | 0.516                  | 0.593             |
| 07/17/12                | 3868.54                                         | 36.70              | 3831.84           | No             | 2.68                                  | <0.00100          | 0.419                  | 0.262             |
| 07/17/12 D              | 3868.54                                         | 36.70              | 3831.84           | No             | 2.62                                  | <0.00100          | 0.39                   | 0.251             |
| 10/03/12                | 3868.54                                         | 37.54              | 3831.00           | No             | 2.91                                  | <0.00100          | 0.49                   | 0.667             |
| 10/03/12 D              | 3868.54                                         | 37.54              | 3831.00           | No             | 2.97                                  | <0.00100          | 0.501                  | 0.683             |
| 05/15/13                | 3868.54                                         | 37.47              | 3831.05           | 0.10           |                                       |                   |                        |                   |
| 01/28/14                | 3868.54                                         | 38.90              | 3830.47           | 1.00           |                                       |                   |                        |                   |
| 06/18/14                | 3868.54                                         | 39.13              | 3830.17           | 0.91           |                                       |                   |                        |                   |
| 11/18/14                | 3868.54                                         | 40.01              | 3829.95           | 1.71           |                                       |                   |                        |                   |
| 12/07/15                | 3868.54                                         | 41.09              | 3829.92           | 2.98           |                                       |                   |                        |                   |
| 04/26/16                | 3868.54                                         | 39.48              | 3829.76           | 0.84           |                                       |                   |                        |                   |
| 10/24/16                | 3868.54                                         | 39.59              | 3829.80           | 1.02           |                                       |                   |                        |                   |
| 05/22/17                | 3868.54                                         | 39.80              | 3829.66           | 1.11           |                                       |                   |                        |                   |
| 11/28/17                | 3868.54                                         | 40.06              | 3829.52           | 1.25           |                                       |                   |                        |                   |
| 07/17/18                | 3868.65                                         | 40.03              | 3829.62           | 1.21           |                                       |                   |                        |                   |
| <b>Field Point MW-6</b> | <b>Well Screen Interval (feet): 27.05-42.05</b> |                    |                   |                |                                       |                   |                        |                   |
| 07/21/06                | 3867.00                                         | 31.84              | 3835.16           | No             | 0.034                                 | 0.001             | 0.001                  | 0.0531            |
| 02/07/07                | 3867.00                                         | 31.93              | 3835.07           | No             | 0.00667                               | <0.00100          | <0.00100               | 0.0245            |
| 04/15/08                | 3867.00                                         | 32.51              | 3834.49           | No             | 1.34                                  | <0.00100          | <0.00100               | <0.00300          |
| 09/21/08                | 3867.00                                         |                    |                   | No             |                                       |                   |                        |                   |
| 09/26/08                | 3867.00                                         | 33.08              | 3833.92           | No             | 0.00261                               | <0.00100          | <0.00100               | <0.00300          |
| 02/06/09                | 3867.00                                         | 33.51              | 3833.49           | No             | 0.00143                               | <0.00100          | <0.00100               | <0.00300          |
| 05/18/09                | 3867.00                                         | 33.87              | 3833.13           | No             | 0.00184                               | <0.00100          | <0.00100               | <0.00300          |
| 08/19/09                | 3867.00                                         | 34.15              | 3832.85           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                | 3867.00                                         | 34.35              | 3832.65           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 11/19/09                | 3867.00                                         | 34.42              | 3832.58           | No             |                                       |                   |                        |                   |
| 10/13/11                | 3867.00                                         | 36.14              | 3830.86           | No             |                                       |                   |                        |                   |
| 02/22/12                | 3867.00                                         | 38.65              | 3828.35           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                | 3868.52                                         | 36.78              | 3831.74           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                | 3868.52                                         | 37.40              | 3831.12           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                | 3868.52                                         | 37.49              | 3831.03           | No             | 0.000202 J                            | <0.00017          | <0.00019               | <0.00018          |
| 01/28/14                | 3868.52                                         | 38.07              | 3830.45           | No             | <0.0002                               | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                | 3868.52                                         | 38.38              | 3830.14           | No             | <0.0002                               | <0.00017          | <0.00019               | <0.00038          |
| 11/19/14                | 3868.52                                         | 38.54              | 3829.98           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.002            |
| 12/08/15                | 3868.52                                         | 38.60              | 3829.92           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 04/26/16                | 3868.52                                         | 38.91              | 3829.61           | No             | <0.00100                              | <0.00100          | <0.00100               | <0.00300          |
| 10/24/16                | 3868.52                                         | 38.79              | 3829.73           | No             |                                       |                   |                        |                   |
| 10/25/16                | 3868.52                                         |                    |                   |                | Unable to sample due to silt in pump. |                   |                        |                   |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l)                      | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------|-------------------|----------------|----------------------------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS           |                                                 |                    |                   |                | 0.01                                   | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-6</b> | <b>Well Screen Interval (feet): 27.05-42.05</b> |                    |                   |                |                                        |                   |                        |                   |
| 05/22/17                | 3868.52                                         | 38.93              | 3829.59           | No             |                                        |                   |                        |                   |
| 05/24/17                | 3868.52                                         |                    |                   | No             | <0.00050                               | <0.00050          | <0.00050               | <0.00050          |
| 11/28/17                | 3868.52                                         | 38.91              | 3829.61           | No             |                                        |                   |                        |                   |
| 11/29/17                | 3868.52                                         |                    |                   | No             | <0.00050                               | <0.00050          | <0.00050               | <0.00050          |
| 07/17/18                | 3868.66                                         | 39.02              | 3829.64           | No             |                                        |                   |                        |                   |
| 07/20/18                | 3868.66                                         |                    |                   | No             | <0.00050                               | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-7</b> | <b>Well Screen Interval (feet): 24.35-39.35</b> |                    |                   |                |                                        |                   |                        |                   |
| 07/25/06                | 3864.14                                         | 29.05              | 3835.09           | No             | 0.0279                                 | 0.00113           | 0.00385                | 0.0288            |
| 02/07/07                | 3864.14                                         | 29.08              | 3835.06           | No             | 0.0332                                 | <0.00100          | 0.0244                 | 0.0276            |
| 04/15/08                | 3864.14                                         | 29.67              | 3834.47           | No             | 0.0147                                 | <0.00100          | 0.00422                | 0.0167            |
| 09/20/08                | 3864.14                                         |                    |                   | No             |                                        |                   |                        |                   |
| 09/26/08                | 3864.14                                         | 30.17              | 3833.97           | No             | 0.0194                                 | <0.00100          | 0.00260                | 0.0161            |
| 02/05/09                | 3864.14                                         | 30.54              | 3833.60           | No             | 0.0158                                 | <0.00100          | 0.00424                | 0.0122            |
| 05/18/09                | 3864.14                                         | 31.08              | 3833.06           | No             | 0.0138                                 | <0.00100          | 0.00270                | 0.0107            |
| 08/19/09                | 3864.14                                         | 31.20              | 3832.94           | No             | 0.0250                                 | <0.00100          | <0.00100               | 0.0160            |
| 10/30/09                | 3864.14                                         | 31.29              | 3832.85           | No             | 0.0363                                 | <0.00100          | 0.00193                | 0.0356            |
| 10/13/11                | 3864.14                                         | 33.24              | 3830.90           | Sheen          | 0.0115                                 | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                | 3864.14                                         | 34.20              | 3829.94           | Sheen          | 0.0348                                 | <0.00100          | 0.0026                 | <0.00300          |
| 07/17/12                | 3865.67                                         | 33.96              | 3831.73           | 0.02           |                                        |                   |                        |                   |
| 10/03/12                | 3865.67                                         | 34.16              | 3831.52           | 0.01           |                                        |                   |                        |                   |
| 05/14/13                | 3865.67                                         | 35.96              | 3829.98           | 0.32           |                                        |                   |                        |                   |
| 01/27/14                | 3865.67                                         | 35.22              | 3830.47           | 0.03           |                                        |                   |                        |                   |
| 06/17/14                | 3865.67                                         | 35.54              | 3830.13           | Sheen          |                                        |                   |                        |                   |
| 11/18/14                | 3865.67                                         | 35.64              | 3830.03           | Sheen          |                                        |                   |                        |                   |
| 12/07/15                | 3865.67                                         | 35.76              | 3829.92           | 0.01           |                                        |                   |                        |                   |
| 04/26/16                | 3865.67                                         | 36.00              | 3829.68           | 0.01           |                                        |                   |                        |                   |
| 10/24/16                | 3865.67                                         | 35.84              | 3829.83           | (d)            |                                        |                   |                        |                   |
| 05/22/17                | 3865.67                                         | Dry                |                   | No             |                                        |                   |                        |                   |
| 11/28/17                | 3865.67                                         | 36.11              | 3829.56           | No             |                                        |                   |                        |                   |
| <b>Field Point MW-8</b> | <b>Well Screen Interval (feet): 23.05-38.05</b> |                    |                   |                |                                        |                   |                        |                   |
| 07/25/06                | 3863.80                                         | 28.74              | 3835.06           | No             | 0.0176                                 | 0.001             | 0.00724                | 0.0236            |
| 02/07/07                | 3863.80                                         | 28.82              | 3834.98           | No             | 0.00561                                | <0.00100          | 0.0138                 | 0.00655           |
| 04/15/08                | 3863.80                                         | 29.40              | 3834.40           | No             | 0.00319                                | <0.00100          | 0.00382                | 0.00614           |
| 09/20/08                | 3863.80                                         |                    |                   | No             |                                        |                   |                        |                   |
| 09/26/08                | 3863.80                                         | 29.92              | 3833.88           | No             | 0.00385                                | <0.00100          | 0.00722                | 0.0151            |
| 02/05/09                | 3863.80                                         | 30.31              | 3833.49           | No             | 0.00337                                | <0.00100          | 0.00552                | 0.00313           |
| 05/18/09                | 3863.80                                         | 30.72              | 3833.08           | No             | 0.00201                                | <0.00100          | 0.00406                | 0.00337           |
| 08/19/09                | 3863.80                                         | 29.95              | 3833.85           | No             | <0.00100                               | <0.00100          | 0.00318                | 0.00620           |
| 10/30/09                | 3863.80                                         | 29.99              | 3833.81           | No             | 0.00124                                | <0.00100          | <0.00100               | 0.00653           |
| 10/12/11                | 3863.80                                         |                    |                   |                | Not measured or sampled.               |                   |                        |                   |
| 02/22/12                | 3863.80                                         | 33.40              | 3830.42           | 0.02           |                                        |                   |                        |                   |
| 07/17/12                | 3865.32                                         | 33.80              | 3831.68           | 0.19           |                                        |                   |                        |                   |
| 10/03/12                | 3865.32                                         | 33.96              | 3831.58           | 0.26           |                                        |                   |                        |                   |
| 05/14/13                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 01/27/14                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 06/17/14                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 12/07/15                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 04/26/16                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 10/24/16                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 05/22/17                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |
| 11/28/17                | 3865.32                                         |                    |                   |                | Unable to locate - Presumed destroyed. |                   |                        |                   |



**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                                | Well Elev<br>(feet)                                   | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet)                         | Benzene<br>(mg/l)                   | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|-------------------------------------|-------------------------------------------------------|--------------------|-------------------|----------------------------------------|-------------------------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS                       |                                                       |                    |                   |                                        | 0.01                                | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-8</b><br>07/17/18 | <b>Well Screen Interval (feet): 23.05-38.05</b><br>NE |                    |                   | Unable to locate - Presumed destroyed. |                                     |                   |                        |                   |
| <b>Field Point MW-9</b>             | <b>Well Screen Interval (feet): 27.64-42.64</b>       |                    |                   |                                        |                                     |                   |                        |                   |
| 07/21/06                            | 3868.29                                               | 33.48              | 3834.81           | No                                     | 0.00137                             | 0.001             | 0.001                  | 0.003             |
| 02/06/07                            | 3868.29                                               | 33.60              | 3834.69           | No                                     | 0.00170                             | <0.00100          | <0.00100               | <0.00300          |
| 04/15/08                            | 3868.29                                               | 34.10              | 3834.19           | No                                     | 0.00254                             | <0.00100          | <0.00100               | <0.00300          |
| 09/21/08                            | 3868.29                                               |                    |                   | No                                     |                                     |                   |                        |                   |
| 09/26/08                            | 3868.29                                               | 34.66              | 3833.63           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 02/05/09                            | 3868.29                                               | 35.16              | 3833.13           | No                                     | 0.00585                             | <0.00100          | <0.00100               | <0.00300          |
| 05/18/09                            | 3868.29                                               | 35.44              | 3832.85           | No                                     | 0.00404                             | <0.00100          | <0.00100               | <0.00300          |
| 08/19/09                            | 3868.29                                               | 35.70              | 3832.59           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                            | 3868.29                                               | 35.93              | 3832.36           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                            | 3868.29                                               | 37.66              | 3830.63           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                            | 3868.29                                               | 38.49              | 3829.80           | No                                     | 0.00136                             | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                            | 3869.82                                               | 38.30              | 3831.52           | No                                     | 0.00529                             | <0.00100          | 0.00654                | 0.0132            |
| 10/03/12                            | 3869.82                                               | 38.40              | 3831.50           | 0.10                                   | 0.135                               | 0.00971           | 0.177                  | 0.829             |
| 05/14/13                            | 3869.82                                               | 38.99              | 3830.88           | 0.06                                   |                                     |                   |                        |                   |
| 01/28/14                            | 3869.82                                               | 40.12              | 3830.14           | 0.53                                   |                                     |                   |                        |                   |
| 06/17/14                            | 3869.82                                               | 40.22              | 3829.84           | 0.29                                   |                                     |                   |                        |                   |
| 11/17/14                            | 3869.82                                               | 40.35              | 3829.64           | 0.20                                   |                                     |                   |                        |                   |
| 12/07/15                            | 3869.82                                               | 40.51              | 3829.51           | 0.24                                   |                                     |                   |                        |                   |
| 04/26/16                            | 3869.82                                               | 40.68              | 3829.37           | 0.28                                   |                                     |                   |                        |                   |
| 10/24/16                            | 3869.82                                               | 40.71              | 3829.33           | 0.27                                   |                                     |                   |                        |                   |
| 05/22/17                            | 3869.82                                               | 40.85              | 3829.26           | 0.35                                   |                                     |                   |                        |                   |
| 11/28/17                            | 3869.82                                               | 40.80              | 3829.21           | 0.23                                   |                                     |                   |                        |                   |
| 07/17/18                            | 3869.90                                               | 40.90              | 3829.27           | 0.33                                   |                                     |                   |                        |                   |
| <b>Field Point MW-10</b>            | <b>Well Screen Interval (feet): 28.08-43.08</b>       |                    |                   |                                        |                                     |                   |                        |                   |
| 07/21/06                            | 3868.85                                               | 34.10              | 3834.75           | No                                     | 0.0133                              | 0.001             | 0.001                  | 0.003             |
| 02/06/07                            | 3868.85                                               | 34.22              | 3834.63           | No                                     | 0.0115                              | <0.00100          | <0.00100               | <0.00300          |
| 04/15/08                            | 3868.85                                               | 34.76              | 3834.09           | No                                     | 0.00599                             | <0.00100          | <0.00100               | <0.00300          |
| 09/21/08                            | 3868.85                                               |                    |                   | No                                     |                                     |                   |                        |                   |
| 09/26/08                            | 3868.85                                               | 35.34              | 3833.51           | No                                     | 0.00635                             | <0.00100          | <0.00100               | <0.00300          |
| 02/05/09                            | 3868.85                                               | 35.84              | 3833.01           | No                                     | 0.00409                             | <0.00100          | <0.00100               | <0.00300          |
| 05/18/09                            | 3868.85                                               | 36.12              | 3832.73           | No                                     | 0.00348                             | <0.00100          | <0.00100               | <0.00300          |
| 08/19/09                            | 3868.85                                               | 36.40              | 3832.45           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                            | 3868.85                                               | 36.61              | 3832.24           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 11/19/09                            | 3868.85                                               | 36.65              | 3832.20           | No                                     |                                     |                   |                        |                   |
| 10/13/11                            | 3868.85                                               | 38.30              | 3830.55           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                            | 3868.85                                               | 38.83              | 3830.02           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                            | 3870.38                                               | 38.96              | 3831.42           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                            | 3870.38                                               | 39.46              | 3830.92           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                            | 3870.38                                               | 39.72              | 3830.66           | No                                     | 0.000879 J                          | <0.00017          | <0.00019               | <0.00018          |
| 05/15/13 D                          | 3870.38                                               | 39.72              | 3830.66           | No                                     | 0.00138                             | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                            | 3870.38                                               | 40.33              | 3830.05           | No                                     | 0.000898 J                          | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                            | 3870.38                                               | 41.64              | 3828.74           | No                                     | Insufficient recharge for sampling. |                   |                        |                   |
| 11/19/14                            | 3870.38                                               | 40.89              | 3829.49           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.002            |
| 11/19/14 D                          | 3870.38                                               | 40.89              | 3829.49           | No                                     | <0.00100                            | <0.00100          | <0.00100               | <0.002            |
| 12/07/15                            | 3870.38                                               | 40.91              | 3829.47           | No                                     | Insufficient water to sample.       |                   |                        |                   |
| 04/26/16                            | 3870.38                                               | 41.47              | 3828.91           | No                                     | Insufficient water to sample.       |                   |                        |                   |
| 10/24/16                            | 3870.38                                               | 41.17              | 3829.21           | No                                     | Insufficient water to sample.       |                   |                        |                   |
| 05/22/17                            | 3870.38                                               | 41.25              | 3829.13           | No                                     |                                     |                   |                        |                   |
| 05/24/17                            | 3870.38                                               |                    |                   | No                                     | <0.00050                            | <0.00050          | <0.00050               | <0.00050          |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                    |                   |                |                   |                   |                        |                   |
| 11/28/17                 | 3870.38                                         | 41.29              | 3829.09           | No             |                   |                   |                        |                   |
| 11/29/17                 | 3870.38                                         |                    |                   | No             | 0.00051           | <0.00050          | <0.00050               | <0.00050          |
| 07/17/18                 | 3870.47                                         | 41.27              | 3829.20           | No             |                   |                   |                        |                   |
| 07/20/18                 | 3870.47                                         | 41.30              | 3829.17           | No             | 0.00078           | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3868.06                                         | 31.50              | 3836.56           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 09/21/08                 | 3868.06                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3868.06                                         | 34.65              | 3833.41           | No             | 0.00351           | <0.00100          | <0.00100               | <0.00300          |
| 02/05/09                 | 3868.06                                         | 35.12              | 3832.94           | No             | 0.00401           | <0.00100          | <0.00100               | <0.00300          |
| 05/18/09                 | 3868.06                                         | 35.42              | 3832.64           | No             | 0.00382           | <0.00100          | <0.00100               | <0.00300          |
| 08/19/09                 | 3868.06                                         | 35.75              | 3832.31           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                 | 3868.06                                         | 35.95              | 3832.11           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                 | 3868.06                                         | 37.60              | 3830.46           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                 | 3868.06                                         | 38.06              | 3830.00           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3869.58                                         | 38.26              | 3831.32           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3869.58                                         | 38.50              | 3831.08           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3869.58                                         | 39.01              | 3830.57           | No             | 0.000606 J        | <0.00017          | <0.00019               | <0.00018          |
| 01/28/14                 | 3869.58                                         | 39.57              | 3830.01           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3869.58                                         | 39.95              | 3829.63           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/19/14                 | 3869.58                                         | 40.20              | 3829.38           | No             | <0.00100          | <0.00100          | <0.00100               | <0.002            |
| 12/08/15                 | 3869.58                                         | 40.29              | 3829.29           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 04/27/16                 | 3869.58                                         | 40.33              | 3829.25           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/24/16                 | 3869.58                                         | 40.49              | 3829.09           | No             |                   |                   |                        |                   |
| 10/25/16                 | 3868.06                                         |                    |                   | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/22/17                 | 3868.06                                         | 40.54              | 3827.52           | No             |                   |                   |                        |                   |
| 05/24/17                 | 3868.06                                         |                    |                   | No             | <0.00050          | 0.00021 J         | <0.00050               | <0.00050          |
| 11/28/17                 | 3868.06                                         | 40.61              | 3827.45           | No             |                   |                   |                        |                   |
| 11/29/17                 | 3868.06                                         |                    |                   | No             | <0.00050          | <0.00050          | <0.00050               | 0.00022 J         |
| 07/17/18                 | 3869.68                                         | 40.58              | 3829.10           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3869.68                                         | 40.58              | 3829.10           | No             | <0.00050          | 0.00050 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3867.74                                         | 31.50              | 3836.24           | No             | 0.0504            | 0.00401           | 0.242                  | 0.598             |
| 09/21/08                 | 3867.74                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3867.74                                         | 34.12              | 3833.62           | No             | 0.222             | 0.0116            | 0.978                  | 1.84              |
| 02/05/09                 | 3867.74                                         | 34.67              | 3833.07           | No             | 0.178             | 0.0134            | 1.19                   | 2.22              |
| 05/19/09                 | 3867.74                                         | 34.98              | 3832.76           | No             | 0.143             | 0.0128            | 0.882                  | 1.65              |
| 08/19/09                 | 3867.74                                         | 35.20              | 3832.54           | No             | 0.162             | 0.00987           | 0.937                  | 1.68              |
| 10/30/09                 | 3867.74                                         | 35.45              | 3832.29           | No             | 0.162             | 0.0128            | 1.02                   | 1.99              |
| 10/13/11                 | 3867.74                                         | 37.12              | 3830.62           | No             | 0.055             | 0.00603           | 0.476                  | 1.01              |
| 02/22/12                 | 3867.74                                         | 37.46              | 3830.28           | No             | 0.059             | 0.005             | 0.869                  | 1.66              |
| 07/17/12                 | 3869.27                                         | 37.90              | 3831.37           | No             | 0.050             | 0.0116            | 0.737                  | 0.562             |
| 10/03/12                 | 3869.27                                         | 38.10              | 3831.17           | No             | 0.054             | 0.0152            | 0.822                  | 1.67              |
| 05/14/13                 | 3869.27                                         | 38.60              | 3830.67           | Sheen          |                   |                   |                        |                   |
| 01/28/14                 | 3869.27                                         | 39.30              | 3830.04           | 0.09           |                   |                   |                        |                   |
| 06/17/14                 | 3869.27                                         | 39.60              | 3829.74           | 0.09           |                   |                   |                        |                   |
| 11/17/14                 | 3869.27                                         | 40.50              | 3829.54           | 0.93           |                   |                   |                        |                   |
| 12/07/15                 | 3869.27                                         | 40.66              | 3829.46           | 1.03           |                   |                   |                        |                   |
| 04/26/16                 | 3869.27                                         | 40.38              | 3829.33           | 0.53           |                   |                   |                        |                   |
| 10/24/16                 | 3869.27                                         | 40.34              | 3829.21           | 0.39           |                   |                   |                        |                   |
| 05/22/17                 | 3869.27                                         | 40.50              | 3829.18           | 0.49           |                   |                   |                        |                   |
| 11/28/17                 | 3869.27                                         | 40.58              | 3829.09           | 0.48           |                   |                   |                        |                   |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                 | 3869.40                                         | 40.57              | 3829.21           | 0.46           |                   |                   |                        |                   |
| <b>Field Point MW-13</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3867.11                                         | 29.65              | 3837.46           | No             | 3.64              | 0.102             | 0.292                  | 0.499             |
| 09/21/08                 | 3867.11                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3867.11                                         | 33.11              | 3834.00           | No             | 9.26              | 0.513             | 0.972                  | 1.71              |
| 02/06/09                 | 3867.11                                         | 33.62              | 3833.49           | No             | 10.1              | 0.554             | 1.050                  | 1.89              |
| 05/19/09                 | 3867.11                                         | 33.88              | 3833.23           | No             | 8.44              | 0.323             | 0.842                  | 1.38              |
| 08/19/09                 | 3867.11                                         | 34.32              | 3832.89           | 0.12           | 8.13              | 0.305             | 0.950                  | 2.07              |
| 10/30/09                 | 3867.11                                         | 34.45              | 3832.72           | 0.07           | 9.55              | 0.218             | 1.03                   | 1.75              |
| 10/13/11                 | 3867.11                                         | 36.90              | 3831.00           | 0.95           |                   |                   |                        |                   |
| 02/22/12                 | 3867.11                                         | 37.78              | 3829.89           | 0.68           |                   |                   |                        |                   |
| 07/17/12                 | 3868.63                                         | 38.85              | 3831.86           | 2.50           |                   |                   |                        |                   |
| 10/03/12                 | 3868.63                                         | 39.02              | 3831.67           | 2.48           |                   |                   |                        |                   |
| 05/14/13                 | 3868.63                                         | 38.89              | 3831.30           | 1.88           |                   |                   |                        |                   |
| 01/28/14                 | 3868.63                                         | 39.91              | 3830.47           | 2.11           |                   |                   |                        |                   |
| 06/17/14                 | 3868.63                                         | 39.91              | 3830.19           | 1.77           |                   |                   |                        |                   |
| 11/18/14                 | 3868.63                                         | 41.56              | 3829.97           | 3.49           |                   |                   |                        |                   |
| 12/07/15                 | 3868.63                                         | 41.31              | 3829.94           | 3.16           |                   |                   |                        |                   |
| 04/26/16                 | 3868.63                                         | 40.12              | 3829.79           | 1.54           |                   |                   |                        |                   |
| 10/24/16                 | 3868.63                                         | 39.55              | 3829.87           | 0.95           |                   |                   |                        |                   |
| 05/22/17                 | 3868.63                                         | 39.91              | 3828.78           | 0.07           |                   |                   |                        |                   |
| 11/28/17                 | 3868.63                                         | 39.85              | 3829.62           | 1.01           |                   |                   |                        |                   |
| 07/17/18                 | 3868.76                                         | 39.86              | 3829.70           | 0.96           |                   |                   |                        |                   |
| <b>Field Point MW-14</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3866.92                                         | 29.48              | 3837.44           | No             | 0.0449            | 0.00125           | 0.0231                 | 0.0341            |
| 09/21/08                 | 3866.92                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3866.92                                         | 32.82              | 3834.10           | No             | 0.123             | 0.00187           | 0.0164                 | 0.0911            |
| 02/06/09                 | 3866.92                                         | 33.37              | 3833.55           | No             | 0.240             | 0.00986           | 0.246                  | 0.166             |
| 05/19/09                 | 3866.92                                         | 33.64              | 3833.28           | No             | 0.120             | 0.00203           | 0.0971                 | 0.0386            |
| 08/19/09                 | 3866.92                                         | 33.98              | 3832.94           | No             | 0.112             | <0.00100          | 0.110                  | 0.0444            |
| 10/30/09                 | 3866.92                                         | 34.15              | 3832.77           | No             | 0.119             | 0.00168           | 0.0895                 | 0.0645            |
| 10/13/11                 | 3866.92                                         | 35.85              | 3831.07           | No             | 0.075             | <0.00100          | 0.0536                 | 0.044             |
| 02/22/12                 | 3866.92                                         | 36.19              | 3830.73           | No             | 0.0782            | <0.00100          | 0.0646                 | 0.0212            |
| 07/17/12                 | 3868.47                                         | 36.54              | 3831.93           | No             | 0.0798            | <0.00100          | 0.0731                 | 0.0535            |
| 10/03/12                 | 3868.47                                         | 36.90              | 3831.57           | No             | 0.107             | <0.00100          | 0.0965                 | 0.0179            |
| 05/14/13                 | 3868.47                                         | 38.39              | 3831.27           | 1.43           |                   |                   |                        |                   |
| 01/28/14                 | 3868.47                                         | 38.81              | 3830.55           | 1.07           |                   |                   |                        |                   |
| 06/17/14                 | 3868.47                                         | 38.76              | 3830.27           | 0.67           |                   |                   |                        |                   |
| 11/18/14                 | 3868.47                                         | 40.75              | 3830.04           | 2.79           |                   |                   |                        |                   |
| 12/07/15                 | 3868.47                                         | 41.49              | 3830.03           | 3.68           |                   |                   |                        |                   |
| 04/26/16                 | 3868.47                                         | 40.85              | 3829.87           | 2.71           |                   |                   |                        |                   |
| 10/24/16                 | 3868.47                                         | 40.86              | 3830.05           | 2.94           |                   |                   |                        |                   |
| 05/22/17                 | 3868.47                                         | 41.61              | 3829.72           | 3.44           |                   |                   |                        |                   |
| 11/28/17                 | 3868.47                                         | 40.00              | 3829.62           | 1.39           |                   |                   |                        |                   |
| 07/17/18                 | 3868.62                                         | 39.25              | 3829.79           | 0.50           |                   |                   |                        |                   |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3867.19                                         | 29.74              | 3837.45           | No             | 1.230             | 0.167             | 0.320                  | 0.554             |
| 09/21/08                 | 3867.19                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3867.19                                         | 33.26              | 3833.94           | 0.01           | 6.540             | 1.350             | 1.130                  | 2.4               |
| 02/15/09                 | 3867.19                                         | 33.82              | 3833.44           | 0.09           |                   |                   |                        |                   |
| 05/19/09                 | 3867.19                                         | 34.20              | 3833.12           | 0.16           | 3.800             | 0.632             | 0.848                  | 1.8               |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.19                                         | 34.40              | 3832.91           | 0.15           | 3.850             | 0.892             | 0.799                  | 2.25              |
| 10/30/09                 | 3867.19                                         | 34.60              | 3832.69           | 0.12           | 8.96              | 0.228             | 0.949                  | 1.66              |
| 10/13/11                 | 3867.19                                         | 38.04              | 3831.01           | 2.24           |                   |                   |                        |                   |
| 02/22/12                 | 3867.19                                         | 38.41              | 3830.71           | 2.32           |                   |                   |                        |                   |
| 07/17/12                 | 3868.74                                         | 38.20              | 3832.03           | 1.80           |                   |                   |                        |                   |
| 10/03/12                 | 3868.74                                         | 39.95              | 3831.57           | 3.35           |                   |                   |                        |                   |
| 05/14/13                 | 3868.74                                         | 40.11              | 3831.12           | 3.00           |                   |                   |                        |                   |
| 01/28/14                 | 3868.74                                         | 40.21              | 3830.47           | 2.34           |                   |                   |                        |                   |
| 06/17/14                 | 3868.74                                         | 39.35              | 3830.19           | 0.96           |                   |                   |                        |                   |
| 11/18/14                 | 3868.74                                         | 39.76              | 3830.13           | 1.39           |                   |                   |                        |                   |
| 12/07/15                 | 3868.74                                         | 40.31              | 3830.25           | 2.19           |                   |                   |                        |                   |
| 04/26/16                 | 3868.74                                         | 39.61              | 3829.89           | 0.91           |                   |                   |                        |                   |
| 10/24/16                 | 3868.74                                         | 38.70              | 3830.41           | 0.44           |                   |                   |                        |                   |
| 05/22/17                 | 3868.74                                         | 38.92              | 3829.84           | 0.02           |                   |                   |                        |                   |
| 11/28/17                 | 3868.74                                         | 38.96              | 3830.03           | 0.30           |                   |                   |                        |                   |
| 07/17/18                 | 3868.86                                         | 39.33              | 3829.79           | 0.31           |                   |                   |                        |                   |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                    |                   |                |                   |                   |                        |                   |
| 04/30/08                 | 3867.02                                         | 29.95              | 3837.07           | No             | 0.00321           | <0.00100          | 0.0237                 | 0.0376            |
| 09/21/08                 | 3867.02                                         |                    |                   | No             |                   |                   |                        |                   |
| 09/26/08                 | 3867.02                                         | 32.94              | 3834.08           | No             | 0.00317           | <0.00100          | 0.0253                 | 0.0790            |
| 02/06/09                 | 3867.02                                         | 33.39              | 3833.63           | No             | 0.0113            | <0.00100          | 0.0426                 | 0.0634            |
| 05/18/09                 | 3867.02                                         | 33.73              | 3833.29           | No             | 0.00670           | <0.00100          | 0.0488                 | 0.0526            |
| 08/19/09                 | 3867.02                                         | 34.00              | 3833.02           | No             | 0.00419           | <0.00100          | 0.0251                 | 0.0797            |
| 10/30/09                 | 3867.02                                         | 34.17              | 3832.85           | No             | 0.00391           | <0.00100          | 0.0128                 | 0.0564            |
| 10/30/09 D               | 3867.02                                         | 34.17              | 3832.85           | No             | 0.00576           | <0.00100          | 0.0350                 | 0.122             |
| 10/13/11                 | 3867.02                                         | 35.95              | 3831.07           | No             | 0.00190           | <0.00100          | 0.0145                 | 0.0342            |
| 02/22/12                 | 3867.02                                         | 36.45              | 3830.57           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3868.54                                         | 36.65              | 3831.89           | No             | 0.00157           | <0.00100          | 0.01860                | 0.01050           |
| 10/03/12                 | 3868.54                                         | 37.10              | 3831.44           | No             | 0.00192           | <0.00100          | 0.06370                | 0.07700           |
| 05/14/13                 | 3868.54                                         | 38.05              | 3831.20           | 0.86           |                   |                   |                        |                   |
| 01/27/14                 | 3868.54                                         | 39.11              | 3830.67           | 1.49           |                   |                   |                        |                   |
| 06/17/14                 | 3868.54                                         | 39.10              | 3830.32           | 1.06           |                   |                   |                        |                   |
| 11/18/14                 | 3868.54                                         | 38.88              | 3830.44           | 0.94           |                   |                   |                        |                   |
| 12/07/15                 | 3868.54                                         | 38.61              | 3830.52           | 0.71           |                   |                   |                        |                   |
| 04/26/16                 | 3868.54                                         | 39.23              | 3830.02           | 0.85           |                   |                   |                        |                   |
| 10/24/16                 | 3868.54                                         | 38.36              | 3830.61           | 0.52           |                   |                   |                        |                   |
| 05/22/17                 | 3868.54                                         | 39.30              | 3829.82           | 0.70           |                   |                   |                        |                   |
| 11/28/17                 | 3868.54                                         | 38.79              | 3830.17           | 0.51           |                   |                   |                        |                   |
| 07/17/18                 | 3868.68                                         | 39.34              | 3829.87           | 0.64           |                   |                   |                        |                   |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.64                                         | 35.22              | 3832.42           | No             | 1.28              | 0.0146            | 0.845                  | 1.19              |
| 10/30/09                 | 3867.64                                         | 35.40              | 3832.24           | No             | 1.52              | 0.0211            | 0.986                  | 1.55              |
| 10/13/11                 | 3867.64                                         | 37.10              | 3830.54           | No             | 0.68              | <0.00100          | 0.407                  | 0.524             |
| 02/22/12                 | 3867.64                                         | 37.40              | 3830.24           | No             | 0.871             | <0.00100          | 0.727                  | 1.16              |
| 07/17/12                 | 3869.14                                         | 37.75              | 3831.39           | No             | 0.649             | 0.00494           | 0.504                  | 0.438             |
| 10/03/12                 | 3869.14                                         | 38.20              | 3830.94           | No             | 0.825             | 0.0103            | 0.682                  | 1.22              |
| 05/14/13                 | 3869.14                                         | 38.52              | 3830.62           | Sheen          |                   |                   |                        |                   |
| 01/28/14                 | 3869.14                                         | 39.14              | 3830.00           | Sheen          |                   |                   |                        |                   |
| 06/17/14                 | 3869.14                                         | 39.43              | 3829.71           | Sheen          |                   |                   |                        |                   |
| 11/07/14                 | 3869.14                                         | 39.64              | 3829.50           | Sheen          |                   |                   |                        |                   |
| 12/09/15                 | 3869.14                                         | 39.72              | 3829.42           | Sheen          |                   |                   |                        |                   |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 04/26/16                 | 3869.14                                         | 38.36              | 3830.78           | Sheen          |                   |                   |                        |                   |
| 10/24/16                 | 3869.14                                         | 39.93              | 3829.21           | (d)            |                   |                   |                        |                   |
| 05/22/17                 | 3869.14                                         | 40.00              | 3829.16           | 0.02           |                   |                   |                        |                   |
| 11/28/17                 | 3869.14                                         | 40.09              | 3829.05           | No             |                   |                   |                        |                   |
| 11/29/17                 | 3869.14                                         |                    |                   | No             | 0.17              | <0.012            | 0.77                   | 0.27              |
| 07/17/18                 | 3869.27                                         | 40.08              | 3829.19           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3869.27                                         |                    |                   | No             | 0.15              | <0.010            | 0.72                   | 0.20              |
| <b>Field Point MW-18</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.31                                         | 34.45              | 3832.86           | No             | 2.40              | 0.0206            | 0.681                  | 0.836             |
| 10/30/09                 | 3867.31                                         | 34.60              | 3832.71           | No             | 2.88              | 0.0144            | 0.779                  | 0.703             |
| 10/13/11                 | 3867.31                                         | 36.26              | 3831.05           | No             | 1.81              | 0.00572           | 0.274                  | 0.108             |
| 02/22/12                 | 3867.31                                         | 36.59              | 3830.73           | 0.01           |                   |                   |                        |                   |
| 07/17/12                 | 3868.79                                         | 37.30              | 3831.82           | 0.40           |                   |                   |                        |                   |
| 10/03/12                 | 3868.79                                         | 38.20              | 3831.34           | 0.90           |                   |                   |                        |                   |
| 05/14/13                 | 3868.79                                         | 38.23              | 3831.22           | 0.80           |                   |                   |                        |                   |
| 01/28/14                 | 3868.79                                         | 38.92              | 3830.53           | 0.80           |                   |                   |                        |                   |
| 06/17/14                 | 3868.79                                         | 38.99              | 3830.26           | 0.56           |                   |                   |                        |                   |
| 11/17/14                 | 3868.79                                         | 39.12              | 3830.04           | 0.44           |                   |                   |                        |                   |
| 12/07/15                 | 3868.79                                         | 39.15              | 3829.92           | 0.34           |                   |                   |                        |                   |
| 04/26/16                 | 3868.79                                         | 39.36              | 3829.77           | 0.41           |                   |                   |                        |                   |
| 10/24/16                 | 3868.79                                         | 39.19              | 3829.77           | 0.21           |                   |                   |                        |                   |
| 05/22/17                 | 3868.79                                         | 39.45              | 3829.62           | 0.34           |                   |                   |                        |                   |
| 11/28/17                 | 3868.79                                         | 39.41              | 3829.61           | 0.28           |                   |                   |                        |                   |
| 07/17/18                 | 3868.94                                         | 39.50              | 3829.70           | 0.31           |                   |                   |                        |                   |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.26                                         | 34.22              | 3833.04           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                 | 3867.26                                         | 34.40              | 3832.86           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                 | 3867.26                                         | 36.08              | 3831.18           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                 | 3867.26                                         | 37.14              | 3830.12           | No             | 0.00188           | <0.00100          | 0.192                  | 0.329             |
| 07/17/12                 | 3868.75                                         | 36.81              | 3831.94           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3868.75                                         | 36.98              | 3831.77           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3868.75                                         | 37.51              | 3831.24           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3868.75                                         | 38.15              | 3830.60           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3868.75                                         | 38.43              | 3830.32           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/18/14                 | 3868.75                                         | 38.66              | 3830.09           | No             | <0.00100          | <0.00100          | <0.00100               | <0.002            |
| 12/09/15                 | 3868.75                                         | 38.68              | 3830.07           | No             | 0.00413           | <0.00100          | <0.00100               | 0.0714            |
| 04/27/16                 | 3868.75                                         | 38.91              | 3829.84           | No             | 0.00416           | <0.00100          | <0.00100               | 0.0569            |
| 10/24/16                 | 3868.75                                         | 38.86              | 3829.89           | No             |                   |                   |                        |                   |
| 10/25/16                 | 3868.75                                         |                    |                   | No             | 0.00153           | <0.00100          | <0.00100               | 0.0343            |
| 05/22/17                 | 3868.75                                         | 39.00              | 3829.75           | No             |                   |                   |                        |                   |
| 05/24/17                 | 3868.75                                         |                    |                   | No             | 0.0011            | 0.00020 J         | 0.00060                | 0.0030            |
| 11/28/17                 | 3868.75                                         | 39.08              | 3829.67           | No             |                   |                   |                        |                   |
| 11/29/17                 | 3868.75                                         |                    |                   | No             | 0.0010            | <0.00050          | 0.00098                | 0.00053           |
| 07/17/18                 | 3868.90                                         | 39.11              | 3829.79           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3868.90                                         |                    |                   | No             | 0.00034 J         | 0.00072           | 0.00037 J              | 0.00021 J         |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.50                                         | 34.69              | 3832.81           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                 | 3867.50                                         | 34.85              | 3832.65           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                 | 3867.50                                         | 36.55              | 3830.95           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                 | 3867.50                                         | 37.09              | 3830.41           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3868.97                                         | 37.31              | 3831.66           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 10/03/12                 | 3868.97                                         | 37.48              | 3831.49           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3868.97                                         | 37.99              | 3830.98           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3868.97                                         | 38.65              | 3830.32           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3868.97                                         | 38.93              | 3830.04           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/18/14                 | 3868.97                                         | 39.16              | 3829.81           | No             | 0.0016            | <0.00100          | <0.00100               | 0.0098            |
| 12/07/15                 | 3868.97                                         | 39.90              | 3829.83           | 0.92           |                   |                   |                        |                   |
| 04/26/16                 | 3868.97                                         | 40.04              | 3829.70           | 0.93           |                   |                   |                        |                   |
| 10/24/16                 | 3868.97                                         | 40.50              | 3829.60           | 1.36           |                   |                   |                        |                   |
| 05/22/17                 | 3868.97                                         | 40.42              | 3829.53           | 1.18           |                   |                   |                        |                   |
| 11/28/17                 | 3868.97                                         | 39.66              | 3829.58           | 0.33           |                   |                   |                        |                   |
| 07/17/18                 | 3869.15                                         | 40.48              | 3829.66           | 1.19           |                   |                   |                        |                   |
| <b>Field Point MW-21</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                    |                   |                |                   |                   |                        |                   |
| 08/19/09                 | 3867.43                                         | 34.42              | 3833.01           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/30/09                 | 3867.43                                         | 34.60              | 3832.83           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                 | 3867.43                                         | 36.24              | 3831.19           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                 | 3867.43                                         | 36.75              | 3830.68           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3868.89                                         | 36.95              | 3831.94           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3868.89                                         | 37.15              | 3831.74           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3868.89                                         | 37.67              | 3831.22           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3868.89                                         | 38.35              | 3830.54           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3868.89                                         | 38.62              | 3830.27           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/18/14                 | 3868.89                                         | 38.87              | 3830.02           | No             | <0.00100          | <0.00100          | <0.00100               | <0.002            |
| 12/08/15                 | 3868.89                                         | 38.85              | 3830.04           | No             | 0.0124            | <0.00100          | <0.00100               | 0.00780           |
| 04/27/16                 | 3868.89                                         | 39.05              | 3829.84           | No             | 0.0115            | <0.00100          | <0.00100               | 0.0104            |
| 10/24/16                 | 3868.89                                         | 39.13              | 3829.76           | No             |                   |                   |                        |                   |
| 10/25/16                 | 3868.89                                         |                    |                   | No             | 0.00383           | <0.00100          | <0.00100               | <0.00300          |
| 05/22/17                 | 3868.89                                         | 39.26              | 3829.73           | 0.12           |                   |                   |                        |                   |
| 11/28/17                 | 3868.89                                         | 39.63              | 3829.62           | 0.43           |                   |                   |                        |                   |
| 07/17/18                 | 3869.07                                         | 40.05              | 3829.86           | 1.01           |                   |                   |                        |                   |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 10/30/09                 | 3868.21                                         | 36.27              | 3831.94           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/13/11                 | 3868.21                                         | 37.90              | 3830.31           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 02/22/12                 | 3868.21                                         | 38.26              | 3829.95           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3869.73                                         | 38.60              | 3831.13           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3869.73                                         | 38.80              | 3830.93           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3869.73                                         | 39.36              | 3830.37           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3869.73                                         | 40.00              | 3829.73           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 01/29/14 D               | 3869.73                                         | 40.00              | 3829.73           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3869.73                                         | 40.29              | 3829.44           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/19/14                 | 3869.73                                         | 40.54              | 3829.19           | No             | <0.00100          | <0.00100          | <0.00100               | <0.002            |
| 12/08/15                 | 3869.73                                         | 40.62              | 3829.11           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 04/27/16                 | 3869.73                                         | 40.79              | 3828.94           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/24/16                 | 3869.73                                         | 40.82              | 3828.91           | No             |                   |                   |                        |                   |
| 10/25/16                 | 3869.73                                         |                    |                   | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/22/17                 | 3869.73                                         | 40.89              | 3828.84           | No             |                   |                   |                        |                   |
| 05/24/17                 | 3869.73                                         |                    |                   | No             | <0.00050          | <0.00050          | <0.00050               | <0.00050          |
| 11/28/17                 | 3869.73                                         | 40.90              | 3828.83           | No             |                   |                   |                        |                   |
| 11/29/17                 | 3869.73                                         |                    |                   | No             | <0.00050          | <0.00050          | <0.00050               | <0.00050          |
| 07/17/18                 | 3869.86                                         | 40.90              | 3828.96           | No             |                   |                   |                        |                   |
| 07/18/18                 | 3869.86                                         | 40.90              | 3828.96           | No             | <0.00050          | 0.00041 J         | <0.00050               | <0.00050          |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS            |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-23</b> | <b>Well Screen Interval (feet): 31.00-46.00</b> |                    |                   |                |                   |                   |                        |                   |
| 02/22/12                 | 3867.58                                         | 36.77              | 3830.81           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3869.08                                         | 37.13              | 3831.95           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3869.08                                         | 37.30              | 3831.78           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3869.08                                         | 37.88              | 3831.20           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3869.08                                         | 38.51              | 3830.57           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3869.08                                         | 38.79              | 3830.29           | No             | <0.000200         | <0.00017          | <0.00019               | <0.00038          |
| 11/18/14                 | 3869.08                                         | 39.03              | 3830.05           | No             | 0.13              | <0.00100          | 0.0092                 | 0.065             |
| 12/08/15                 | 3869.08                                         | 39.01              | 3830.07           | No             | 1.45              | <0.00100          | 0.239                  | <0.00300          |
| 04/27/16                 | 3869.08                                         | 38.24              | 3830.84           | No             | 0.473             | <0.00500          | 0.0887                 | <0.0150           |
| 10/24/16                 | 3869.08                                         | 34.35              | 3834.82           | 0.11           |                   |                   |                        |                   |
| 05/22/17                 | 3869.08                                         | 39.42              | 3829.75           | 0.11           |                   |                   |                        |                   |
| 11/28/17                 | 3869.08                                         | 39.50              | 3829.65           | 0.08           |                   |                   |                        |                   |
| 07/17/18                 | 3869.22                                         | 39.46              | 3829.82           | 0.07           |                   |                   |                        |                   |
| <b>Field Point MW-24</b> | <b>Well Screen Interval (feet): 28.00-43.00</b> |                    |                   |                |                   |                   |                        |                   |
| 02/22/12                 | 3866.60                                         | 35.74              | 3830.89           | 0.04           |                   |                   |                        |                   |
| 07/17/12                 | 3867.88                                         | 39.70              | 3831.62           | 4.15           |                   |                   |                        |                   |
| 10/03/12                 | 3867.88                                         | 40.09              | 3831.40           | 4.35           |                   |                   |                        |                   |
| 05/14/13                 | 3867.88                                         | 38.05              | 3831.35           | 1.83           |                   |                   |                        |                   |
| 01/28/14                 | 3867.88                                         | 41.92              | 3830.28           | 5.21           |                   |                   |                        |                   |
| 06/17/14                 | 3867.88                                         | 43.09              | 3830.04           | 6.33           |                   |                   |                        |                   |
| 11/18/14                 | 3867.88                                         | 43.30              | 3829.98           | 6.50           |                   |                   |                        |                   |
| 12/07/15                 | 3867.88                                         | 42.51              | 3829.94           | 5.50           |                   |                   |                        |                   |
| 04/27/16                 | 3867.88                                         | 41.39              | 3829.54           | 3.68           |                   |                   |                        |                   |
| 10/24/16                 | 3867.88                                         | 42.33              | 3830.00           | 5.36           |                   |                   |                        |                   |
| 05/22/17                 | 3867.88                                         | 39.82              | 3829.55           | 1.80           |                   |                   |                        |                   |
| 11/28/17                 | 3867.88                                         | 40.54              | 3830.11           | 3.34           |                   |                   |                        |                   |
| 07/17/18                 | 3868.04                                         | 39.49              | 3829.64           | 1.31           |                   |                   |                        |                   |
| <b>Field Point MW-25</b> | <b>Well Screen Interval (feet): 28.00-43.00</b> |                    |                   |                |                   |                   |                        |                   |
| 02/22/12                 | 3867.61                                         | 37.00              | 3830.61           | No             | 8.7               | 1.12              | 0.911                  | 2.7               |
| 07/17/12                 | 3868.99                                         | 37.84              | 3831.58           | 0.52           |                   |                   |                        |                   |
| 10/03/12                 | 3868.99                                         | 38.92              | 3830.91           | 1.01           |                   |                   |                        |                   |
| 05/14/13                 | 3868.99                                         | 40.02              | 3830.99           | 2.43           |                   |                   |                        |                   |
| 01/28/14                 | 3868.99                                         | 41.72              | 3830.26           | 3.60           |                   |                   |                        |                   |
| 06/17/14                 | 3868.99                                         | 41.74              | 3829.99           | 3.30           |                   |                   |                        |                   |
| 11/17/14                 | 3868.99                                         | 41.45              | 3829.77           | 2.69           |                   |                   |                        |                   |
| 12/07/15                 | 3868.99                                         | 40.96              | 3829.73           | 2.05           |                   |                   |                        |                   |
| 04/26/16                 | 3868.99                                         | 40.00              | 3829.57           | 0.70           |                   |                   |                        |                   |
| 10/24/16                 | 3868.99                                         | 41.03              | 3829.53           | 1.89           |                   |                   |                        |                   |
| 05/22/17                 | 3868.99                                         | 41.13              | 3829.42           | 1.88           |                   |                   |                        |                   |
| 11/28/17                 | 3868.99                                         | 41.57              | 3829.34           | 2.31           |                   |                   |                        |                   |
| 07/17/18                 | 3869.14                                         | 40.20              | 3829.52           | 0.70           |                   |                   |                        |                   |
| <b>Field Point MW-26</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 02/22/12                 | 3867.59                                         | 37.28              | 3830.31           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 07/17/12                 | 3868.98                                         | 37.90              | 3831.08           | No             | 0.00177           | <0.00100          | <0.00100               | <0.00300          |
| 10/03/12                 | 3868.98                                         | 37.93              | 3831.05           | No             | 0.00236           | <0.00100          | <0.00100               | <0.00300          |
| 05/15/13                 | 3868.98                                         | 38.37              | 3830.61           | No             | 0.0153            | <0.00017          | <0.00019               | <0.00018          |
| 01/29/14                 | 3868.98                                         | 39.01              | 3829.97           | No             | 0.0129            | <0.00017          | <0.00019               | <0.00058          |
| 06/18/14                 | 3868.98                                         | 39.30              | 3829.68           | No             | 0.000672 J        | <0.00017          | <0.00019               | <0.00038          |
| 11/19/14                 | 3868.98                                         | 39.55              | 3829.43           | No             | 0.0033            | <0.00100          | <0.00100               | <0.002            |
| 12/08/15                 | 3868.98                                         | 39.58              | 3829.40           | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 04/27/16                 | 3868.98                                         | 39.78              | 3829.20           | No             | 0.0242            | <0.00100          | <0.00100               | <0.00300          |



**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                      | Well Elev<br>(feet)                             | GW Depth<br>(feet) | GW Elev<br>(feet) | NAPL<br>(feet) | Benzene<br>(mg/l) | Toluene<br>(mg/l) | Ethylbenzene<br>(mg/l) | Xylenes<br>(mg/l) |
|---------------------------|-------------------------------------------------|--------------------|-------------------|----------------|-------------------|-------------------|------------------------|-------------------|
| NMED WQCC HHS             |                                                 |                    |                   |                | 0.01              | 0.75              | 0.75                   | 0.62              |
| <b>Field Point MW-26</b>  | <b>Well Screen Interval (feet): 30.00-45.00</b> |                    |                   |                |                   |                   |                        |                   |
| 10/24/16                  | 3868.98                                         | 39.81              | 3829.17           | No             |                   |                   |                        |                   |
| 10/25/16                  | 3868.98                                         |                    |                   | No             | <0.00100          | <0.00100          | <0.00100               | <0.00300          |
| 05/22/17                  | 3868.98                                         | 39.86              | 3829.12           | No             |                   |                   |                        |                   |
| 05/24/17                  | 3868.98                                         |                    |                   | No             | 0.037             | 0.00023 J         | <0.00050               | 0.00044 J         |
| 11/28/17                  | 3868.98                                         | 39.95              | 3829.03           | No             |                   |                   |                        |                   |
| 11/29/17                  | 3868.98                                         |                    |                   | No             | 0.00061           | <0.00050          | 0.00025 J              | 0.00046 J         |
| 07/17/18                  | 3869.15                                         | 39.89              | 3829.26           | No             |                   |                   |                        |                   |
| 07/18/18                  | 3869.15                                         |                    |                   | No             | 0.12              | 0.0012 J          | 0.059                  | 0.17              |
| <b>Field Point MW-27</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3869.12                                         | 39.63              | 3829.49           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3869.12                                         | 39.60              | 3829.52           | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-28</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3869.32                                         | 39.65              | 3829.67           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3869.32                                         |                    |                   | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-29</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3869.36                                         | 39.52              | 3829.84           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3869.36                                         | 39.47              | 3829.89           | No             | <0.00050          | <0.00050          | <0.00050               | <0.00050          |
| <b>Field Point MW-30</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3869.10                                         | 39.10              | 3830.00           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3869.10                                         |                    |                   | No             | <0.00050          | 0.00025 J         | <0.00050               | <0.00050          |
| <b>Field Point MW-31</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3869.05                                         | 39.90              | 3829.15           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3869.05                                         |                    |                   | No             | <0.00050          | 0.00039 J         | <0.00050               | 0.0010            |
| <b>Field Point MW-32</b>  | <b>Well Screen Interval (feet): 35.00-50.00</b> |                    |                   |                |                   |                   |                        |                   |
| 07/17/18                  | 3870.35                                         | 41.28              | 3829.07           | No             |                   |                   |                        |                   |
| 07/19/18                  | 3870.35                                         |                    |                   | No             | 0.0041            | 0.00022 J         | 0.00042 J              | 0.012             |
| <b>Field Point SB-1GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 0.00719           | <0.00100          | <0.00100               | <0.00300          |
| <b>Field Point SB-2GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 1.88              | 0.0938            | 0.138                  | 0.26              |
| <b>Field Point SB-3GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 1.94              | 2.42              | 0.986                  | 2.27              |
| <b>Field Point SB-4GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 3.91              | 0.0703            | 0.587                  | 1.15              |
| <b>Field Point SB-5GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 2.9               | 0.024             | 0.034                  | 0.218             |
| <b>Field Point SB-6GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 0.00133           | <0.00100          | 0.00168                | <0.00300          |
| <b>Field Point SB-7GW</b> | <b>Grab Groundwater Sample</b>                  |                    |                   |                |                   |                   |                        |                   |
| 10/28/11                  |                                                 |                    |                   | No             | 0.135             | 0.00135           | 0.0263                 | 0.0759            |

**TABLE 4**  
**CUMULATIVE WATER LEVEL MEASUREMENTS AND GROUNDWATER ANALYSES**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.

ELEV = Elevation.

GW = Groundwater.

NAPL = Non-aqueous phase liquid.

Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.

NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.

Bolded values equal or exceed applicable regulatory limits.

Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.

Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.

TDS = Total dissolved solids.

mg/l = Milligrams per liter.

BDL = Below laboratory detection limits.

< = Not detected at or above stated laboratory reporting limit.

A-01 = Could not obtain constant weight.

D = Duplicate sample.

J = Estimated value between method detection limit and practical quantitation limit.

R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.

R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.

R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.

X = Pre-purge/no-purge sample.

(a) = Analyzed by EPA Method 8310.

(b) = Analyzed by EPA Method 8260B.

(c) = Analyzed method unknown.

(d) = Analyzed to determine the presense of NAPL.

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS           | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-1</b> | <b>Well Screen Interval (feet): 22.71-42.71</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/24/06                | <0.00101                                        | <0.00101                 | 0.141                | 0.0165                       | <b>0.00260</b>           | 0.000971                       | <0.000202                      | 0.00128                        | 0.0111             | <0.000202                       | 0.0788                 | 0.00614            | <0.000202                        |
| 02/08/07                | <0.00105                                        | <0.00526                 | <0.00526             | 0.00603                      | <0.000105                | 0.00267                        | <0.000211                      | 0.000886                       | 0.00615            | 0.0104                          | 0.153                  | 0.0153             | <0.000211                        |
| 09/26/08                | <0.0100                                         | <0.0100                  | <0.0100              | <0.0100                      | <0.0100                  | <0.0100                        | <0.0100                        | <0.0100                        | <0.0100            | <0.0100                         | <0.0100                | <0.0100            | <0.0100                          |
| 05/19/09                | <0.0100                                         | <0.0100                  | <0.0100              | <0.0100                      | <0.0100                  | <0.0100                        | <0.0100                        | <0.0100                        | <0.0100            | <0.0100                         | <0.0100                | <0.0100            | <0.0100                          |
| 08/19/09                | <0.0200                                         | <0.100                   | 0.0871 R12           | 0.162 R1                     | <0.00200                 | 0.0369                         | 0.0358 R1                      | 0.0321 R1                      | 0.323              | 0.0550 R1                       | 1.660 R1               | 0.0895             | 0.0210                           |
| 10/30/09                | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | 0.000992           | <0.000200                       | 0.00634 R1             | 0.00163            | <0.000200                        |
| 10/12/11                | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000476           | <0.0000952                       |
| <b>Field Point MW-2</b> | <b>Well Screen Interval (feet): 27.59-47.59</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/25/06                | <0.000939                                       | <0.00217                 | 0.228                | 0.0300                       | <b>0.00533</b>           | 0.0173                         | 0.000665                       | 0.00101                        | 0.0420             | 0.00186                         | 0.155                  | 0.00823            | <0.000188                        |
| 02/08/07                | <0.00109                                        | <0.00543                 | 0.142                | 0.0128                       | <0.000109                | 0.00297                        | <0.000217                      | 0.00150                        | 0.00802            | 0.0156                          | 0.0491                 | 0.0174             | <0.000217                        |
| 09/26/08                | <0.0971                                         | <0.0971                  | <0.0971              | <0.0971                      | <0.0971                  | <0.0971                        | <0.0971                        | <0.0971                        | <0.0971            | <0.0971                         | <0.0971                | <0.0971            | <0.0971                          |
| 08/19/09                | <0.00513                                        | <0.0256                  | 0.0783 R12           | 0.157                        | <0.000513                | 0.0318 R1                      | 0.0357 R1                      | 0.0269 R1                      | 0.311              | 0.0530 R1                       | 0.673 R1               | 0.0992             | 0.0216                           |
| 10/30/09                | <0.00100                                        | <0.00500                 | <0.00100             | 0.00507 R1                   | 0.000684 R1              | 0.00124 R1                     | 0.00133 R1                     | 0.00166 R1                     | 0.0104             | 0.00390 R1                      | 0.0400 R1              | 0.00407            | <0.000200                        |
| <b>Field Point MW-3</b> | <b>Well Screen Interval (feet): 24.20-44.20</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/24/06                | <0.00106                                        | <0.00106                 | 0.127                | 0.0160                       | <b>0.00245</b>           | 0.000869                       | <0.000213                      | 0.00131                        | 0.0113             | <0.000213                       | 0.0772                 | 0.00575            | <0.000213                        |
| 02/08/07                | <0.00111                                        | <0.00556                 | 0.0914               | 0.00885                      | <b>0.00172</b>           | 0.00209                        | <0.000222                      | 0.00121                        | 0.00849            | 0.0136                          | 0.0437                 | 0.012              | <0.000222                        |
| 09/26/08                | <0.0105                                         | <0.0105                  | <0.0105              | <0.0105                      | <0.0105                  | <0.0105                        | <0.0105                        | <0.0105                        | <0.0105            | <0.0105                         | <0.0105                | <0.0105            | <0.0105                          |
| 05/19/09                | <0.0105                                         | <0.0105                  | <0.0105              | <0.0105                      | <0.0105                  | <0.0105                        | <0.0105                        | <0.0105                        | <0.0105            | <0.0105                         | <0.0105                | <0.0105            | <0.0105                          |
| 08/19/09                | <0.00103                                        | <0.00513                 | 0.00966 R12          | 0.0234 R1                    | <b>0.00225 R1</b>        | 0.00490 R1                     | 0.00422 R1                     | 0.00416 R1                     | 0.0461             | 0.00630 R1                      | 0.0907 R1              | 0.00825            | 0.00271                          |
| 10/30/09                | <0.000990                                       | <0.00495                 | 0.00168 R12          | 0.00741 R1                   | 0.000418 R1              | 0.00208 R1                     | 0.00254 R1                     | 0.00286 R1                     | 0.0147             | 0.00554 R1                      | 0.0537 R1              | 0.00478            | <0.000198                        |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS           | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-4</b> | <b>Well Screen Interval (feet): 23.97-38.97</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/25/06                | <0.000939                                       | 0.0026                   | <0.000939            | <0.000188                    | <0.0000939               | <0.0000939                     | <0.000188                      | <0.000131                      | <0.0000939         | <0.000188                       | <0.000188              | 0.000947           | <0.000188                        |
| 02/07/07                | <0.00104                                        | <0.00521                 | <0.00104             | <0.000208                    | <0.000104                | <0.000104                      | <0.000208                      | <0.000146                      | <0.000104          | <0.000208                       | 0.0168                 | 0.0023             | <0.000208                        |
| 04/15/08                | <0.00990                                        | <0.00990                 | <0.00990             | <0.00990                     | <0.00990                 | <0.00990                       | <0.00990                       | <0.00990                       | <0.00990           | <0.00990                        | <0.00990               | <0.00990           | <0.00990                         |
| 09/26/08                | <0.00980                                        | <0.00980                 | <0.00980             | <0.00980                     | <0.00980                 | <0.00980                       | <0.00980                       | <0.00980                       | <0.00980           | <0.00980                        | <0.00980               | <0.00980           | <0.00980                         |
| 05/19/09                | <0.0526                                         | <0.0526                  | <0.0526              | <0.0526                      | <0.0526                  | <0.0526                        | <0.0526                        | <0.0526                        | <0.0526            | <0.0526                         | <0.0526                | <0.0526            | <0.0526                          |
| 08/19/09                | <0.000971                                       | <0.00485                 | <0.000971            | <0.000194                    | <0.0000971               | <0.0000971                     | <0.000194                      | <0.000136                      | 0.00217            | <0.000194                       | 0.00365 R1             | 0.00126            | 0.000459 R1                      |
| 10/30/09                | <0.000990                                       | <0.00495                 | <0.000990            | 0.0124 R1                    | <0.000099                | 0.00316 R1                     | 0.00467 R1                     | 0.00399 R1                     | 0.00447            | 0.00919 R1                      | 0.103 R1               | 0.0092             | <0.000198                        |
| <b>Field Point MW-5</b> | <b>Well Screen Interval (feet): 27.19-47.19</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/20/06                | <0.00472                                        | 0.00565                  | <0.000943            | <0.000189                    | <0.0000943               | <0.0000943                     | <0.000189                      | <0.000132                      | 0.000356           | <0.000189                       | 0.00309                | <0.000472          | <0.000189                        |
| 02/07/07                | <0.00118                                        | <0.00588                 | 0.0113               | <0.000235                    | <0.000118                | <0.000118                      | <0.000235                      | <0.000165                      | <0.000118          | <0.000235                       | 0.00227                | 0.00233            | <0.000235                        |
| 04/15/08                | <0.00990                                        | <0.00990                 | <0.00990             | <0.00990                     | <0.00990                 | <0.00990                       | <0.00990                       | <0.00990                       | <0.00990           | <0.00990                        | <0.00990               | <0.00990           | <0.00990                         |
| 09/26/08                | <0.0962                                         | <0.0962                  | <0.0962              | <0.0962                      | <0.0962                  | <0.0962                        | <0.0962                        | <0.0962                        | <0.0962            | <0.0962                         | <0.0962                | <0.0962            | <0.0962                          |
| 05/19/09                | <0.0526                                         | <0.0526                  | <0.0526              | <0.0526                      | <0.0526                  | <0.0526                        | <0.0526                        | <0.0526                        | <0.0526            | <0.0526                         | <0.0526                | <0.0526            | <0.0526                          |
| 08/19/09                | <0.000971                                       | <0.00485                 | <0.000971            | <0.000194                    | <0.0000971               | <0.0000971                     | <0.000194                      | <0.000136                      | 0.000639           | <0.000194                       | 0.00253 R1             | 0.00241            | <0.000194                        |
| 08/19/09 D              | <0.000980                                       | <0.00490                 | <0.000980            | <0.000196                    | <0.0000980               | 0.000191 R1                    | <0.000196                      | <0.000137                      | 0.000994           | <0.000196                       | 0.00269 R1             | 0.00206 R1         | <0.000196                        |
| 10/30/09                | <0.00102                                        | <0.00510                 | <0.00102             | <0.000204                    | <0.000102                | <0.000102                      | <0.000204                      | <0.000143                      | 0.000313           | <0.000204                       | 0.00349 R1             | 0.00213            | <0.000204                        |
| 10/12/11                | 0.000367                                        | 0.000178                 | 0.000144             | 0.000122                     | 0.000111                 | <0.000111                      | <0.000111                      | <0.000111                      | <0.000111          | <0.000111                       | <0.000111              | 0.00167            | <0.000111                        |
| 07/17/12                | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | 0.00202            | <0.00190                         |
| 07/17/12 D              | <0.00190                                        | <0.00190                 | 0.00214              | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | 0.00218                | <0.00190           | <0.00190                         |
| 10/03/12                | <0.00196                                        | <0.00196                 | <0.00196             | <0.00196                     | <0.00196                 | <0.00196                       | <0.00196                       | <0.00196                       | <0.00196           | <0.00196                        | <0.00196               | 0.00253            | <0.00196                         |
| 10/03/12 D              | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00249            | <0.00189                         |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS           | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-6</b> | <b>Well Screen Interval (feet): 27.05-42.05</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/21/06                | <0.00467                                        | <0.000943                | <0.000943            | <0.000189                    | <0.0000943               | <0.0000943                     | <0.000189                      | <0.000132                      | <0.0000943         | <0.000189                       | <0.000189              | <0.000472          | <0.000189                        |
| 02/07/07                | <0.00111                                        | <0.00556                 | <0.00111             | <0.000222                    | <0.000111                | <0.000111                      | <0.000222                      | <0.000156                      | <0.000111          | <0.000222                       | <0.000222              | 0.000637           | <0.000222                        |
| 04/15/08                | <0.00990                                        | <0.00990                 | <0.00990             | <0.00990                     | <0.00990                 | <0.00990                       | <0.00990                       | <0.00990                       | <0.00990           | <0.00990                        | <0.00990               | <0.00990           | <0.00990                         |
| 09/26/08                | <0.00943                                        | <0.0962                  | <0.0962              | <0.0962                      | <0.0962                  | <0.0962                        | <0.0962                        | <0.0962                        | <0.0962            | <0.0962                         | <0.0962                | <0.0962            | <0.0962                          |
| 05/18/09                | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | <0.000500          | <0.000200                        |
| 11/19/09                | <0.000980                                       | <0.00490                 | <0.000980            | <0.000196                    | <0.0000980               | <0.0000980                     | <0.000196                      | <0.000137                      | <0.0000980         | <0.000196                       | <0.000196              | <0.000490          | <0.000196                        |
| 10/13/11                | <0.0000962                                      | <0.0000962               | <0.0000962           | <0.0000962                   | <0.0000962               | <0.0000962                     | <0.0000962                     | <0.0000962                     | <0.0000962         | <0.0000962                      | <0.0000962             | <0.0000962         | <0.0000962                       |
| 07/17/12                | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| 05/15/13                | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | 0.0002             | <0.0000187                       |
| 01/28/14                | 0.0000215 J                                     | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | 0.000178           | <0.0000188                       |
| 06/18/14                | 0.0000949                                       | <0.0000284               | <0.0000284           | <0.000019                    | <0.000019                | <0.000019                      | <0.000019                      | <0.000019                      | <0.000019          | <0.000019                       | <0.0000284             | 0.0000517 J        | <0.000019                        |
| 11/19/14                | <0.0001                                         | <0.0001                  | <0.0001              | <0.0001                      | <0.0001                  | <0.0001                        | <0.0001                        | <0.0001                        | <0.0001            | <0.0001                         | <0.0001                | 0.00014            | <0.0001                          |
| 12/08/15                | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000168           | <0.0000952                       |
| 04/26/16                | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000101           | <0.0000952                       |
| 05/24/17                | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00017 J          | <0.00019                         |
| 07/20/18                | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-7</b> | <b>Well Screen Interval (feet): 24.35-39.35</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/25/06                | <0.000939                                       | <0.000939                | <0.000939            | <0.000188                    | <0.0000939               | <0.0000939                     | <0.000188                      | <0.000131                      | <0.0000939         | <0.000188                       | <0.000188              | <0.000469          | <0.000188                        |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|-------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS           | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-7</b> | <b>Well Screen Interval (feet): 24.35-39.35</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 02/07/07                | <0.00109                                        | <0.00543                 | <0.00109             | <0.000217                    | <0.000109                | <0.000109                      | <0.000217                      | <0.000152                      | <0.000109          | <0.000217                       | <0.000217              | 0.000772           | <0.000217                        |
| 04/15/08                | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                | <0.00943                                        | <0.00943                 | <0.00943             | <0.00943                     | <0.00943                 | <0.00943                       | <0.00943                       | <0.00943                       | <0.00943           | <0.00943                        | <0.00943               | <0.00943           | <0.00943                         |
| 05/18/09                | <0.0100                                         | <0.0100                  | <0.0100              | <0.0100                      | <0.0100                  | <0.0100                        | <0.0100                        | <0.0100                        | <0.0100            | <0.0100                         | <0.0100                | <0.0100            | <0.0100                          |
| 08/19/09                | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | 0.00135            | <0.000200                        |
| 10/30/09                | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | 0.00149            | <0.000200                        |
| 10/13/11                | 0.000116                                        | <0.000105                | <0.000105            | <0.000105                    | <0.000105                | <0.000105                      | <0.000105                      | <0.000105                      | <0.000105          | <0.000105                       | <0.000105              | 0.000547           | <0.000105                        |
| <b>Field Point MW-8</b> | <b>Well Screen Interval (feet): 23.05-38.05</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/25/06                | <0.000939                                       | <0.000939                | <0.000939            | <0.000188                    | <0.0000939               | <0.0000939                     | <0.000188                      | <0.000131                      | <0.0000939         | <0.000188                       | <0.000188              | <0.000469          | <0.000188                        |
| 02/07/07                | <0.00104                                        | <0.00521                 | <0.00104             | <0.000208                    | <0.000104                | <0.000104                      | <0.000208                      | <0.000146                      | <0.000104          | <0.000208                       | <0.000208              | <0.000521          | <0.000208                        |
| 04/15/08                | <0.00962                                        | <0.00962                 | <0.00962             | <0.00962                     | <0.00962                 | <0.00962                       | <0.00962                       | <0.00962                       | <0.00962           | <0.00962                        | <0.00962               | <0.00962           | <0.00962                         |
| 09/26/08                | <0.00980                                        | <0.00980                 | <0.00980             | <0.00980                     | <0.00980                 | <0.00980                       | <0.00980                       | <0.00980                       | <0.00980           | <0.00980                        | <0.00980               | <0.00980           | <0.00980                         |
| 05/18/09                | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                | <0.00103                                        | <0.00513                 | <0.00103             | <0.000205                    | <0.000103                | <0.000103                      | <0.000205                      | <0.000144                      | <0.000103          | <0.000205                       | <0.000205              | 0.00101            | <0.000205                        |
| 10/30/09                | <0.00100                                        | <0.00500                 | <0.00100             | >0.000200                    | <0.000100                | 0.0001                         | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | 0.0012             | <0.000200                        |
| <b>Field Point MW-9</b> | <b>Well Screen Interval (feet): 27.64-42.64</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/21/06                | <0.00099                                        | 0.001                    | <0.00099             | <0.000198                    | <0.00099                 | <0.00099                       | <0.000198                      | <0.000139                      | <0.00099           | 0.000198                        | <0.000198              | <0.000495          | <0.000198                        |
| 02/06/07                | <0.00104                                        | <0.00521                 | <0.00104             | <0.000208                    | <0.000104                | <0.000104                      | <0.000208                      | <0.000146                      | <0.000104          | <0.000208                       | <0.000208              | <0.000521          | <0.000208                        |
| 04/15/08                | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                | <0.00962                                        | <0.00962                 | <0.00962             | <0.00962                     | <0.00962                 | <0.00962                       | <0.00962                       | <0.00962                       | <0.00962           | <0.00962                        | <0.00962               | <0.00962           | <0.00962                         |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-9</b>  | <b>Well Screen Interval (feet): 27.64-42.64</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 05/18/09                 | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                 | <0.000971                                       | <0.00485                 | <0.000971            | <0.000194                    | <0.0000971               | <0.0000971                     | <0.000194                      | <0.000136                      | <0.0000971         | <0.000194                       | <0.000194              | <0.000485          | <0.000194                        |
| 10/30/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | <0.000500          | <0.000200                        |
| 10/13/11                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000476           | <0.0000952                       |
| 02/22/12                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000295           | <0.0000952                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | 0.017                                           | 0.00713                  | <0.00377             | 0.0271                       | <0.00377                 | <0.00377                       | <0.00377                       | <0.00377                       | <0.00377           | <0.00377                        | 0.005                  | 0.0768             | <0.00377                         |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/21/06                 | 0.001                                           | 0.001                    | 0.001                | <0.000200                    | <0.0001                  | <0.0001                        | <0.000200                      | <0.00014                       | <0.0001            | <0.000200                       | <0.000200              | 0.000892           | <0.000200                        |
| 02/06/07                 | <0.00110                                        | <0.00549                 | <0.00110             | <0.000220                    | <0.000110                | <0.000110                      | <0.000220                      | <0.000154                      | <0.000110          | <0.000220                       | <0.000220              | 0.000831           | <0.000220                        |
| 04/15/08                 | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                 | <0.0100                                         | <0.0100                  | <0.0100              | <0.0100                      | <0.0100                  | <0.0100                        | <0.0100                        | <0.0100                        | <0.0100            | <0.0100                         | <0.0100                | <0.0100            | <0.0100                          |
| 05/18/09                 | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                 | <0.000980                                       | <0.00490                 | <0.000980            | <0.000196                    | <0.0000980               | <0.0000980                     | <0.000196                      | <0.000137                      | <0.0000980         | <0.000196                       | <0.000196              | <0.000490          | <0.000196                        |
| 11/19/09                 | <0.00105                                        | <0.00526                 | <0.00105             | <0.000211                    | <0.000105                | <0.000105                      | <0.000211                      | <0.000147                      | <0.000105          | <0.000211                       | <0.000211              | 0.000683           | <0.000211                        |
| 10/13/11                 | <0.0000943                                      | <0.0000943               | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | 0.000104           | <0.0000943                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 05/15/13                 | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | 0.00021            | <0.0000187                       |
| 05/15/13 D               | 0.0000462 J                                     | <0.0000374               | 0.000024 J           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | 0.00033            | <0.0000187                       |
| 01/29/14                 | 0.0000594 J                                     | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | 0.000258           | <0.0000188                       |



**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 11/19/14                 | <0.0001                                         | <0.0001                  | <0.0001              | <0.0001                      | <0.0001                  | <0.0001                        | <0.0001                        | <0.0001                        | <0.0001            | <0.0001                         | <0.0001                | 0.00021            | <0.0001                          |
| 11/19/14 D               | <0.000094                                       | <0.000094                | <0.000094            | <0.000094                    | <0.000094                | <0.000094                      | <0.000094                      | <0.000094                      | <0.000094          | <0.000094                       | <0.000094              | 0.00021            | <0.000094                        |
| 05/24/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 07/20/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00017 J          | <0.00019                         |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                 | <0.00962                                        | <0.00962                 | <0.00962             | <0.00962                     | <0.00962                 | <0.00962                       | <0.00962                       | <0.00962                       | <0.00962           | <0.00962                        | <0.00962               | <0.00962           | <0.00962                         |
| 05/18/09                 | <0.00943                                        | <0.00943                 | <0.00943             | <0.00943                     | <0.00943                 | <0.00943                       | <0.00943                       | <0.00943                       | <0.00943           | <0.00943                        | <0.00943               | <0.00943           | <0.00943                         |
| 08/19/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | <0.000500          | <0.000200                        |
| 10/30/09                 | <0.000990                                       | <0.00495                 | <0.000990            | <0.000198                    | <0.000099                | <0.000099                      | <0.000198                      | <0.000139                      | <0.000099          | <0.000198                       | <0.000198              | <0.000495          | <0.000198                        |
| 10/13/11                 | <0.000099                                       | <0.000099                | <0.000099            | <0.000099                    | <0.000099                | <0.000099                      | <0.000099                      | <0.000099                      | <0.000099          | <0.000099                       | <0.000099              | 0.000109           | <0.000099                        |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00194                                        | <0.00194                 | <0.00194             | <0.00194                     | <0.00194                 | <0.00194                       | <0.00194                       | <0.00194                       | <0.00194           | <0.00194                        | <0.00194               | <0.00194           | <0.00194                         |
| 05/15/13                 | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | <0.0000187         | <0.0000187                       |
| 01/28/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.0000191                                      | <0.0000287               | <0.0000287           | <0.0000191                   | <0.0000191               | <0.0000191                     | <0.0000191                     | <0.0000191                     | <0.0000191         | <0.0000191                      | <0.0000287             | <0.0000191         | <0.0000191                       |
| 11/19/14                 | <0.000095                                       | <0.000095                | <0.000095            | <0.000095                    | <0.000095                | <0.000095                      | <0.000095                      | <0.000095                      | <0.000095          | <0.000095                       | <0.000095              | <0.000095          | <0.000095                        |
| 12/08/15                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | <0.0000952         | <0.0000952                       |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | <0.0000939         | <0.0000939                       |
| 10/25/16                 | <0.0000935                                      | <0.0000935               | <0.0000935           | <0.0000935                   | <0.0000935               | <0.0000935                     | <0.0000935                     | <0.0000935                     | <0.0000935         | <0.0000935                      | <0.0000935             | <0.0000935         | <0.0000935                       |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 05/24/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | 0.00015 J                      | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00022            | <0.00019                         |
| 07/18/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.010                                          | <0.010                   | <0.010               | <0.010                       | <0.010                   | <0.010                         | <0.010                         | <0.010                         | <0.010             | <0.010                          | <0.010                 | <0.010             | <0.010                           |
| 09/26/08                 | <0.00943                                        | <0.00943                 | <0.00943             | <0.00943                     | <0.00943                 | <0.00943                       | <0.00943                       | <0.00943                       | <0.00943           | <0.00943                        | <0.00943               | <0.00943           | <0.00943                         |
| 05/19/09                 | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | 0.000145           | <0.000200                       | 0.00136 R1             | 0.00203            | <0.000200                        |
| 10/30/09                 | <0.00102                                        | <0.00510                 | <0.00102             | <0.000204                    | <0.000102                | <0.000102                      | <0.000204                      | <0.000143                      | <0.000102          | <0.000204                       | 0.00270 R1             | 0.00169            | <0.000204                        |
| 10/13/11                 | 0.000337                                        | 0.000149                 | <0.000099            | <0.000099                    | <0.000099                | <0.000099                      | <0.000099                      | <0.000099                      | <0.000099          | <0.000099                       | <0.000099              | 0.00197            | <0.000099                        |
| 02/22/12                 | 0.000123                                        | 0.0000943                | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | 0.00115            | <0.0000943                       |
| 07/17/12                 | <0.002                                          | <0.002                   | <0.002               | <0.002                       | <0.002                   | <0.002                         | <0.002                         | <0.002                         | <0.002             | <0.002                          | <0.002                 | <0.002             | <0.002                           |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| <b>Field Point MW-13</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                 | <0.0980                                         | <0.0980                  | <0.0980              | <0.0980                      | <0.0980                  | <0.0980                        | <0.0980                        | <0.0980                        | <0.0980            | <0.0980                         | <0.0980                | <0.0980            | <0.0980                          |
| 05/19/09                 | <0.0476                                         | <0.0476                  | <0.0476              | <0.0476                      | <0.0476                  | <0.0476                        | <0.0476                        | <0.0476                        | <0.0476            | <0.0476                         | <0.0476                | <0.0476            | <0.0476                          |
| 08/19/09                 | <0.00103                                        | <0.00513                 | 0.00152 R12          | <0.000205                    | <0.000103                | 0.000578                       | 0.000915 R1                    | <0.000144                      | 0.00515            | <0.000205                       | 0.0118 R1              | 0.00424            | <0.000205                        |
| 10/30/09                 | <0.000971                                       | <0.00485                 | <0.000971            | 0.00309 R1                   | <0.0000971               | 0.000598 R1                    | 0.00123 R1                     | <0.000136                      | 0.00642            | 0.00300 R1                      | 0.0247 R1              | 0.00331            | <0.000194                        |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-14</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                 | <0.00980                                        | <0.00980                 | <0.00980             | <0.00980                     | <0.00980                 | <0.00980                       | <0.00980                       | <0.00980                       | <0.00980           | <0.00980                        | <0.00980               | <0.00980           | <0.00980                         |
| 05/19/09                 | <0.00952                                        | <0.00952                 | <0.00952             | <0.00952                     | <0.00952                 | <0.00952                       | <0.00952                       | <0.00952                       | <0.00952           | <0.00952                        | <0.00952               | <0.00952           | <0.00952                         |
| 08/19/09                 | <0.000971                                       | <0.00485                 | <0.000971            | <0.000194                    | <0.0000971               | <0.0000971                     | <0.000194                      | <0.000136                      | <0.0000971         | <0.000194                       | <0.000194              | 0.000797           | <0.000194                        |
| 10/30/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | 0.000172                 | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | 0.00165 R1             | 0.00123            | <0.000200                        |
| 10/13/11                 | 0.0002                                          | <0.0000952               | 0.000429             | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.00114            | <0.0000952                       |
| 02/22/12                 | 0.000222                                        | <0.000111                | <0.000111            | <0.000111                    | <0.000111                | <0.000111                      | <0.000111                      | <0.000111                      | <0.000111          | <0.000111                       | <0.000111              | 0.0013             | <0.000111                        |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.00971                                        | <0.00971                 | <0.00971             | <0.00971                     | <0.00971                 | <0.00971                       | <0.00971                       | <0.00971                       | <0.00971           | <0.00971                        | <0.00971               | <0.00971           | <0.00971                         |
| 09/26/08                 | <0.00980                                        | <0.00980                 | <0.00980             | <0.00980                     | <0.00980                 | <0.00980                       | <0.00980                       | <0.00980                       | <0.00980           | <0.00980                        | <0.00980               | <0.00980           | <0.00980                         |
| 05/19/09                 | <0.0105                                         | <0.0105                  | <0.0105              | <0.0105                      | <0.0105                  | <0.0105                        | <0.0105                        | <0.0105                        | <0.0105            | <0.0105                         | <0.0105                | <0.0105            | <0.0105                          |
| 08/19/09                 | <0.00103                                        | <0.00513                 | <0.00103             | <0.000205                    | <0.000103                | <0.000103                      | <0.000205                      | <0.000144                      | 0.000857           | <0.000205                       | 0.00315 R1             | 0.00229            | <0.000205                        |
| 10/30/09                 | <0.000980                                       | <0.00490                 | <0.000980            | 0.00384 R1                   | <0.000098                | 0.000723 R1                    | 0.00128 R1                     | 0.00191 R1                     | 0.00786            | 0.00345 R1                      | 0.0300 R1              | 0.00380            | <0.000196                        |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 04/30/08                 | <0.0103                                         | <0.0103                  | <0.0103              | <0.0103                      | <0.0103                  | <0.0103                        | <0.0103                        | <0.0103                        | <0.0103            | <0.0103                         | <0.0103                | <0.0103            | <0.0103                          |
| 09/26/08                 | <0.00943                                        | <0.00943                 | <0.00943             | <0.00943                     | <0.00943                 | <0.00943                       | <0.00943                       | <0.00943                       | <0.00943           | <0.00943                        | <0.00943               | <0.00943           | <0.00943                         |
| 05/18/09                 | <0.00943                                        | <0.00943                 | <0.00943             | <0.00943                     | <0.00943                 | <0.00943                       | <0.00943                       | <0.00943                       | <0.00943           | <0.00943                        | <0.00943               | <0.00943           | <0.00943                         |
| 08/19/09                 | <0.00103                                        | <0.00513                 | <0.00103             | <0.000205                    | <0.000103                | <0.000103                      | <0.000205                      | <0.000144                      | <0.000103          | <0.000205                       | <0.000205              | 0.00109            | <0.000205                        |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHs**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 10/13/11                 | 0.000238                                        | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.0017             | <0.0000952                       |
| 02/22/12                 | 0.000217                                        | <0.0000943               | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | 0.00153            | <0.0000943                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 08/19/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | 0.000315               | 0.00144            | <0.000200                        |
| 10/30/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <b>0.000774 R1</b>       | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | 0.00290 R1             | 0.00180            | <0.000200                        |
| 10/13/11                 | 0.000307                                        | 0.000515                 | 0.0016               | <0.000099                    | <0.000099                | <0.000099                      | <0.000099                      | <0.000099                      | <0.000099          | <0.000099                       | <0.000099              | 0.00178            | <0.000099                        |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | <0.00189           | <0.00189                         |
| 11/29/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.0016             | <0.00019                         |
| 07/18/18                 | 0.000077 J                                      | 0.00011 J                | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.0015             | <0.00019                         |
| <b>Field Point MW-18</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 08/19/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | 0.000423               | 0.00120            | <0.000200                        |
| 10/30/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | 0.000767 R1        | <0.000200                       | 0.00281 R1             | 0.00202            | <0.000200                        |
| 10/13/11                 | 0.000467                                        | 0.000133                 | 0.000114             | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | 0.000143           | <0.0000952                      | <0.0000952             | 0.00239            | <0.0000952                       |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 08/19/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | <0.000500          | <0.000200                        |
| 10/30/09                 | <0.00102                                        | <0.00510                 | <0.00102             | <0.000204                    | <0.000102                | <0.000102                      | <0.000204                      | <0.000143                      | <0.000102          | <0.000204                       | <0.000204              | <0.000510          | <0.000204                        |
| 10/13/11                 | <0.0000971                                      | <0.0000971               | <0.0000971           | <0.0000971                   | <0.0000971               | <0.0000971                     | <0.0000971                     | <0.0000971                     | <0.0000971         | <0.0000971                      | <0.0000971             | <0.0000971         | <0.0000971                       |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| 05/15/13                 | <0.0000189                                      | <0.0000377               | <0.0000189           | <0.0000189                   | <0.0000189               | <0.0000189                     | <0.0000283                     | <0.0000189                     | <0.0000189         | <0.0000189                      | <0.0000377             | <0.0000189         | <0.0000189                       |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.00002                                        | <0.00003                 | <0.00003             | <0.00002                     | <0.00002                 | <0.00002                       | <0.00002                       | <0.00002                       | <0.00002           | <0.00002                        | <0.00003               | <0.00002           | <0.00002                         |
| 11/18/14                 | <0.000096                                       | <0.000096                | <0.000096            | <0.000096                    | <0.000096                | <0.000096                      | <0.000096                      | <0.000096                      | <0.000096          | <0.000096                       | <0.000096              | <0.000096          | <0.000096                        |
| 12/09/15                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | 0.000153           | <0.0000952                       |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | 0.000198           | <0.0000939                       |
| 10/25/16                 | <0.0000935                                      | <0.0000935               | <0.0000935           | <0.0000935                   | <0.0000935               | <0.0000935                     | <0.0000935                     | <0.0000935                     | <0.0000935         | <0.0000935                      | <0.0000935             | <0.0000935         | <0.0000935                       |
| 05/24/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00068            | <0.00019                         |
| 07/18/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 08/19/09                 | <0.000971                                       | <0.00485                 | <0.000971            | <0.000194                    | <0.0000971               | <0.0000971                     | <0.000194                      | <0.000136                      | <0.0000971         | <0.000194                       | <0.000194              | <0.000485          | <0.000194                        |
| 10/30/09                 | <0.000952                                       | <0.00476                 | <0.000952            | <0.000190                    | <0.0000952               | <0.0000952                     | <0.000190                      | <0.000133                      | <0.0000952         | <0.000190                       | <0.000190              | <0.000476          | <0.000190                        |
| 10/13/11                 | <0.000099                                       | <0.000099                | <0.000099            | <0.000099                    | <0.000099                | <0.000099                      | <0.000099                      | <0.000099                      | <0.000099          | <0.000099                       | <0.000099              | <0.000099          | <0.000099                        |
| 02/22/12                 | <0.0000943                                      | <0.0000943               | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | <0.0000943         | <0.0000943                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | <0.00189           | <0.00189                         |
| 05/15/13                 | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | <0.0000187         | <0.0000187                       |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 06/18/14                 | <0.0000192                                      | <0.0000288               | <0.0000288           | <0.0000192                   | <0.0000192               | <0.0000192                     | <0.0000192                     | <0.0000192                     | <0.0000192         | <0.0000192                      | <0.0000288             | <0.0000192         | <0.0000192                       |
| 11/18/14                 | <0.0001                                         | <0.0001                  | <0.0001              | <0.0001                      | <0.0001                  | <0.0001                        | <0.0001                        | <0.0001                        | <0.0001            | <0.0001                         | <0.0001                | <0.0001            | <0.0001                          |
| <b>Field Point MW-21</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 08/19/09                 | <0.000980                                       | <0.00490                 | <0.000980            | <0.000196                    | <0.0000980               | <0.0000980                     | <0.000196                      | <0.000137                      | <0.0000980         | <0.000196                       | <0.000196              | <0.000490          | <0.000196                        |
| 10/30/09                 | <0.00100                                        | <0.00500                 | <0.00100             | <0.000200                    | <0.000100                | <0.000100                      | <0.000200                      | <0.000140                      | <0.000100          | <0.000200                       | <0.000200              | <0.000500          | <0.000200                        |
| 10/13/11                 | <0.000099                                       | <0.000099                | <0.000099            | <0.000099                    | <0.000099                | <0.000099                      | <0.000099                      | <0.000099                      | <0.000099          | <0.000099                       | <0.000099              | <0.000099          | <0.000099                        |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| 05/15/13                 | <0.0000189                                      | <0.0000377               | <0.0000189           | <0.0000189                   | <0.0000189               | <0.0000189                     | <0.0000283                     | <0.0000189                     | <0.0000189         | <0.0000189                      | <0.0000377             | <0.0000189         | <0.0000189                       |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.0000190                                      | <0.0000284               | <0.0000284           | <0.0000190                   | <0.0000190               | <0.0000190                     | <0.0000190                     | <0.0000190                     | <0.0000190         | <0.0000190                      | <0.0000284             | <0.0000190         | <0.0000190                       |
| 11/18/14                 | <0.000094                                       | <0.000094                | <0.000094            | <0.000094                    | <0.000094                | <0.000094                      | <0.000094                      | <0.000094                      | <0.000094          | <0.000094                       | <0.000094              | <0.000094          | <0.000094                        |
| 12/08/15                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | <0.0000952         | <0.0000952                       |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | <0.0000939         | <0.0000939                       |
| 10/25/16                 | <0.0000935                                      | <0.0000935               | <0.0000935           | <0.0000935                   | <0.0000935               | <0.0000935                     | <0.0000935                     | <0.0000935                     | <0.0000935         | <0.0000935                      | <0.0000935             | <0.0000935         | <0.0000935                       |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 10/30/09                 | <0.00102                                        | <0.00510                 | <0.00102             | <0.000204                    | <0.000102                | <0.000102                      | <0.000204                      | <0.000143                      | <0.000102          | <0.000204                       | <0.000204              | <0.000510          | <0.000204                        |
| 10/13/11                 | <0.0001                                         | <0.0001                  | <0.0001              | <0.0001                      | <0.0001                  | <0.0001                        | <0.0001                        | <0.0001                        | <0.0001            | <0.0001                         | <0.0001                | <0.0001            | <0.0001                          |
| 02/22/12                 | <0.0000943                                      | <0.0000943               | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | <0.0000943         | <0.0000943                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | <0.00189           | <0.00189                         |
| 05/15/13                 | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | <0.0000187         | <0.0000187                       |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.0000194                                      | <0.0000291               | <0.0000291           | <0.0000194                   | <0.0000194               | <0.0000194                     | <0.0000194                     | <0.0000194                     | <0.0000194         | <0.0000194                      | <0.0000291             | <0.0000194         | <0.0000191                       |
| 11/19/14                 | <0.000097                                       | <0.000097                | <0.000097            | <0.000097                    | <0.000097                | <0.000097                      | <0.000097                      | <0.000097                      | <0.000097          | <0.000097                       | <0.000097              | <0.000097          | <0.000097                        |
| 12/08/15                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | <0.0000952         | <0.0000952                       |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | <0.0000939         | <0.0000939                       |
| 10/25/16                 | <0.0000935                                      | <0.0000935               | <0.0000935           | <0.0000935                   | <0.0000935               | <0.0000935                     | <0.0000935                     | <0.0000935                     | <0.0000935         | <0.0000935                      | <0.0000935             | <0.0000935         | <0.0000935                       |
| 05/24/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                 | <0.00020                                        | <0.00020                 | <0.00020             | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |
| 07/18/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-23</b> | <b>Well Screen Interval (feet): 31.00-46.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 02/22/12                 | <0.0000943                                      | <0.0000943               | <0.0000943           | <0.0000943                   | <0.0000943               | <0.0000943                     | <0.0000943                     | <0.0000943                     | <0.0000943         | <0.0000943                      | <0.0000943             | <0.0000943         | <0.0000943                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00192                                        | <0.00192                 | <0.00192             | <0.00192                     | <0.00192                 | <0.00192                       | <0.00192                       | <0.00192                       | <0.00192           | <0.00192                        | <0.00192               | <0.00192           | <0.00192                         |
| 05/15/13                 | <0.000019                                       | <0.0000381               | <0.000019            | <0.000019                    | <0.000019                | <0.000019                      | <0.0000286                     | <0.000019                      | <0.000019          | <0.000019                       | <0.0000381             | <0.000019          | <0.000019                        |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | 0.0000932 J            | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.0000204                                      | <0.0000306               | <0.0000306           | <0.0000204                   | <0.0000204               | <0.0000204                     | <0.0000204                     | <0.0000204                     | <0.0000204         | <0.0000204                      | <0.0000306             | <0.0000204         | <0.0000204                       |
| 11/18/14                 | <0.000095                                       | <0.000095                | <0.000095            | <0.000095                    | <0.000095                | <0.000095                      | <0.000095                      | <0.000095                      | <0.000095          | <0.000095                       | <0.000095              | <0.000095          | <0.000095                        |
| 12/08/15                 | <0.000190                                       | <0.000190                | <0.000190            | <0.000190                    | <0.000190                | <0.000190                      | <0.000190                      | <0.000190                      | <0.000190          | <0.000190                       | <0.000190              | 0.000220           | <0.000190                        |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | 0.000280           | <0.0000939                       |



**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Acenaphthene<br>(mg/l)                          | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------|-------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS            | NA                                              | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| <b>Field Point MW-25</b> | <b>Well Screen Interval (feet): 28.00-43.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 02/22/12                 | 0.000168                                        | 0.000179                 | <0.000105            | <0.000105                    | <0.000105                | <0.000105                      | <0.000105                      | <0.000105                      | <0.000105          | <0.000105                       | <0.000105              | 0.00232            | <0.000105                        |
| <b>Field Point MW-26</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 02/22/12                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | <0.0000952         | <0.0000952                       |
| 07/17/12                 | <0.00190                                        | <0.00190                 | <0.00190             | <0.00190                     | <0.00190                 | <0.00190                       | <0.00190                       | <0.00190                       | <0.00190           | <0.00190                        | <0.00190               | <0.00190           | <0.00190                         |
| 10/03/12                 | <0.00189                                        | <0.00189                 | <0.00189             | <0.00189                     | <0.00189                 | <0.00189                       | <0.00189                       | <0.00189                       | <0.00189           | <0.00189                        | <0.00189               | 0.00189            | <0.00189                         |
| 05/15/13                 | <0.0000187                                      | <0.0000374               | <0.0000187           | <0.0000187                   | <0.0000187               | <0.0000187                     | <0.000028                      | <0.0000187                     | <0.0000187         | <0.0000187                      | <0.0000374             | <0.0000187         | <0.0000187                       |
| 01/29/14                 | <0.0000188                                      | <0.0000282               | <0.0000282           | <0.0000188                   | <0.0000188               | <0.0000188                     | <0.0000188                     | <0.0000188                     | <0.0000188         | <0.0000188                      | <0.0000282             | <0.0000188         | <0.0000188                       |
| 06/18/14                 | <0.0000189                                      | <0.0000283               | <0.0000283           | <0.0000189                   | <0.0000189               | <0.0000189                     | <0.0000189                     | <0.0000189                     | <0.0000189         | <0.0000189                      | <0.0000283             | <0.0000189         | <0.0000189                       |
| 11/19/14                 | <0.0001                                         | <0.0001                  | <0.0001              | <0.0001                      | <0.0001                  | <0.0001                        | <0.0001                        | <0.0001                        | <0.0001            | <0.0001                         | <0.0001                | <0.0001            | <0.0001                          |
| 12/08/15                 | <0.0000952                                      | <0.0000952               | <0.0000952           | <0.0000952                   | <0.0000952               | <0.0000952                     | <0.0000952                     | <0.0000952                     | <0.0000952         | <0.0000952                      | <0.0000952             | <0.0000952         | <0.0000952                       |
| 04/27/16                 | <0.0000939                                      | <0.0000939               | <0.0000939           | <0.0000939                   | <0.0000939               | <0.0000939                     | <0.0000939                     | <0.0000939                     | <0.0000939         | <0.0000939                      | <0.0000939             | <0.0000939         | <0.0000939                       |
| 10/25/16                 | <0.0000935                                      | <0.0000935               | <0.0000935           | <0.0000935                   | <0.0000935               | <0.0000935                     | <0.0000935                     | <0.0000935                     | <0.0000935         | <0.0000935                      | <0.0000935             | <0.0000935         | <0.0000935                       |
| 05/24/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 11/29/17                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| 07/18/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-27</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/19/18                 | <0.00019                                        | <0.00019                 | <0.00019             | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| <b>Field Point MW-28</b> | <b>Well Screen Interval (feet): 35.00-50.00</b> |                          |                      |                              |                          |                                |                                |                                |                    |                                 |                        |                    |                                  |
| 07/19/18                 | <0.00020                                        | <0.00020                 | <0.00020             | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHs**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                           | Acenaphthene<br>(mg/l)                               | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------------|------------------------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS                  | NA                                                   | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| Field Point MW-29<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00019 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | <0.00019           | <0.00019                         |
| Field Point MW-30<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00020 |                          |                      | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |
| Field Point MW-31<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00019 |                          |                      | <0.00019                     | <0.00019                 | <0.00019                       | <0.00019                       | <0.00019                       | <0.00019           | <0.00019                        | <0.00019               | 0.00017 J          | <0.00019                         |
| Field Point MW-32<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00020 |                          |                      | <0.00020                     | <0.00020                 | <0.00020                       | <0.00020                       | <0.00020                       | <0.00020           | <0.00020                        | <0.00020               | <0.00020           | <0.00020                         |
| Field Point SB-1GW<br>10/28/11 | Grab Groundwater Sample<br><0.0000962                |                          |                      | <0.0000962                   | <0.0000962               | <0.0000962                     | <0.0000962                     | <0.0000962                     | <0.0000962         | <0.0000962                      | <0.0000962             | <0.0000962         | <0.0000962                       |
| Field Point SB-2GW<br>10/28/11 | Grab Groundwater Sample<br><0.0000971                |                          |                      | <0.0000971                   | <0.0000971               | <0.0000971                     | <0.0000971                     | <0.0000971                     | <0.0000971         | <0.0000971                      | <0.0000971             | 0.00034            | <0.0000971                       |
| Field Point SB-3GW<br>10/28/11 | Grab Groundwater Sample<br>0.0005                    |                          |                      | <0.000098                    | <0.000098                | <0.000098                      | <0.000098                      | <0.000098                      | <0.000098          | <0.000098                       | <0.000098              | 0.00165            | <0.000098                        |
| Field Point SB-4GW<br>10/28/11 | Grab Groundwater Sample<br><0.000098                 |                          |                      | <0.000098                    | <0.000098                | <0.000098                      | <0.000098                      | <0.000098                      | <0.000098          | <0.000098                       | <0.000098              | 0.000216           | <0.000098                        |

TABLE 5  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHs  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                           | Acenaphthene<br>(mg/l)                | Acenaphthylene<br>(mg/l) | Anthracene<br>(mg/l) | Benzo(a)anthracene<br>(mg/l) | Benzo(a)pyrene<br>(mg/l) | Benzo(b)fluoranthene<br>(mg/l) | Benzo(g,h,i)perylene<br>(mg/l) | Benzo(k)fluoranthene<br>(mg/l) | Chrysene<br>(mg/l) | Dibenz(a,h)anthracene<br>(mg/l) | Fluoranthene<br>(mg/l) | Fluorene<br>(mg/l) | Indeno(1,2,3-cd)pyrene<br>(mg/l) |
|--------------------------------|---------------------------------------|--------------------------|----------------------|------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------|------------------------|--------------------|----------------------------------|
| NMED WQCC HHS                  | NA                                    | NA                       | NA                   | NA                           | 0.0007                   | NA                             | NA                             | NA                             | NA                 | NA                              | NA                     | NA                 | NA                               |
| Field Point SB-5GW<br>10/28/11 | Grab Groundwater Sample<br>0.000137   | 0.000304                 | <0.000098            | <0.000098                    | <0.000098                | <0.000098                      | <0.000098                      | <0.000098                      | <0.000098          | <0.000098                       | <0.000098              | 0.000725           | <0.000098                        |
| Field Point SB-6GW<br>10/28/11 | Grab Groundwater Sample<br><0.0000971 | <0.0000971               | <0.0000971           | <0.0000971                   | <0.0000971               | <0.0000971                     | <0.0000971                     | <0.0000971                     | <0.0000971         | <0.0000971                      | <0.0000971             | <0.0000971         | <0.0000971                       |
| Field Point SB-7GW<br>10/28/11 | Grab Groundwater Sample<br>0.000184   | <0.0000971               | <0.0000971           | <0.0000971                   | <0.0000971               | <0.0000971                     | <0.0000971                     | <0.0000971                     | <0.0000971         | <0.0000971                      | <0.0000971             | 0.000495           | <0.0000971                       |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|-------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS           | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-1</b> | <b>Well Screen Interval (feet): 22.71-42.71</b> |                  |                       |                               |                               |                             |
| 07/24/06                | 0.00434                                         | 0.0246           | 0.0639 (a)            | 0.194                         | 0.109                         | <b>0.3669</b>               |
| 02/08/07                | 0.0489                                          | 0.0493           | 0.139 (a)             | 0.178                         | 0.300                         | <b>0.6170</b>               |
| 09/26/08                | <0.0100                                         | <0.0100          | 0.0553                | 0.0400                        | 0.0522                        | <b>0.1475</b>               |
| 05/19/09                | <0.0100                                         | <0.0100          | 0.0461                | 0.0313                        | 0.0403                        | <b>0.1177</b>               |
| 08/19/09                | 1.620 R1                                        | 1.470 R1         | 0.627 (c)             | 3.940 R1                      | 1.940                         | <b>6.507 R1</b>             |
| 10/30/09                | 0.0132 R1                                       | 0.00554 R1       | 0.0746 (c)            | 0.118 R1                      | 0.0573                        | <b>0.250 R1</b>             |
| 10/12/11                | <0.0000952                                      | <0.0000952       |                       |                               |                               |                             |
| <b>Field Point MW-2</b> | <b>Well Screen Interval (feet): 27.59-47.59</b> |                  |                       |                               |                               |                             |
| 07/25/06                | 0.0603                                          | 0.0333           | 0.0211 (a)            | 0.163                         | 0.0696                        | <b>0.2537</b>               |
| 02/08/07                | 0.232                                           | 0.075            | 0.0208 (a)            | 0.258                         | 0.238                         | <b>0.5168</b>               |
| 09/26/08                | <0.0971                                         | <0.0971          | 0.117                 | 0.201                         | 0.287                         | <b>0.0484</b>               |
| 08/19/09                | 1.660 R1                                        | 1.410 R1         | 0.730 (c)             | 5.070 R1                      | 2.750                         | <b>8.550 R1</b>             |
| 10/30/09                | 0.0382 R1                                       | 0.0545 R1        | 0.0514 (c)            | 0.0975 R1                     | 0.0781                        | <b>0.227 R1</b>             |
| <b>Field Point MW-3</b> | <b>Well Screen Interval (feet): 24.20-44.20</b> |                  |                       |                               |                               |                             |
| 07/24/06                | 0.0357                                          | 0.0182           | 0.0315 (a)            | 0.161                         | 0.0752                        | <b>0.2677</b>               |
| 02/08/07                | 0.191                                           | 0.0557           | 0.053 (a)             | 0.220                         | 0.255                         | <b>0.5280</b>               |
| 09/26/08                | <0.0105                                         | <0.0105          | 0.0146                | 0.0154                        | 0.0162                        | <b>0.0462</b>               |
| 05/19/09                | <0.0105                                         | <0.0105          | 0.0164                | 0.0199                        | 0.0215                        | <b>0.0578</b>               |
| 08/19/09                | 0.146 R1                                        | 0.161 R1         | 0.0353 R1 (c)         | 0.245                         | 0.0885                        | <b>0.3688 R1</b>            |
| 10/30/09                | 0.0451 R1                                       | 0.0738 R1        | 0.00943 (c)           | 0.153 R1                      | 0.0482                        | <b>0.211 R1</b>             |
| <b>Field Point MW-4</b> | <b>Well Screen Interval (feet): 23.97-38.97</b> |                  |                       |                               |                               |                             |
| 07/25/06                | <0.000469                                       | <0.000188        | 0.0227 (a)            | 0.0373                        | 0.0286                        | <b>0.0886</b>               |
| 02/07/07                | 0.00901                                         | 0.0117           | 0.027 (a)             | 0.0553                        | 0.147                         | <b>0.2293</b>               |
| 04/15/08                | <0.00990                                        | <0.00990         | 0.0406                | 0.0320                        | 0.0428                        | <b>0.1154</b>               |
| 09/26/08                | <0.00980                                        | <0.00980         | 0.0397                | 0.0271                        | 0.0392                        | <b>0.1060</b>               |
| 05/19/09                | <0.0526                                         | <0.0526          | <0.0526               | <0.0526                       | <0.0526                       | <0.1578                     |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|-------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS           | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-4</b> |                                                 |                  |                       |                               |                               |                             |
|                         | <b>Well Screen Interval (feet): 23.97-38.97</b> |                  |                       |                               |                               |                             |
| 08/19/09                | 0.0143 R1                                       | 0.00854 R1       | 0.0369 (c)            | 0.0578                        | 0.0509                        | <b>0.1456</b>               |
| 10/30/09                | 0.0949 R1                                       | 0.158 R1         | 0.0645 (c)            | 0.311 R1                      | 0.163                         | <b>0.539 R1</b>             |
| <b>Field Point MW-5</b> |                                                 |                  |                       |                               |                               |                             |
|                         | <b>Well Screen Interval (feet): 27.19-47.19</b> |                  |                       |                               |                               |                             |
| 07/20/06                | 0.00483                                         | <0.000189        | 0.0589 (a)            | 0.0914                        | 0.0563                        | <b>0.2066</b>               |
| 02/07/07                | 0.0075                                          | 0.0037           | 0.117 (a)             | 0.105                         | 0.218                         | <b>0.4400</b>               |
| 04/15/08                | <0.00990                                        | <0.00990         | 0.0693                | 0.0451                        | 0.0547                        | <b>0.1691</b>               |
| 09/26/08                | <0.0962                                         | <0.0962          | 0.074                 | 0.0443                        | 0.605                         | <b>0.1671</b>               |
| 05/19/09                | <0.0526                                         | <0.0526          | 0.0873                | 0.0573                        | 0.0676                        | <b>0.2122</b>               |
| 08/19/09                | 0.0194 R1                                       | 0.00619 R1       | 0.105 (c)             | 0.189 R1                      | 0.103                         | <b>0.397</b>                |
| 08/19/09 D              | 0.0192 R1                                       | 0.00682 R1       | 0.0954 (c)            | 0.171 R1                      | 0.0707                        | <b>0.3371 R1</b>            |
| 10/30/09                | 0.0127 R1                                       | 0.00378 R1       | 0.0191 (c)            | 0.0375 R12                    | 0.0641                        | <b>0.121 R12</b>            |
| 10/12/11                | 0.00146                                         | 0.000111         | 0.0402 (b)            | 0.0216                        | 0.0287                        | <b>0.0905</b>               |
| 07/17/12                | <0.00190                                        | <0.00190         | 0.0558                | 0.0229                        | 0.0248                        | <b>0.1035</b>               |
| 07/17/12 D              | 0.00214                                         | <0.00190         | 0.0568                | 0.0245                        | 0.0270                        | <b>0.1083</b>               |
| 10/03/12                | 0.00241                                         | <0.00196         | 0.0771                | 0.0296                        | 0.0310                        | <b>0.1377</b>               |
| 10/03/12 D              | 0.00218                                         | <0.00189         | 0.0833                | 0.0265                        | 0.0299                        | <b>0.1397</b>               |
| <b>Field Point MW-6</b> |                                                 |                  |                       |                               |                               |                             |
|                         | <b>Well Screen Interval (feet): 27.05-42.05</b> |                  |                       |                               |                               |                             |
| 07/21/06                | <0.000472                                       | <0.000189        | <0.000943 (a)         | <0.000943                     | 0.00641                       | 0.006410                    |
| 02/07/07                | <0.000556                                       | <0.000222        | <0.00111 (a)          | <0.00111                      | <0.00111                      | <0.00333                    |
| 04/15/08                | <0.00990                                        | <0.00990         | <0.00990              | <0.00990                      | <0.00990                      | <0.02970                    |
| 09/26/08                | <0.0962                                         | <0.0962          | <0.00943              | <0.00943                      | <0.00943                      | <0.02829                    |
| 05/18/09                | <0.00952                                        | <0.00952         | <0.00952              | <0.00952                      | <0.00952                      | <0.02856                    |
| 08/19/09                | <0.000500                                       | <0.000200        | <0.00100 (c)          | <0.00100                      | <0.00100                      | <0.00300                    |
| 11/19/09                | <0.000490                                       | <0.0000196       | <0.000980             | <0.000980                     | <0.000980                     | BDL                         |
| 10/13/11                | <0.0000962                                      | <0.0000962       |                       |                               |                               |                             |
| 07/17/12                | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                                            | Phenanthrene<br>(mg/l) | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|-------------------------------------------------|------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS                                   | NA                     | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-6</b>                         |                        |                  |                       |                               |                               |                             |
| <b>Well Screen Interval (feet): 27.05-42.05</b> |                        |                  |                       |                               |                               |                             |
| 05/15/13                                        | 0.0000764 J            | <0.0000561       | 0.0000629 J           | <0.00000935                   | <0.00000935                   | 0.0000629 J                 |
| 01/28/14                                        | 0.0000523 J            | <0.0000188       | 0.0000523 J           | <0.0000188                    | <0.0000282                    | 0.0000993                   |
| 06/18/14                                        | 0.0000518 J            | <0.000019        | 0.000634              | 0.000239 B                    | 0.000355 B                    | 0.001228 B                  |
| 11/19/14                                        | <0.0001                | <0.0001          | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 12/08/15                                        | <0.0000952             | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 04/26/16                                        | <0.0000952             | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 05/24/17                                        | <0.00019               | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |
| 11/29/17                                        | <0.00019               | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| 07/20/18                                        | <0.00019               | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-7</b>                         |                        |                  |                       |                               |                               |                             |
| <b>Well Screen Interval (feet): 24.35-39.35</b> |                        |                  |                       |                               |                               |                             |
| 07/25/06                                        | <0.000469              | <0.000188        | 0.00383 (a)           | 0.00855                       | 0.00879                       | 0.02117                     |
| 02/07/07                                        | <0.000543              | <0.000217        | 0.00284 (a)           | 0.0215                        | 0.0150                        | <b>0.03934</b>              |
| 04/15/08                                        | <0.00971               | <0.00971         | <0.00971              | <0.00971                      | <0.00971                      | <0.02913                    |
| 09/26/08                                        | <0.00943               | <0.00943         | <0.00943              | <0.00943                      | <0.00943                      | <0.02829                    |
| 05/18/09                                        | <0.0100                | <0.0100          | <0.0100               | <0.0100                       | <0.0100                       | <0.0300                     |
| 08/19/09                                        | <0.000500              | 0.000665         | 0.00227 (c)           | 0.00400                       | <0.00100                      | 0.00627                     |
| 10/30/09                                        | <0.000500              | 0.000609 R1      | <0.00100 (c)          | 0.00873 R1                    | 0.00372                       | 0.0125 R1                   |
| 10/13/11                                        | 0.000147               | <0.000105        | 0.000537              | 0.000611                      | 0.000558                      | 0.001706                    |
| <b>Field Point MW-8</b>                         |                        |                  |                       |                               |                               |                             |
| <b>Well Screen Interval (feet): 23.05-38.05</b> |                        |                  |                       |                               |                               |                             |
| 07/25/06                                        | <0.000469              | <0.000188        | <0.000939 (a)         | 0.00472                       | <0.000939                     | 0.004720                    |
| 02/07/07                                        | <0.000521              | <0.000208        | <0.00104 (a)          | 0.0201                        | 0.0113                        | <b>0.03140</b>              |
| 04/15/08                                        | <0.00962               | <0.00962         | <0.00962              | <0.00962                      | <0.00962                      | <0.02886                    |
| 09/26/08                                        | <0.00980               | <0.00980         | <0.00980              | <0.00980                      | <0.00980                      | <0.02940                    |
| 05/18/09                                        | <0.00952               | <0.00952         | <0.00952              | <0.00952                      | <0.00952                      | <0.02856                    |
| 08/19/09                                        | <0.000513              | 0.000657         | <0.00103 (c)          | 0.00674 R1                    | 0.00354 R1                    | 0.01028 R1                  |
| 10/30/09                                        | 0.0005                 | 0.000518         | <0.00100 (c)          | 0.0101 R1                     | 0.00430                       | 0.0144 R1                   |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-9</b>  |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 27.64-42.64</b> |                  |                       |                               |                               |                             |
| 07/21/06                 | <0.000495                                       | <0.000198        | <0.00099 (a)          | <0.00099                      | <0.00099                      | <0.00297                    |
| 02/06/07                 | <0.000521                                       | <0.000208        | <0.00104 (a)          | 0.0148                        | 0.00424                       | 0.01904                     |
| 04/15/08                 | <0.00971                                        | <0.00971         | <0.00971              | <0.00971                      | <0.00971                      | <0.02913                    |
| 09/26/08                 | <0.00962                                        | <0.00962         | <0.00962              | <0.00962                      | <0.00962                      | <0.02886                    |
| 05/18/09                 | <0.00952                                        | <0.00952         | <0.00952              | <0.00952                      | <0.00952                      | <0.02856                    |
| 08/19/09                 | <0.000485                                       | <0.000194        | <0.000971 (c)         | <0.000971                     | <0.000971                     | <0.002913                   |
| 10/30/09                 | <0.000500                                       | 0.00101          | <0.00100 (c)          | <0.00100                      | <0.00100                      | BDL                         |
| 10/13/11                 | <0.0000952                                      | <0.0000952       | <0.000952             | <0.000952                     | <0.000952                     | <0.000952                   |
| 02/22/12                 | <0.0000952                                      | <0.0000952       | 0.00143               | <0.000952                     | <0.000952                     | 0.00143                     |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | 0.0941                                          | 0.00931          | 0.0676                | 0.537                         | 0.795                         | <b>1.3996</b>               |
| <b>Field Point MW-10</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 28.08-43.08</b> |                  |                       |                               |                               |                             |
| 07/21/06                 | <0.0005                                         | <0.000200        | <0.001 (a)            | 0.001                         | 0.001                         | 0.001                       |
| 02/06/07                 | <0.00549                                        | <0.000220        | <0.00110 (a)          | <0.00110                      | <0.00110                      | <0.00330                    |
| 04/15/08                 | <0.00971                                        | <0.00971         | <0.00971              | <0.00971                      | <0.00971                      | <0.02913                    |
| 09/26/08                 | <0.0100                                         | <0.0100          | <0.0100               | <0.0100                       | <0.0100                       | <0.0300                     |
| 05/18/09                 | <0.00952                                        | <0.00952         | <0.00952              | <0.00952                      | <0.00952                      | <0.02856                    |
| 08/19/09                 | <0.000490                                       | <0.000196        | <0.000980 (c)         | <0.000980                     | 0.00268                       | 0.00268                     |
| 11/19/09                 | <0.000526                                       | 0.000935 R1      | <0.00105 (c)          | 0.0202 R1                     | 0.0142 R1                     | <b>0.0344 R1</b>            |
| 10/13/11                 | <0.0000943                                      | <0.0000943       | <0.0000943            | <0.0000943                    | <0.0000943                    | <0.000943                   |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 05/15/13                 | 0.0000876 J                                     | <0.0000561       | 0.0000706 J           | <0.0000935                    | <0.0000935                    | 0.0000706 J                 |
| 05/15/13 D               | <0.0000561                                      | <0.0000561       | 0.0000757 J           | <0.0000935                    | <0.0000935                    | 0.0000757 J                 |
| 01/29/14                 | <0.0000282                                      | <0.0000188       | 0.0000594 J           | <0.0000188                    | <0.0000282                    | 0.0000594 J                 |
| 11/19/14                 | <0.0001                                         | <0.0001          | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 11/19/14 D               | <0.000094                                       | <0.000094        | <0.000094             | <0.000094                     | <0.000094                     | <0.000094                   |
| 05/24/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                  |                       |                               |                               |                             |
| 11/29/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| 07/20/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.00971                                        | <0.00971         | <0.00971              | <0.00971                      | <0.00971                      | <0.02913                    |
| 09/26/08                 | <0.00962                                        | <0.00962         | <0.00962              | <0.00962                      | <0.00962                      | <0.02886                    |
| 05/18/09                 | <0.00943                                        | <0.00943         | <0.00943              | <0.00943                      | <0.00943                      | <0.02829                    |
| 08/19/09                 | <0.000500                                       | <0.000200        | <0.00100 (c)          | <0.00100                      | 0.00334                       | 0.00334                     |
| 10/30/09                 | <0.000495                                       | <0.000198        | <0.00099 (c)          | <0.00099                      | <0.00099                      | BDL                         |
| 10/13/11                 | <0.000099                                       | <0.000099        | <0.000099             | <0.000099                     | <0.000099                     | <0.000099                   |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00194                                        | <0.00194         | <0.00500              | <0.00194                      | <0.00194                      | <0.00500                    |
| 05/15/13                 | <0.0000561                                      | <0.0000561       | 0.0000534 J           | <0.00000935                   | <0.00000935                   | 0.0000534 J                 |
| 01/28/14                 | <0.0000282                                      | <0.0000188       | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000282                  |
| 06/18/14                 | <0.0000287                                      | <0.0000191       | 0.000425              | <0.0000191                    | <0.0000287                    | 0.000425                    |
| 11/19/14                 | <0.000095                                       | <0.000095        | <0.000095             | <0.000095                     | <0.000095                     | <0.000095                   |
| 12/08/15                 | <0.0000952                                      | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 04/27/16                 | <0.0000939                                      | <0.0000939       | <0.0000939            | <0.0000939                    | <0.0000939                    | <0.0002817                  |
| 10/25/16                 | <0.0000935                                      | <0.0000935       | <0.0000935            | <0.0000935                    | <0.0000935                    | <0.000187                   |
| 05/24/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |
| 11/29/17                 | 0.00033                                         | <0.00019         | 0.00022               | 0.0010                        | 0.0013                        | 0.00252                     |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.010                                          | <0.010           | 0.0327                | 0.0316                        | 0.0241                        | <b>0.0884</b>               |
| 09/26/08                 | <0.00943                                        | <0.00943         | 0.0909                | 0.0512                        | 0.0613                        | <b>0.2034</b>               |
| 05/19/09                 | <0.00952                                        | <0.00952         | 0.0726                | 0.0434                        | 0.0534                        | <b>0.1694</b>               |
| 08/19/09                 | <0.000500                                       | <0.000200        | 0.12 (c)              | 0.159 R1                      | 0.0808                        | <b>0.3598 R1</b>            |
| 10/30/09                 | 0.0111 R1                                       | 0.00257 R1       | 0.0236 (c)            | 0.0283 R1                     | 0.0708                        | <b>0.123 R1</b>             |



**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 10/13/11                 | 0.00165                                         | <0.000099        | 0.0879                | 0.0406                        | 0.063                         | <b>0.1915</b>               |
| 02/22/12                 | 0.000991                                        | <0.0000943       | 0.0659                | 0.0244                        | 0.0396                        | <b>0.1299</b>               |
| 07/17/12                 | <0.002                                          | <0.002           | 0.0653                | 0.0357                        | 0.0394                        | <b>0.1404</b>               |
| 10/03/12                 | <0.00189                                        | <0.00189         | 0.129                 | 0.0464                        | 0.0602                        | <b>0.2356</b>               |
| <b>Field Point MW-13</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.00971                                        | <0.00971         | 0.0366                | 0.0279                        | 0.0329                        | <b>0.0974</b>               |
| 09/26/08                 | <0.0980                                         | <0.0980          | 0.0986                | <0.00980                      | <0.00980                      | <b>0.0986</b>               |
| 05/19/09                 | <0.0476                                         | <0.0476          | 0.121                 | 0.0712                        | 0.0888                        | <b>0.281</b>                |
| 08/19/09                 | 0.0458 R1                                       | 0.0277 R1        | 0.120 (c)             | 0.291 R1                      | 0.147                         | <b>0.558 R1</b>             |
| 10/30/09                 | 0.0238 R1                                       | 0.0369 R1        | 0.0212 (c)            | 0.0325 R1                     | 0.0743                        | <b>0.128 R1</b>             |
| <b>Field Point MW-14</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.00971                                        | <0.00971         | <0.00971              | <0.00971                      | <0.00971                      | <0.02913                    |
| 09/26/08                 | <0.00980                                        | <0.00980         | 0.0120                | 0.0103                        | 0.0108                        | <b>0.0331</b>               |
| 05/19/09                 | <0.00952                                        | <0.00952         | 0.00956               | <0.00952                      | <0.00952                      | 0.00956                     |
| 08/19/09                 | 0.00411 R1                                      | 0.00109          | 0.00923 (c)           | 0.0547 R1                     | 0.0172                        | <b>0.08113 R1</b>           |
| 10/30/09                 | 0.00441 R1                                      | 0.00135 R1       | 0.00998 (c)           | 0.0506 R1                     | 0.0186                        | <b>0.0792 R1</b>            |
| 10/13/11                 | 0.000381                                        | <0.0000952       | 0.00579               | 0.00459                       | 0.00418                       | 0.01456                     |
| 02/22/12                 | 0.000644                                        | <0.000111        | 0.0071                | 0.00479                       | 0.00428                       | 0.01617                     |
| 07/17/12                 | <0.00190                                        | <0.00190         | 0.0137                | 0.00521                       | 0.005                         | 0.02391                     |
| 10/03/12                 | <0.00189                                        | <0.00189         | 0.0118                | 0.00625                       | 0.0072                        | 0.02525                     |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.00971                                        | <0.00971         | 0.0367                | 0.0318                        | 0.0395                        | <b>0.108</b>                |
| 09/26/08                 | <0.00980                                        | <0.00980         | 0.0902                | 0.0636                        | 0.0825                        | <b>0.2363</b>               |
| 05/19/09                 | <0.0105                                         | <0.0105          | 0.0658                | 0.0380                        | 0.0484                        | <b>0.1522</b>               |
| 08/19/09                 | 0.0196 R1                                       | 0.00753 R1       | 0.1690 (c)            | 0.202 R1                      | 0.118                         | <b>0.489 R1</b>             |
| 10/30/09                 | 0.0282 R1                                       | 0.0435 R1        | 0.0274 (c)            | 0.0407 R1                     | 0.0225                        | <b>0.0906 R1</b>            |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                  |                       |                               |                               |                             |
| 04/30/08                 | <0.0103                                         | <0.0103          | <0.0103               | <0.0103                       | <0.0103                       | <0.0309                     |
| 09/26/08                 | <0.00943                                        | <0.00943         | <0.00943              | <0.00943                      | <0.00943                      | <0.02829                    |
| 05/18/09                 | <0.00943                                        | <0.00943         | <0.00943              | <0.00943                      | <0.00943                      | <0.02829                    |
| 08/19/09                 | <0.000513                                       | 0.000979 R1      | 0.00429 R1 (c)        | 0.00603 R10                   | 0.0127 R1                     | 0.02302 R10, R1             |
| 10/13/11                 | 0.000343                                        | <0.0000952       | 0.00154               | 0.00158                       | 0.00124                       | 0.00436                     |
| 02/22/12                 | 0.000292                                        | <0.0000943       | 0.00122               | 0.00113                       | 0.00090                       | 0.003245                    |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | 0.00229                       | <0.00190                      | 0.00229                     |
| 10/03/12                 | <0.00189                                        | <0.00189         | 0.00855               | 0.00429                       | <0.00189                      | 0.01284                     |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                       |                               |                               |                             |
| 08/19/09                 | 0.0102 R1                                       | <0.000200        | 0.134 (c)             | 0.188 R1                      | 0.0768                        | <b>0.3988 R1</b>            |
| 10/30/09                 | 0.0121 R1                                       | 0.00284 R1       | 0.134 (c)             | 0.193 R1                      |                               | <b>0.327 R1</b>             |
| 10/13/11                 | <0.000099                                       | <0.000099        | 0.0798                | 0.0364                        | 0.0556                        | <b>0.1718</b>               |
| 07/17/12                 | <0.00190                                        | <0.00190         | 0.0429                | 0.0256                        | 0.0306                        | <b>0.0991</b>               |
| 10/03/12                 | <0.00189                                        | <0.00189         | 0.0865                | 0.0325                        | 0.0402                        | <b>0.1592</b>               |
| 11/29/17                 | 0.0013                                          | <0.00019         | 0.044                 | 0.022                         | 0.028                         | <b>0.094</b>                |
| 07/18/18                 | 0.00073                                         | <0.00019         | 0.053                 | 0.026                         | 0.028                         | <b>0.107</b>                |
| <b>Field Point MW-18</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                       |                               |                               |                             |
| 08/19/09                 | 0.0104 R1                                       | 0.000948         | 0.0213 (c)            | 0.141 R1                      | 0.0193                        | <b>0.1816 R1</b>            |
| 10/30/09                 | 0.0129 R1                                       | 0.00257 R1       | 0.110 (c)             | 0.189 R1                      | 0.0696                        | <b>0.369 R1</b>             |
| 10/13/11                 | 0.00246                                         | <0.0000952       | 0.0414                | 0.0292                        | 0.0431                        | <b>0.1137</b>               |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                       |                               |                               |                             |
| 08/19/09                 | <0.000500                                       | <0.000200        | <0.00100 (c)          | <0.00100                      | <0.00100                      | <0.00300                    |
| 10/30/09                 | <0.000510                                       | <0.000204        | <0.00102 (c)          | <0.00102                      | <0.00102                      | BDL                         |
| 10/13/11                 | <0.0000971                                      | <0.0000971       | <0.0000971            | <0.0000971                    | <0.0000971                    | <0.0000971                  |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-19</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                       |                               |                               |                             |
| 05/15/13                 | <0.0000566                                      | <0.0000566       | <0.0000189            | <0.00000943                   | <0.00000943                   | <0.0000189                  |
| 01/29/14                 | <0.0000282                                      | <0.0000188       | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000282                  |
| 06/18/14                 | <0.00003                                        | <0.00002         | 0.00022 B             | <0.00002                      | <0.00003                      | 0.00022 B                   |
| 11/18/14                 | <0.000096                                       | <0.000096        | <0.000096             | <0.000096                     | <0.000096                     | <0.000096                   |
| 12/09/15                 | <0.0000952                                      | <0.0000952       | 0.00156               | 0.00147                       | 0.000304                      | 0.003334                    |
| 04/27/16                 | <0.0000939                                      | <0.0000939       | 0.000772              | 0.000582                      | <0.0000939                    | 0.001354                    |
| 10/25/16                 | <0.0000935                                      | <0.0000935       | <0.0000935            | <0.0000935                    | <0.0000935                    | <0.000187                   |
| 05/24/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |
| 11/29/17                 | 0.00018 J                                       | <0.00019         | 0.00045               | 0.0013                        | 0.00025                       | 0.002                       |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-20</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                       |                               |                               |                             |
| 08/19/09                 | <0.000485                                       | <0.000194        | <0.000971 (c)         | <0.000971                     | <0.000971                     | <0.002913                   |
| 10/30/09                 | <0.000476                                       | <0.000190        | <0.000952 (c)         | <0.000952                     | <0.000952                     | BDL                         |
| 10/13/11                 | <0.000099                                       | <0.000099        | <0.000099             | <0.000099                     | <0.000099                     | <0.000099                   |
| 02/22/12                 | <0.0000943                                      | <0.0000943       | <0.000943             | <0.000943                     | <0.000943                     | <0.000943                   |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |
| 05/15/13                 | <0.0000561                                      | <0.0000561       | <0.0000187            | <0.00000935                   | <0.00000935                   | <0.0000187                  |
| 01/29/14                 | <0.0000282                                      | <0.0000188       | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000282                  |
| 06/18/14                 | <0.0000288                                      | <0.0000192       | 0.000265 B            | <0.0000192                    | <0.0000288                    | 0.000265 B                  |
| 11/18/14                 | <0.0001                                         | <0.0001          | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| <b>Field Point MW-21</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                       |                               |                               |                             |
| 08/19/09                 | <0.000490                                       | <0.000196        | <0.000980 (c)         | 0.00156                       | <0.000980                     | 0.00156                     |
| 10/30/09                 | <0.000500                                       | <0.000200        | <0.00100 (c)          | <0.00100                      | <0.00100                      | BDL                         |
| 10/13/11                 | <0.000099                                       | <0.000099        | <0.000099             | <0.000099                     | <0.000099                     | <0.00009                    |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-21</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                       |                               |                               |                             |
| 05/15/13                 | <0.0000566                                      | <0.0000566       | <0.0000189            | <0.00000943                   | <0.00000943                   | <0.0000189                  |
| 01/29/14                 | <0.0000282                                      | <0.0000188       | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000282                  |
| 06/18/14                 | <0.0000284                                      | <0.0000190       | 0.000155 B            | <0.000019                     | <0.0000284                    | 0.000155 B                  |
| 11/18/14                 | <0.000094                                       | <0.000094        | <0.000094             | <0.000094                     | <0.000094                     | <0.000094                   |
| 12/08/15                 | <0.0000952                                      | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 04/27/16                 | <0.0000939                                      | <0.0000939       | <0.0000939            | <0.0000939                    | <0.0000939                    | <0.0002817                  |
| 10/25/16                 | <0.0000935                                      | <0.0000935       | <0.0000935            | <0.0000935                    | <0.0000935                    | <0.000187                   |
| <b>Field Point MW-22</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 10/30/09                 | <0.000510                                       | <0.000204        | <0.00102 (c)          | <0.00102                      | <0.00102                      | BDL                         |
| 10/13/11                 | <0.0001                                         | <0.0001          | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 02/22/12                 | <0.0000943                                      | <0.0000943       | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00190              | <0.00190                      | <0.00190                      | <0.00190                    |
| 10/03/12                 | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |
| 05/15/13                 | <0.0000561                                      | <0.0000561       | <0.0000187            | <0.00000935                   | <0.00000935                   | <0.0000187                  |
| 01/29/14                 | 0.0000541 J                                     | <0.0000188       | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000188                  |
| 06/18/14                 | <0.0000291                                      | <0.0000194       | 0.000278 B            | <0.0000194                    | <0.0000291                    | 0.000278 B                  |
| 11/19/14                 | <0.000097                                       | <0.000097        | <0.000097             | <0.000097                     | <0.000097                     | <0.000097                   |
| 12/08/15                 | <0.0000952                                      | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 04/27/16                 | <0.0000939                                      | <0.0000939       | <0.0000939            | <0.0000939                    | <0.0000939                    | <0.0002817                  |
| 10/25/16                 | <0.0000935                                      | <0.0000935       | <0.0000935            | <0.0000935                    | <0.0000935                    | <0.000187                   |
| 05/24/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |
| 11/29/17                 | <0.00020                                        | <0.00020         | <0.00020              | <0.00020                      | <0.00020                      | <0.00020                    |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-23</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 31.00-46.00</b> |                  |                       |                               |                               |                             |
| 02/22/12                 | <0.0000943                                      | <0.0000943       | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00192                                        | <0.00192         | <0.00500              | <0.00192                      | <0.00192                      | <0.00500                    |

**TABLE 5**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Phenanthrene<br>(mg/l)                          | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS            | NA                                              | NA               | NA                    | NA                            | NA                            | 0.03                        |
| <b>Field Point MW-23</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 31.00-46.00</b> |                  |                       |                               |                               |                             |
| 05/15/13                 | <0.0000571                                      | <0.0000571       | <0.000019             | <0.00000952                   | <0.00000952                   | <0.000019                   |
| 01/29/14                 | 0.0000687 J                                     | 0.0000724 J      | <0.0000188            | <0.0000188                    | <0.0000282                    | <0.0000188                  |
| 06/18/14                 | <0.0000306                                      | <0.0000204       | 0.0000606 J B         | <0.0000204                    | <0.0000306                    | 0.0000606 J B               |
| 11/18/14                 | <0.000095                                       | <0.000095        | <0.000095             | <0.000095                     | <0.000095                     | <0.000095                   |
| 12/08/15                 | <0.000190                                       | <0.000190        | 0.0125                | 0.00669                       | 0.00559                       | 0.02478                     |
| 04/27/16                 | 0.000177 B                                      | <0.0000939       | 0.00754               | 0.00497                       | 0.00409                       | 0.0166                      |
| <b>Field Point MW-25</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 28.00-43.00</b> |                  |                       |                               |                               |                             |
| 02/22/12                 | 0.0018                                          | <0.000105        | 0.0939                | 0.0427                        | 0.0688                        | <b>0.2054</b>               |
| <b>Field Point MW-26</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                       |                               |                               |                             |
| 02/22/12                 | <0.0000952                                      | <0.0000952       | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 07/17/12                 | <0.00190                                        | <0.00190         | <0.00500              | <0.00190                      | <0.00190                      | <0.00500                    |
| 10/03/12                 | <0.00189                                        | <0.00189         | <0.00500              | <0.00189                      | <0.00189                      | <0.00500                    |
| 05/15/13                 | <0.0000561                                      | <0.0000561       | <0.0000187            | <0.00000935                   | <0.00000935                   | <0.0000187                  |
| 01/29/14                 | <0.0000282                                      | <0.0000188       | 0.0000818 J           | 0.000048 J                    | <0.0000282                    | 0.0001298                   |
| 06/18/14                 | <0.0000283                                      | <0.0000189       | 0.000394 B            | <0.0000189                    | <0.0000283                    | 0.000391 B                  |
| 11/19/14                 | <0.0001                                         | <0.0001          | <0.0001               | <0.0001                       | <0.0001                       | <0.0001                     |
| 12/08/15                 | <0.0000952                                      | <0.0000952       | <0.0000952            | <0.0000952                    | <0.0000952                    | <0.0002856                  |
| 04/27/16                 | <0.0000939                                      | <0.0000939       | 0.000370              | 0.000130                      | 0.0000991                     | 0.0005991                   |
| 10/25/16                 | <0.0000935                                      | <0.0000935       | <0.0000935            | <0.0000935                    | <0.0000935                    | <0.000187                   |
| 05/24/17                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00038                    |
| 11/29/17                 | <0.00019                                        | <0.00019         | 0.00020               | 0.00018 J                     | 0.00015 J                     | 0.00053                     |
| 07/18/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |
| <b>Field Point MW-27</b> |                                                 |                  |                       |                               |                               |                             |
|                          | <b>Well Screen Interval (feet): 35.00-50.00</b> |                  |                       |                               |                               |                             |
| 07/19/18                 | <0.00019                                        | <0.00019         | <0.00019              | <0.00019                      | <0.00019                      | <0.00019                    |

TABLE 5  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHs  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                           | Phenanthrene<br>(mg/l)                                                                            | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------------------|---------------------------------------------------------------------------------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS                  | NA                                                                                                | NA               | NA                    | NA                            | NA                            | 0.03                        |
| Field Point MW-28<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00020 <0.00020 <0.00020 <0.00020 <0.00020 <0.00020 |                  |                       |                               |                               |                             |
| Field Point MW-29<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00019 <0.00019 <0.00019 <0.00019 <0.00019 <0.00019 |                  |                       |                               |                               |                             |
| Field Point MW-30<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00020 <0.00020 <0.00020 <0.00020 <0.00020 <0.00020 |                  |                       |                               |                               |                             |
| Field Point MW-31<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00019 <0.00019 <0.00019 <0.00019 <0.00019 <0.00019 |                  |                       |                               |                               |                             |
| Field Point MW-32<br>07/19/18  | Well Screen Interval (feet): 35.00-50.00<br><0.00020 <0.00020 <0.00020 <0.00020 <0.00020 <0.00020 |                  |                       |                               |                               |                             |
| Field Point SB-1GW<br>10/28/11 | Grab Groundwater Sample<br>0.000452 <0.0000962 0.000115 0.000462 0.000144 0.000721                |                  |                       |                               |                               |                             |
| Field Point SB-2GW<br>10/28/11 | Grab Groundwater Sample<br>0.000359 <0.0000971 0.00922 0.00625 0.00883 0.0243                     |                  |                       |                               |                               |                             |
| Field Point SB-3GW<br>10/28/11 | Grab Groundwater Sample<br>0.00168 <0.000098 0.0835 0.039 0.0606 0.1831                           |                  |                       |                               |                               |                             |
| Field Point SB-4GW<br>10/28/11 | Grab Groundwater Sample<br>0.000363 <0.000098 0.0137 0.0084 0.00967 0.03177                       |                  |                       |                               |                               |                             |
| Field Point SB-5GW<br>10/28/11 | Grab Groundwater Sample<br>0.000559 <0.000098 0.0499 0.0182 0.0269 0.095                          |                  |                       |                               |                               |                             |

TABLE 5  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHs  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date               | Phenanthrene<br>(mg/l)  | Pyrene<br>(mg/l) | Naphthalene<br>(mg/l) | 1-Methylnaphthalene<br>(mg/l) | 2-Methylnaphthalene<br>(mg/l) | Total Naphthalene<br>(mg/l) |
|--------------------|-------------------------|------------------|-----------------------|-------------------------------|-------------------------------|-----------------------------|
| NMED WQCC HHS      | NA                      | NA               | NA                    | NA                            | NA                            | 0.03                        |
| Field Point SB-6GW | Grab Groundwater Sample |                  |                       |                               |                               |                             |
| 10/28/11           | 0.0000971               | <0.0000971       | 0.000505              | 0.000291                      | 0.000437                      | 0.001233                    |
| Field Point SB-7GW | Grab Groundwater Sample |                  |                       |                               |                               |                             |
| 10/28/11           | 0.000495                | <0.0000971       | 0.0047                | 0.00281                       | 0.00367                       | 0.01118                     |

TABLE 5  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR PAHS  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.  
ELEV = Elevation.  
GW = Groundwater.  
NAPL = Non-aqueous phase liquid.  
Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.  
NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.  
Bolded values equal or exceed applicable regulatory limits.  
Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.  
Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.  
TDS = Total dissolved solids.  
mg/l = Milligrams per liter.  
BDL = Below laboratory detection limits.  
< = Not detected at or above stated laboratory reporting limit.  
A-01 = Could not obtain constant weight.  
D = Duplicate sample.  
J = Estimated value between method detection limit and practical quantitation limit.  
R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.  
R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.  
R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.  
X = Pre-purge/no-purge sample.  
(a) = Analyzed by EPA Method 8310.  
(b) = Analyzed by EPA Method 8260B.  
(c) = Analyzed method unknown.  
(d) = Analyzed to determine the presense of NAPL.



**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|-------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| <b>NMED WQCC HHS</b>    | <b>0.1</b>                                      | <b>1</b>         | <b>0.01</b>       | <b>0.05</b>        | <b>0.05</b>    | <b>0.002</b>      | <b>0.05</b>        | <b>0.05</b>      | <b>250.0</b>       | <b>600.0</b>      | <b>NA</b>            | <b>1000.0</b> |
| <b>Field Point MW-1</b> | <b>Well Screen Interval (feet): 22.71-42.71</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/24/06                | 0.0295                                          | <b>4.82</b>      | 0.0018            | 0.0126             | <0.00500       | 0.000303          | <0.0100            | <0.00500         | 10.9               | 1.82              | 743                  | 900           |
| 02/08/07                | 0.0304                                          | <b>5.02</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 2.8                | 1.24              | 621                  | <100          |
| 09/21/08                | 0.0256                                          | <b>7.52</b>      | 0.0011            | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 1.63               | 1.28              | 913                  |               |
| 05/19/09                | 0.0265                                          | <b>8.72</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 2.41               | <1.00             | 952                  | 962           |
| 08/19/09                | 0.0303                                          | <b>7</b>         | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 2.25               | <1.00             | 979                  | 940           |
| 10/30/09                | 0.0246                                          | <b>8.54</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 2.83               | 3.54              | 917                  | 780           |
| <b>Field Point MW-2</b> | <b>Well Screen Interval (feet): 27.59-47.59</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/25/06                | 0.0469                                          | 0.958            | 0.0021            | 0.0140             | <0.00500       | <0.000200         | <0.0100            | 0.0057           | 30.6               | 2.11              | 668                  | 900           |
| 02/08/07                | 0.0348                                          | 0.764            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 32                 | 3.9               | 634                  | 440           |
| 09/22/08                | 0.0352                                          | 0.823            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 29.4               | 3.57              | 669                  | 622           |
| 08/19/09                | 0.0393                                          | 0.901            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 31.2               | 2.74              | 649                  | 742           |
| 10/30/09                | 0.0208                                          | <b>8.57</b>      | <0.00100          | <0.00500           | <0.00500       | 0.0002            | <0.0100            | 0.005            | 15.1               | 1.08              | 752                  | 480           |
| <b>Field Point MW-3</b> | <b>Well Screen Interval (feet): 24.20-44.20</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/24/06                | 0.057                                           | <b>3.33</b>      | 0.0015            | 0.0098             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 21.2               | 8.35              | 773                  | 880           |
| 02/08/07                | 0.0505                                          | <b>3.44</b>      | <0.00100          | <0.00500           | 0.0052         | <0.000200         | <0.0100            | <0.00500         | 31.6               | 33.4              | 708                  | 540           |
| 09/22/08                | 0.0380                                          | <b>6.09</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 26.7               | 2.64              | 876                  | 744           |
| 05/19/09                | 0.0397                                          | <b>6.14</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 23.7               | 2.66              | 883                  | 858           |
| 08/19/09                | 0.0302                                          | <b>6.56</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 28.4               | <1.00             | 880                  | 802           |
| 10/30/09                | 0.0316                                          | <b>5.91</b>      | <0.00100          | <0.00500           | <0.00500       | 0.0002            | <0.0100            | <0.00500         | 21.4               | <1.00             | 842                  | 670           |
| <b>Field Point MW-4</b> | <b>Well Screen Interval (feet): 23.97-38.97</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/25/06                | 0.034                                           | <b>7.34</b>      | 0.0016            | 0.0122             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 20.7               | <1.00             | 850                  | <b>1000</b>   |
| 02/07/07                | 0.0617                                          | <b>8.00</b>      | <0.00100          | <b>0.0615</b>      | 0.0201         | <0.000200         | <0.0100            | <0.00500         | 15.1               | 1.09              | 2290                 | <100          |
| 04/15/08                | 0.0140                                          | <b>7.47</b>      | 0.0011            | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 10.2               | <1.00             | 1060                 | <b>1180</b>   |
| 09/21/08                | 0.0156                                          | <b>7.74</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 17.7               | 1.31              | 792                  | 774           |
| 05/19/09                | 0.0162                                          | <b>8.32</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 18.4               | 3.08              | 802                  | 854           |
| 08/19/09                | 0.0133                                          | <b>8.19</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 18.9               | <1.00             | 807                  | 860           |
| 10/30/09                | 0.0224                                          | <b>8.64</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 12.2               | <1.00             | 782                  | 660           |
| <b>Field Point MW-5</b> | <b>Well Screen Interval (feet): 27.19-47.19</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/20/06                | 0.0661                                          | <b>1.71</b>      | <0.00100          | <b>0.177</b>       | 0.0151         | 0.000220          | <0.0100            | <0.00500         | 6.11               | <1.00             | 1250                 | 712           |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                    | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|-------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS           | 0.1                                             | 1                | 0.01              | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| <b>Field Point MW-5</b> | <b>Well Screen Interval (feet): 27.19-47.19</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 02/07/07                | 0.0526                                          | 1.96             | <0.00100          | 0.0599             | 0.0105         | <0.000200         | <0.0100            | <0.00500         | 6.58               | 1.56              | 1130                 | 610           |
| 04/15/08                | 0.0440                                          | 3.02             | 0.0017            | 0.0167             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.34               | <1.00             | 976                  | 736           |
| 09/21/08                | 0.0370                                          | 3.07             | 0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.62               | 1.54              | 841                  |               |
| 05/19/09                | 0.0336                                          | 3.49             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.81               | <1.00             | 837                  | 792           |
| 08/19/09                | 0.031                                           | 3.68             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 7.02               | <1.00             | 856                  | 752           |
| 08/19/09 D              | 0.0322                                          | 3.71             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.93               | <1.00             | 847                  | 760           |
| 10/30/09                | 0.0284                                          | 3.93             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.61               | <1.00             | 797                  | 1540          |
| 10/12/11                | 0.0353                                          | 4.8              | <0.00100          | <0.00500           | 0.007          | <0.000200         | <0.0100            | <0.00500         | 5.03               | 1.4               |                      |               |
| 07/17/12                | 0.0234                                          | 4.9              | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.59               | 1.18              | 720                  | 753           |
| 07/17/12 D              | 0.0252                                          | 5.08             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.42               | 1.21              | 721                  | 760           |
| 10/03/12                | 0.0238                                          | 4.48             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.46               | <1.00             | 726                  | 740           |
| 10/03/12 D              | 0.0233                                          | 4.62             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.47               | <1.00             | 732                  | 749           |
| <b>Field Point MW-6</b> | <b>Well Screen Interval (feet): 27.05-42.05</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/21/06                | <0.0100                                         | 0.168            | <0.00100          | <0.00500           | <0.00500       | 0.000207          | <0.0100            | <0.00500         | 6.28               | 63.2              | 524                  | 660           |
| 02/07/07                | 0.0397                                          | 3.19             | <0.00100          | 0.0822             | 0.0307         | 0.00172           | <0.0100            | <0.00500         | 6.6                | <2.00             | 2930                 | 325           |
| 04/15/08                | 0.0199                                          | 0.610            | 0.0020            | 0.0213             | 0.00805        | 0.000467          | 0.0106             | <0.00500         | 5.38               | 42.7              | 1650                 | 548           |
| 09/21/08                | <0.0100                                         | 0.0932           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.75               | 34.5              | 528                  | 440           |
| 05/18/09                | <0.0100                                         | 0.0991           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.90               | 37.2              | 567                  | 234           |
| 08/19/09                | <0.0100                                         | 0.1              | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.11               | 33.0              | 519                  | 568           |
| 10/30/09                | <0.0100                                         | 0.108            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.03               | 31.1              | 475                  | 470           |
| 10/13/11                | <0.0100                                         | 0.112            | <0.00100          | <0.00500           | 0.0057         | <0.000200         | <0.0100            | <0.00500         | 5                  | 26.3              |                      |               |
| 07/17/12                | <0.0100                                         | 0.127            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.23               | 24.6              | 452                  | 571           |
| 10/03/12                | <0.0100                                         | 0.121            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.91               | 26.4              | 446                  | 566           |
| 05/15/13                | <0.0047                                         | 0.14             | <0.000200         | <0.0012            | 0.0135         | <0.00015          | 0.0081 J           | <0.0013          | 4.67               | <25               | 483                  | 625           |
| 01/28/14                | 0.01                                            | 0.144            | <0.000200         | <0.0012            | 0.0059         | <0.00015          | <0.0064            | <0.0013          | 5.04               | 26.2              | 512                  | 597 B         |
| 06/18/14                | <0.0072                                         | 0.138            | 0.0006 J          | <0.00300           | <0.002         | <0.00015          | <0.00500           | <0.0025          | 5.32 B             | 26.5              | 483                  | 615           |
| 11/19/14                | <0.0100                                         | 0.15             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.5                | 25                | 470                  | 660           |
| 12/08/15                | 0.0149                                          | 0.226            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.56               | 18.4              | 502                  | 581           |
| 04/26/16                | 0.0309                                          | 0.351            | <0.00100          | 0.364              | 0.0127         | <0.000200         | <0.0100            | <0.00500         | 4.87               | 16.2              | 520                  | 565           |
| 05/24/17                | 0.0273                                          | 0.375            | <0.0100           | 0.00788 J          | <0.0100        | 0.000342          | <0.0150            | <0.00500         | 4.6                | 13                | 482                  | 545           |
| 11/29/17                | <0.0100                                         | 0.212            | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 13                 | 19                | 460                  | 570           |
| 07/20/18                | 0.0284                                          | 0.288            | <0.0100           | 0.00674 J          | 0.00430 J      | 0.000190 B,J      | 0.0344             | <0.00500         | 4.6                | 180               | 430                  | 525           |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS            | 0.1                                             | 1                | 0.01              | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| <b>Field Point MW-7</b>  | <b>Well Screen Interval (feet): 24.35-39.35</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/25/06                 | <0.0100                                         | 0.679            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 15.5               | <1.00             | 641                  | 800           |
| 02/07/07                 | 0.0583                                          | <b>2.46</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 14.4               | 4.48              | 654                  | 200           |
| 04/15/08                 | 0.0513                                          | <b>3.00</b>      | 0.0015            | 0.0051             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.6               | 1.46              | 710                  | 744           |
| 09/20/08                 | 0.0407                                          | <b>1.92</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 15.3               | 3.16              | 680                  | 710 B         |
| 05/18/09                 | 0.0395                                          | <b>1.88</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 15.7               | 3.10              | 672                  | 748           |
| 08/19/09                 | 0.0137                                          | <b>1.86</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 17.2               | 3.06              | 673                  | 720           |
| 10/30/09                 | 0.0112                                          | <b>2.05</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 16.5               | 3.26              | 645                  | 500           |
| 10/13/11                 | 0.014                                           | <b>2.34</b>      | <0.00100          | <0.00500           | 0.0054         | <0.000200         | <0.0100            | <0.00500         | 14.5               | 3.74              |                      |               |
| <b>Field Point MW-8</b>  | <b>Well Screen Interval (feet): 23.05-38.05</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/25/06                 | 0.0153                                          | 0.328            | 0.0012            | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.1               | 8.01              | 593                  | 810           |
| 02/07/07                 | 0.0342                                          | 0.929            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11.5               | 22.2              | 707                  | 510           |
| 04/15/08                 | 0.035                                           | <b>1.22</b>      | 0.0015            | 0.0078             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11.6               | 7.4               | 716                  | 688           |
| 09/20/08                 | 0.0211                                          | 0.773            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.5               | 9.30              | 633                  | 610           |
| 05/18/09                 | 0.0174                                          | 0.776            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11.1               | 8.68              | 535                  | 258           |
| 08/19/09                 | <0.0100                                         | <b>1.14</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.3               | 6.57              | 623                  | 676           |
| 10/30/09                 | <0.0100                                         | <b>1.04</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 14.0               | 7.46              | 599                  | 560           |
| <b>Field Point MW-9</b>  | <b>Well Screen Interval (feet): 27.64-42.64</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/21/06                 | 0.0298                                          | 0.918            | <0.00100          | 0.0354             | 0.0078         | <0.000200         | <0.0100            | <0.00500         | 103                | 157               | 1010                 | 900           |
| 02/06/07                 | 0.0291                                          | 0.284            | <0.00100          | 0.0075             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 92                 | 89.0              | 717                  | <b>1110</b>   |
| 04/15/08                 | 0.0694                                          | <b>1.61</b>      | 0.0023            | 0.0473             | 0.0126         | <0.000200         | <0.0100            | <0.00500         | 85.5               | 47.5              | 2410                 | 684           |
| 09/21/08                 | 0.0274                                          | 0.100            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 73.3               | 40.7              | 572                  | 520           |
| 05/18/09                 | 0.0234                                          | 0.0961           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 61.0               | 38.3              | 584                  | 644           |
| 08/19/09                 | 0.0185                                          | 0.102            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 75.8               | 37.9              | 578                  | 744           |
| 10/30/09                 | 0.0203                                          | 0.0993           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 79.3               | 39.3              | 534                  | 610           |
| 10/13/11                 | 0.0147                                          | 0.122            | <0.00100          | <0.00500           | 0.0059         | <0.000200         | <0.0100            | <0.00500         | 101                | 27.5              |                      |               |
| 07/17/12                 | 0.0175                                          | 0.0972           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 105                | 21.8              | 516                  | 771           |
| 10/03/12                 | 0.0277                                          | 0.0878           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 105                | 23                |                      | <b>1130</b>   |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/21/06                 | <0.0100                                         | 0.324            | <0.00100          | 0.0136             | <0.00500       | 0.000822          | <0.0100            | <0.00500         | <b>500</b>         | 85.2              | 748                  | <b>1520</b>   |
| 02/06/07                 | <0.0100                                         | 0.112            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 6.72               | 105               | 602                  | <b>1630</b>   |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| <b>NMED WQCC HHS</b>     | <b>0.1</b>                                      | <b>1</b>         | <b>0.01</b>       | <b>0.05</b>        | <b>0.05</b>    | <b>0.002</b>      | <b>0.05</b>        | <b>0.05</b>      | <b>250.0</b>       | <b>600.0</b>      | <b>NA</b>            | <b>1000.0</b> |
| <b>Field Point MW-10</b> | <b>Well Screen Interval (feet): 28.08-43.08</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 04/15/08                 | 0.0439                                          | 0.981            | 0.0044            | <b>0.0625</b>      | 0.0277         | 0.001950          | 0.0256             | <0.00500         | <b>439</b>         | 97.4              | 3250                 | <b>1530</b>   |
| 09/21/08                 | <0.0100                                         | 0.0858           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>414</b>         | 79.6              | 676                  | <b>1000</b>   |
| 05/18/09                 | <0.0100                                         | 0.0839           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>430</b>         | 74.1              | 675                  | <b>1490</b>   |
| 08/19/09                 | <0.0100                                         | 0.0763           | <0.00100          | <0.00500           | <0.00500       | 0.000818          | <0.0100            | <0.00500         | <b>421</b>         | 80.8              | 660                  | <b>1510</b>   |
| 10/30/09                 | <0.0100                                         | 0.0781           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>394</b>         | 89.7              | 614                  | <b>1370</b>   |
| 10/13/11                 | <0.0100                                         | 0.0656           | <0.00100          | <0.00500           | 0.0057         | 0.000998          | <0.0100            | <0.00500         | <b>356</b>         | 91.7              |                      |               |
| 07/17/12                 | 0.0108                                          | 0.0696           | <0.00100          | <0.00500           | <0.00500       | 0.000338          | <0.0100            | <0.00500         | <b>283</b>         | 94.0              | 577                  | <b>1400</b>   |
| 10/03/12                 | <0.0100                                         | 0.0672           | <0.00100          | <0.00500           | <0.00500       | 0.00106           | <0.0100            | <0.00500         | <b>259</b>         | 99.2              | 595                  | <b>1450</b>   |
| 05/15/13                 | 0.0055 J                                        | 0.0677           | <0.000200         | <0.0012            | 0.0113         | <0.00015          | <0.0064            | <0.0013          | 218                | 95.9              | 585                  | <b>1400</b>   |
| 05/15/13 D               | 0.0091 J                                        | 0.0703           | <0.000200         | <0.0012            | 0.0104         | <0.00015          | 0.0115             | <0.0013          | 188                | 95.6              | 607                  | <b>1350</b>   |
| 01/29/14                 | 0.0066 J                                        | 0.0632           | <0.000200         | <0.0012            | <0.0035        | <0.00015          | <0.0064            | <0.0013          | 161                | 88.7              | 666                  | <b>1220 B</b> |
| 11/19/14                 | <0.0100                                         | 0.059            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 170                | 92                | 590                  | <b>1300</b>   |
| 11/19/14 D               | <0.0100                                         | 0.061            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 170                | 88                | 600                  | <b>1300</b>   |
| 05/24/17                 | 0.00638 J                                       | 0.188            | <0.0100           | 0.00742 J          | <0.0100        | <b>0.00481</b>    | <0.0150            | 0.00162 J        | 130                | 69                | 636                  | <b>1080</b>   |
| 11/29/17                 | 0.0294                                          | 0.321            | <0.0100           | 0.0154             | <0.0100        | <b>0.00319</b>    | 0.0184             | <0.00500         | 130                | 67                | 691                  | <b>1080</b>   |
| 07/20/18                 | <0.0100                                         | 0.0986           | <0.0100           | 0.00305 J          | 0.00666 J      | 0.000779 B        | 0.0235             | <0.00500         | 140                | 100               | 600                  | <b>1110</b>   |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 04/30/08                 | <0.0100                                         | 0.159            | <0.00100          | <0.00500           | <0.00500       | 0.000224          | <0.0100            | <0.00500         | 213                | 128               | 528                  | <b>1120</b>   |
| 09/21/08                 | <0.0100                                         | 0.0480           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>524</b>         | 130               | 553                  | <b>1440</b>   |
| 05/18/09                 | <0.0100                                         | 0.0562           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>503</b>         | 125               | 572                  | <b>1490</b>   |
| 08/19/09                 | <0.0100                                         | 0.0483           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>517</b>         | 121               | 577                  | <b>1550</b>   |
| 10/30/09                 | <0.0100                                         | 0.0534           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>502</b>         | 127               | 539                  | <b>1350</b>   |
| 10/13/11                 | <0.0100                                         | 0.051            | <0.00100          | <0.00500           | 0.005          | <0.000200         | <0.0100            | <0.00500         | <b>428</b>         | 117               |                      |               |
| 07/17/12                 | 0.0142                                          | 0.0531           | <0.00100          | <0.00500           | <0.00500       | 0.000200          | <0.0100            | <0.00500         | <b>422</b>         | 124               | 452                  | <b>1570</b>   |
| 10/03/12                 | 0.0171                                          | 0.0551           | <0.00100          | <0.00500           | <0.00500       | 0.000200          | <0.0100            | <0.00500         | <b>405</b>         | 121               | 490                  | <b>1500</b>   |
| 05/15/13                 | 0.0084 J                                        | 0.054            | <0.000200         | <0.0012            | 0.0138         | <0.00015          | 0.0239             | <0.0013          | <b>392</b>         | 123               | 497                  | <b>1500</b>   |
| 01/28/14                 | 0.0074 J                                        | 0.0465           | <0.000200         | <0.0012            | <0.0035        | <0.00015          | <0.0064            | <0.0013          | <b>393</b>         | 122               | 513                  | <b>1370</b>   |
| 06/18/14                 | <0.0072                                         | 0.0445           | 0.0007 J          | <0.00300           | <0.002         | <0.00015          | <0.00500           | <0.0025          | <b>351 B</b>       | 114               | 485                  | <b>1340</b>   |
| 11/19/14                 | <0.0100                                         | 0.044            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>320</b>         | 120               | 480                  | <b>1400</b>   |
| 12/08/15                 | <0.0100                                         | 0.0462           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>272</b>         | 108               | 498                  | <b>1270</b>   |
| 04/27/16                 | <0.0100                                         | 0.0458           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>257</b>         | 99.7              | 479                  | <b>1250</b>   |
| 10/25/16                 | <0.0100                                         | 0.0427           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | <b>253</b>         | <20.0             | 465                  | <b>1160</b>   |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**

Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l)    |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|------------------|
| <b>NMED WQCC HHS</b>     | <b>0.1</b>                                      | <b>1</b>         | <b>0.01</b>       | <b>0.05</b>        | <b>0.05</b>    | <b>0.002</b>      | <b>0.05</b>        | <b>0.05</b>      | <b>250.0</b>       | <b>600.0</b>      | <b>NA</b>            | <b>1000.0</b>    |
| <b>Field Point MW-11</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |                  |
| 05/24/17                 | 0.00968 J                                       | 0.0387           | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 220                | 120               | 460                  | <b>1100</b>      |
| 11/29/17                 | <0.0100                                         | 0.0530           | <0.0100           | 0.00570 J          | <0.0100        | <0.000200         | 0.0185             | 0.00189 J        | 210                | 110               | 454                  | <b>1090</b>      |
| 07/18/18                 | 0.00561 J                                       | 0.0445           | <0.0100           | <0.0100            | <0.0100        | 0.000163 B,J      | <0.0150            | 0.00260 J        | 170                | 68                | 440                  | <b>1040</b>      |
| <b>Field Point MW-12</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |                  |
| 04/30/08                 | 0.0278                                          | <b>2.23</b>      | <0.00100          | 0.0132             | 0.0082         | <0.000200         | <0.0100            | <0.00500         | 10.7               | 8.19              | 995                  | 657              |
| 09/21/08                 | 0.0238                                          | <b>5.10</b>      | 0.00130           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 25.1               | 1.62              | 755                  | 708              |
| 05/19/09                 | 0.0233                                          | <b>5.82</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 30.3               | <1.00             | 777                  | <b>2390</b>      |
| 08/19/09                 | 0.0177                                          | <b>6.02</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 28.2               | <1.00             | 778                  | 750              |
| 10/30/09                 | 0.0196                                          | <b>6.63</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 24.7               | <1.00             | 727                  | <b>1260</b>      |
| 10/13/11                 | 0.01                                            | <b>7.88</b>      | <0.00100          | <0.00500           | 0.0063         | <0.000200         | <0.0100            | <0.00500         | 17.5               | 1.32              |                      |                  |
| 07/17/12                 | 0.0133                                          | <b>8.44</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.4               | 1.18              | 707                  | 757              |
| 10/03/12                 | <0.0100                                         | <b>8.32</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 15.3               | <1.00             | 694                  | 724              |
| <b>Field Point MW-13</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |                  |
| 04/30/08                 | 0.0221                                          | <b>1.41</b>      | <0.00100          | 0.0134             | 0.0104         | <0.000200         | <0.0100            | <0.00500         | 61.9               | 209               | 870                  | <b>1920 A-01</b> |
| 09/21/08                 | 0.0377                                          | <b>3.54</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.62               | 1.20              | 751                  | 748              |
| 05/19/09                 | 0.0321                                          | <b>4.04</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.99               | <1.00             | 800                  | 252              |
| 08/19/09                 | 0.0249                                          | <b>4.44</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.76               | <1.00             | 781                  | 800              |
| 10/30/09                 | 0.0275                                          | <b>4.47</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.99               | 1.4               | 745                  | 580              |
| <b>Field Point MW-14</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |                  |
| 04/30/08                 | 0.0172                                          | 0.193            | <0.00100          | 0.0063             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.21               | 195               | 780                  | 919              |
| 09/21/08                 | 0.0572                                          | 0.181            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.71               | 19.7              | 647                  |                  |
| 05/19/09                 | 0.0159                                          | 0.165            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.85               | 11.2              | 663                  | 698              |
| 08/19/09                 | 0.0271                                          | 0.196            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.14               | 15.7              | 656                  | 702              |
| 10/30/09                 | 0.0261                                          | 0.196            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.01               | 16.7              | 604                  | 510              |
| 10/13/11                 | 0.0325                                          | 0.38             | <0.00100          | <0.00500           | 0.0058         | <0.000200         | <0.0100            | <0.00500         | 4.42               | 17.7              |                      |                  |
| 07/17/12                 | 0.0592                                          | 0.318            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 3.82               | 26.2              | 582                  | 712              |
| 10/03/12                 | 0.0308                                          | 0.294            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.47               | 20.3              | 593                  | 733              |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |                  |
| 04/30/08                 | 0.0259                                          | <b>2.16</b>      | <0.00100          | 0.0152             | 0.0084         | <0.000200         | <0.0100            | 0.0065           | 8.74               | 31.9              | 1050                 | 641              |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| <b>NMED WQCC HHS</b>     | <b>0.1</b>                                      | <b>1</b>         | <b>0.01</b>       | <b>0.05</b>        | <b>0.05</b>    | <b>0.002</b>      | <b>0.05</b>        | <b>0.05</b>      | <b>250.0</b>       | <b>600.0</b>      | <b>NA</b>            | <b>1000.0</b> |
| <b>Field Point MW-15</b> | <b>Well Screen Interval (feet): 29.00-44.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 09/21/08                 | 0.0282                                          | <b>5.87</b>      | 0.0014            | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 10.4               | 1.02              | 808                  |               |
| 05/19/09                 | 0.0267                                          | <b>6.47</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 10.0               | <1.00             | 886                  | 850           |
| 08/19/09                 | 0.0254                                          | <b>6.05</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11.6               | <1.00             | 891                  | 850           |
| 10/30/09                 | 0.0256                                          | <b>4.5</b>       | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.41               | <1.00             | 738                  | 570           |
| <b>Field Point MW-16</b> | <b>Well Screen Interval (feet): 26.50-41.50</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 04/30/08                 | 0.0107                                          | <b>1.02</b>      | <0.00100          | 0.0097             | 0.0058         | <0.000200         | <0.0100            | <0.00500         | 16.6               | 52.5              | 750                  | 726 A-01      |
| 09/21/08                 | 0.0153                                          | <b>1.40</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 9.87               | 3.28              | 762                  | 716           |
| 05/18/09                 | 0.0167                                          | <b>1.59</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 8.84               | 1.69              | 783                  | 776           |
| 08/19/09                 | 0.0136                                          | <b>1.73</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 9.37               | 1.67              | 791                  | 750           |
| 10/30/09                 | 0.0136                                          | <b>1.79</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 8.38               | 1.83              | 732                  | 410           |
| 10/30/09 D               | 0.0152                                          | <b>2.04</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 8.8                | 1.51              | 730                  | 260           |
| 10/13/11                 | 0.0142                                          | <b>2.21</b>      | 0.0051            | <0.00500           | 0.0074         | <0.000200         | <0.0100            | <0.00500         | 6.19               | 2.08              |                      |               |
| 07/17/12                 | 0.0147                                          | <b>1.86</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.83               | 2.32              | 726                  | 788           |
| 10/03/12                 | 0.0193                                          | <b>1.93</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 7                  | 1.81              | 721                  | 769           |
| <b>Field Point MW-17</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 08/19/09                 | 0.0475                                          | <b>1.98</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11.7               | 1.09              | 748                  | 725           |
| 10/30/09                 | 0.0541                                          | <b>1.69</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 11                 | <1.00             | 719                  | 210           |
| 10/13/11                 | 0.036                                           | <b>3.61</b>      | <0.00100          | <0.00500           | 0.0065         | <0.000200         | <0.0100            | <0.00500         | 7.35               | 1.34              |                      |               |
| 07/17/12                 | 0.0238                                          | 0.0206           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 5.93               | 1.43              | 714                  | 747           |
| 10/03/12                 | 0.0418                                          | <b>4.51</b>      | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 7.12               | <1.00             | 698                  | 718           |
| 11/29/17                 | 0.0192                                          | <b>10.2</b>      | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 14                 | 0.55 J            | 896                  | 815           |
| 07/18/18                 | <0.0100                                         | <b>9.58</b>      | <0.0100           | 0.00471 J          | <0.0100        | 0.0000984 B,J     | <0.0150            | <0.00500         | 5.6                | <1.0              | 850                  | <b>1000</b>   |
| <b>Field Point MW-18</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 08/19/09                 | 0.0178                                          | 0.144            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 113                | 232               | 961                  | <b>1510</b>   |
| 10/30/09                 | 0.0377                                          | 0.249            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 28.1               | 42.8              | 989                  | 890           |
| 10/13/11                 | 0.0102                                          | 0.138            | <0.00100          | <0.00500           | 0.0065         | <0.000200         | <0.0100            | <0.00500         | 46.6               | 15.7              |                      |               |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 08/19/09                 | 0.0203                                          | 0.0352           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 29.6               | 145               | 224                  | 554           |
| 10/30/09                 | 0.0169                                          | 0.0374           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 23.1               | 148               | 209                  | 380           |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS            | 0.1                                             | 1                | 0.01              | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| <b>Field Point MW-19</b> | <b>Well Screen Interval (feet): 27.00-42.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 10/13/11                 | 0.0197                                          | 0.0321           | <0.00100          | <0.00500           | 0.0052         | <0.000200         | <0.0100            | <0.00500         | 30                 | 140               |                      |               |
| 07/17/12                 | 0.0237                                          | 0.0357           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 32.2               | 150               | 196                  | 595           |
| 10/03/12                 | 0.0308                                          | 0.0271           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 33.8               | 151               | 195                  | 579           |
| 05/15/13                 | 0.0185                                          | 0.0307           | <0.000200         | <0.0012            | 0.0099         | <0.00015          | <0.0064            | <0.0013          | 36                 | 156               | 189                  | 585           |
| 01/29/14                 | 0.028                                           | 0.0281           | <0.000200         | <0.0012            | 0.0039 J       | <0.00015          | <0.0064            | <0.0013          | 40.9               | 163               | 203                  | 570 B         |
| 06/18/14                 | 0.0161                                          | 0.0247           | 0.0006 J          | <0.00300           | <0.002         | <0.00015          | 0.0083 J           | <0.0025          | 43.6 B             | 176               | 192                  | 621           |
| 11/18/14                 | 0.02                                            | 0.023            | <0.00100          | <0.00500           | 0.0098         | <0.000200         | <0.0100            | <0.00500         | 43                 | 170               | 190                  | 610           |
| 12/09/15                 | 0.0275                                          | 0.0242           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 41.2               | 162               | 234                  | 610           |
| 04/27/16                 | 0.0253                                          | 0.0265           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0108             | <0.00500         | 39.5               | 131               | 248                  | 623           |
| 10/25/16                 | 0.0240                                          | 0.0288           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 32.7               | 152               | 296                  | 617           |
| 05/24/17                 | 0.0327                                          | 0.0496           | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 25                 | 150               | 342                  | 620           |
| 11/29/17                 | 0.0382                                          | 0.0579           | <0.0100           | <b>0.116</b>       | <0.0100        | <0.000200         | 0.00751 J          | <0.00500         | 23                 | 130               | 361                  | 605           |
| 07/18/18                 | 0.0388                                          | 0.0497           | <0.0100           | <0.0100            | <0.0100        | 0.000112 B,J      | <0.0150            | <0.00500         | 36                 | 120               | 300                  | 610           |
| <b>Field Point MW-20</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 08/19/09                 | <0.0100                                         | 0.0908           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.015              | <0.00500         | <b>440</b>         | 417               | 187                  | <b>1580</b>   |
| 10/30/09                 | <0.0100                                         | 0.0705           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0148             | <0.00500         | <b>301</b>         | 386               | 235                  | <b>1230</b>   |
| 10/13/11                 | <0.0100                                         | 0.0521           | <0.00100          | <0.00500           | 0.0057         | <0.000200         | 0.0212             | <0.00500         | <b>391</b>         | 428               |                      |               |
| 07/17/12                 | 0.0115                                          | 0.0481           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0295             | <0.00500         | <b>423</b>         | 528               | 241                  | <b>1870</b>   |
| 10/03/12                 | 0.0183                                          | 0.0476           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0382             | <0.00500         | <b>506</b>         | <b>682</b>        | 208                  | <b>2090</b>   |
| 05/15/13                 | 0.0167                                          | 0.0377           | <0.000200         | <0.0012            | <0.0017        | <0.00015          | 0.0446             | <0.0013          | <b>551</b>         | <b>786</b>        | 226                  | <b>2370</b>   |
| 01/29/14                 | 0.0152                                          | 0.0321           | <0.000200         | <0.0012            | <0.0035        | 0.00042           | 0.0402             | <0.0013          | <b>538</b>         | <b>719</b>        | 268                  | <b>2170 B</b> |
| 06/18/14                 | <0.0072                                         | 0.0322           | 0.0009 J          | <0.00300           | <0.002         | 0.000203          | 0.0354             | <0.0025          | <b>527 B</b>       | <b>756</b>        | 257                  | <b>2280</b>   |
| 11/18/14                 | <0.0100                                         | 0.04             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.024              | <0.00500         | <b>530</b>         | <b>710</b>        | 250                  | <b>2100</b>   |
| <b>Field Point MW-21</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 08/19/09                 | 0.0248                                          | 0.0263           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0126             | <0.00500         | 38.8               | <b>666</b>        | 248                  | <b>1360</b>   |
| 10/30/09                 | 0.0245                                          | 0.0216           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.0146             | <0.00500         | 39.3               | <b>816</b>        | 222                  | <b>1340</b>   |
| 10/13/11                 | 0.0311                                          | 0.0155           | 0.004             | <0.00500           | 0.0052         | <0.000200         | 0.0107             | <0.00500         | 26.7               | <b>634</b>        |                      |               |
| 07/17/12                 | 0.0349                                          | 0.0161           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 21.1               | 559               | 232                  | <b>1270</b>   |
| 10/03/12                 | 0.0435                                          | 0.0131           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | 0.011              | <0.00500         | 23.3               | 597               | 242                  | <b>1260</b>   |
| 05/15/13                 | 0.0251                                          | 0.0154           | <0.000200         | <0.0012            | 0.0082         | <0.00015          | 0.0224             | <0.0013          | 18.9               | 535               | 239                  | <b>1140</b>   |
| 01/29/14                 | 0.0355                                          | 0.0132           | <0.000200         | <0.0012            | <0.0035        | <0.00015          | <0.0064            | <0.0013          | 14.7               | 422               | 263                  | 972 B         |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                               | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS            | 0.1                                             | 1                | 0.01              | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| <b>Field Point MW-21</b> | <b>Well Screen Interval (feet): 29.50-44.50</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 06/18/14                 | 0.0307                                          | 0.0125           | 0.0008 J          | <0.00300           | <0.002         | <0.00015          | 0.008 J            | <0.0025          | 12.8 B             | 383               | 353                  | 932           |
| 11/18/14                 | 0.0310                                          | 0.013            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 12                 | 360               | 250                  | 860           |
| 12/08/15                 | 0.0344                                          | 0.0138           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 10.3               | 323               | 286                  | 875           |
| 04/27/16                 | 0.0355                                          | 0.0145           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 9.67               | 306               | 288                  | 849           |
| 10/25/16                 | 0.0341                                          | 0.0157           | <0.00100          | 0.0154             | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 13.4               | 322               | 281                  | 828           |
| <b>Field Point MW-22</b> | <b>Well Screen Interval (feet): 30.00-45.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 10/30/09                 | 0.013                                           | 0.0376           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 42.4               | 266               | 213                  | 630           |
| 10/13/11                 | 0.018                                           | 0.023            | <0.00100          | <0.00500           | 0.0059         | <0.000200         | <0.0100            | <0.00500         | 41.3               | 288               |                      |               |
| 07/17/12                 | 0.0353                                          | 4.49             | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 40.1               | 274               | 206                  | 806           |
| 10/03/12                 | 0.0232                                          | 0.0197           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 42.5               | 280               | 223                  | 792           |
| 05/15/13                 | 0.0209                                          | 0.0204           | <0.000200         | <0.0012            | 0.0085         | <0.00015          | 0.0161             | <0.0013          | 41.7               | 293               | 212                  | 782           |
| 01/29/14                 | 0.0288                                          | 0.0191           | <0.000200         | <0.0012            | 0.0044 J       | <0.00015          | 0.0066 J           | <0.0013          | 42.8               | 242               | 236                  | 750 B         |
| 01/29/14 D               | 0.0299                                          | 0.0188           | <0.000200         | <0.0012            | <0.00035       | <0.00015          | 0.0067 J           | <0.0013          | 42.8               | 257               | 233                  | 750 B         |
| 06/18/14                 | 0.0179                                          | 0.0192           | 0.0007 J          | <0.00300           | <0.002         | <0.000150         | 0.0096 J           | <0.0025          | 42.7 B             | 248               | 221                  | 776           |
| 11/19/14                 | 0.019                                           | 0.018            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 41                 | 240               | 230                  | 800           |
| 12/08/15                 | 0.0176                                          | 0.0221           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 33.2               | 204               | 260                  | 689           |
| 04/27/16                 | 0.0201                                          | 0.0215           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 33.6               | 184               | 256                  | 664           |
| 10/25/16                 | 0.0190                                          | 0.0283           | <0.00100          | 0.00700            | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 37.4               | 22.4              | 236                  | 709           |
| 05/24/17                 | 0.0141                                          | 0.0199           | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 32                 | 200               | 260                  | 650           |
| 11/29/17                 | 0.0194                                          | 0.0259           | <0.0100           | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 32                 | 190               | 250                  | 675           |
| 07/18/18                 | 0.0236                                          | 0.0223           | <0.0100           | <0.0100            | <0.0100        | 0.000161 B,J      | 0.0432             | <0.00500         | 34                 | 19                | 240                  | 615           |
| <b>Field Point MW-23</b> | <b>Well Screen Interval (feet): 31.00-46.00</b> |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| 02/22/12                 | 0.0258                                          | 0.061            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         |                    |                   |                      |               |
| 07/17/12                 | 0.0307                                          | 0.0392           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 3.06               | 91.9              | 425                  | 652           |
| 10/03/12                 | 0.0335                                          | 0.0334           | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 3.34               | 79.4              | 412                  | 654           |
| 05/15/13                 | 0.0259                                          | 0.037            | <0.000200         | <0.0012            | 0.0065         | <0.00015          | 0.0129             | <0.0013          | 2.85               | 73.6 J            | 377                  | 635           |
| 01/29/14                 | 0.0343                                          | 0.0385           | <0.000200         | <0.0012            | 0.0052         | <0.00015          | <0.0064            | <0.0013          | 3.76               | 109               | 393                  | 597 B         |
| 06/18/14                 | 0.0308                                          | 0.0889           | 0.0007 J          | 0.0035 J           | 0.0027 J       | <0.00015          | 0.0063 J           | <0.0025          | 4.27 B             | 111               | 370                  | 628           |
| 11/18/14                 | 0.033                                           | 0.053            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 3.9                | 100               | 370                  | 630           |
| 12/08/15                 | 0.0452                                          | 0.102            | <0.00100          | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 4.59               | 42.9              | 476                  | 624           |
| 04/27/16                 | 0.0577                                          | 0.768            | <0.00100          | 0.0832             | 0.0314         | <0.000200         | <0.0100            | <0.00500         | 6.70               | 51.9              | 429                  | 607           |



**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                     | Arsenic<br>(mg/l)                   | Barium<br>(mg/l) | Cadmium<br>(mg/l)  | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------|-------------------------------------|------------------|--------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS            | 0.1                                 | 1                | 0.01               | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| <b>Field Point MW-25</b> | <b>Well Screen Interval (feet):</b> |                  | <b>28.00-43.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 02/22/12                 | 0.062                               | 7.1              | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         |                    |                   |                      |               |
| <b>Field Point MW-26</b> | <b>Well Screen Interval (feet):</b> |                  | <b>30.00-45.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 02/22/12                 | 0.0135                              | 0.0408           | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         |                    |                   |                      |               |
| 07/17/12                 | 0.0123                              | 0.0391           | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 19.5               | 136               | 304                  | 723           |
| 10/03/12                 | 0.0198                              | 0.0296           | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 24                 | 165               | 307                  | 736           |
| 05/15/13                 | 0.019                               | 0.0366           | <0.000200          | <0.0012            | <0.0017        | <0.00015          | 0.0085 J           | <0.0013          | 25.6               | 196               | 303                  | 769           |
| 01/29/14                 | 0.0159                              | 0.0335           | <0.000200          | <0.0012            | <0.0035        | <0.00015          | <0.0064            | <0.0013          | 26.6               | 192               | 332                  | 751 B         |
| 06/18/14                 | 0.0133                              | 0.0508           | 0.0006 J           | <0.00300           | <0.002         | <0.00015          | 0.0068 J           | <0.0025          | 25.3 B             | 188               | 307                  | 787           |
| 11/19/14                 | 0.015                               | 0.031            | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 25                 | 220               | 320                  | 830           |
| 12/08/15                 | 0.0161                              | 0.0530           | <0.00100           | <0.00500           | <0.00500       | <0.000200         | <0.0100            | <0.00500         | 24.8               | 204               | 336                  | 781           |
| 04/27/16                 | 0.0165                              | 0.111            | <0.00100           | <0.00500           | 0.00600        | 0.000399          | <0.0100            | <0.00500         | 31.7               | 98.6              | 308                  | 771           |
| 10/25/16                 | 0.0300                              | 1.37             | 0.00120            | 0.0404             | 0.0182         | <0.000200         | <0.0100            | <0.00500         | 26.2               | 236               | 339                  | 806           |
| 05/24/17                 | <0.0100                             | 0.136            | <0.0100            | <0.0100            | <0.0100        | 0.000162 J        | <0.0150            | <0.00500         | 28                 | 220               | 317                  | 755           |
| 11/29/17                 | 0.0127                              | 0.0633           | <0.0100            | <0.0100            | <0.0100        | <0.000200         | <0.0150            | <0.00500         | 24                 | 200               | 355                  | 735           |
| 07/18/18                 | 0.0249                              | 0.0330           | <0.0100            | <0.0100            | <0.0100        | 0.000129 B,J      | 0.0144 J           | 0.00155 J        | 30                 | 170               | 320                  | 720           |
| <b>Field Point MW-27</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | 0.0226                              | 0.0521           | <0.0100            | <0.0100            | <0.0100        | 0.000115 B,J      | 0.0519             | <0.00500         | 280                | 130               | 170                  | 980           |
| <b>Field Point MW-28</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | 0.0156                              | 0.0874           | <0.0100            | <0.0100            | <0.0100        | 0.000104 B,J      | 0.0300             | 0.00196 J        | 220                | 430               | 140                  | 1060          |
| <b>Field Point MW-29</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | 0.0213                              | 0.0809           | <0.0100            | <0.0100            | <0.0100        | 0.000116 B,J      | 0.0282             | 0.00145 J        | 190                | 100               | 170                  | 805           |
| <b>Field Point MW-30</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | 0.00958 J                           | 0.0590           | <0.0100            | <0.0100            | <0.0100        | 0.000102 B,J      | <0.0150            | <0.00500         | 170                | 100               | 170                  | 725           |
| <b>Field Point MW-31</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | <0.0100                             | 0.0633           | <0.0100            | <0.0100            | <0.0100        | 0.000103 B,J      | 0.0202             | 0.00222 J        | 120                | 150               | 250                  | 735           |
| <b>Field Point MW-32</b> | <b>Well Screen Interval (feet):</b> |                  | <b>35.00-50.00</b> |                    |                |                   |                    |                  |                    |                   |                      |               |
| 07/19/18                 | <0.0100                             | 0.0799           | <0.0100            | <0.0100            | <0.0100        | 0.000153 B,J      | 0.0187             | <0.00500         | 47                 | 53                | 450                  | 705           |

**TABLE 6**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS**  
 Gladiola Station  
 Lea County, New Mexico  
 Cardno 3612

| Date                           | Arsenic<br>(mg/l)                                                                                                                                     | Barium<br>(mg/l) | Cadmium<br>(mg/l) | Chromium<br>(mg/l) | Lead<br>(mg/l) | Mercury<br>(mg/l) | Selenium<br>(mg/l) | Silver<br>(mg/l) | Chloride<br>(mg/l) | Sulfate<br>(mg/l) | Alkalinity<br>(mg/l) | TDS<br>(mg/l) |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------|--------------------|----------------|-------------------|--------------------|------------------|--------------------|-------------------|----------------------|---------------|
| NMED WQCC HHS                  | 0.1                                                                                                                                                   | 1                | 0.01              | 0.05               | 0.05           | 0.002             | 0.05               | 0.05             | 250.0              | 600.0             | NA                   | 1000.0        |
| Field Point SB-1GW<br>10/28/11 | Grab Groundwater Sample<br><0.0100      0.0808      <0.00100      <0.00500      0.0053      <0.000200      <0.0100      <0.00500      9.4      77.8   |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-2GW<br>10/28/11 | Grab Groundwater Sample<br>0.0139      0.134      <0.00100      <0.00500      <0.00500      <0.000200      <0.0100      <0.00500      156      307    |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-3GW<br>10/28/11 | Grab Groundwater Sample<br>0.0338      7.8      <0.00100      <0.00500      <0.00500      <0.000200      <0.0100      <0.00500      2.84      2.3     |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-4GW<br>10/28/11 | Grab Groundwater Sample<br>0.0296      3.44      <0.00100      <0.00500      <0.00500      <0.000200      <0.0100      <0.00500      5.9      2.8     |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-5GW<br>10/28/11 | Grab Groundwater Sample<br><0.0100      0.0971      <0.00100      <0.00500      <0.00500      <0.000200      0.0105      <0.00500      180      421   |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-6GW<br>10/28/11 | Grab Groundwater Sample<br>0.0116      0.0343      <0.00100      <0.00500      <0.00500      <0.000200      <0.0100      <0.00500      7.04      290  |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |
| Field Point SB-7GW<br>10/28/11 | Grab Groundwater Sample<br><0.0100      0.465      <0.00100      <0.00500      <0.00500      <0.000200      <0.0100      <0.00500      4.58      38.6 |                  |                   |                    |                |                   |                    |                  |                    |                   |                      |               |

TABLE 6  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS FOR METALS AND ADDITIONAL PARAMETERS  
Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.  
ELEV = Elevation.  
GW = Groundwater.  
NAPL = Non-aqueous phase liquid.  
Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.  
NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.  
Bolded values equal or exceed applicable regulatory limits.  
Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.  
Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.  
TDS = Total dissolved solids.  
mg/l = Milligrams per liter.  
BDL = Below laboratory detection limits.  
< = Not detected at or above stated laboratory reporting limit.  
A-01 = Could not obtain constant weight.  
D = Duplicate sample.  
J = Estimated value between method detection limit and practical quantitation limit.  
R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.  
R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.  
R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.  
X = Pre-purge/no-purge sample.  
(a) = Analyzed by EPA Method 8310.  
(b) = Analyzed by EPA Method 8260B.  
(c) = Analyzed method unknown.  
(d) = Analyzed to determine the presense of NAPL.

**TABLE 7**  
**CONSTITUENTS DETECTED IN GROUNDWATER BY FULL SCAN 8260B - CUMULATIVE DATA**  
**(EXCEPT BTEX AND FUEL OXYGENATES)**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                     | Acetone (2-propanone)<br>(mg/l) | 2-Butanone (MEK)<br>(mg/l) | 1,2-Dichloroethane<br>(mg/l) | Isopropylbenzene<br>(mg/l) | Naphthalene<br>(mg/l) | n-Butylbenzene<br>(mg/l) | n-Propylbenzene<br>(mg/l) | p-Isopropyltoluene<br>(mg/l) | sec-Butylbenzene<br>(mg/l) | tert-Butylbenzene<br>(mg/l) | 1,2,4-Trimethylbenzene<br>(mg/l) | 1,3,5-Trimethylbenzene<br>(mg/l) |  |
|--------------------------|---------------------------------|----------------------------|------------------------------|----------------------------|-----------------------|--------------------------|---------------------------|------------------------------|----------------------------|-----------------------------|----------------------------------|----------------------------------|--|
| NMED WQCC HHS            | NA                              | NA                         | 0.01                         | NA                         | NA                    | NA                       | NA                        | NA                           | NA                         | NA                          | NA                               | NA                               |  |
| <b>Field Point MW-6</b>  |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 | 0.0041 J                        |                            |                              |                            |                       | 0.00028 J                |                           | 0.00031 J                    | 0.00084                    | 0.00027 J                   | 0.00094                          | 0.0021                           |  |
| 11/29/17                 | 0.0045 J                        |                            |                              |                            |                       | 0.00022 J                |                           | 0.00077                      | 0.00047 J                  |                             | 0.0011                           | 0.0017                           |  |
| 07/20/18                 | 0.0041 J                        |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| <b>Field Point MW-10</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 11/29/17                 | 0.0056 J                        |                            |                              |                            |                       |                          |                           |                              | 0.00036 J                  |                             |                                  |                                  |  |
| 07/20/18                 | 0.0081 J                        |                            |                              |                            |                       |                          |                           |                              | 0.00060                    |                             |                                  |                                  |  |
| <b>Field Point MW-11</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 11/29/17                 | 0.0067 J                        |                            |                              |                            | 0.0013 J              | 0.00061                  |                           | 0.00024 J                    | 0.00025 J                  |                             | 0.0014                           | 0.00056                          |  |
| 07/18/18                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| <b>Field Point MW-17</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 11/29/17                 |                                 |                            |                              | 0.056                      | 0.087 J               | 0.0058 J                 | 0.051                     |                              | 0.0070 J                   |                             | 0.17                             | 0.023                            |  |
| 07/18/18                 |                                 |                            |                              | 0.047                      | 0.057 J               | 0.0046 J                 | 0.044                     |                              | 0.0057 J                   |                             | 0.094                            | 0.012                            |  |
| <b>Field Point MW-19</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 |                                 | 0.0045 J                   |                              | 0.0068                     | 0.0017 J              | 0.0022                   | 0.0037                    | 0.0027                       | 0.0024                     | 0.00079                     | 0.020                            | 0.021                            |  |
| 11/29/17                 | 0.0052 J                        | 0.0023 J                   |                              | 0.0057                     | 0.00055 J             | 0.0023                   | 0.0036                    | 0.0024                       | 0.0023                     | 0.00068                     | 0.026                            | 0.021                            |  |
| 07/18/18                 | 0.0042 J                        |                            |                              | 0.0019                     |                       | 0.00022 J                | 0.0011                    | 0.0010                       | 0.0013                     | 0.00044 J                   | 0.0030                           | 0.00041 J                        |  |
| <b>Field Point MW-22</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 11/29/17                 | 0.0068 J                        |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 07/18/18                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| <b>Field Point MW-26</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 05/24/17                 |                                 |                            | 0.0011                       |                            | 0.00077 J             |                          |                           |                              |                            |                             | 0.0014                           |                                  |  |
| 11/29/17                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             | 0.00045 J                        |                                  |  |
| 07/18/18                 |                                 |                            |                              | 0.017                      | 0.026 J               | 0.0050                   | 0.017                     | 0.0036                       | 0.0042                     |                             | 0.12                             | 0.041                            |  |
| <b>Field Point MW-27</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 07/19/18                 | 0.0045 J                        |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| <b>Field Point MW-28</b> |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| 07/19/18                 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |

**TABLE 7**  
**CONSTITUENTS DETECTED IN GROUNDWATER BY FULL SCAN 8260B - CUMULATIVE DATA**  
**(EXCEPT BTEX AND FUEL OXYGENATES)**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Date                          | Acetone (2-propanone)<br>(mg/l) | 2-Butanone (MEK)<br>(mg/l) | 1,2-Dichloroethane<br>(mg/l) | Isopropylbenzene<br>(mg/l) | Naphthalene<br>(mg/l) | n-Butylbenzene<br>(mg/l) | n-Propylbenzene<br>(mg/l) | p-Isopropyltoluene<br>(mg/l) | sec-Butylbenzene<br>(mg/l) | tert-Butylbenzene<br>(mg/l) | 1,2,4-Trimethylbenzene<br>(mg/l) | 1,3,5-Trimethylbenzene<br>(mg/l) |  |
|-------------------------------|---------------------------------|----------------------------|------------------------------|----------------------------|-----------------------|--------------------------|---------------------------|------------------------------|----------------------------|-----------------------------|----------------------------------|----------------------------------|--|
| NMED WQCC HHS                 | NA                              | NA                         | 0.01                         | NA                         | NA                    | NA                       | NA                        | NA                           | NA                         | NA                          | NA                               | NA                               |  |
| Field Point MW-29<br>07/19/18 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| Field Point MW-30<br>07/19/18 |                                 |                            |                              |                            |                       |                          |                           |                              |                            |                             |                                  |                                  |  |
| Field Point MW-31<br>07/19/18 |                                 |                            |                              | 0.00029 J                  |                       |                          | 0.00022 J                 |                              |                            |                             | 0.0019                           | 0.00091                          |  |
| Field Point MW-32<br>07/19/18 | 0.0050 J                        |                            |                              | 0.0054                     |                       |                          | 0.00039 J                 | 0.0014                       | 0.0016                     | 0.00084                     | 0.012                            | 0.010                            |  |

TABLE 7  
CONSTITUENTS DETECTED IN GROUNDWATER BY FULL SCAN 8260B - CUMULATIVE DATA  
(EXCEPT BTEX AND FUEL OXYGENATES)

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

Notes: Data collected prior to December 8, 2015 provided by AECOM.  
ELEV = Elevation.  
GW = Groundwater.  
NAPL = Non-aqueous phase liquid.  
Groundwater elevations are adjusted for NAPL thickness using a relative density of 0.83.  
NMED WQCC HHS = New Mexico Environmental Department Water Quality Control Commission Human Health Standard for groundwater with 10,000 mg/l TDS or less.  
Bolded values equal or exceed applicable regulatory limits.  
Naphthalene is analyzed by EPA Method 8270C unless otherwise noted.  
Total naphthalenes are the sum of 1- and 2-methylnaphthalene and naphthalene.  
TDS = Total dissolved solids.  
mg/l = Milligrams per liter.  
BDL = Below laboratory detection limits.  
< = Not detected at or above stated laboratory reporting limit.  
A-01 = Could not obtain constant weight.  
D = Duplicate sample.  
J = Estimated value between method detection limit and practical quantitation limit.  
R1 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the higher value was reported.  
R10 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported due to apparent chromatographic problems.  
R12 = The relative percent difference between the primary and confirmatory analysis exceeded 40%; the lower value was reported.  
X = Pre-purge/no-purge sample.  
(a) = Analyzed by EPA Method 8310.  
(b) = Analyzed by EPA Method 8260B.  
(c) = Analyzed method unknown.  
(d) = Analyzed to determine the presense of NAPL.

Unless noted otherwise, all sampled wells were analyzed by EPA Method 8260B full scan.  
Note: table only reflects concentrations above the laboratory reporting limit. Refer to the laboratory report for the reporting limit and dilution factor.

**TABLE 8**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Sample ID   | Sampling Date | Depth (feet) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-benzene (mg/kg) | Xylenes (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) |
|-------------|---------------|--------------|-----------------|-----------------|-----------------------|-----------------|--------------|--------------|
| SB-1        | 05/14/04      | 0-2          | <0.001          | <0.001          | <0.001                | <0.001          | <5           | <0.1         |
| SB-1        | 05/14/04      | 4-5          | <0.001          | <0.001          | <0.001                | <0.001          | 6.7          | <0.1         |
| SB-2 (MW-1) | 05/13/04      | 4-5          | <0.100          | <0.100          | 2.1                   | 4.24            | 3,300        | 750          |
| SB-2 (MW-1) | 05/13/04      | 14-15        | <0.025          | <0.025          | 0.61                  | 2.288           | 1,200        | 190          |
| SB-2 (MW-1) | 05/13/04      | 29-30        | <0.025          | 0.063           | 0.47                  | 1.38            | 360          | 56           |
| SB-2 (MW-1) | 05/13/04      | 39-40        | <0.001          | <0.001          | <0.001                | <0.001          | 9            | 0.11         |
| SB-3        | 05/12/04      | 4-5          | <0.001          | <0.001          | <0.001                | <0.001          | 23           | <0.1         |
| SB-3        | 05/12/04      | 19-20        | <0.001          | <0.001          | <0.001                | <0.001          | <5           | <0.1         |
| SB-3        | 05/12/04      | 29-30        | <0.250          | 2.2             | 6.2                   | 16.2            | 56           | 380          |
| SB-3        | 05/12/04      | 39-40        | <0.001          | <0.001          | <0.001                | 0.0018          | 14           | 0.11         |
| SB-4        | 05/13/04      | 4-5          | 0.14            | 0.11            | 1.5                   | 1.41            | 4,000        | 480          |
| SB-4        | 05/13/04      | 14-15        | 0.47            | <0.100          | 5.8                   | 21.2            | 3,900        | 1100         |
| SB-4        | 05/13/04      | 29-30        | <0.025          | <0.025          | 0.18                  | 0.29            | 270          | 30           |
| SB-4        | 05/13/04      | 34-35        | <0.025          | <0.025          | 0.11                  | 0.18            | 330          | 20           |
| SB-5 (MW-2) | 05/13/04      | 34-35        | 0.0022          | 0.018           | 0.073                 | 0.103           | 240          | 15           |
| SB-5 (MW-2) | 05/13/04      | 39-40        | <0.001          | <0.001          | 0.0018                | 0.0034          | 9.7          | 0.62         |
| SB-6 (MW-3) | 05/13/04      | 0-3          | <0.001          | <0.001          | <0.001                | <0.001          | 18           | <0.1         |
| SB-6 (MW-3) | 05/13/04      | 24-25        | <0.001          | <0.001          | <0.001                | <0.001          | 6            | <0.1         |
| SB-6 (MW-3) | 05/13/04      | 44-45        | <0.001          | <0.001          | <0.001                | <0.001          | 13           | 0.21         |
| SB-7        | 05/14/04      | 24-25        | <0.001          | <0.001          | <0.001                | <0.001          | 8.1          | <0.1         |
| MW-4        | 06/14/06      | 9-10         | 0.134           | 0.177           | 2.8                   | 13.6            | 2,740        | 713          |
| MW-4        | 06/14/06      | 19-20        | <0.00101        | <0.00101        | <0.00101              | <0.00303        | 68.7         | <0.101       |
| MW-4        | 06/14/06      | 24-25        | <0.00101        | <0.00101        | <0.00101              | <0.00300        | 117          | 0.186        |
| MW-5        | 06/14/06      | 9-10         | 0.00144         | 0.00142         | <0.000994             | <0.00298        | 17.9         | <0.0994      |
| MW-5        | 06/14/06      | 14-15        | 0.00268         | 0.00208         | <0.000990             | <0.00297        | 9.76         | <0.0990      |
| MW-6        | 06/14/06      | 4-5          | 0.00132         | 0.00134         | <0.00100              | <0.00301        | 202          | <0.100       |
| MW-6        | 06/14/06      | 19-20        | 0.00156         | 0.00133         | <0.00101              | <0.00302        | <4.93        | <0.101       |
| MW-6        | 06/14/06      | 24-25        | <0.00100        | <0.00100        | <0.00100              | <0.00300        | <4.92        | <0.100       |
| MW-7        | 06/15/06      | 9-10         | <0.000990       | <0.000990       | <0.000990             | <0.00297        | <4.90        | <0.0990      |
| MW-7        | 06/15/06      | 19-20        | <0.000990       | <0.000990       | <0.000990             | <0.00297        | <4.83        | <0.0990      |
| MW-7        | 06/15/06      | 24-25        | <0.00100        | 0.001           | 0.00146               | 0.00541         | 171          | 0.713        |
| MW-8        | 06/15/06      | 9-10         | <0.00100        | <0.00100        | <0.00100              | 0.00387         | 1,720        | 0.224        |
| MW-8        | 06/15/06      | 14-15        | <0.00101        | <0.00101        | <0.00101              | <0.00302        | 538          | <0.101       |
| MW-8        | 06/15/06      | 24-25        | <0.00101        | <0.00101        | <0.00101              | <0.00302        | 37.7         | <0.101       |
| MW-9        | 06/13/06      | 4-5          | 0.00242         | 0.00299         | <0.00101              | <0.00303        | <4.82        | <0.101       |
| MW-9        | 06/13/06      | 14-15        | <0.00100        | <0.00100        | <0.00100              | <0.00300        | <4.83        | <0.100       |
| MW-9        | 06/13/06      | 29-30        | <0.00101        | <0.00101        | <0.00101              | <0.00303        | 24.5         | <0.101       |
| MW-10       | 06/13/06      | 9-10         | <0.00100        | <0.00100        | <0.00100              | <0.00301        | <4.82        | <0.100       |
| MW-10       | 06/13/06      | 19-20        | <0.000990       | <0.000990       | <0.000990             | <0.00297        | <4.93        | <0.0990      |
| MW-10       | 06/13/06      | 24-25        | 0.00144         | 0.00142         | <0.00101              | <0.00303        | <4.85        | <0.101       |

**TABLE 8**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Sample ID | Sampling Date | Depth (feet) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-benzene (mg/kg) | Xylenes (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) |
|-----------|---------------|--------------|-----------------|-----------------|-----------------------|-----------------|--------------|--------------|
| SB-9      | 06/15/06      | 9-10         | <0.00100        | <0.00100        | <0.00100              | <0.00301        | <4.83        | <0.100       |
| SB-9      | 06/15/06      | 14-15        | <0.000990       | <0.000990       | <0.000990             | <0.00297        | <4.84        | <0.0990      |
| SB-9      | 06/15/06      | 24-25        | <0.00101        | <0.00101        | <0.00101              | <0.00303        | 9.42         | <0.101       |
| SB-11     | 06/14/06      | 4-5          | <0.00100        | <0.00100        | <0.00100              | <0.00301        | 5.88         | <0.100       |
| SB-11     | 06/14/06      | 14-15        | <0.00101        | <0.00101        | <0.00101              | <0.00303        | <4.98        | <0.101       |
| SB-11     | 06/14/06      | 24-25        | <0.00100        | <0.00100        | <0.00100              | <0.00301        | <4.81        | <0.100       |
| MW-11     | 04/28/08      | 4-5          | 0.00163         | <0.000971       | <0.000971             | <0.00291        | <4.95        | <0.0971      |
| MW-11     | 04/28/08      | 14-15        | <0.00100        | <0.00100        | <0.00100              | <0.00300        | <4.91        | <0.100       |
| MW-11     | 04/28/08      | 19-20        | 0.00109         | <0.000986       | <0.000986             | <0.00296        | <4.96        | <0.0986      |
| MW-11     | 04/28/08      | 34-35        | <0.000978       | <0.000978       | <0.000978             | <0.00294        | <4.96        | <0.0978      |
| MW-12     | 04/29/08      | 4-5          | 0.00272         | <0.000952       | <0.000952             | <0.00286        | <4.91        | <0.0952      |
| MW-12     | 04/29/08      | 14-15        | <0.000986       | <0.000986       | <0.000986             | <0.00296        | <4.90        | <0.0986      |
| MW-12     | 04/29/08      | 24-25        | 0.001           | <0.000945       | <0.000945             | <0.00284        | <4.86        | <0.0945      |
| MW-12     | 04/29/08      | 29-30        | <0.000988       | <0.000988       | <0.000988             | <0.00296        | 52.4         | <0.0988      |
| MW-13     | 04/29/08      | 4-5          | 0.00178         | 0.000951        | 0.000951              | <0.00285        | <4.92        | <0.0951      |
| MW-13     | 04/29/08      | 9-10         | <0.000945       | <0.000945       | <0.000945             | <0.00284        | <4.86        | <0.0945      |
| MW-13     | 04/29/08      | 24-25        | 0.00124         | <0.000996       | <0.000996             | <0.00299        | <4.83        | <0.0996      |
| MW-13     | 04/29/08      | 29-30        | <0.000977       | 0.0439          | 0.00549               | 0.274           | 577          | 9.94         |
| MW-14     | 04/29/08      | 4-5          | 0.0019          | <0.000947       | <0.000947             | <0.00284        | <4.84        | <0.0947      |
| MW-14     | 04/29/08      | 9-10         | <0.000980       | <0.000980       | <0.000980             | <0.00294        | <4.82        | <0.0980      |
| MW-14     | 04/29/08      | 19-20        | <0.000971       | <0.000971       | <0.000971             | <0.00291        | <4.95        | <0.0971      |
| MW-14     | 04/29/08      | 29-30        | <0.000984       | <0.000984       | <0.000984             | <0.00295        | 133          | <0.0984      |
| MW-15     | 04/29/08      | 4-5          | 0.00167         | <0.000988       | <0.000988             | <0.00296        | <4.85        | <0.0988      |
| MW-15     | 04/29/08      | 9-10         | <0.000998       | <0.000998       | <0.000998             | <0.00299        | <4.97        | <0.0998      |
| MW-15     | 04/29/08      | 24-25        | <0.000975       | <0.000975       | <0.000975             | <0.00292        | 11.4         | <0.0975      |
| MW-15     | 04/29/08      | 29-30        | <0.000977       | <0.000977       | <0.000977             | 0.00602         | 175          | 0.94         |
| MW-16     | 04/28/08      | 4-5          | 0.00159         | <0.000984       | <0.000984             | <0.00295        | <4.97        | <0.0984      |
| MW-16     | 04/28/08      | 14-15        | <0.000998       | <0.000998       | <0.000998             | <0.00299        | <4.89        | <0.0998      |
| MW-16     | 04/28/08      | 19-20        | <0.000988       | <0.000988       | <0.000988             | <0.00296        | <4.97        | <0.0988      |
| MW-16     | 04/28/08      | 29-30        | <0.000988       | <0.000988       | <0.000988             | <0.00296        | 35.5         | <0.0988      |
| SB-12     | 04/29/08      | 9-10         | 0.00382         | 2.51            | 0.0512                | 13.6            | 3,820        | 679          |
| SB-12     | 04/29/08      | 14-15        | 0.00226         | 2.2             | 0.118                 | 16              | 4,310        | 419          |
| SB-12     | 04/29/08      | 29-30        | 0.00381         | 1.56            | 0.0913                | 7.67            | 1,300        | 250          |
| SB-13     | 04/29/08      | 4-5          | <0.000967       | <0.000967       | <0.000967             | <0.00290        | 9.25         | 0.294        |
| SB-13     | 04/29/08      | 19-20        | <0.000992       | <0.000992       | <0.000992             | <0.00298        | <4.99        | <0.0992      |
| SB-13     | 04/29/08      | 29-30        | <0.000978       | <0.000978       | <0.000978             | <0.00294        | <4.84        | <0.0978      |
| MW-17     | 08/13/09      | 5-10         | <0.000870       | <0.000870       | <0.000870             | <0.00261        | 9.69         | <0.0870      |
| MW-17     | 08/13/09      | 15-20        | <0.000917       | <0.000917       | <0.000917             | <0.00275        | 14.7         | <0.0917      |
| MW-17     | 08/13/09      | 20-25        | <0.000982       | <0.000982       | <0.000982             | <0.00295        | <4.96        | <0.0982      |
| MW-17     | 08/13/09      | 30-35        | <0.000963       | <0.000963       | <0.000963             | <0.00289        | 48.3         | <0.0963      |
| MW-18     | 08/13/09      | 0-5          | <0.000960       | <0.000960       | <0.000960             | <0.00288        | 5.7          | <0.0960      |
| MW-18     | 08/13/09      | 15-20        | <0.00931        | <0.00931        | <0.00931              | <0.00279        | <4.90        | <0.0931      |
| MW-18     | 08/13/09      | 25-30        | 0.00153         | 0.009           | 0.00503               | 0.0957          | 296          | 3.89         |



**TABLE 8**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Sample ID | Sampling Date | Depth (feet) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-benzene (mg/kg) | Xylenes (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) |
|-----------|---------------|--------------|-----------------|-----------------|-----------------------|-----------------|--------------|--------------|
| MW-19     | 08/13/09      | 5-10         | <0.000835       | <0.000835       | <0.000835             | <0.00250        | 10.2         | <0.0835      |
| MW-19     | 08/13/09      | 10-15        | <0.000931       | <0.000931       | <0.000931             | <0.00279        | 7.03         | <0.0931      |
| MW-19     | 08/13/09      | 25-30        | <0.000882       | <0.000882       | <0.000882             | <0.00265        | 5.59         | <0.0882      |
| MW-20     | 08/14/09      | 5-10         | <0.000876       | <0.000876       | <0.000876             | <0.00263        | 9.33         | <0.0876      |
| MW-20     | 08/14/09      | 10-15        | <0.000893       | <0.000893       | <0.000893             | <0.00268        | <4.88        | <0.0893      |
| MW-20     | 08/14/09      | 25-30        | <0.000864       | <0.000864       | <0.000864             | <0.00259        | 14           | <0.0864      |
| MW-21     | 08/14/09      | 5-10         | <0.000896       | <0.000896       | <0.000896             | <0.00269        | <4.96        | <0.0896      |
| MW-21     | 08/14/09      | 15-20        | <0.000880       | <0.000880       | <0.000880             | <0.00264        | <4.99        | <0.0880      |
| MW-21     | 08/14/09      | 25-30        | <0.000952       | <0.000952       | <0.000952             | <0.00286        | <4.94        | <0.0952      |
| SB-14     | 08/14/09      | 4-6          | <0.000956       | <0.000956       | <0.000956             | <0.00287        | 5.69         | <0.0956      |
| SB-14     | 08/14/09      | 10-12        | <0.000911       | <0.000911       | <0.000911             | <0.00273        | <4.97        | <0.0911      |
| SB-14     | 08/14/09      | 24-26        | 0.0034          | 0.0358          | 0.0191                | 0.124           | 354          | 3.43         |
| SB-15     | 08/14/09      | 8-10         | 0.00405         | 0.0157          | 0.0172                | 0.395           | 1,350        | 9.89         |
| SB-15     | 08/14/09      | 12-14        | 0.0228          | 0.0545          | 0.117                 | 0.585           | 1,230        | 16.8         |
| S-5-B1    | 06/20/18      | 5            | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 18 HD        | <0.48        |
| S-10-B1   | 06/20/18      | 10           | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 13 HD        | <0.48        |
| S-15-B1   | 06/20/18      | 15           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 5.1 HD       | <0.51        |
| S-20-B1   | 06/20/18      | 20           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 5.5 HD       | <0.48        |
| S-25-B1   | 06/20/18      | 25           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 11 HD        | <0.51        |
| S-30-B1   | 06/20/18      | 30           | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 7.3 HD       | <0.51        |
| S-35-B1   | 06/20/18      | 35           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 150 HD       | <0.49        |
| S-40-B1   | 06/20/18      | 40           | 0.00027 J       | 0.0011 J        | 0.0071                | 0.0025          | 220 HD       | 0.92         |
| S-45-B1   | 06/20/18      | 45           | 0.00018 J       | <0.0049         | 0.00019 J             | 0.00044 JA      | 11 HD        | <0.48        |
| S-50-B1   | 06/20/18      | 50           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 2.7 HD, J    | <0.53        |
| S-40-B2   | 06/21/18      | 40           | <0.0052         | <0.0052         | <0.0052               | <0.0052         | 91 HD        | <0.52        |
| S-50-B2   | 06/21/18      | 50           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | <0.49        | <0.48        |
| S-5-B3    | 06/22/18      | 5            | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 18 HD        | <0.48        |
| S-10-B3   | 06/22/18      | 10           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 18 HD        | <0.49        |
| S-15-B3   | 06/22/18      | 15           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 6.6 HD       | <0.50        |
| S-20-B3   | 06/22/18      | 20           | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 21 HD        | <0.48        |
| S-25-B3   | 06/22/18      | 25           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 11 HD        | <0.49        |
| S-30-B3   | 06/22/18      | 30           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 29 HD        | <0.51        |
| S-35-B3   | 06/22/18      | 35           | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 48 HD        | <0.52        |
| S-40-B3   | 06/22/18      | 40           | <0.0052         | <0.0052         | <0.0052               | <0.0052         | 19 HD        | <0.51        |
| S-45-B3   | 06/22/18      | 45           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 9.4 HD       | <0.49        |
| S-50-B3   | 06/22/18      | 50           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 10 HD        | <0.49        |
| S-40-B4   | 06/21/18      | 40           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 13 HD        | <0.52        |
| S-50-B4   | 06/21/18      | 50           | <0.0051         | <0.0051         | <0.0051               | <0.0051         | 1.4 HD, J    | <0.49        |

**TABLE 8**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Gladiola Station  
Lea County, New Mexico  
Cardno 3612

| Sample ID | Sampling Date | Depth (feet) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-benzene (mg/kg) | Xylenes (mg/kg) | TPHd (mg/kg) | TPHg (mg/kg) |
|-----------|---------------|--------------|-----------------|-----------------|-----------------------|-----------------|--------------|--------------|
| S-40-B5   | 06/23/18      | 40           | <0.0049         | <0.0049         | 0.0057                | 0.021 JA        | 210 HD       | 7.4          |
| S-50-B5   | 06/23/18      | 50           | <0.0052         | <0.0052         | <0.0052               | <0.0052         | <5.0 HD      | <0.48        |
| S-45-B6   | 06/19/18      | 45           | 0.000130 J      | <0.0050         | <0.0050               | 0.00076 JA      | 2.5 HD,B,J   | <0.52        |
| S-50-B6   | 06/19/18      | 50           | <0.0050         | <0.0050         | <0.0050               | <0.0050         | 1.6 HD,B,J   | <0.51        |

**Explanation:**

TPHd = Total petroleum hydrocarbons as diesel.  
 TPHg = Total petroleum hydrocarbons as gasoline.  
 mg/kg = Milligrams per kilogram.  
 < = Not detected at or above the stated laboratory reporting limit.  
 --- = Not analyzed/not available.  
 B = Analyte was present in associated method blank  
 HD = Chromatic profile inconsistent with pattern(s) of referenced fuel standards  
 J = Estimated value between method detection limit and practical quantitation limit  
 JA = Analyte positively identified but quantitation is an estimate

# **APPENDIX A**

## **CORRESPONDENCE**

## David Purdy

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**From:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>  
**Sent:** Friday, June 01, 2018 7:33 AM  
**To:** David Purdy  
**Cc:** Dusty\_Wilson@oxy.com  
**Subject:** RE: Approval for Work Plan for Additional Groundwater Assessment - Gladiola Station AP038-Lea County

June 1, 2018

David Purdy – CARDNO  
Marla Madden – Exxon-Mobil  
Dusty Wilson – OXY

Hello,

In reference to the work plan for the Gladiola Station, dated May 25, 2018. Oil Conservation Division (OCD), of the EMNRD for the State of New Mexico, site/case identification is AP038 for the OCD, the following:

Work plan as submitted relative to new wells, soil and ground water sampling, protocol for placement and sampling and logging of new wells is approved.

All methods, protocols, analysis techniques, reports and schedules for work on site for the new wells and pre-existing well locations and circumstances are approved.

OCD requests at least two working days pre-knowledge of schedule for well placement so that we may attend the work if possible.

OCD requests in next scheduled report, following data collection and assessment, that the site be evaluated for possibly more aggressive free product recovery and/or additional assessment if deemed necessary.

OCD appreciates your efforts on behalf of this issue. If there are any questions do not hesitate to contact OCD. Please forward this communication to parties you may see as needed.

Please keep this electronic communication, as NO paper copy will follow.

Sincerely,

Bradford Billings  
EMNRD/OCD  
Santa Fe

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations

## **APPENDIX B**

### **FIELD PROTOCOL**



## Soil Boring and Well Installation Field Protocol

### Preliminary Activities

Prior to the onset of field activities at the site, Cardno obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

### Drilling and Soil Sampling Procedures

Cardno contracts a licensed driller to advance the boring and collect soil samples. The specific drilling method (e.g., hollow-stem auger, direct push method, or sonic drilling), sampling method [e.g., core barrel or California-modified split spoon sampler (CMSSS)] and sampling depths are documented on the boring log and may be specified in a work plan. Soil samples are typically collected at the capillary fringe and at 5-foot intervals to the total depth of the boring. To determine the depth of the capillary fringe prior to drilling, the static groundwater level is measured with a water level indicator in the closest monitoring well to the boring location, if available.

The borehole is advanced to just above the desired sampling depth. For CMSSSs, the sampler is placed inside the auger and driven to a depth of 18 inches past the bit of the auger. The sampler is driven into the soil with a standard 140-pound hammer repeatedly dropped from a height of 30 inches onto the sampler. The number of blows required to drive the sampler each 6-inch increment is recorded on the boring log. For core samplers (e.g., direct push), the core is driven 18 inches using the rig apparatus.

Soil samples are preserved in the metal or plastic sleeve used with the CMSSS or core sampler, in glass jars or other manner required by the local regulatory agency (e.g., Environmental Protection Agency Method 5035). Sleeves are removed from the sample barrel, and the lowermost sample sleeve is immediately sealed with Teflon™ tape, capped, labeled, placed in a cooler chilled to 4° Celsius and transported to a state-certified laboratory. The samples are transferred under chain-of-custody (COC) protocol.

### Field Screening Procedures

Cardno places the soil from the middle of the sampling interval into a plastic re-sealable bag. The bag is placed away from direct sunlight for a period of time which allows volatilization of chemical constituents, after which the tip of a photo-ionization detector (PID) or similar device is inserted through the plastic bag to measure organic vapor concentrations in the headspace. The PID measurement is recorded on the boring log. At a minimum, the PID or other device is calibrated on a daily basis in accordance with manufacturer's specifications using a hexane or isobutylene standard. The calibration gas and concentration are recorded on a calibration log. Instruments such as the PID are useful for evaluating relative concentrations of volatilized hydrocarbons, but they do not measure the concentration of petroleum hydrocarbons in the soil matrix with the same precision as laboratory analysis. Cardno trained personnel describe the soil in the bag according to the Unified Soil Classification System and record the description on the boring log, which is included in the final report.

### Air Monitoring Procedures

Cardno performs a field evaluation for volatile hydrocarbon concentrations in the breathing zone using a calibrated photo-ionization detector or lower explosive level meter.

## Cardno Soil Boring and Well Installation Field Protocol

**Groundwater Sampling**

A groundwater sample, if desired, is collected from the boring by using Hydropunch™ sampling technology or installing a well in the borehole. In the case of using Hydropunch™ technology, after collecting the capillary fringe soil sample, the boring is advanced to the top of the soil/groundwater interface and a sampling probe is pushed to approximately 2 feet below the top of the static water level. The probe is opened by partially withdrawing it and thereby exposing the screen. A new or decontaminated bailer is used to collect a water sample from the probe. The water sample is then emptied into laboratory-supplied containers constructed of the correct material and with the correct volume and preservative to comply with the proposed laboratory test. The container is slowly filled with the retrieved water sample until no headspace remains and then promptly sealed with a Teflon-lined cap, checked for the presence of bubbles, labeled, entered onto a COC record and placed in chilled storage at 4° Celsius. Laboratory-supplied trip blanks accompany the water samples as a quality assurance/quality control procedure. Equipment blanks may be collected as required. The samples are kept in chilled storage and transported under COC protocol to a client-approved, state-certified laboratory for analysis.

**Backfilling of Soil Boring**

If a well is not installed, the boring is backfilled from total depth to approximately 5 feet below ground surface (bgs) with either neat cement or bentonite grout using a tremie pipe and either the boring is backfilled from 5 feet bgs to approximately 1 foot bgs with hydrated bentonite chips or backfill is continued to just below grade with neat cement grout. The borehole is completed to surface grade with material that best matches existing surface conditions and meets local agency requirements. Site-specific backfilling details are shown on the respective boring log.

**Well Construction**

A well (if constructed) is completed using materials documented on the boring log or specified in a work plan. The well is constructed with slotted casing across the desired groundwater sampling depth(s) and completed with blank casing to within 6 inches of surface grade. No further construction is conducted on temporary wells. For permanent wells, the annular space of the well is backfilled with Monterey sand from the total depth to approximately 2 feet above the top of the screened casing. A hydrated granular bentonite seal is placed on top of the sand filter pack. Grout may be placed on top of the bentonite seal to the desired depth using a tremie pipe. The well may be completed to surface grade with a 1-foot thick concrete pad. A traffic-rated well vault and locking cap for the well casing may be installed to protect against surface-water infiltration and unauthorized entry. Site-specific well construction details including type of well, well depth, casing diameter, slot size, length of screen interval and sand size are documented on the boring log or specified in the work plan.

**Well Development and Sampling**

If a permanent groundwater monitoring well is installed, the grout is allowed to cure a minimum of 48 hours before development. Cardno personnel or a contracted driller use a submersible pump or surge block to develop the newly installed well. Prior to development, the pump is decontaminated by allowing it to run and re-circulate while immersed in a non-phosphate solution followed by successive immersions in potable water and de-ionized water baths. The well is developed until sufficient well casing volumes are removed so that turbidity is within allowable limits and pH, conductivity and temperature levels stabilize in the purge water. The volume of groundwater extracted is recorded on a log.

Following development, groundwater within the well is allowed to recharge until at least 80% of the drawdown is recovered. A new or decontaminated bailer is slowly lowered past the air/water interface in the well, and a water sample is collected and checked for the presence of non-aqueous phase liquid, sheen or emulsions. The water sample is then emptied into laboratory-supplied containers as discussed above.

Cardno Soil Boring and Well Installation Field Protocol

### **Surveying**

If required, wells are surveyed by a licensed land surveyor relative to an established benchmark of known elevation above mean sea level to an accuracy of +/- 0.01 foot. The casing is notched or marked on one side to identify a consistent surveying and measuring point.

### **Decontamination Procedures**

Cardno or the contracted driller decontaminates soil and water sampling equipment between each sampling event with a non-phosphate solution, followed by a minimum of two tap water rinses. De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned prior to drilling the borehole and at completion of the borehole.

### **Waste Treatment and Soil Disposal**

Soil cuttings generated from the drilling or sampling are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination fluids and purge water from well development and sampling activities, if conducted, are stored on site in labeled, regulatory-approved storage containers. Fluids are subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.



## **APPENDIX C**

### **PERMIT**

Tom Blaine, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 627065  
File Nbr: L 14493

Jun. 15, 2018

DAVID M PURDY  
CARDNO INC  
EXXONMOBIL ENVIRONMENTAL SERVICES  
20505 CRESCENT BAY DRIVE  
LAKE FOREST, CA 92630

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 06/15/2019, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 06/15/2019.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us) or will be mailed upon request.

Sincerely,

  
Andrew Dennis  
(575) 622-6521

File No.

L-14493

## NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO DRILL A WELL  
WITH NO CONSUMPTIVE USE OF WATER

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

|                                                                                                            |                                                              |                                            |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------|
| Purpose:                                                                                                   | <input type="checkbox"/> Pollution Control And / Or Recovery | <input type="checkbox"/> Geo-Thermal       |
| <input type="checkbox"/> Exploratory                                                                       | <input type="checkbox"/> Construction Site De-Watering       | <input type="checkbox"/> Other (Describe): |
| <input checked="" type="checkbox"/> Monitoring                                                             | <input type="checkbox"/> Mineral De-Watering                 |                                            |
| A separate permit will be required to apply water to beneficial use.                                       |                                                              |                                            |
| <input type="checkbox"/> Temporary Request - Requested Start Date:                                         | Requested End Date:                                          |                                            |
| Plugging Plan of Operations Submitted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                                                              |                                            |

## 1. APPLICANT(S)

|                                                                                                                                            |                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Name: <b>Cardno, Inc.</b>                                                                                                                  | Name: <b>ExxonMobil Environmental Services (EMES)</b>                                                                           |
| Contact or Agent: <b>David M. Purdy</b> check here if Agent <input type="checkbox"/>                                                       | Contact or Agent: <b>Ms. Marla D. Madden</b> check here if Agent <input type="checkbox"/>                                       |
| Mailing Address: <b>20505 Crescent Bay Drive</b>                                                                                           | Mailing Address: <b>8941 Atlanta Avenue, #384</b>                                                                               |
| City: <b>Lake Forest</b>                                                                                                                   | City: <b>Huntington Beach</b>                                                                                                   |
| State: <b>CA</b> Zip Code: <b>92630</b>                                                                                                    | State: <b>CA</b> Zip Code: <b>92646</b>                                                                                         |
| Phone: <b>(949) 355-4470</b> <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell<br>Phone (Work): <b>(949) 457-8941</b> | Phone: <b>(832) 544-3413</b> <input type="checkbox"/> Home <input type="checkbox"/> Cell<br>Phone (Work): <b>(714) 964-4935</b> |
| E-mail (optional): <b>dave.purdy@cardno.com</b>                                                                                            | E-mail (optional): <b>marla.d.madden@exxonmobil.com</b>                                                                         |

FOR OSE INTERNAL USE

Application for Permit, Form wr-07, Rev 4/12/12

|                                  |                           |
|----------------------------------|---------------------------|
| File Number: <b>L-14493</b>      | Trn Number: <b>627065</b> |
| Trans Description (optional):    |                           |
| Sub-Basin: <b>L</b>              |                           |
| PCW/LOG Due Date: <b>6/15/19</b> |                           |

Page 1 of 3

## 2. WELL(S) Describe the well(s) applicable to this application.

| <b>Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).</b><br><b>District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.</b> |                            |                                                                                                                         |                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> NM State Plane (NAD83) (Feet)<br><input type="checkbox"/> NM West Zone<br><input type="checkbox"/> NM East Zone<br><input type="checkbox"/> NM Central Zone                                                                                    |                            | <input type="checkbox"/> UTM (NAD83) (Meters)<br><input type="checkbox"/> Zone 12N<br><input type="checkbox"/> Zone 13N |                                                                                                                                                                                                          |
| <input checked="" type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10 <sup>th</sup> of second)                                                                                                                                                                      |                            |                                                                                                                         |                                                                                                                                                                                                          |
| Well Number (if known):                                                                                                                                                                                                                                                 | X or Easting or Longitude: | Y or Northing or Latitude:                                                                                              | Provide if known:<br>-Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR<br>- Hydrographic Survey Map & Tract; OR<br>- Lot, Block & Subdivision; OR<br>- Land Grant Name |
| MW-27                                                                                                                                                                                                                                                                   | 1030642.96                 | 331805.01                                                                                                               | Section 5, Township T1 2S, Range R38E                                                                                                                                                                    |
| MW-28                                                                                                                                                                                                                                                                   | 1030644.43                 | 331805.12                                                                                                               | Section 5, Township T1 2S, Range R38E                                                                                                                                                                    |
| MW-29                                                                                                                                                                                                                                                                   | 1030645.44                 | 331803.33                                                                                                               | Section 5, Township T1 2S, Range R38E                                                                                                                                                                    |
| MW-30                                                                                                                                                                                                                                                                   | 1030644.40                 | 331802.42                                                                                                               | Section 5, Township T1 2S, Range R38E                                                                                                                                                                    |
| MW-31                                                                                                                                                                                                                                                                   | 1030637.98                 | 331802.74                                                                                                               | Section 4, Township T1 2S, Range R38E                                                                                                                                                                    |
| <b>NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)</b><br>Additional well descriptions are attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, how many <u>1</u>             |                            |                                                                                                                         |                                                                                                                                                                                                          |
| Other description relating well to common landmarks, streets, or other:                                                                                                                                                                                                 |                            |                                                                                                                         |                                                                                                                                                                                                          |
| Well is on land owned by: Tommy and Sarah Burrus P.O. Box 1090, Plains, TX 79355                                                                                                                                                                                        |                            |                                                                                                                         |                                                                                                                                                                                                          |
| Well Information: <b>NOTE: If more than one (1) well needs to be described, provide attachment.</b> Attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If yes, how many <u>5</u>                                                          |                            |                                                                                                                         |                                                                                                                                                                                                          |
| Approximate depth of well (feet): <u>50 feet</u>                                                                                                                                                                                                                        |                            | Outside diameter of well casing (inches): <u>2-inches</u>                                                               |                                                                                                                                                                                                          |
| Driller Name: <u>Yellow Jacket Drilling, Inc.</u>                                                                                                                                                                                                                       |                            | Driller License Number: <u>#WD-1458</u>                                                                                 |                                                                                                                                                                                                          |

## 3. ADDITIONAL STATEMENTS OR EXPLANATIONS

The six groundwater monitoring wells are being installed at Gladiola Station, a former pumping station located in Lea County, New Mexico. The wells are being installed to further delineate the lateral extent of free product (oil) in groundwater. ExxonMobil Environmental Services (EMES) was directed by the NMOCDD to prepare and submit a work plan for the further delineation of groundwater at the site property. Cardno, on behalf of EMES, prepared and submitted the work plan, which was subsequently approved by the NMOCDD in a letter dated June 1, 2018. The letter approving the work plan is attached, along with a proposed groundwater monitoring well construction diagram.

FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:

L-14493

Trn Number:

627065

Page 2 of 3

**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

|                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exploratory:</b><br><input type="checkbox"/> Include a description of any proposed pump test, if applicable.                                                                | <b>Pollution Control and/or Recovery:</b><br><input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following:<br><input type="checkbox"/> A description of the need for the pollution control or recovery operation.<br><input type="checkbox"/> The estimated maximum period of time for completion of the operation.<br><input type="checkbox"/> The annual diversion amount.<br><input type="checkbox"/> The annual consumptive use amount.<br><input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation.<br><input type="checkbox"/> The method and place of discharge.                                                   | <b>Construction De-Watering:</b><br><input type="checkbox"/> Include a description of the proposed dewatering operation,<br><input type="checkbox"/> The estimated duration of the operation,<br><input type="checkbox"/> The maximum amount of water to be diverted,<br><input type="checkbox"/> A description of the need for the dewatering operation, and,<br><input type="checkbox"/> A description of how the diverted water will be disposed of.                                                                                           | <b>Mine De-Watering:</b><br><input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following:<br><input type="checkbox"/> A description of the need for mine dewatering.<br><input type="checkbox"/> The estimated maximum period of time for completion of the operation.<br><input type="checkbox"/> The source(s) of the water to be diverted,<br><input type="checkbox"/> The geohydrologic characteristics of the aquifer(s).<br><input type="checkbox"/> The maximum amount of water to be diverted per annum.<br><input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation.<br><input type="checkbox"/> The quality of the water.              |
| <b>Monitoring:</b><br><input checked="" type="checkbox"/> Include the reason for the monitoring well, and,<br><input type="checkbox"/> The duration of the planned monitoring. | <input type="checkbox"/> The method of measurement of water produced and discharged.<br><input type="checkbox"/> The source of water to be injected.<br><input type="checkbox"/> The method of measurement of water injected.<br><input type="checkbox"/> The characteristics of the aquifer.<br><input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system.<br><input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department.<br><input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located. | <b>Geo-Thermal:</b><br><input type="checkbox"/> Include a description of the geothermal heat exchange project,<br><input type="checkbox"/> The amount of water to be diverted and re-injected for the project,<br><input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and,<br><input type="checkbox"/> The duration of the project.<br><input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request. | <input type="checkbox"/> The method of measurement of water diverted.<br><input type="checkbox"/> The recharge of water to the aquifer.<br><input type="checkbox"/> Description of the estimated area of hydrologic effect of the project.<br><input type="checkbox"/> The method and place of discharge.<br><input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project.<br><input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights.<br><input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect. |

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), David M. Purdy and Marla D. Madden

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

David M. Purdy  
Applicant Signature

Marla D. Madden  
Applicant Signature

#### ACTION OF THE STATE ENGINEER

This application is:

☒ approved

☐ partially approved

☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 15th day of June, 20 18, for the State Engineer.

Tom Blaine, P.E.

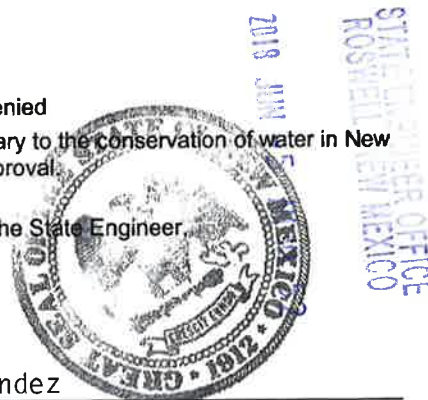
State Engineer

By: [Signature]  
Signature

Juan Hernandez

Print

Title: Water Resources Manager I  
Print



FOR OSE INTERNAL USE

Application for Permit, Form wr-07

File Number:

L-14493

Trn Number:

627065

Page 3 of 3





# NEW MEXICO OFFICE OF THE STATE ENGINEER



## ATTACHMENT 1 POINT OF DIVERSION DESCRIPTIONS

This Attachment is to be completed if more than one (1) point of diversion is described on an Application or Declaration.

|                                                                                                                                                                |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>a. Is this a:</b><br><input type="checkbox"/> Move-From Point of Diversion(s)<br><input type="checkbox"/> Move-To Point of Diversion(s)                     |                                                                                                   | <b>b. Information on Attachment(s):</b><br>Number of points of diversion involved in the application: _____<br>Total number of pages attached to the application: <u>8</u> |                                                                                                                                                                                                                                                                                                                             |
| <input type="checkbox"/> Surface Point of Diversion      OR <input checked="" type="checkbox"/> Well                                                           |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
| Name of ditch, acequia, or spring:                                                                                                                             |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
| Stream or water course:                                                                                                                                        |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
| Tributary of:                                                                                                                                                  |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
| <b>c. Location (Required):</b><br>Required: Move to POD location coordinate must be either New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84)  |                                                                                                   |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                             |
| NM State Plane (NAD83)<br>(feet)<br>NM West Zone <input type="checkbox"/><br>NM Central Zone <input type="checkbox"/><br>NM East Zone <input type="checkbox"/> | UTM (NAD83)<br>(meters)<br>Zone 13N <input type="checkbox"/><br>Zone 12N <input type="checkbox"/> | <input checked="" type="checkbox"/> Lat/Long-<br>(WGS84)<br>1/10 <sup>th</sup> of second                                                                                   | OTHER (allowable only for move-from<br>descriptions - see application form for format)<br><input checked="" type="checkbox"/> PLSS (quarters, section, township, range)<br><input type="checkbox"/> Hydrographic Survey, Map & Tract<br><input type="checkbox"/> Lot, Block & Subdivision<br><input type="checkbox"/> Grant |
| POD Number:<br>MW-32                                                                                                                                           | X or Longitude<br>10306 39.60                                                                     | Y or Latitude<br>331805.22                                                                                                                                                 | Other Location Description:<br>Section 5, Township T12S, Range R38E                                                                                                                                                                                                                                                         |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |
| POD Number:                                                                                                                                                    | X or Longitude                                                                                    | Y or Latitude                                                                                                                                                              | Other Location Description:                                                                                                                                                                                                                                                                                                 |

FOR OSE INTERNAL USE

Form wr-08

POD DESCRIPTIONS - ATTACHMENT 1

File Number:

L-14493

Trn Number:

627065

Trans Description (optional):

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.  
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- LOG The Point of Diversion L 14493 POD1 must be completed and the Well Log filed on or before 06/15/2019.
- LOG The Point of Diversion L 14493 POD2 must be completed and the Well Log filed on or before 06/15/2019.

Trn Desc: L 14493 POD1-6File Number: L 14493Trn Number: 627065

**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

LOG      The Point of Diversion L 14493 POD3 must be completed and the Well Log filed on or before 06/15/2019.

LOG      The Point of Diversion L 14493 POD4 must be completed and the Well Log filed on or before 06/15/2019.

LOG      The Point of Diversion L 14493 POD5 must be completed and the Well Log filed on or before 06/15/2019.

LOG      The Point of Diversion L 14493 POD6 must be completed and the Well Log filed on or before 06/15/2019.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

**ACTION OF STATE ENGINEER**

|                                     |                          |
|-------------------------------------|--------------------------|
| Notice of Intention Rcvd:           | Date Rcvd. Corrected:    |
| Formal Application Rcvd: 06/05/2018 | Pub. of Notice Ordered:  |
| Date Returned - Correction:         | Affidavit of Pub. Filed: |

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 15 day of Jun A.D., 2018

Tom Blaine, P.E.

State Engineer

By:

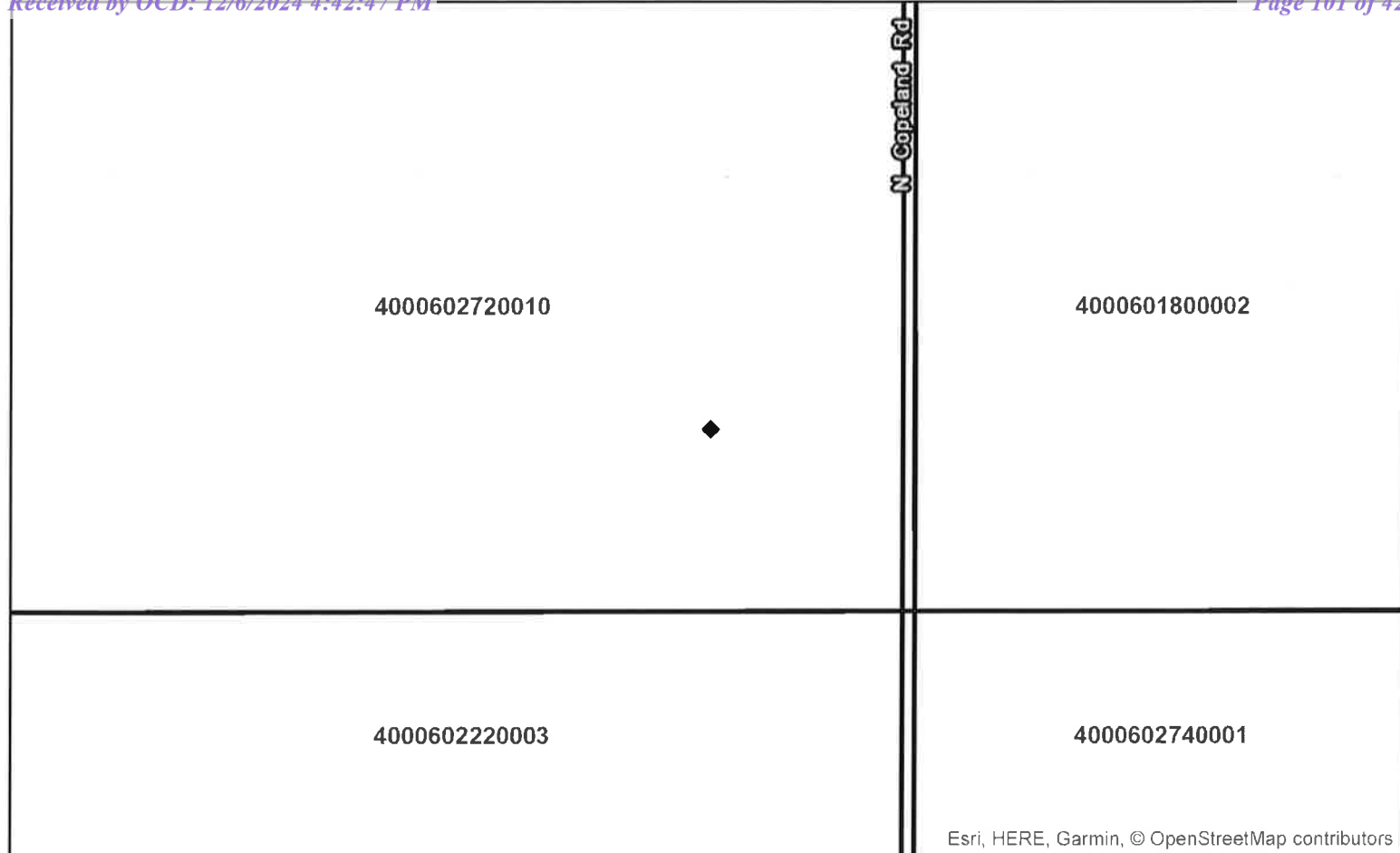
JUAN HERNANDEZ



Trn Desc: L 14493 POD1-6

File Number: L 14493  
Trn Number: 627065



**Coordinates****UTM - NAD 83 (m) - Zone 13**

Easting 675786.807

Northing 3686290.024

**State Plane - NAD 83 (f) - Zone E**

Easting 914525.914

Northing 839375.369

**Degrees Minutes Seconds**

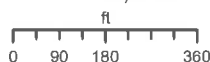
Latitude 33 : 18 : 5.010000

Longitude -103 : 6 : 42.960000

Location pulled from Coordinate Search

NEW MEXICO OFFICE  
OF THE  
STATE ENGINEER

1:4,514



N



A.DENNIS

6/15/2018



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**Spatial Information**

County: Lea

Groundwater Basin: Lea County

Abstract Area: L

Land Grant: Not in Land Grant

**Restrictions:**

(CMA) Lea County Critical Management Area

**PLSS Description**

SWSESESE Qtr of Sec 05 of 012S 038E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

**Parcel Information**

UPC/DocNum: 4000602720010

Parcel Owner: 07 RANCH LAND LTD

Address:

Legal:

**POD Information**

Owner: CARDNO, INC./ EXXONMOBIL

File Number: 14493-POD1

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

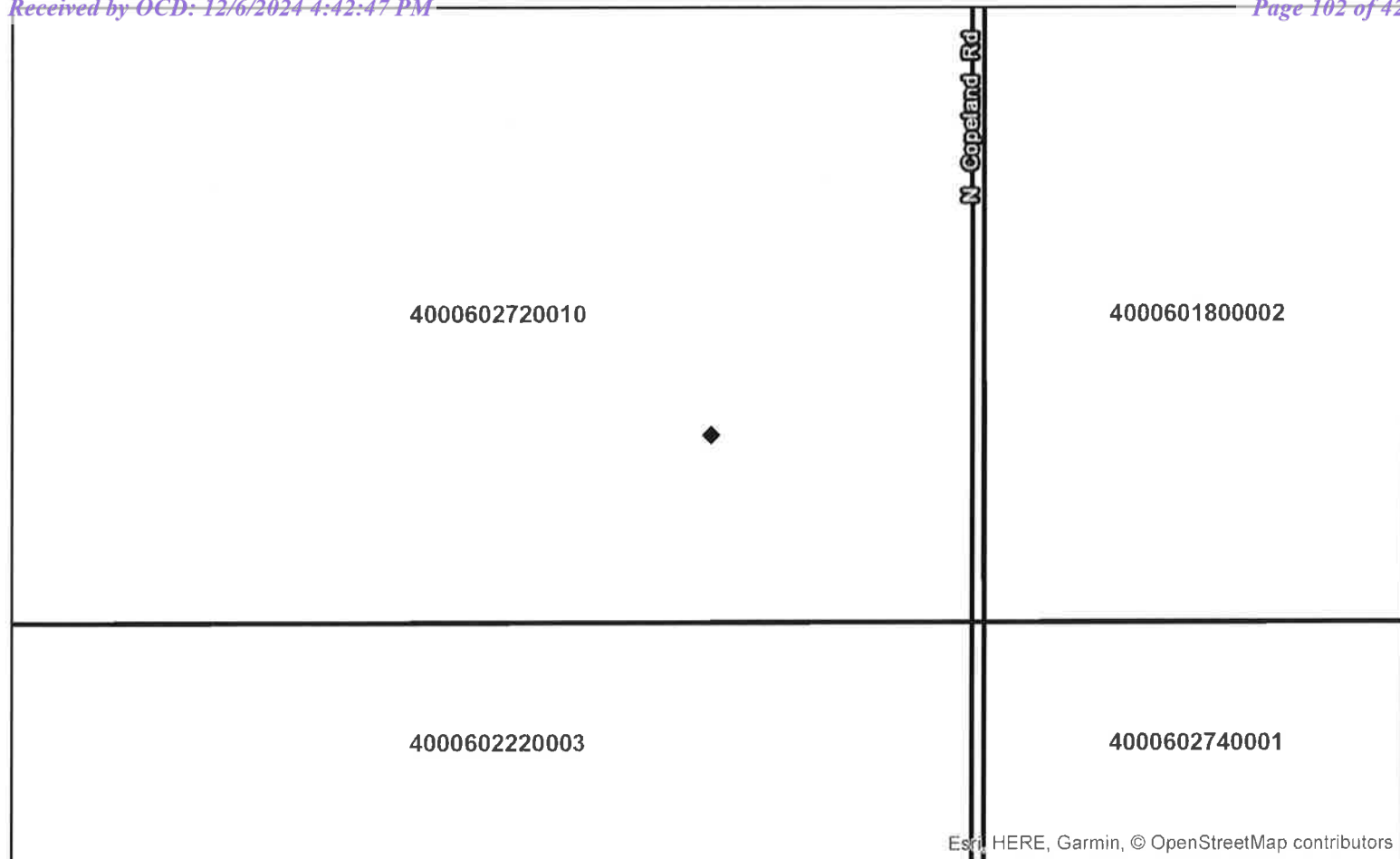
Purpose: MON

◆ Coord Search  
Location

WRAB Abstract  
Project Areas



Lea County  
Parcels 2017

**Coordinates****UTM - NAD 83 (m) - Zone 13**

Easting 675748.723

Northing 3686292.724

**State Plane - NAD 83 (f) - Zone E**

Easting 914401.014

Northing 839385.027

**Degrees Minutes Seconds**

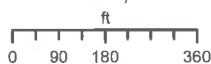
Latitude 33 : 18 : 5.120000

Longitude -103 : 6 : 44.430000

Location pulled from Coordinate Search

NEW MEXICO OFFICE  
OF THE  
STATE ENGINEER

1:4,514



N



A.DENNIS

6/15/2018



Approved: A.Dennis, State Engineer, New Mexico  
 State Engineer's Office, 1000 North Central Avenue, Suite 1000, Albuquerque, NM 87102  
 (505) 243-2000, Fax (505) 243-2001, Email: a.dennis@state.nm.gov  
 www.state.nm.gov

**Spatial Information**

County: Lea

Groundwater Basin: Lea County

Abstract Area: L

Land Grant: Not in Land Grant

**Restrictions:**

(CMA) Lea County Critical Management Area

**PLSS Description**

NWSESESE Qtr of Sec 05 of 012S 038E

Derived from CADNSDI- Qtr Sec. locations are  
 calculated and are only approximations

**Parcel Information**

UPC/DocNum: 4000602720010

Parcel Owner: 07 RANCH LAND LTD

Address:

Legal:

**POD Information**

Owner: CARDNO, INC./ EXXONMOBIL

File Number: 14493-POD2

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

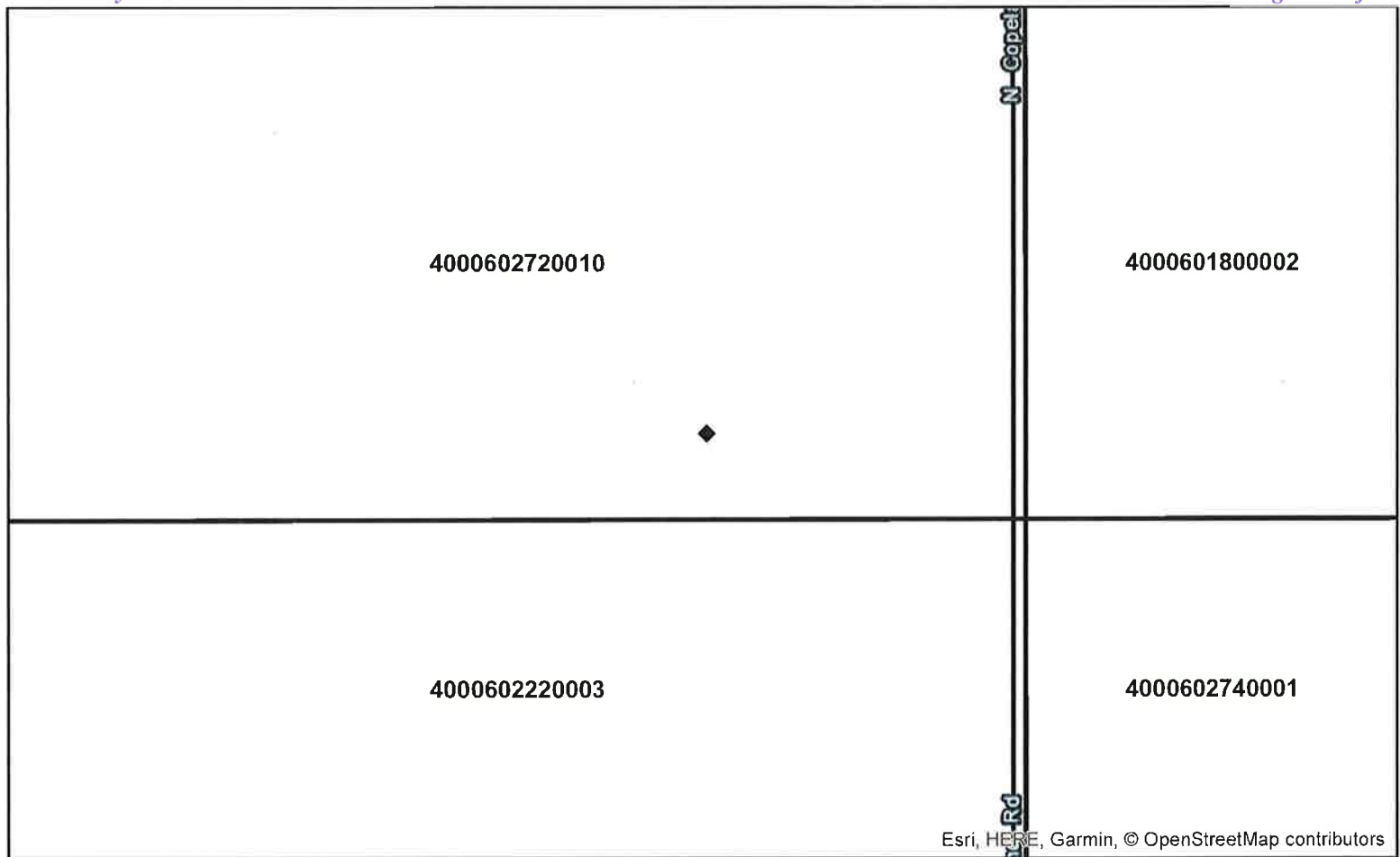


Coord Search  
 Location

WRAB Abstract  
 Project Areas

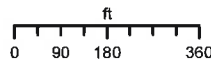


Lea County  
 Parcels 2017



NEW MEXICO OFFICE  
OF THE  
STATE ENGINEER

1:4,514



N



A.DENNIS

6/15/2018



Recreation officials have been issued permits for the use of the river for recreational purposes. The permit is valid for the duration of the permit. The permit is valid for the duration of the permit. The permit is valid for the duration of the permit.

**Coordinates**

**UTM - NAD 83 (m) - Zone 13**

Easting 675723.596

Northing 3686237.114

**State Plane - NAD 83 (f) - Zone E**

Easting 914317.405

Northing 839203.097

**Degrees Minutes Seconds**

Latitude 33 : 18 : 3.330000

Longitude -103 : 6 : 45.440000

Location pulled from Coordinate Search

**Parcel Information**

UPC/DocNum: 4000602720010

Parcel Owner: 07 RANCH LAND LTD

Address:

Legal:

**Spatial Information**

County: Lea

Groundwater Basin: Lea County

Abstract Area: L

Land Grant: Not in Land Grant

**Restrictions:**

(CMA) Lea County Critical Management Area

**PLSS Description**

SWSESESE Qtr of Sec 05 of 012S 038E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

**POD Information**

Owner: CARDNO, INC./ EXXONMOBIL

File Number: 14493-POD3

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

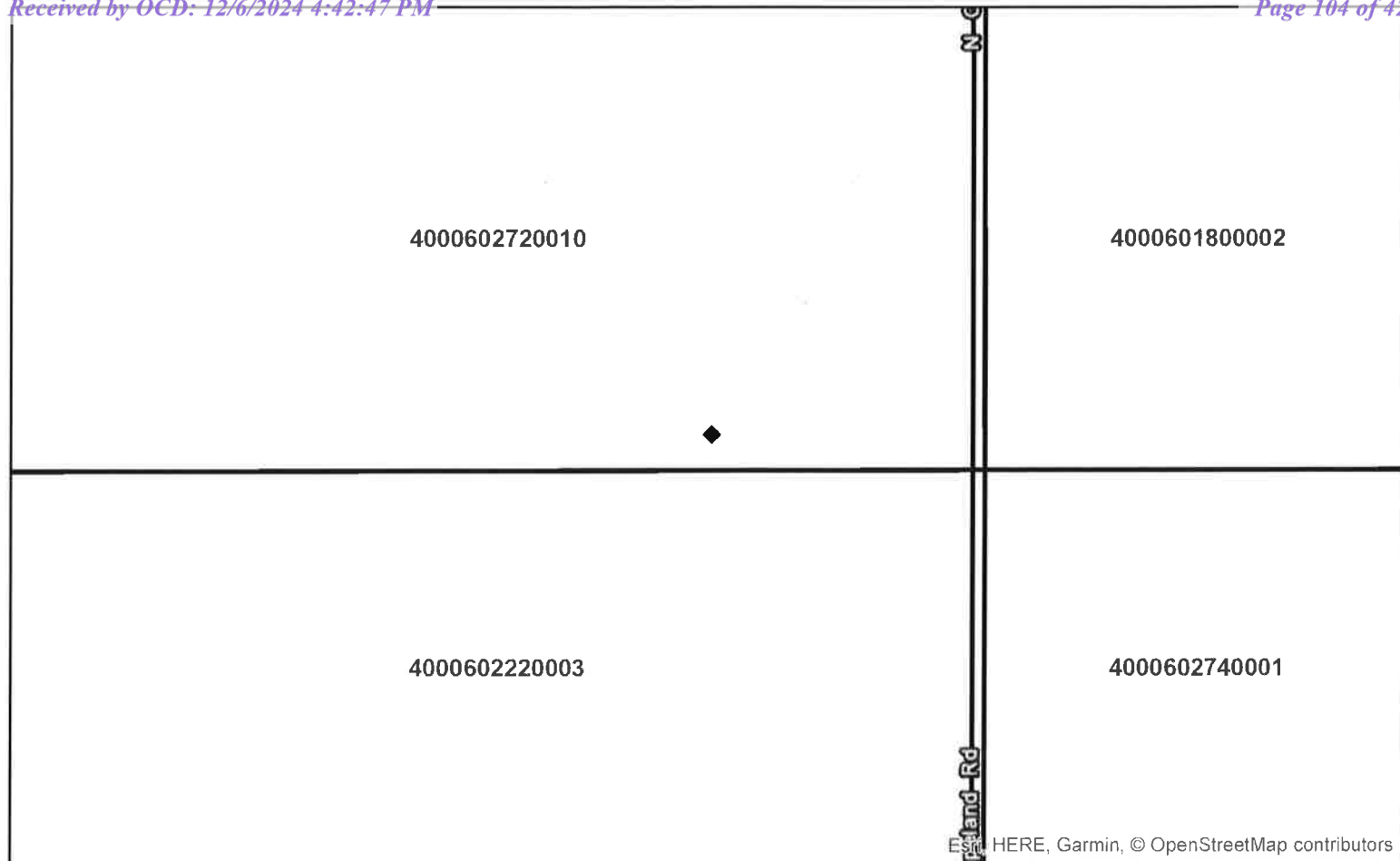


Coord Search  
Location

WRAB Abstract  
Project Areas



Lea County  
Parcels 2017

**Coordinates****UTM - NAD 83 (m) - Zone 13**

Easting 675751.004

Northing 3686209.571

**State Plane - NAD 83 (f) - Zone E**

Easting 914406.754

Northing 839112.150

**Degrees Minutes Seconds**

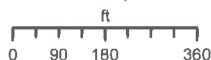
Latitude 33 : 18 : 2.420000

Longitude -103 : 6 : 44.400000

Location pulled from Coordinate Search

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OF THE  
STATE ENGINEER

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A.DENNIS

6/15/2018



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**Spatial Information**

County: Lea

Groundwater Basin: Lea County

Abstract Area: L

Land Grant: Not in Land Grant

**Restrictions:**

(CMA) Lea County Critical Management Area

**PLSS Description**

SWSESESE Qtr of Sec 05 of 012S 038E

Derived from CADNSDI- Qtr Sec, locations are calculated and are only approximations

**Parcel Information**

UPC/DocNum: 4000602720010

Parcel Owner: 07 RANCH LAND LTD

Address:

Legal:

**POD Information**

Owner: CARDNO, INC./ EXXONMOBIL

File Number: 14493-POD4

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

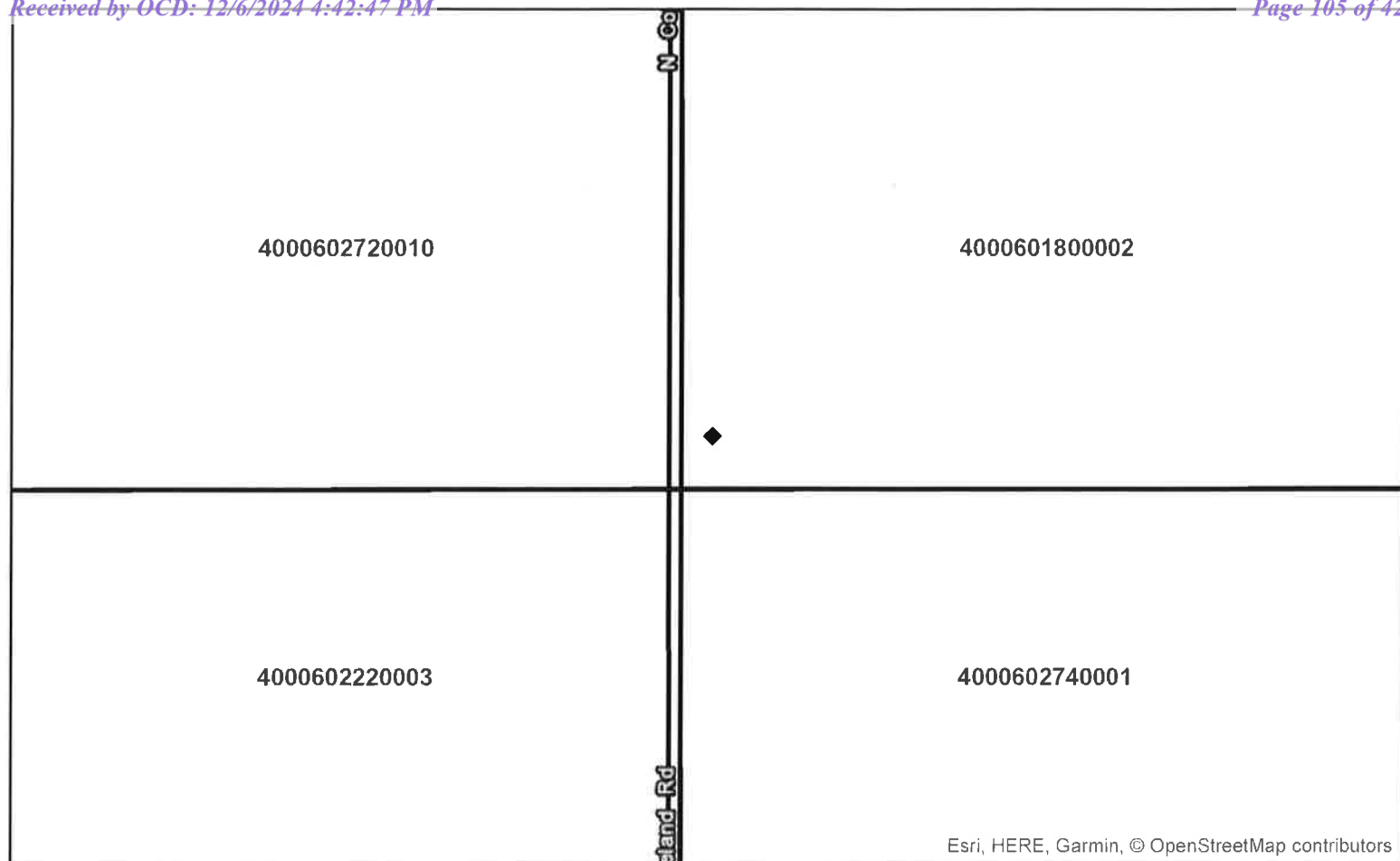


Coord Search  
Location

WRAB Abstract  
Project Areas



Lea County  
Parcels 2017



### Coordinates

**UTM - NAD 83 (m) - Zone 13**

Easting 675916.885

Northing **3686222.434**

## State Plane - NAD 83 (f) - Zone E

Easting 914951.291

Northing 839150.876

Degrees Minutes Seconds

Latitude 33 : 18 : 2.740000

Longitude -103 : 6 : 37.980000

Location pulled from Coordinate Search

## Parcel Information

UPC/DocNum: 4000601800002

**Parcel Owner: 07 RANCH LAND LTD**

**Address:**

**Legal:**

## Spatial Information

County: Lea

Groundwater Basin: Lea County

**Abstract Area: L**

**Land Grant: Not in Land Grant**

**Restrictions:**

**(CMA) Lea County Critical Management Area**

### PLSS Description

**SWSWSWSW Qtr of Sec 04 of 012S 038E**

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

### POD Information

**Owner: CARDNO, INC./ EXXONMOBIL**

File Number: 14493-POD5

POD Status: NoData

Permit Status: NoData

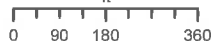
Permit Use: NoData

Purpose: MON

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- Coord Search  
Location
- WRAB Abstract  
Project Areas

Lea County

### Parcels 2017

4000602720010

4000601800002

4000602220003

4000602740001

Esri, HERE, Garmin, © OpenStreetMap contributors

**Coordinates****UTM - NAD 83 (m) - Zone 13**

Easting 675873.599

Northing 3686298.066

**State Plane - NAD 83 (f) - Zone E**

Easting 914810.852

Northing 839399.935

**Degrees Minutes Seconds**

Latitude 33 : 18 : 5.220000

Longitude -103 : 6 : 39.600000

Location pulled from Coordinate Search

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A.DENNIS

6/15/2018



Office of the State Engineer  
Interstate Stream Commission  
1000 University Blvd NE, Suite 200  
Albuquerque, NM 87102-2501  
Phone: (505) 771-2200  
Fax: (505) 771-2201  
Email: oseo@state.nm.gov

**Spatial Information****County:** Lea**Groundwater Basin:** Lea County**Abstract Area:** L**Land Grant:** Not in Land Grant**Restrictions:****(CMA) Lea County Critical Management Area****PLSS Description****NESESESE Qtr of Sec 05 of 012S 038E**

Derived from CADNSDI- Qtr Sec, locations are calculated and are only approximations

**Parcel Information****UPC/DocNum:** 4000602720010**Parcel Owner:** 07 RANCH LAND LTD**Address:****Legal:****POD Information****Owner:** CARDNO, INC./ EXXONMOBIL**File Number:** 14493-POD6**POD Status:** NoData**Permit Status:** NoData**Permit Use:** NoData**Purpose:** MONCoord Search  
LocationWRAB Abstract  
Project Areas

Lea County

Parcels 2017

**David Purdy**

---

**From:** Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>  
**Sent:** Friday, June 01, 2018 7:33 AM  
**To:** David Purdy  
**Cc:** Dusty\_Wilson@oxy.com  
**Subject:** RE: Approval for Work Plan for Additional Groundwater Assessment - Gladiola Station AP038-Lea County

June 1, 2018

David Purdy – CARDNO  
Marla Madden – Exxon-Mobil  
Dusty Wilson – OXY

Hello,

In reference to the work plan for the Gladiola Station, dated May 25, 2018. Oil Conservation Division (OCD), of the EMNRD for the State of New Mexico, site/case identification is AP038 for the OCD, the following:

Work plan as submitted relative to new wells, soil and ground water sampling, protocol for placement and sampling and logging of new wells is approved.

All methods, protocols, analysis techniques, reports and schedules for work on site for the new wells and pre-existing well locations and circumstances are approved.

OCD requests at least two working days pre-knowledge of schedule for well placement so that we may attend the work if possible.

OCD requests in next scheduled report, following data collection and assessment, that the site be evaluated for possibly more aggressive free product recovery and/or additional assessment if deemed necessary.

OCD appreciates your efforts on behalf of this issue. If there are any questions to not hesitate to contact OCD. Please forward this communication to parties you may see as needed.

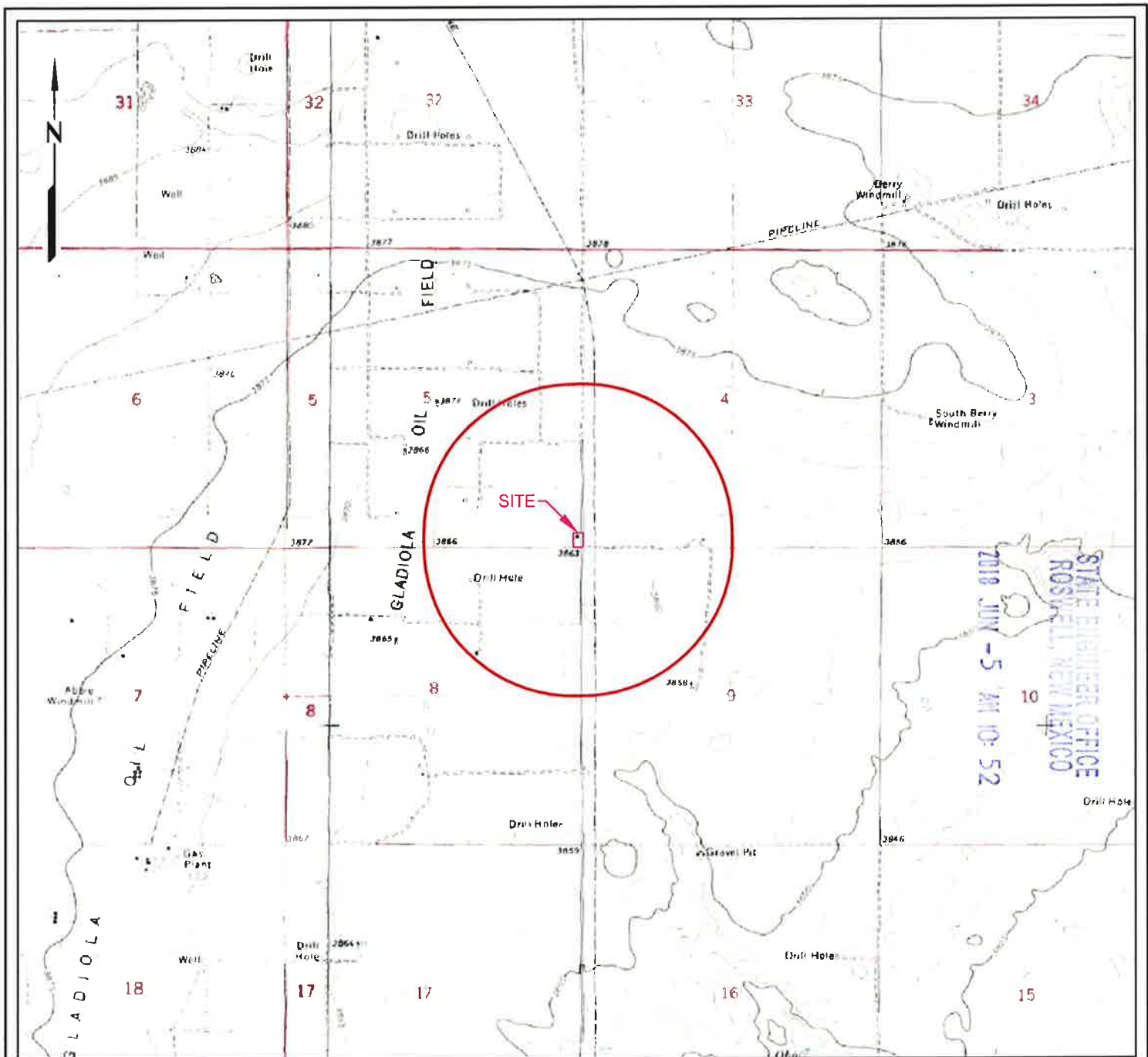
Please keep this electronic communication, as NO paper copy will follow.

Sincerely,

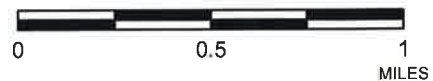
Bradford Billings  
EMNRD/OCD  
Santa Fe

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations





FN 3612.TPO02

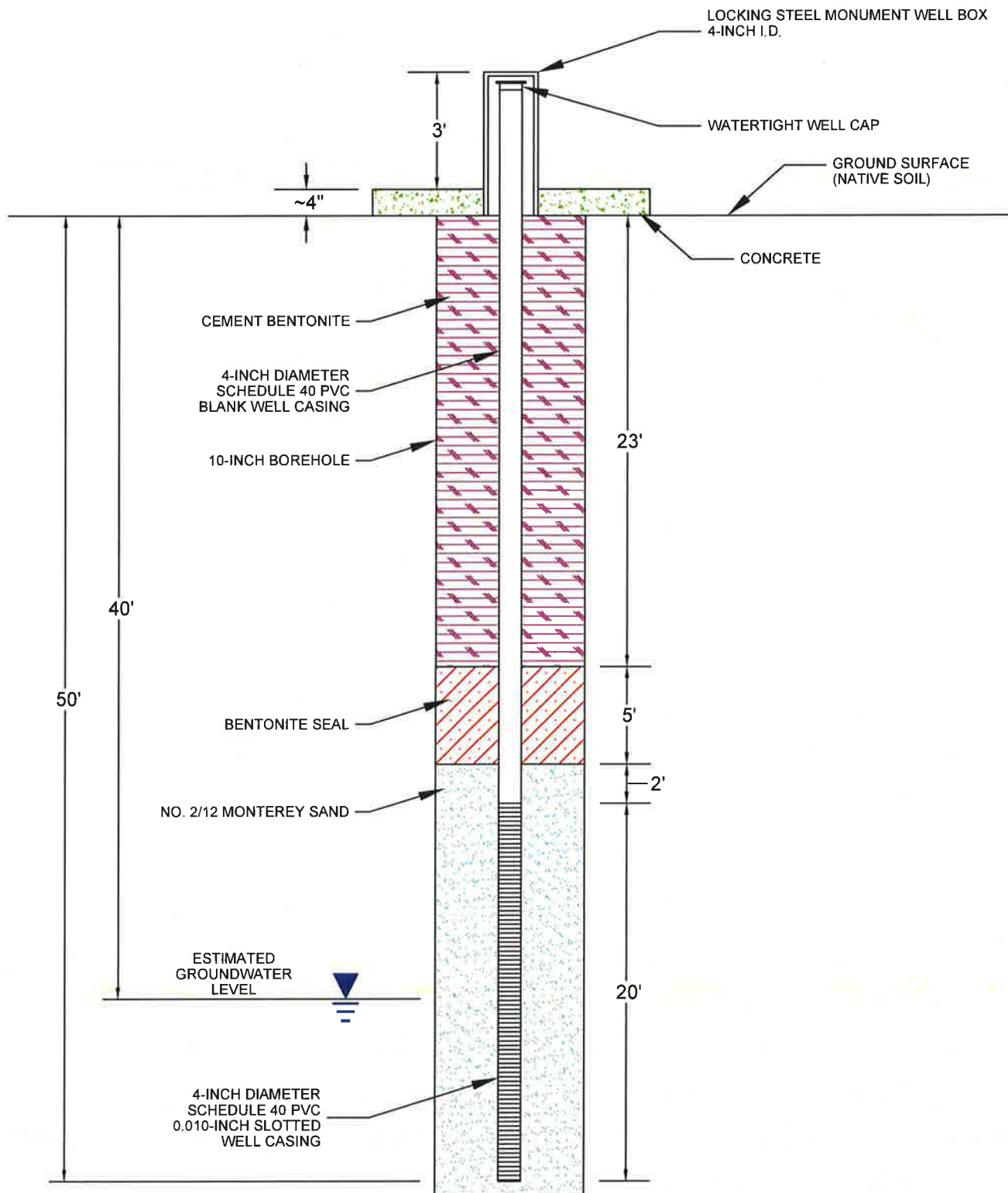
**EXPLANATION**1/2-mile distance from  
property border**APPROXIMATE SCALE**SOURCE:  
Modified from a map  
provided by  
MapPass**SITE LOCATION MAP**GLADIOLA STATION  
Lea County, New Mexico**PROJECT NO.**

3612

**PLATE**

1





NOT TO SCALE

FN 01361204.W01.P5 revised



## PROPOSED GROUNDWATER MONITORING WELL CONSTRUCTION DIAGRAM

GLADIOLA STATION  
Lea County, New Mexico

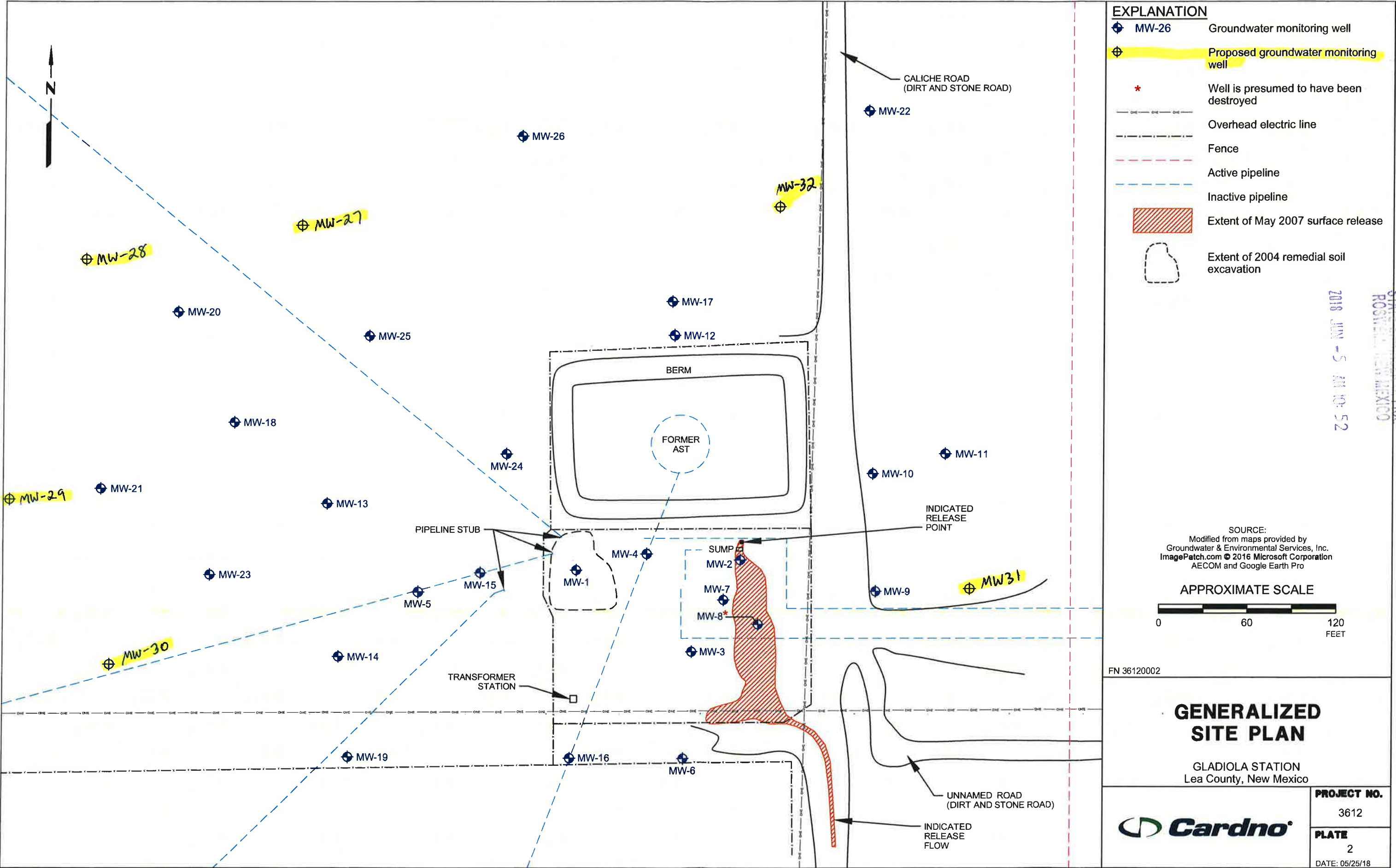
PROJECT NO.

3612

PLATE

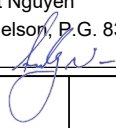
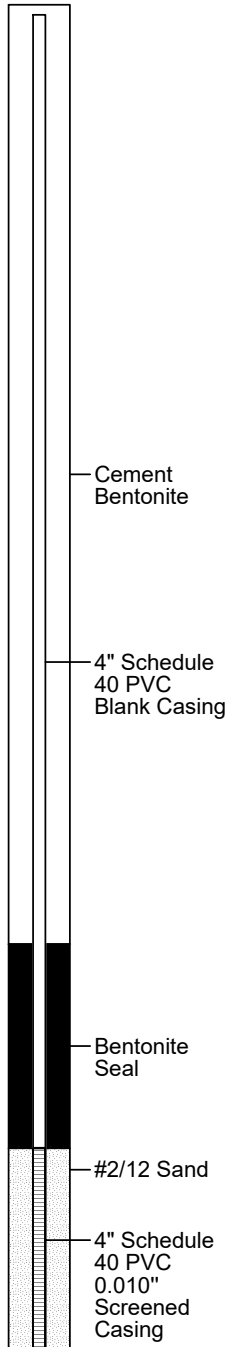
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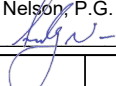
DATE: 06/14/18



## **APPENDIX D**

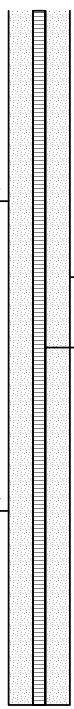
## **BORING LOGS**

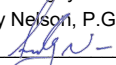
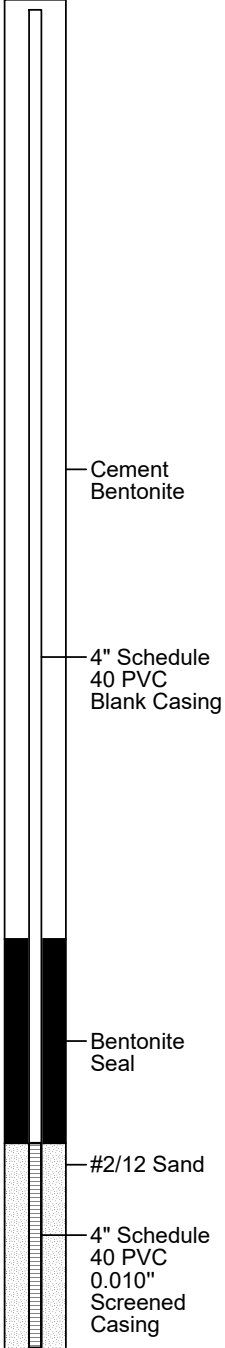
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                                                                                |                 | <b>BORING LOG B1/MW27</b><br>(Page 1 of 2) |                                                                                                                                                                            | Date Drilled : 06/20/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839394.5 N<br>Easting : 914371.7 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 45' bgs |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample                                                                                                                                                                     | Column                                                                                                                                                                                                                                                                                                           | USCS | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling | Well: B1/MW27<br>Elevation: 3869.12'                                                 |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | Dirt and light vegetation at the surface<br>Borehole was cleared to 2.5' bgs on 06/12/18 using an air lance                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |  |
| 5                                                                                                                                                                                                                                               | 10<br>12<br>15  | 0                                          | <br>     |                                                                                                                                                                                                                                                                                                                  | SM   | Silty SAND: fine-grained, light brown, dry, poorly graded, non-plastic; small quantities of caliche fragments (0/35/65/0)                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                 |                                                                                      |
| 10                                                                                                                                                                                                                                              | 30<br>50<br>44  | 0                                          | <br> |                                                                                                                                                                                                                                                                                                                  | SM   | Silty SAND: fine - coarse grained, light brown, dry, poorly graded, non-plastic; small quantities of caliche fragments and tree roots (0/35/65/0)                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                 |                                                                                      |
| 15                                                                                                                                                                                                                                              | 30<br>54<br>3   | 7.5                                        | <br> |                                                                                                                                                                                                                                                                                                                  | SM   | Silty SAND: very fine-grained, white, dry, poorly graded, non-plastic; caliche layer (0/35/65/0)                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |                                                                                      |
| 20                                                                                                                                                                                                                                              | 30<br>30<br>40  | 4.2                                        | <br> |                                                                                                                                                                                                                                                                                                                  | SM   | Same as 15 feet bgs                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |                                                                                      |
| 25                                                                                                                                                                                                                                              | 30<br>50<br>2   | 8.5                                        | <br> |                                                                                                                                                                                                                                                                                                                  | SM   | Same as 15 feet bgs                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |                                                                                      |
| 30                                                                                                                                                                                                                                              | 30<br>50<br>1   | 17.7                                       | <br> |                                                                                                                                                                                                                                                                                                                  | SM   | SAND with silt: fine - medium grained, white, moist, poorly graded, non-plastic; trace gravel (0/30/60/10)                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                 |                                                                                      |

|                                                                                                                                                                                                                                                 |  |                                            |  |                                                                                                                                                                                                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                |  | <b>BORING LOG B1/MW27</b><br>(Page 2 of 2) |  | Date Drilled : 06/20/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839394.5 N<br>Easting : 914371.7 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 45' bgs |  |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |  |                                            |  |                                                                                                                                                                                                                                                                                                                  |  |

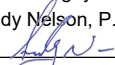
  

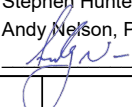
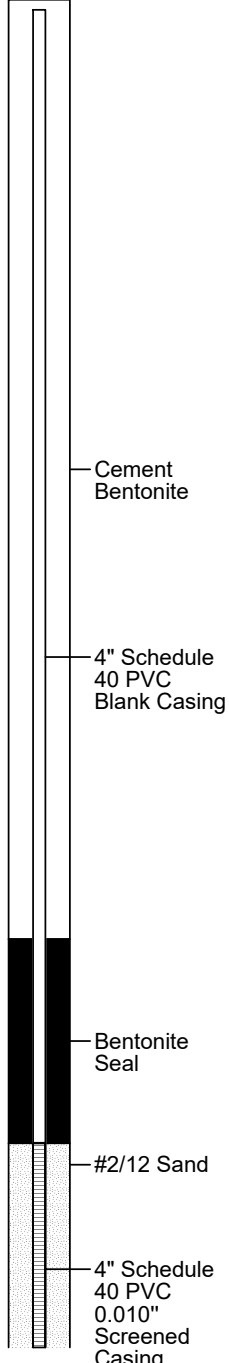
| Depth (ft) | Blow Count / 6" | OVM/PID (ppmv) | Sample                                                                              | Column | USCS | Sample Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Water Levels                                                                                                                                                                                                                    |                                      |  |
|------------|-----------------|----------------|-------------------------------------------------------------------------------------|--------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--|
|            |                 |                |                                                                                     |        |      |  No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample                                                                                                                                                                                                                                                                                         |  Groundwater After Completion<br> Groundwater During Drilling | Well: B1/MW27<br>Elevation: 3869.12' |  |
|            |                 |                |                                                                                     |        |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |                                      |  |
| 33         |                 |                |                                                                                     |        | SM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 30         | 30              | 28.7           |    |        | SP   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 50         | 50              |                |    |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 2          | 2               |                |    |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 38         |                 |                |                                                                                     |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 50         | 50              | 164.7          |    |        | SM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 0          | 0               |                |    |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 0          |                 |                |   |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 43         |                 |                |                                                                                     |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 4          |                 | 4.2            |  |        | ML   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
|            |                 |                |  |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
|            |                 |                |  |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 48         |                 |                |                                                                                     |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 3          |                 | 3.6            |  |        | SW   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
|            |                 |                |  |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
|            |                 |                |  |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 53         |                 |                |                                                                                     |        |      | Backfill Materials:<br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete<br><br>Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.<br><br>Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken.<br><br>The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). |                                                                                                                                                                                                                                 |                                      |  |
| 58         |                 |                |                                                                                     |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |
| 63         |                 |                |                                                                                     |        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                 |                                      |  |



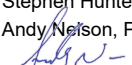
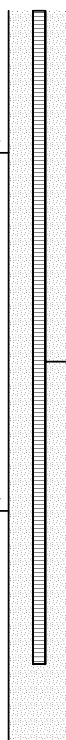
|                                                                                                                                                                                                                                                 |                 |                                            |        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                                                                                |                 | <b>BORING LOG B2/MW28</b><br>(Page 1 of 2) |        | Date Drilled : 06/21/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839367.8 N<br>Easting : 914371.7 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 42' bgs |                                                                                                                                               |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample | Column                                                                                                                                                                                                                                                                                                           | USCS                                                                                                                                          | Sample Condition<br><input type="checkbox"/> No Recovery<br><input type="checkbox"/> Sampled Interval<br><input type="checkbox"/> Described Sample<br><input type="checkbox"/> Preserved Sample | Water Levels<br><input checked="" type="checkbox"/> Groundwater After Completion<br><input type="checkbox"/> Groundwater During Drilling | Well: B2/MW28<br>Elevation: 3869.32'                                                 |
|                                                                                                                                                                                                                                                 |                 |                                            |        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                            |                                                                                                                                          |                                                                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               | Dirt and light vegetation at the surface<br>Borehole was cleared to 4' bgs on 06/11/18 using an air lance<br>Caliche rock layer found at approximately 4' bgs                                   |                                                                                                                                          |  |
| 5                                                                                                                                                                                                                                               |                 |                                            |        | SP                                                                                                                                                                                                                                                                                                               | SAND with silt: fine-coarse grained, white, dry, poorly graded, non-plastic; trace gravel; small quantities of caliche fragments (0/25/65/10) |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| 10                                                                                                                                                                                                                                              |                 |                                            |        | SP                                                                                                                                                                                                                                                                                                               | Same as 5 feet bgs                                                                                                                            |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| 15                                                                                                                                                                                                                                              |                 |                                            |        | SP                                                                                                                                                                                                                                                                                                               | Same as 5 feet bgs                                                                                                                            |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| 20                                                                                                                                                                                                                                              |                 |                                            |        | SM                                                                                                                                                                                                                                                                                                               | Silty SAND: fine-coarse grained, white, dry, poorly graded, non-plastic; small quantities of caliche fragments (0/35/65/0)                    |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| 25                                                                                                                                                                                                                                              |                 |                                            |        | SM                                                                                                                                                                                                                                                                                                               | Same as 20 feet bgs                                                                                                                           |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |
| 30                                                                                                                                                                                                                                              |                 |                                            |        | SP                                                                                                                                                                                                                                                                                                               | SAND with silt: fine-grained, light brown, dry, poorly graded, non-plastic (0/30/60/10)                                                       |                                                                                                                                                                                                 |                                                                                                                                          |                                                                                      |

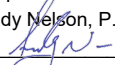
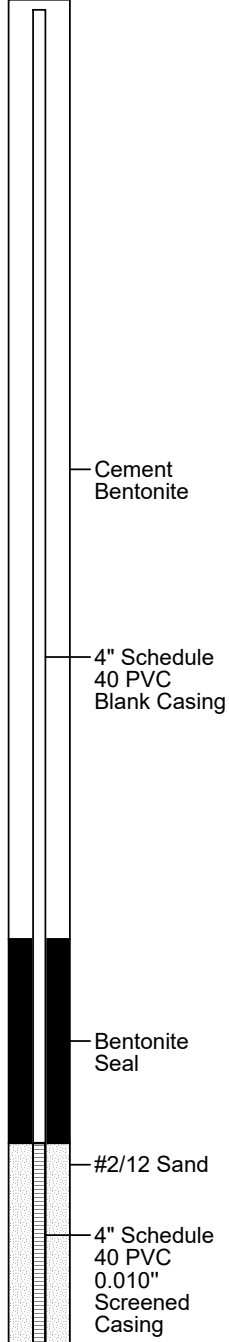


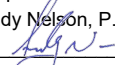
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |                |                                                                                     |                                                                                     | <b>BORING LOG B2/MW28</b><br>(Page 2 of 2) |                                                                                                                                                                                                                                                                                                                                                                                                                                     | Date Drilled : 06/21/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839367.8 N<br>Easting : 914371.7 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 42' bgs |                                                                                                                                                                                                                                                 |  |                                                             |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| Depth (ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Blow Count / 6" | OVM/PID (ppmv) | Sample                                                                              | Column                                                                              | USCS                                       | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample |                                                                                                                                                                                                                                                                                                                  | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling |  | Well: B2/MW28<br>Elevation: 3869.32'                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                |                                                                                     |                                                                                     |                                            | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                |    |    | SP                                         | Sandy SILT: fine-grained, light brown, dry, very poorly graded, non-plastic (0/70/30/0)                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                              |  |                                                             |
| 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 | 1.8            |    |    | ML                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| 43                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                |   |   | ML                                         | Same as 35 feet bgs                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                            |  | #2/12 Sand<br><br>4" Schedule 40 PVC 0.010" Screened Casing |
| 48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                |  |  | SP                                         | SAND with silt: fine-coarse grain, light brown, dry, poorly graded, non-plastic (0/20/80/0)                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| 53                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 | 10.3           |  |  | SP                                         | Same as 45 feet bgs                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| Backfill Materials:<br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete<br><br>Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.<br><br>Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken.<br><br>The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| 58                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |
| 63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                                             |

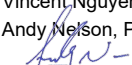
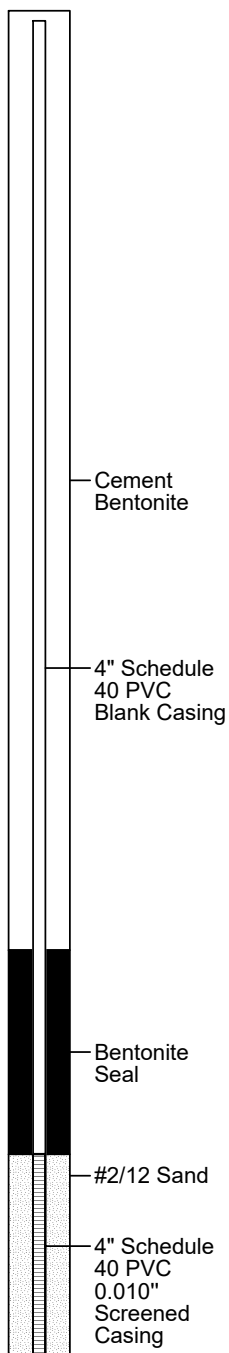
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
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|                                                                                                                                                                |                 | <b>BORING LOG B3/MW29</b><br>(Page 1 of 2) |                                                                                                                                                                            | Date Drilled : 06/22/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839213.3 N<br>Easting : 914320.1 E<br>Total Boring Depth : 51' bgs<br>First GW Depth : 45' bgs |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Stephen Hunter<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample                                                                                                                                                                     | Column                                                                                                                                                                                                                                                                                                           | USCS | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling | Well: B3/MW29<br>Elevation: 3869.36'                                                 |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | Dirt and light vegetation at the surface<br><br>Borehole was cleared to 2.5' bgs on 06/11/18 using an air lance                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |  |
| 5                                                                                                                                                                                                                                               | 0               |                                            | <br>     |                                                                                                                                                                                                                                 | ML   | SILT with sand: fine-coarse grained, light red-brown, dry, poorly graded, non-plastic; trace gravel (0/65/20/15)                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |                                                                                      |
| 10                                                                                                                                                                                                                                              | 0               |                                            | <br> |                                                                                                                                                                                                                               | ML   | SILT with sand: fine-coarse grained, white, dry, poorly graded, non-plastic; trace gravel; small quantities of caliche fragments (0/70/20/10)                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                 |                                                                                      |
| 15                                                                                                                                                                                                                                              | 1.9             |                                            | <br> |                                                                                                                                                                                                                               | ML   | SILT: white, dry, poorly graded, non-plastic; trace fine-medium grained sand, and gravel (0/85/10/5)                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                      |
| 20                                                                                                                                                                                                                                              | 7.3             |                                            | <br> |                                                                                                                                                                                                                               | ML   | Sandy SILT: fine-coarse grained, light brown, dry, well graded, non-plastic; trace gravel and cobbles (0/55/30/15)                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |                                                                                      |
| 25                                                                                                                                                                                                                                              | 2.7             |                                            | <br> |                                                                                                                                                                                                                               | ML   | SILT with sand and gravel: fine-coarse grained, light brown, dry, well graded, non-plastic; small amounts of caliche fragments and large cobblestones (0/55/25/20)                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |                                                                                      |
| 30                                                                                                                                                                                                                                              | 0.8             |                                            | <br> |                                                                                                                                                                                                                               | ML   | Same as 25 feet bgs (0/60/20/20)                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                 |                                                                                      |

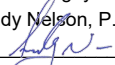


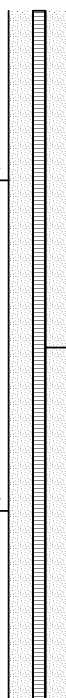
|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
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|                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   | <b>BORING LOG B3/MW29</b><br>(Page 2 of 2)                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                     | Date Drilled : 06/22/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839213.3 N<br>Easting : 914320.1 E<br>Total Boring Depth : 51' bgs<br>First GW Depth : 45' bgs                        |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Stephen Hunter<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | OVM/PID (ppmv) | Sample | Column                                                                                                                                                                                                                                                            | USCS                                                                              | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample |                                                                                                                                                                                                                                                                                                                                         | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling |                                                                                                                                                                                                                                                                  | Well: B3/MW29<br>Elevation: 3869.36' |
|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   |                                                                                   | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 33                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | 1.7    | <br><br>       |  | ML                                                                                                                                                                                                                                                                                                                                                                                                                                  | SILT: light brown, dry, poorly graded, non-plastic; trace fine-coarse grained sand, and gravel (0/75/15/10)<br><br>SILT with sand: fine-grained, brown, moist, very poorly sorted, low plasticity (0/75/25/0)<br><br>SILT with clay: red-brown, wet, very poorly graded, medium plasticity; trace fine-coarse grained sand (25/60/15/0) |                                                                                                                                                                                                                                                 |  <div style="position: absolute; left: 840px; top: 440px;">           #2/12 Sand<br/><br/>           4" Schedule 40 PVC<br/>           0.010" Screened Casing         </div> |                                      |
| 38                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | 2.4    | <br><br>      | ML                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 43                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | 2.7    | <br><br> | ML                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 48                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | 5.4    | <br><br> | SP                                                                                | SAND with silt: fine-coarse grained, red-brown, wet, poorly graded, non-plastic (0/20/80/0)                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 53                                                                                                                                                                                                                                              | Backfill Materials:<br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete<br><br>Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.<br><br>Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken.<br><br>The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). |                |        |                                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 58                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |
| 63                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |        |                                                                                                                                                                                                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                      |

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|                                                                                                                                                                |                 | <b>BORING LOG B4/MW30</b><br>(Page 1 of 2) |                                                                                     | Date Drilled : 06/21/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839098.7 N<br>Easting : 914375.9 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 50' bgs |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Stephen Hunter<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample                                                                              | Column                                                                                                                                                                                                                                                                                                           | USCS | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling | Well: B4/MW30<br>Elevation: 3869.10'                                                 |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      | Dirt and light vegetation at the surface<br>Borehole was cleared to 4' bgs on 06/11/18 using an air lance                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                 |  |
| 5                                                                                                                                                                                                                                               |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| 10                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | SP   | SAND: fine-coarse grained, light brown, dry, poorly graded; trace silt and gravel (0/15/80/15)                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                 |                                                                                      |
| 15                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | ML   | SILT with sand: fine-grained, light brown, dry, poorly graded, non-plastic; trace gravel; small amounts of caliche fragments (0/75/20/5)                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                 |                                                                                      |
| 20                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | ML   | SILT with sand: fine-coarse grained, white, dry, poorly sorted, non-plastic (0/80/20/0)                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                 |                                                                                      |
| 25                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | SP   | SAND with silt: fine-coarse grained, light brown, dry, poorly graded, non-plastic; trace gravel; small quantities of caliche fragments (0/20/75/5)                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |                                                                                      |
| 30                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | ML   | sandy SILT: fine-coarse grained, light brown, dry, poorly graded, non-plastic; trace gravel (0/60/35/5)                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                 |                                                                                      |

|                                                                                                                                                                                                                                                        |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
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|                                                                                                                                                                       |                 |                |                                                                                     |                                                                                     | <b>BORING LOG B4/MW30</b><br>(Page 2 of 2) |                                                                                                                                                                                                 | Date Drilled : 06/21/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839098.7 N<br>Easting : 914375.9 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 50' bgs |                                                                                                                               |  |                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Stephen Hunter<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :         |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| Depth (ft)                                                                                                                                                                                                                                             | Blow Count / 6" | OVM/PID (ppmv) | Sample                                                                              | Column                                                                              | USCS                                       | Sample Condition<br><input type="checkbox"/> No Recovery<br><input type="checkbox"/> Sampled Interval<br><input type="checkbox"/> Described Sample<br><input type="checkbox"/> Preserved Sample |                                                                                                                                                                                                                                                                                                                  | Water Levels<br><input type="checkbox"/> Groundwater After Completion<br><input type="checkbox"/> Groundwater During Drilling |  | Well: B4/MW30<br>Elevation: 3869.10' |
|                                                                                                                                                                                                                                                        |                 |                |                                                                                     |                                                                                     |                                            | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| 33                                                                                                                                                                                                                                                     |                 |                |    |    | ML                                         | sandy SILT: fine-grained, light brown, dry, very poorly graded, non-plastic; trace gravel (0/60/30/10)                                                                                          |                                                                                                                                                                                                                                                                                                                  |                                            |  |                                      |
| 38                                                                                                                                                                                                                                                     |                 | 0.9            |    |    | ML                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| 43                                                                                                                                                                                                                                                     |                 |                |  |  | ML                                         | SILT with sand: fine-coarse grained, light brown, dry, poorly graded, non-plastic; trace gravel (0/65/25/10)                                                                                    |                                                                                                                                                                                                                                                                                                                  |                                            |  |                                      |
| 48                                                                                                                                                                                                                                                     |                 | 3.8            |  |  | GW                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| 53                                                                                                                                                                                                                                                     |                 |                |  |  | MH                                         | GRAVEL with sand: fine-coarse grained, light brown, dry, poorly graded; trace silt (0/15/25/60)                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                          |  |                                      |
| 58                                                                                                                                                                                                                                                     |                 |                |  |  | MH                                         |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| 63                                                                                                                                                                                                                                                     |                 |                |  |  |                                            | CLAY with silt: red-brown, moist, very poorly sorted, medium plasticity; trace fine-grained sand, and gravel (70/20/5/5)                                                                        |                                                                                                                                                                                                                                                                                                                  |                                          |  |                                      |
|                                                                                                                                                                                                                                                        |                 |                |  |  |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| Backfill Materials:<br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete                                                                                                                                          |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.                                                                                                                                 |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken. |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |
| The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).                                                                 |                 |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |  |                                      |

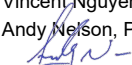
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                                                                                |                 | <b>BORING LOG B5/MW31</b><br>(Page 1 of 2) |                                                                                                                                                                            | Date Drilled : 06/23/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839153.5 N<br>Easting : 914969.1 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 45' bgs |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                 |                                                                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample                                                                                                                                                                     | Column                                                                                                                                                                                                                                                                                                           | USCS | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling | Well: B5/MW31<br>Elevation: 3869.05'                                                 |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                 |                                                                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |      | Dirt and light vegetation at the surface<br>Borehole was cleared to 1.5' bgs on 06/12/18 using an air lance<br>Caliche rock layer found at approximately 1.5' bgs                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                 |  |
| 5                                                                                                                                                                                                                                               |                 |                                            | <br>     |                                                                                                                                                                                                                                                                                                                  | SP   | SAND: fine-coarse grained, brown, dry, poorly graded; trace silt and gravel (0/10/80/10)                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                 |                                                                                      |
| 10                                                                                                                                                                                                                                              |                 |                                            | <br> |                                                                                                                                                                                                                                                                                                                  | SW   | Gravelly SAND: fine-coarse grained, light brown, dry, well graded; trace silt, small amounts of caliche fragments (0/10/60/30)                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                 |                                                                                      |
| 15                                                                                                                                                                                                                                              |                 |                                            | <br> |                                                                                                                                                                                                                                                                                                                  | SW   | Same as 10 feet bgs; larger caliche fragments                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                 |                                                                                      |
| 20                                                                                                                                                                                                                                              |                 |                                            | <br> |                                                                                                                                                                                                                                                                                                                  | ML   | SILT with sand and gravel: fine-grained, white, dry, well graded, non-plastic; small quantities of caliche fragments (0/55/25/20)                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                 |                                                                                      |
| 25                                                                                                                                                                                                                                              |                 |                                            | <br> |                                                                                                                                                                                                                                                                                                                  | ML   | Same as 20 feet bgs; coarser grained sand                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                 |                                                                                      |
| 30                                                                                                                                                                                                                                              |                 |                                            | <br> |                                                                                                                                                                                                                                                                                                                  | ML   | Same as 20 feet bgs                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                 |                                                                                      |

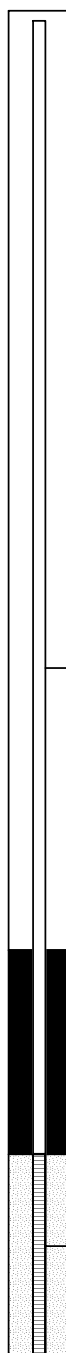
|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------|
|                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     | <b>BORING LOG B5/MW31</b><br>(Page 2 of 2) |                                                                                                                                                                                                                                                                                                                                                                                                                                     | Date Drilled : 06/23/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839153.5 N<br>Easting : 914969.1 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 45' bgs |                                                                                                                                                                                                                                                 |  |                                      |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | OVM/PID (ppmv) | Sample                                                                              | Column                                                                              | USCS                                       | Sample Condition<br> No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample |                                                                                                                                                                                                                                                                                                                  | Water Levels<br> Groundwater After Completion<br> Groundwater During Drilling |  | Well: B5/MW31<br>Elevation: 3869.05' |
|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     |                                            | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 33                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |    |    | ML                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |    |    | SP                                         | SAND with silt: fine-grained, light brown, dry, poorly graded, non-plastic; trace gravel; small amounts of caliche fragments (0/20/70/10)                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 38                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 189.5          |    |    | ML                                         | Silt: light brown, dry, poorly graded, non-plastic; trace fine-grained sand, and gravel; small amounts of caliche fragments (0/75/10/15)                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 43                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 36.8           |  |  | SM                                         | Silty SAND: fine-grained, light brown, wet, poorly graded, non-plastic (0/30/70/0)                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 48                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20.2           |  |  | ML                                         | Sandy SILT: fine-grained, brown, wet, poorly graded, non-plastic (0/65/35/0)                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 53                                                                                                                                                                                                                                              | Backfill Materials:<br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete<br><br>Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.<br><br>Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken.<br><br>The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 58                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |
| 63                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                     |                                                                                     |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                 |  |                                      |



#2/12 Sand

4" Schedule 40 PVC 0.010" Screened Casing

|                                                                                                                                                                |                 | <b>BORING LOG B6/MW32</b><br>(Page 1 of 2) |                                                                                     | Date Drilled : 06/19/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839411.3 N<br>Easting : 914834.0 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 40' bgs |      |                                                                                                                                                                             |                                                                                                               |                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                             |                                                                                                               |                                      |
| Depth (ft)                                                                                                                                                                                                                                      | Blow Count / 6" | OVM/PID (ppmv)                             | Sample                                                                              | Column                                                                                                                                                                                                                                                                                                           | USCS | Sample Condition                                                                                                                                                            | Water Levels                                                                                                  | Well: B6/MW32<br>Elevation: 3870.35' |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      | <input type="checkbox"/> No Recovery<br><input type="checkbox"/> Sampled Interval<br><input type="checkbox"/> Described Sample<br><input type="checkbox"/> Preserved Sample | <input type="checkbox"/> Groundwater After Completion<br><input type="checkbox"/> Groundwater During Drilling |                                      |
| DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                            |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      |                                                                                                                                                                             |                                                                                                               |                                      |
| 0                                                                                                                                                                                                                                               |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      | Dirt and light vegetation at the surface                                                                                                                                    |                                                                                                               |                                      |
|                                                                                                                                                                                                                                                 |                 |                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                  |      | Borehole was cleared to 4' bgs on 06/12/18 using an air lance                                                                                                               |                                                                                                               |                                      |
| 5                                                                                                                                                                                                                                               |                 |                                            |    |                                                                                                                                                                                                                                                                                                                  | SM   | Silty SAND: fine-grained, brown, dry, poorly graded, non-plastic; trace gravel (0/30/60/10)                                                                                 |                                                                                                               |                                      |
| 10                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | SM   | Same as 5 feet bgs; coarser grained sand; small amounts of caliche fragments                                                                                                |                                                                                                               |                                      |
| 15                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | SM   | Same as 5 feet bgs; gray; small amounts of caliche fragments                                                                                                                |                                                                                                               |                                      |
| 20                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | SP   | SAND with silt and gravel: fine-coarse grained, light brown, dry, well graded, non-plastic; subangular gravel; small quantities of caliche fragments (0/20/55/25)           |                                                                                                               |                                      |
| 25                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | ML   | SILT: red-brown, dry, poorly graded, non-plastic; trace coarse-grained sand; trace subangular gravel; small amounts of caliche fragments (0/80/10/10)                       |                                                                                                               |                                      |
| 30                                                                                                                                                                                                                                              |                 |                                            |  |                                                                                                                                                                                                                                                                                                                  | ML   | Same as 25 feet bgs; light brown color                                                                                                                                      |                                                                                                               |                                      |



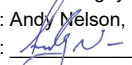
Cement Bentonite

4" Schedule 40 PVC Blank Casing

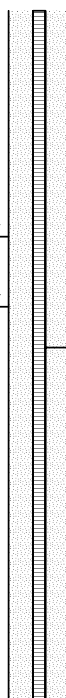
Bentonite Seal

#2/12 Sand

4" Schedule 40 PVC 0.010" Screened Casing

|                                                                                                                                                                                                                                                 |  |                                            |  |                                                                                                                                                                                                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                                                                                |  | <b>BORING LOG B6/MW32</b><br>(Page 2 of 2) |  | Date Drilled : 06/19/18<br>Drilling Co. : Yellow Jacket Drilling<br>Drilling Method : Air Rotary<br>Sampling Method : 2" CA Modified Split Spoon<br>Borehole Diameter : 10"<br>Casing Diameter : 4"<br>Northing : 839411.3 N<br>Easting : 914834.0 E<br>Total Boring Depth : 50' bgs<br>First GW Depth : 40' bgs |  |
| Project No.: : 0136122018<br>Site: : Gladiola Station, Lea County, NM<br>Logged By: : Vincent Nguyen<br>Reviewed By: : Andy Nelson, P.G. 8360<br>Signature: :  |  |                                            |  |                                                                                                                                                                                                                                                                                                                  |  |

| Depth (ft) | Blow Count / 6" | OVM/PID (ppmv) | Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Column                                                                              | USCS | Sample Condition                                                                                                                                                                                                                                                                                                                                                                                                | Water Levels                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                           |
|------------|-----------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |      |  No Recovery<br> Sampled Interval<br> Described Sample<br> Preserved Sample |  Groundwater After Completion<br> Groundwater During Drilling | Well: B6/MW32<br>Elevation: 3870.35'                                                                                                                                                                                                                                      |
|            |                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |      | DESCRIPTION (%clay/silt/sand/gravel)                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 33         |                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    | ML   |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |  <div style="position: absolute; left: 840px; top: 430px;">#2/12 Sand</div> <div style="position: absolute; left: 840px; top: 460px;">4" Schedule 40 PVC 0.010" Screened Casing</div> |
|            |                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    | ML   | Same as 30 feet bgs; fine-grained sand; rounded caliche fragments                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 38         |                 | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    | SM   | Silty SAND: fine-grained, light brown, wet, poorly graded, non-plastic; trace gravel; small amounts of caliche fragments (0/30/55/15)                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 43         |                 | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | SM   | Silty SAND: fine-grained, red-brown, wet, poorly graded, non-plastic (0/35/65/0)                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 48         |                 | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | SM   | Silty SAND: fine-coarse grained, brown, wet, poorly sorted, non-plastic (0/30/70/0)                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 53         |                 |                | <b>Backfill Materials:</b><br>7 50-lb. bags of Sand<br>4 50-lb. bags of Bentonite Chips<br>2 50-lb. bags of Concrete                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                     |      |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 58         |                 |                | Groundwater well completed as a monument well with its top casing extending approximately 3 feet above ground surface.<br><br>Lithological descriptions are based on soil cuttings generated from the air rotary drilling process, and may not be representative of the actual soil stratigraphy. Soil samples, however, are representative of the ground from which they are taken.<br><br>The descriptive information for classification symbol and name of soil is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). |                                                                                     |      |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |
| 63         |                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |      |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                           |

## **APPENDIX E**

### **LABORATORY ANALYTICAL REPORTS**





Calscience

**WORK ORDER NUMBER: 18-07-1590***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 08/06/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-07-1590

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Work Order: 18-07-1590

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/21/18. They were assigned to Work Order 18-07-1590.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | PO Number:                                |
|                            | Date/Time Received: 07/21/18 11:30        |
|                            | Number of Containers: 35                  |
| Attn: David Purdy          |                                           |

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| W-41-MW17             | 18-07-1590-1 | 07/18/18 10:00           | 12                   | Aqueous |
| W-40-MW19             | 18-07-1590-2 | 07/18/18 13:15           | 11                   | Aqueous |
| W-41-MW26             | 18-07-1590-3 | 07/18/18 15:15           | 11                   | Aqueous |
| TRIP BLANK            | 18-07-1590-4 | 07/18/18 00:00           | 1                    | Aqueous |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |
| Attn: David Purdy          |                                           |

**Analytical Report**

| Analyte                                                                                                                              | Result        | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| <b>Sample ID: 1 (W-41-MW17, Aqueous) Sampled: 07/18/18 10:00</b>                                                                     |               |      |       |               |          |                 |                    |                    |            |
| EPA 300.0 Anions (Extraction Method: N/A) Container - F                                                                              |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Sulfate                                                                                                                              | ND            |      | mg/L  | 0.49          | 1.0      | 1.00            | 07/23/18 20:36     | EPA 300.0          | 180723L01  |
| SM 2320B Alkalinity (Extraction Method: N/A) Container - G                                                                           |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Alkalinity, Total (as CaCO3)                                                                                                         | 850           |      | mg/L  | 1.7           | 5.0      | 1.00            | 07/24/18 02:19     | SM 2320B           | I0723ALKB2 |
| SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K                                                              |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Solids, Total Dissolved                                                                                                              | 1000          |      | mg/L  | 0.870         | 10.0     | 1.00            | 07/24/18 18:00     | SM 2540 C          | I0724TDSL3 |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 5.6           |      | mg/L  | 0.76          | 2.0      | 1.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | ND            |      | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 9.58          |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND            |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | 0.00471       | J    | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND            |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | ND            |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | ND            |      | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:49     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000098<br>4 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 14:53     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |               |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |               |      |       |               |          |                 |                    |                    |            |
| Acenaphthylene                                                                                                                       | 0.000077      | J    | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | 0.00011       | J    | mg/L  | 0.000059      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | 0.0015        |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | 0.00073       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND            |      | mg/L  | 0.000066      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Fluoranthene                                                                                                                         | ND            |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Pyrene                                                                                                                               | ND            |      | mg/L  | 0.000069      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Anthracene                                                                                                                 | ND            |      | mg/L  | 0.000075      | 0.00019  | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|----------|---------|-----------------|--------------------|--------------------|------------|
| Chrysene                                                                                                                             | ND     |      | mg/L  | 0.000064 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (k) Fluoranthene                                                                                                               | ND     |      | mg/L  | 0.000078 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (b) Fluoranthene                                                                                                               | ND     |      | mg/L  | 0.000083 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Pyrene                                                                                                                     | ND     |      | mg/L  | 0.000099 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Indeno (1,2,3-c,d) Pyrene                                                                                                            | ND     |      | mg/L  | 0.000080 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Dibenz (a,h) Anthracene                                                                                                              | ND     |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (g,h,i) Perylene                                                                                                               | ND     |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: Nitrobenzene-d5 (28-139%)                                                                                                      | 99%    |      |       |          |         |                 | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: 2-Fluorobiphenyl (33-144%)                                                                                                     | 81%    |      |       |          |         |                 | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: p-Terphenyl-d14 (23-160%)                                                                                                      | 89%    |      |       |          |         |                 | 07/26/18 17:44     | EPA 8270C SIM PAHs | 180725L01  |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |        |      |       |          |         |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |          |         |                 |                    |                    |            |
| Naphthalene                                                                                                                          | 0.053  |      | mg/L  | 0.00071  | 0.0019  | 10.0            | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | 0.028  |      | mg/L  | 0.00072  | 0.0019  | 10.0            | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | 0.026  |      | mg/L  | 0.00072  | 0.0019  | 10.0            | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: Nitrobenzene-d5 (28-139%)                                                                                                      | 61%    |      |       |          |         |                 | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: 2-Fluorobiphenyl (33-144%)                                                                                                     | 88%    |      |       |          |         |                 | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: p-Terphenyl-d14 (23-160%)                                                                                                      | 83%    |      |       |          |         |                 | 07/27/18 14:07     | EPA 8270C SIM PAHs | 180725L01  |
| EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - B                                                             |        |      |       |          |         |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |          |         |                 |                    |                    |            |
| Benzene                                                                                                                              | 0.15   |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| Toluene                                                                                                                              | ND     |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| Ethylbenzene                                                                                                                         | 0.72   |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| o-Xylene                                                                                                                             | 0.011  |      | mg/L  | 0.0063   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| p/m-Xylene                                                                                                                           | 0.19   |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| Xylenes (total)                                                                                                                      | 0.20   |      | mg/L  | 0.0040   | 0.010   | 1.00            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| Methyl-t-Butyl Ether (MTBE)                                                                                                          | ND     |      | mg/L  | 0.0040   | 0.020   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| 1,1,1,2-Tetrachloroethane                                                                                                            | ND     |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| 1,1,1-Trichloroethane                                                                                                                | ND     |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |
| 1,1,2,2-Tetrachloroethane                                                                                                            | ND     |      | mg/L  | 0.0040   | 0.010   | 20.0            | 07/31/18 03:15     | EPA 8260B          | 180730L031 |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                               | Result | Flag | Units | MDL    | RL    | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------|--------|------|-------|--------|-------|-----------------|--------------------|-----------|------------|
| 1,1,2-Trichloroethane                 | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     |      | mg/L  | 0.0048 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethane                    | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethene                    | ND     |      | mg/L  | 0.0056 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,1-Dichloropropene                   | ND     |      | mg/L  | 0.0060 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2,3-Trichlorobenzene                | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2,3-Trichloropropane                | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2,4-Trichlorobenzene                | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2,4-Trimethylbenzene                | 0.094  |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,3,5-Trimethylbenzene                | 0.012  |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| c-1,2-Dichloroethene                  | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2-Dibromo-3-Chloropropane           | ND     |      | mg/L  | 0.040  | 0.10  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2-Dibromoethane                     | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2-Dichlorobenzene                   | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2-Dichloroethane                    | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,2-Dichloropropane                   | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| t-1,2-Dichloroethene                  | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| c-1,3-Dichloropropene                 | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,3-Dichlorobenzene                   | ND     |      | mg/L  | 0.0055 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,3-Dichloropropane                   | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| t-1,3-Dichloropropene                 | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 1,4-Dichlorobenzene                   | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 2,2-Dichloropropane                   | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 2-Chlorotoluene                       | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 4-Chlorotoluene                       | ND     |      | mg/L  | 0.0071 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 4-Methyl-2-Pentanone                  | ND     |      | mg/L  | 0.040  | 0.10  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Acetone                               | ND     |      | mg/L  | 0.080  | 0.20  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Bromobenzene                          | ND     |      | mg/L  | 0.0064 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Bromochloromethane                    | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Bromoform                             | ND     |      | mg/L  | 0.0049 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Bromomethane                          | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Carbon Disulfide                      | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Carbon Tetrachloride                  | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Chlorobenzene                         | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Dibromochloromethane                  | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Chloroethane                          | ND     |      | mg/L  | 0.0063 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Chloroform                            | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Chloromethane                         | ND     |      | mg/L  | 0.0059 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Dibromomethane                        | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Bromodichloromethane                  | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Dichlorodifluoromethane               | ND     |      | mg/L  | 0.0080 | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Hexachloro-1,3-Butadiene              | ND     |      | mg/L  | 0.016  | 0.040 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                | Result | Flag | Units | MDL    | RL    | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|--------|-------|-----------------|--------------------|-----------|------------|
| Isopropylbenzene                       | 0.047  |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 2-Butanone                             | ND     |      | mg/L  | 0.040  | 0.10  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Methylene Chloride                     | ND     |      | mg/L  | 0.016  | 0.020 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| 2-Hexanone                             | ND     |      | mg/L  | 0.080  | 0.20  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Naphthalene                            | 0.057  | J    | mg/L  | 0.0080 | 0.20  | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| n-Butylbenzene                         | 0.0046 | J    | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| n-Propylbenzene                        | 0.044  |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| p-Isopropyltoluene                     | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| sec-Butylbenzene                       | 0.0057 | J    | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Styrene                                | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| tert-Butylbenzene                      | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Tetrachloroethene                      | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Trichloroethene                        | ND     |      | mg/L  | 0.0057 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Trichlorofluoromethane                 | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Vinyl Chloride                         | ND     |      | mg/L  | 0.0040 | 0.010 | 20.0            | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Surr: 1,4-Bromofluorobenzene (68-120%) |        |      |       |        |       |                 | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Surr: Dibromofluoromethane (80-127%)   |        |      |       |        |       |                 | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  |        |      |       |        |       |                 | 07/31/18 03:15     | EPA 8260B | 180730L031 |
| Surr: Toluene-d8 (80-120%)             |        |      |       |        |       |                 | 07/31/18 03:15     | EPA 8260B | 180730L031 |

#### Sample ID: 2 (W-40-MW19, Aqueous) Sampled: 07/18/18 13:15

EPA 300.0 Anions (Extraction Method: N/A) Container - F

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|         |     |      |      |     |      |                |           |           |
|---------|-----|------|------|-----|------|----------------|-----------|-----------|
| Sulfate | 120 | mg/L | 0.98 | 2.0 | 2.00 | 07/24/18 23:38 | EPA 300.0 | 180724L02 |
|---------|-----|------|------|-----|------|----------------|-----------|-----------|

SM 2320B Alkalinity (Extraction Method: N/A) Container - H

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |      |     |     |      |                |          |            |
|------------------------------|-----|------|-----|-----|------|----------------|----------|------------|
| Alkalinity, Total (as CaCO3) | 300 | mg/L | 1.7 | 5.0 | 1.00 | 07/24/18 02:19 | SM 2320B | I0723ALKB2 |
|------------------------------|-----|------|-----|-----|------|----------------|----------|------------|

SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                         |     |      |       |      |      |                |           |            |
|-------------------------|-----|------|-------|------|------|----------------|-----------|------------|
| Solids, Total Dissolved | 610 | mg/L | 0.870 | 1.00 | 1.00 | 07/24/18 18:00 | SM 2540 C | I0724TDSL3 |
|-------------------------|-----|------|-------|------|------|----------------|-----------|------------|

SM 4500-CL C Chloride (Extraction Method: N/A) Container - H

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|          |    |      |      |     |      |                |              |            |
|----------|----|------|------|-----|------|----------------|--------------|------------|
| Chloride | 36 | mg/L | 0.76 | 2.0 | 1.00 | 07/24/18 18:00 | SM 4500-CL C | I0724CLCL1 |
|----------|----|------|------|-----|------|----------------|--------------|------------|

EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|          |        |      |         |        |      |                |           |           |
|----------|--------|------|---------|--------|------|----------------|-----------|-----------|
| Arsenic  | 0.0388 | mg/L | 0.00438 | 0.0100 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |
| Barium   | 0.0497 | mg/L | 0.00296 | 0.0100 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |
| Cadmium  | ND     | mg/L | 0.00269 | 0.0100 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |
| Chromium | ND     | mg/L | 0.00271 | 0.0100 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |
| Lead     | ND     | mg/L | 0.00406 | 0.0100 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |
| Selenium | ND     | mg/L | 0.00699 | 0.0150 | 1.00 | 08/03/18 15:50 | EPA 6010B | 180730LA5 |





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Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result   | Flag | Units | MDL      | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|----------|----------|-----------------|--------------------|--------------------|------------|
| Silver                                                                                                                               | ND       |      | mg/L  | 0.00139  | 0.00500  | 1.00            | 08/03/18 15:50     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |          |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |          |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000112 | B,J  | mg/L  | 0.000045 | 0.000200 | 1.00            | 08/02/18 14:55     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |          |      |       |          |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |          |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | mg/L  | 0.000071 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | mg/L  | 0.000071 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | mg/L  | 0.000058 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | mg/L  | 0.000070 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | mg/L  | 0.000065 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | mg/L  | 0.000065 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Fluoranthene                                                                                                                         | ND       |      | mg/L  | 0.000071 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Pyrene                                                                                                                               | ND       |      | mg/L  | 0.000069 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Anthracene                                                                                                                 | ND       |      | mg/L  | 0.000075 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Chrysene                                                                                                                             | ND       |      | mg/L  | 0.000064 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (k) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000077 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (b) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000082 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Pyrene                                                                                                                     | ND       |      | mg/L  | 0.000098 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Indeno (1,2,3-c,d) Pyrene                                                                                                            | ND       |      | mg/L  | 0.000079 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Dibenz (a,h) Anthracene                                                                                                              | ND       |      | mg/L  | 0.000074 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (g,h,i) Perylene                                                                                                               | ND       |      | mg/L  | 0.000092 | 0.00019  | 1.00            | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: Nitrobenzene-d5 (28-139%)                                                                                                      | 77%      |      |       |          |          |                 | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: 2-Fluorobiphenyl (33-144%)                                                                                                     | 84%      |      |       |          |          |                 | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: p-Terphenyl-d14 (23-160%)                                                                                                      | 89%      |      |       |          |          |                 | 07/26/18 18:04     | EPA 8270C SIM PAHs | 180725L01  |



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Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result  | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - E                                                             |         |      |       |         |         |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |         |      |       |         |         |                 |                    |           |            |
| Benzene                                                                                                                              | 0.00034 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Toluene                                                                                                                              | 0.00072 |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Ethylbenzene                                                                                                                         | 0.00037 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| o-Xylene                                                                                                                             | ND      |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| p/m-Xylene                                                                                                                           | 0.00021 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Xylenes (total)                                                                                                                      | 0.00021 | JA   | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Methyl-t-Butyl Ether (MTBE)                                                                                                          | ND      |      | mg/L  | 0.00020 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1,1,2-Tetrachloroethane                                                                                                            | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1,1-Trichloroethane                                                                                                                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1,2,2-Tetrachloroethane                                                                                                            | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1,2-Trichloroethane                                                                                                                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane                                                                                                | ND      |      | mg/L  | 0.00024 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethane                                                                                                                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethene                                                                                                                   | ND      |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,1-Dichloropropene                                                                                                                  | ND      |      | mg/L  | 0.00030 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2,3-Trichlorobenzene                                                                                                               | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2,3-Trichloropropane                                                                                                               | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2,4-Trichlorobenzene                                                                                                               | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2,4-Trimethylbenzene                                                                                                               | 0.0030  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,3,5-Trimethylbenzene                                                                                                               | 0.00041 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| c-1,2-Dichloroethene                                                                                                                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2-Dibromo-3-Chloropropane                                                                                                          | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2-Dibromoethane                                                                                                                    | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2-Dichlorobenzene                                                                                                                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2-Dichloroethane                                                                                                                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,2-Dichloropropane                                                                                                                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| t-1,2-Dichloroethene                                                                                                                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| c-1,3-Dichloropropene                                                                                                                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,3-Dichlorobenzene                                                                                                                  | ND      |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,3-Dichloropropane                                                                                                                  | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| t-1,3-Dichloropropene                                                                                                                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 1,4-Dichlorobenzene                                                                                                                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 2,2-Dichloropropane                                                                                                                  | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 2-Chlorotoluene                                                                                                                      | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 4-Chlorotoluene                                                                                                                      | ND      |      | mg/L  | 0.00036 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 4-Methyl-2-Pentanone                                                                                                                 | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Acetone                                                                                                                              | 0.0042  | J    | mg/L  | 0.0040  | 0.010   | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Bromobenzene                                                                                                                         | ND      |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Bromochloromethane                                                                                                                   | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Bromoform                                                                                                                            | ND      |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |

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Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                  | Result  | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------|---------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| Bromomethane             | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Carbon Disulfide         | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Carbon Tetrachloride     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Chlorobenzene            | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Dibromochloromethane     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Chloroethane             | ND      |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Chloroform               | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Chloromethane            | ND      |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Dibromomethane           | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Bromodichloromethane     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Dichlorodifluoromethane  | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Hexachloro-1,3-Butadiene | ND      |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Isopropylbenzene         | 0.0019  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 2-Butanone               | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Methylene Chloride       | ND      |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| 2-Hexanone               | ND      |      | mg/L  | 0.0040  | 0.010   | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Naphthalene              | ND      |      | mg/L  | 0.00040 | 0.010   | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| n-Butylbenzene           | 0.00022 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| n-Propylbenzene          | 0.0011  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| p-Isopropyltoluene       | 0.0010  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| sec-Butylbenzene         | 0.0013  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Styrene                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| tert-Butylbenzene        | 0.00044 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Tetrachloroethene        | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Trichloroethene          | ND      |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Trichlorofluoromethane   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |
| Vinyl Chloride           | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 07/30/18 22:23     | EPA 8260B | 180730L031 |

|                                        |      |  |  |  |  |  |                |           |            |
|----------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (68-120%) | 101% |  |  |  |  |  | 07/30/18 22:23 | EPA 8260B | 180730L031 |
| Surr: Dibromofluoromethane (80-127%)   | 107% |  |  |  |  |  | 07/30/18 22:23 | EPA 8260B | 180730L031 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 101% |  |  |  |  |  | 07/30/18 22:23 | EPA 8260B | 180730L031 |
| Surr: Toluene-d8 (80-120%)             | 104% |  |  |  |  |  | 07/30/18 22:23 | EPA 8260B | 180730L031 |

#### Sample ID: 3 (W-41-MW26, Aqueous) Sampled: 07/18/18 15:15

EPA 300.0 Anions (Extraction Method: N/A) Container - F

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|         |     |  |      |     |     |      |                |           |           |
|---------|-----|--|------|-----|-----|------|----------------|-----------|-----------|
| Sulfate | 170 |  | mg/L | 2.4 | 5.0 | 5.00 | 07/24/18 23:56 | EPA 300.0 | 180724L02 |
|---------|-----|--|------|-----|-----|------|----------------|-----------|-----------|

SM 2320B Alkalinity (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |  |      |     |     |      |                |          |            |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|
| Alkalinity, Total (as CaCO3) | 320 |  | mg/L | 1.7 | 5.0 | 1.00 | 07/24/18 02:19 | SM 2320B | I0723ALKB2 |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|

SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| Solids, Total Dissolved                                                                                                              | 720      |      | mg/L  | 0.870         | 1.00     | 1.00            | 07/24/18 18:00     | SM 2540 C          | I0724TDSL3 |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 30       |      | mg/L  | 0.76          | 2.0      | 1.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | 0.0249   |      | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 0.0330   |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND       |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | ND       |      | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND       |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | 0.0144   | J    | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | 0.00155  | J    | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000129 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 14:57     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | mg/L  | 0.000058      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | mg/L  | 0.000070      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Fluoranthene                                                                                                                         | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Pyrene                                                                                                                               | ND       |      | mg/L  | 0.000069      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Anthracene                                                                                                                 | ND       |      | mg/L  | 0.000075      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Chrysene                                                                                                                             | ND       |      | mg/L  | 0.000064      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (k) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000077      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (b) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000082      | 0.00019  | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                          | Result | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|----------|---------|-----------------|--------------------|--------------------|-----------|
| Benzo (a) Pyrene                 | ND     |      | mg/L  | 0.000098 | 0.00019 | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND     |      | mg/L  | 0.000079 | 0.00019 | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND     |      | mg/L  | 0.000074 | 0.00019 | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND     |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 85%    |      |       |          |         |                 | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 92%    |      |       |          |         |                 | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 94%    |      |       |          |         |                 | 07/26/18 18:24     | EPA 8270C SIM PAHs | 180725L01 |

## EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                                       |        |   |      |        |        |      |                |           |            |
|---------------------------------------|--------|---|------|--------|--------|------|----------------|-----------|------------|
| Benzene                               | 0.12   |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| Toluene                               | 0.0012 | J | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| Ethylbenzene                          | 0.059  |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| o-Xylene                              | 0.038  |   | mg/L | 0.0016 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| p/m-Xylene                            | 0.13   |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| Xylenes (total)                       | 0.17   |   | mg/L | 0.0010 | 0.0025 | 1.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| Methyl-t-Butyl Ether (MTBE)           | ND     |   | mg/L | 0.0010 | 0.0050 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1,1,2-Tetrachloroethane             | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1,1-Trichloroethane                 | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1,2,2-Tetrachloroethane             | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1,2-Trichloroethane                 | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     |   | mg/L | 0.0012 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1-Dichloroethane                    | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1-Dichloroethene                    | ND     |   | mg/L | 0.0014 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,1-Dichloropropene                   | ND     |   | mg/L | 0.0015 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2,3-Trichlorobenzene                | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2,3-Trichloropropane                | ND     |   | mg/L | 0.0020 | 0.0050 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2,4-Trichlorobenzene                | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2,4-Trimethylbenzene                | 0.12   |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,3,5-Trimethylbenzene                | 0.041  |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| c-1,2-Dichloroethene                  | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2-Dibromo-3-Chloropropane           | ND     |   | mg/L | 0.010  | 0.025  | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2-Dibromoethane                     | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2-Dichlorobenzene                   | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2-Dichloroethane                    | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| 1,2-Dichloropropane                   | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |
| t-1,2-Dichloroethene                  | ND     |   | mg/L | 0.0010 | 0.0025 | 5.00 | 07/31/18 03:41 | EPA 8260B | 180730L031 |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                     | Result | Flag | Units | MDL    | RL     | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------------|--------|------|-------|--------|--------|-----------------|--------------------|-----------|------------|
| c-1,3-Dichloropropene                       | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 1,3-Dichlorobenzene                         | ND     |      | mg/L  | 0.0014 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 1,3-Dichloropropane                         | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| t-1,3-Dichloropropene                       | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 1,4-Dichlorobenzene                         | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 2,2-Dichloropropane                         | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 2-Chlorotoluene                             | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 4-Chlorotoluene                             | ND     |      | mg/L  | 0.0018 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 4-Methyl-2-Pentanone                        | ND     |      | mg/L  | 0.010  | 0.025  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Acetone                                     | ND     |      | mg/L  | 0.020  | 0.050  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Bromobenzene                                | ND     |      | mg/L  | 0.0016 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Bromochloromethane                          | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Bromoform                                   | ND     |      | mg/L  | 0.0012 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Bromomethane                                | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Carbon Disulfide                            | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Carbon Tetrachloride                        | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Chlorobenzene                               | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Dibromochloromethane                        | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Chloroethane                                | ND     |      | mg/L  | 0.0016 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Chloroform                                  | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Chloromethane                               | ND     |      | mg/L  | 0.0015 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Dibromomethane                              | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Bromodichloromethane                        | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Dichlorodifluoromethane                     | ND     |      | mg/L  | 0.0020 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Hexachloro-1,3-Butadiene                    | ND     |      | mg/L  | 0.0040 | 0.010  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Isopropylbenzene                            | 0.017  |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 2-Butanone                                  | ND     |      | mg/L  | 0.010  | 0.025  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Methylene Chloride                          | ND     |      | mg/L  | 0.0040 | 0.0050 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| 2-Hexanone                                  | ND     |      | mg/L  | 0.020  | 0.050  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Naphthalene                                 | 0.026  | J    | mg/L  | 0.0020 | 0.050  | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| n-Butylbenzene                              | 0.0050 |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| n-Propylbenzene                             | 0.017  |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| p-Isopropyltoluene                          | 0.0036 |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| sec-Butylbenzene                            | 0.0042 |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Styrene                                     | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| tert-Butylbenzene                           | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Tetrachloroethene                           | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Trichloroethene                             | ND     |      | mg/L  | 0.0014 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Trichlorofluoromethane                      | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Vinyl Chloride                              | ND     |      | mg/L  | 0.0010 | 0.0025 | 5.00            | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Surr: 1,4-Bromofluorobenzene (68-120%) 101% |        |      |       |        |        |                 | 07/31/18 03:41     | EPA 8260B | 180730L031 |

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Calscience

The difference is service

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

Analytical Report

| Analyte                               | Result | Flag | Units | MDL | RL | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------|--------|------|-------|-----|----|-----------------|--------------------|-----------|------------|
| Surr: Dibromofluoromethane (80-127%)  | 100%   |      |       |     |    |                 | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Surr: 1,2-Dichloroethane-d4 (80-128%) | 100%   |      |       |     |    |                 | 07/31/18 03:41     | EPA 8260B | 180730L031 |
| Surr: Toluene-d8 (80-120%)            | 106%   |      |       |     |    |                 | 07/31/18 03:41     | EPA 8260B | 180730L031 |

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Calscience

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Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**PROJECT QUALITY CONTROL DATA**  
**Blank**

| Analyte                                 | Blank Value | Qualifiers | Units | QC Batch   | Lab Number       | Analysis Date/Time |
|-----------------------------------------|-------------|------------|-------|------------|------------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |             |            |       |            |                  |                    |
| <b>099-12-906-8656</b>                  |             |            |       |            |                  |                    |
| Sulfate                                 | ND          |            | mg/L  | 180723L01  | 099-12-906-8656  | 07/23/18 10:22     |
| <b>EPA 300.0 Anions</b>                 |             |            |       |            |                  |                    |
| <b>099-12-906-8657</b>                  |             |            |       |            |                  |                    |
| Sulfate                                 | ND          |            | mg/L  | 180724L02  | 099-12-906-8657  | 07/24/18 20:16     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-8</b>                     |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0723ALKB2 | 099-17-086-8     | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b> |             |            |       |            |                  |                    |
| <b>099-12-180-6309</b>                  |             |            |       |            |                  |                    |
| Solids, Total Dissolved                 | ND          |            | mg/L  | I0724TDSL3 | 099-12-180-6309  | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>            |             |            |       |            |                  |                    |
| <b>099-05-057-2222</b>                  |             |            |       |            |                  |                    |
| Chloride                                | ND          |            | mg/L  | I0724CLCL1 | 099-05-057-2222  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>             |             |            |       |            |                  |                    |
| <b>097-01-003-16987</b>                 |             |            |       |            |                  |                    |
| Arsenic                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Barium                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Cadmium                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Chromium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Lead                                    | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Selenium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Silver                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| <b>EPA 7470A Mercury</b>                |             |            |       |            |                  |                    |
| <b>099-12-457-382</b>                   |             |            |       |            |                  |                    |
| Mercury                                 | 0.0000644   | J          | mg/L  | 180802LA1M | 099-12-457-382   | 08/02/18 14:34     |
| <b>EPA 8270C SIM PAHs</b>               |             |            |       |            |                  |                    |
| <b>099-06-008-1064</b>                  |             |            |       |            |                  |                    |
| Naphthalene                             | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 2-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 1-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthylene                          | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluorene                                | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Phenanthrene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Anthracene                              | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluoranthene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                          | Blank Value | Qualifiers | Units | QC Batch  | Lab Number      | Analysis Date/Time |
|----------------------------------|-------------|------------|-------|-----------|-----------------|--------------------|
| Pyrene                           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Anthracene             | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Chrysene                         | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (k) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (b) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Pyrene                 | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Indeno (1,2,3-c,d) Pyrene        | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Dibenz (a,h) Anthracene          | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (g,h,i) Perylene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: Nitrobenzene-d5 (28-139%)  | 85%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: 2-Fluorobiphenyl (33-144%) | 84%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: p-Terphenyl-d14 (23-160%)  | 93%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |

#### EPA 8260B Volatile Organics

##### 099-12-878-751

|                                       |    |  |      |            |                |                |
|---------------------------------------|----|--|------|------------|----------------|----------------|
| Benzene                               | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| Toluene                               | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| Ethylbenzene                          | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| o-Xylene                              | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| p/m-Xylene                            | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| Xylenes (total)                       | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| Methyl-t-Butyl Ether (MTBE)           | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1,1,2-Tetrachloroethane             | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1,1-Trichloroethane                 | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1,2,2-Tetrachloroethane             | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1,2-Trichloroethane                 | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1-Dichloroethane                    | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1-Dichloroethene                    | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,1-Dichloropropene                   | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2,3-Trichlorobenzene                | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2,3-Trichloropropane                | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2,4-Trichlorobenzene                | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2,4-Trimethylbenzene                | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,3,5-Trimethylbenzene                | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| c-1,2-Dichloroethene                  | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2-Dibromo-3-Chloropropane           | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2-Dibromoethane                     | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2-Dichlorobenzene                   | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2-Dichloroethane                    | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |
| 1,2-Dichloropropane                   | ND |  | mg/L | 180730L031 | 099-12-878-751 | 07/30/18 21:25 |



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Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                  | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|--------------------------|-------------|------------|-------|------------|----------------|--------------------|
| t-1,2-Dichloroethene     | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| c-1,3-Dichloropropene    | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 1,3-Dichlorobenzene      | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 1,3-Dichloropropane      | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| t-1,3-Dichloropropene    | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 1,4-Dichlorobenzene      | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2,2-Dichloropropane      | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Chlorotoluene          | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 4-Chlorotoluene          | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 4-Methyl-2-Pentanone     | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Acetone                  | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromobenzene             | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromochloromethane       | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromoform                | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromomethane             | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Carbon Disulfide         | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Carbon Tetrachloride     | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chlorobenzene            | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dibromochloromethane     | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloroethane             | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloroform               | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloromethane            | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dibromomethane           | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromodichloromethane     | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dichlorodifluoromethane  | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Hexachloro-1,3-Butadiene | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Isopropylbenzene         | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Butanone               | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Methylene Chloride       | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Hexanone               | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Naphthalene              | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| n-Butylbenzene           | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| n-Propylbenzene          | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| p-Isopropyltoluene       | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| sec-Butylbenzene         | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Styrene                  | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| tert-Butylbenzene        | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Tetrachloroethene        | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Trichloroethene          | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Trichlorofluoromethane   | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Vinyl Chloride           | ND          |            | mg/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |

  
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Client: Cardno  
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Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**PROJECT QUALITY CONTROL DATA**  
**Blank**

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|----------------|--------------------|
| Surr: 1,4-Bromofluorobenzene (68-120%) | 98%         |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: Dibromofluoromethane (80-127%)   | 102%        |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 99%         |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: Toluene-d8 (80-120%)             | 101%        |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |

  
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Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                            | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1456-3</b>                |            |          |       |       |             |        |              |            |               |                    |
| Sulfate                            | 225.0      | 294.3    | HX    | mg/L  | 50.00       | 139    | 80-120       | 180723S01  | 18-07-1456-3  | 07/23/18 19:04     |
| <b>SM 4500-CL C Chloride</b>       |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-3</b>                |            |          |       |       |             |        |              |            |               |                    |
| Chloride                           | 46.59      | 150.6    |       | mg/L  | 100.0       | 104    | 80-120       | I0724CLCS1 | 18-07-1591-3  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Arsenic                            | ND         | 0.5183   |       | mg/L  | 0.5000      | 104    | 80-140       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Barium                             | 0.05900    | 0.5690   |       | mg/L  | 0.5000      | 102    | 87-123       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Cadmium                            | ND         | 0.4992   |       | mg/L  | 0.5000      | 100    | 82-124       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Chromium                           | ND         | 0.5051   |       | mg/L  | 0.5000      | 101    | 86-122       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Lead                               | ND         | 0.5154   |       | mg/L  | 0.5000      | 103    | 84-120       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Selenium                           | ND         | 0.5244   |       | mg/L  | 0.5000      | 105    | 79-127       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Silver                             | ND         | 0.02846  | HX    | mg/L  | 0.2500      | 11     | 86-128       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| <b>EPA 7470A Mercury</b>           |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1594-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Mercury                            | ND         | 0.008332 |       | mg/L  | 0.01000     | 83     | 55-133       | 180802SA1  | 18-07-1594-1  | 08/02/18 14:41     |
| <b>EPA 8260B Volatile Organics</b> |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1590-2</b>                |            |          |       |       |             |        |              |            |               |                    |
| Benzene                            | ND         | 0.01224  |       | mg/L  | 0.01000     | 122    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Toluene                            | 0.0007165  | 0.01264  |       | mg/L  | 0.01000     | 119    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Ethylbenzene                       | ND         | 0.01100  |       | mg/L  | 0.01000     | 110    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| o-Xylene                           | ND         | 0.01052  |       | mg/L  | 0.01000     | 105    | 75-127       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| p/m-Xylene                         | ND         | 0.02122  |       | mg/L  | 0.02000     | 106    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.009436 |       | mg/L  | 0.01000     | 94     | 71-131       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,1-Dichloroethene                 | ND         | 0.01263  |       | mg/L  | 0.01000     | 126    | 66-126       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dibromoethane                  | ND         | 0.009876 |       | mg/L  | 0.01000     | 99     | 75-126       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dichlorobenzene                | ND         | 0.009692 |       | mg/L  | 0.01000     | 97     | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dichloroethane                 | ND         | 0.01130  |       | mg/L  | 0.01000     | 113    | 75-127       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Carbon Tetrachloride               | ND         | 0.01205  |       | mg/L  | 0.01000     | 121    | 69-135       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Chlorobenzene                      | ND         | 0.01015  |       | mg/L  | 0.01000     | 102    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Trichloroethene                    | ND         | 0.01176  |       | mg/L  | 0.01000     | 118    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Vinyl Chloride                     | ND         | 0.01406  |       | mg/L  | 0.01000     | 141    | 52-142       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                            | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1456-3</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Sulfate                            | 225.0      | 286.3     | HX    | mg/L  | 50.00       | 123    | 80-120       | 3   | 0-20  | 180723S01  | 18-07-1456-3      | 07/23/18 19:23     |
| <b>SM 4500-CL C Chloride</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-3</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Chloride                           | 46.59      | 150.1     |       | mg/L  | 100.0       | 103    | 80-120       | 0   | 0-25  | 10724CLCS1 | 18-07-1591-3      | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Arsenic                            | ND         | 0.5016    |       | mg/L  | 0.5000      | 100    | 80-140       | 3   | 0-11  | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Barium                             | 0.05900    | 0.5666    |       | mg/L  | 0.5000      | 102    | 87-123       | 0   | 0-6   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Cadmium                            | ND         | 0.4994    |       | mg/L  | 0.5000      | 100    | 82-124       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Chromium                           | ND         | 0.5010    |       | mg/L  | 0.5000      | 100    | 86-122       | 1   | 0-8   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Lead                               | ND         | 0.5147    |       | mg/L  | 0.5000      | 103    | 84-120       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Selenium                           | ND         | 0.5160    |       | mg/L  | 0.5000      | 103    | 79-127       | 2   | 0-9   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Silver                             | ND         | 0.06513   | HX,BA | mg/L  | 0.2500      | 26     | 86-128       | 78  | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| <b>EPA 7470A Mercury</b>           |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1594-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Mercury                            | ND         | 0.007775  |       | mg/L  | 0.01000     | 78     | 55-133       | 7   | 0-20  | 180802SA1  | 18-07-1594-1      | 08/02/18 14:48     |
| <b>EPA 8260B Volatile Organics</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1590-2</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                            | ND         | 0.01248   |       | mg/L  | 0.01000     | 125    | 75-125       | 2   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Toluene                            | 0.0007165  | 0.01310   |       | mg/L  | 0.01000     | 124    | 75-125       | 4   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Ethylbenzene                       | ND         | 0.01153   |       | mg/L  | 0.01000     | 115    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| o-Xylene                           | ND         | 0.01103   |       | mg/L  | 0.01000     | 110    | 75-127       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| p/m-Xylene                         | ND         | 0.02193   |       | mg/L  | 0.02000     | 110    | 75-125       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.01008   |       | mg/L  | 0.01000     | 101    | 71-131       | 7   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,1-Dichloroethene                 | ND         | 0.01280   | HX    | mg/L  | 0.01000     | 128    | 66-126       | 1   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dibromoethane                  | ND         | 0.01043   |       | mg/L  | 0.01000     | 104    | 75-126       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dichlorobenzene                | ND         | 0.01015   |       | mg/L  | 0.01000     | 102    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dichloroethane                 | ND         | 0.01167   |       | mg/L  | 0.01000     | 117    | 75-127       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Carbon Tetrachloride               | ND         | 0.01241   |       | mg/L  | 0.01000     | 124    | 69-135       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Chlorobenzene                      | ND         | 0.01065   |       | mg/L  | 0.01000     | 106    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Trichloroethene                    | ND         | 0.01225   |       | mg/L  | 0.01000     | 122    | 75-125       | 4   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Vinyl Chloride                     | ND         | 0.01363   |       | mg/L  | 0.01000     | 136    | 52-142       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |

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The difference is service

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

QUALITY CONTROL  
Post Digestion Spike

| Analyte              | Orig. Val. | PDS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch     | Sample Spiked | Analysis Date/Time |
|----------------------|------------|----------|-------|-------|-------------|--------|--------------|-----------|---------------|--------------------|
| EPA 6010B ICP Metals |            |          |       |       |             |        |              |           |               |                    |
| 18-07-1591-1         |            |          |       |       |             |        |              |           |               |                    |
| Arsenic              | ND         | 0.4856   |       | mg/L  | 0.5000      | 97     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Barium               | 0.05900    | 0.5799   |       | mg/L  | 0.5000      | 104    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Cadmium              | ND         | 0.5102   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Chromium             | ND         | 0.5095   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Lead                 | ND         | 0.5332   |       | mg/L  | 0.5000      | 107    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Selenium             | ND         | 0.5419   |       | mg/L  | 0.5000      | 108    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Silver               | ND         | 0.2234   |       | mg/L  | 0.2500      | 89     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |

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Qual: Qualifiers



The difference is service

|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-07-1590                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 07/21/18                    |

QUALITY CONTROL  
Post Digestion Spike Duplicate

| Analyte              | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|----------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| EPA 6010B ICP Metals |            |           |       |       |             |        |              |     |       |           |                   |                    |
| 18-07-1591-1         |            |           |       |       |             |        |              |     |       |           |                   |                    |
| Arsenic              | ND         | 0.4871    |       | mg/L  | 0.5000      | 97     | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Barium               | 0.05900    | 0.5823    |       | mg/L  | 0.5000      | 105    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Cadmium              | ND         | 0.5035    |       | mg/L  | 0.5000      | 101    | 75-125       | 1   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Chromium             | ND         | 0.5110    |       | mg/L  | 0.5000      | 102    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Lead                 | ND         | 0.5142    |       | mg/L  | 0.5000      | 103    | 75-125       | 4   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Selenium             | ND         | 0.4838    |       | mg/L  | 0.5000      | 97     | 75-125       | 11  | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Silver               | ND         | 0.2274    |       | mg/L  | 0.2500      | 91     | 75-125       | 2   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |

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Qual - Qualifiers    RPD: Relative Percent Difference

|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-07-1590                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 07/21/18                    |

QUALITY CONTROL  
Sample Duplicate

| Analyte                          | Orig. Val. | Duplicate | Qual. | Units | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------------|------------|-----------|-------|-------|-----|-------|------------|-------------------|--------------------|
| SM 2320B Alkalinity              |            |           |       |       |     |       |            |                   |                    |
| 18-07-1456-3                     |            |           |       |       |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO3)     | 52.80      | 52.74     |       | mg/L  | 0   | 0-25  | I0723ALKD2 | 18-07-1456-3      | 07/24/18 02:19     |
| SM 2540 C Total Dissolved Solids |            |           |       |       |     |       |            |                   |                    |
| 18-07-1456-3                     |            |           |       |       |     |       |            |                   |                    |
| Solids, Total Dissolved          | 3370       | 3440      |       | mg/L  | 2   | 0-20  | I0724TDSD6 | 18-07-1456-3      | 07/24/18 18:00     |

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RPD: Relative Percent Difference.





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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                                 | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-----------------------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-12-906-8656</b>                  |            |          |       |       |        |              |            |                    |
| Sulfate                                 | 50.00      | 48.70    |       | mg/L  | 97     | 90-110       | 180723L01  | 07/23/18 10:41     |
| <b>EPA 300.0 Anions</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-12-906-8657</b>                  |            |          |       |       |        |              |            |                    |
| Sulfate                                 | 50.00      | 48.37    |       | mg/L  | 97     | 90-110       | 180724L02  | 07/24/18 20:34     |
| <b>SM 2320B Alkalinity</b>              |            |          |       |       |        |              |            |                    |
| <b>099-17-086-8</b>                     |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO3)            | 100.0      | 110.3    |       | mg/L  | 110    | 80-120       | I0723ALKB2 | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b> |            |          |       |       |        |              |            |                    |
| <b>099-12-180-6309</b>                  |            |          |       |       |        |              |            |                    |
| Solids, Total Dissolved                 | 100.0      | 95.00    |       | mg/L  | 95     | 80-120       | I0724TDSL3 | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>            |            |          |       |       |        |              |            |                    |
| <b>099-05-057-2222</b>                  |            |          |       |       |        |              |            |                    |
| Chloride                                | 100.0      | 100.6    |       | mg/L  | 101    | 80-120       | I0724CLCL1 | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>             |            |          |       |       |        |              |            |                    |
| <b>097-01-003-16987</b>                 |            |          |       |       |        |              |            |                    |
| Arsenic                                 | 0.5000     | 0.4415   |       | mg/L  | 88     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Barium                                  | 0.5000     | 0.5081   |       | mg/L  | 102    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Cadmium                                 | 0.5000     | 0.5186   |       | mg/L  | 104    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Chromium                                | 0.5000     | 0.4881   |       | mg/L  | 98     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Lead                                    | 0.5000     | 0.5019   |       | mg/L  | 100    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Selenium                                | 0.5000     | 0.4333   |       | mg/L  | 87     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Silver                                  | 0.2500     | 0.2235   |       | mg/L  | 89     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| <b>EPA 7470A Mercury</b>                |            |          |       |       |        |              |            |                    |
| <b>099-12-457-382</b>                   |            |          |       |       |        |              |            |                    |
| Mercury                                 | 0.01000    | 0.008974 |       | mg/L  | 90     | 80-120       | 180802LA1M | 08/02/18 14:37     |
| <b>EPA 8270C SIM PAHs</b>               |            |          |       |       |        |              |            |                    |
| <b>099-06-008-1064</b>                  |            |          |       |       |        |              |            |                    |
| Naphthalene                             | 0.002000   | 0.001772 |       | mg/L  | 89     | 21-133       | 180725L01  | 07/26/18 15:21     |
| 2-Methylnaphthalene                     | 0.002000   | 0.001834 |       | mg/L  | 92     | 21-140       | 180725L01  | 07/26/18 15:21     |
| 1-Methylnaphthalene                     | 0.002000   | 0.001825 |       | mg/L  | 91     | 20-140       | 180725L01  | 07/26/18 15:21     |
| Acenaphthylene                          | 0.002000   | 0.001684 |       | mg/L  | 84     | 33-145       | 180725L01  | 07/26/18 15:21     |
| Acenaphthene                            | 0.002000   | 0.001755 |       | mg/L  | 88     | 55-121       | 180725L01  | 07/26/18 15:21     |
| Fluorene                                | 0.002000   | 0.001827 |       | mg/L  | 91     | 59-121       | 180725L01  | 07/26/18 15:21     |
| Phenanthrene                            | 0.002000   | 0.001956 |       | mg/L  | 98     | 54-120       | 180725L01  | 07/26/18 15:21     |
| Anthracene                              | 0.002000   | 0.001907 |       | mg/L  | 95     | 27-133       | 180725L01  | 07/26/18 15:21     |
| Fluoranthene                            | 0.002000   | 0.001974 |       | mg/L  | 99     | 26-137       | 180725L01  | 07/26/18 15:21     |
| Pyrene                                  | 0.002000   | 0.001940 |       | mg/L  | 97     | 45-129       | 180725L01  | 07/26/18 15:21     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample

| Analyte                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch     | Analysis Date/Time |
|---------------------------|------------|----------|-------|-------|--------|--------------|-----------|--------------------|
| Benzo (a) Anthracene      | 0.002000   | 0.001990 |       | mg/L  | 100    | 33-143       | 180725L01 | 07/26/18 15:21     |
| Chrysene                  | 0.002000   | 0.001964 |       | mg/L  | 98     | 17-168       | 180725L01 | 07/26/18 15:21     |
| Benzo (k) Fluoranthene    | 0.002000   | 0.001965 |       | mg/L  | 98     | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (b) Fluoranthene    | 0.002000   | 0.002010 |       | mg/L  | 100    | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (a) Pyrene          | 0.002000   | 0.002048 |       | mg/L  | 102    | 17-163       | 180725L01 | 07/26/18 15:21     |
| Indeno (1,2,3-c,d) Pyrene | 0.002000   | 0.001966 |       | mg/L  | 98     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Dibenz (a,h) Anthracene   | 0.002000   | 0.001865 |       | mg/L  | 93     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Benzo (g,h,i) Perylene    | 0.002000   | 0.002193 |       | mg/L  | 110    | 25-157       | 180725L01 | 07/26/18 15:21     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

#### EPA 8260B Volatile Organics

099-12-878-751

|                             |         |          |  |      |     |        |            |                |
|-----------------------------|---------|----------|--|------|-----|--------|------------|----------------|
| Benzene                     | 0.01000 | 0.01098  |  | mg/L | 110 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Toluene                     | 0.01000 | 0.01083  |  | mg/L | 108 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Ethylbenzene                | 0.01000 | 0.009662 |  | mg/L | 97  | 80-120 | 180730L031 | 07/30/18 20:24 |
| o-Xylene                    | 0.01000 | 0.009707 |  | mg/L | 97  | 80-120 | 180730L031 | 07/30/18 20:24 |
| p/m-Xylene                  | 0.02000 | 0.01918  |  | mg/L | 96  | 80-120 | 180730L031 | 07/30/18 20:24 |
| Methyl-t-Butyl Ether (MTBE) | 0.01000 | 0.008923 |  | mg/L | 89  | 75-123 | 180730L031 | 07/30/18 20:24 |
| 1,1-Dichloroethene          | 0.01000 | 0.01026  |  | mg/L | 103 | 77-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dibromoethane           | 0.01000 | 0.009278 |  | mg/L | 93  | 80-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dichlorobenzene         | 0.01000 | 0.009419 |  | mg/L | 94  | 80-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dichloroethane          | 0.01000 | 0.01063  |  | mg/L | 106 | 80-122 | 180730L031 | 07/30/18 20:24 |
| Carbon Tetrachloride        | 0.01000 | 0.01024  |  | mg/L | 102 | 80-129 | 180730L031 | 07/30/18 20:24 |
| Chlorobenzene               | 0.01000 | 0.009591 |  | mg/L | 96  | 80-120 | 180730L031 | 07/30/18 20:24 |
| Trichloroethene             | 0.01000 | 0.01060  |  | mg/L | 106 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Vinyl Chloride              | 0.01000 | 0.01215  |  | mg/L | 122 | 63-135 | 180730L031 | 07/30/18 20:24 |

Total number of LCS compounds: 14  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1590  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                                 | LCS Val.     | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|-----------------------------------------|--------------|-----------|-------|-------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-906-8657</b>                  |              |           |       |       |        |              |     |       |            |                   |                    |
| Sulfate                                 | 50.00        | 47.26     |       | mg/L  | 95     | 90-110       | 2   | 0-15  | 180724L02  | 099-12-906-8657   | 07/24/18 20:52     |
| <b>SM 2320B Alkalinity</b>              |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-8</b>                     |              |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO3)            | 100.0        | 106.5     |       | mg/L  | 106    | 80-120       | 4   | 0-20  | I0723ALKB2 | 099-17-086-8      | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b> |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-180-6309</b>                  |              |           |       |       |        |              |     |       |            |                   |                    |
| Solids, Total Dissolved                 | 100.0        | 100.0     |       | mg/L  | 100    | 80-120       | 5   | 0-20  | I0724TDSL3 | 099-12-180-6309   | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>            |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-05-057-2222</b>                  |              |           |       |       |        |              |     |       |            |                   |                    |
| Chloride                                | 100.0        | 100.1     |       | mg/L  | 100    | 80-120       | 0   | 0-20  | I0724CLCL1 | 099-05-057-2222   | 07/24/18 18:00     |
| <b>EPA 8270C SIM PAHs</b>               |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-06-008-1064</b>                  |              |           |       |       |        |              |     |       |            |                   |                    |
| Naphthalene                             | 0.00200<br>0 | 0.001763  |       | mg/L  | 88     | 21-133       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 2-Methylnaphthalene                     | 0.00200<br>0 | 0.001816  |       | mg/L  | 91     | 21-140       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 1-Methylnaphthalene                     | 0.00200<br>0 | 0.001826  |       | mg/L  | 91     | 20-140       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthylene                          | 0.00200<br>0 | 0.001727  |       | mg/L  | 86     | 33-145       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthene                            | 0.00200<br>0 | 0.001824  |       | mg/L  | 91     | 55-121       | 4   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluorene                                | 0.00200<br>0 | 0.001932  |       | mg/L  | 97     | 59-121       | 6   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Phenanthrene                            | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 54-120       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Anthracene                              | 0.00200<br>0 | 0.001954  |       | mg/L  | 98     | 27-133       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluoranthene                            | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 26-137       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Pyrene                                  | 0.00200<br>0 | 0.001947  |       | mg/L  | 97     | 45-129       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Anthracene                    | 0.00200<br>0 | 0.002008  |       | mg/L  | 100    | 33-143       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Chrysene                                | 0.00200<br>0 | 0.001995  |       | mg/L  | 100    | 17-168       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (k) Fluoranthene                  | 0.00200<br>0 | 0.001992  |       | mg/L  | 100    | 24-159       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (b) Fluoranthene                  | 0.00200<br>0 | 0.002051  |       | mg/L  | 103    | 24-159       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Pyrene                        | 0.00200<br>0 | 0.002106  |       | mg/L  | 105    | 17-163       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |

Qual - Qualifiers RPD: Relative Percent Difference



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1590                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

PROJECT QUALITY CONTROL DATA  
Laboratory Control Sample Duplicate

| Analyte                   | LCS Val. | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|---------------------------|----------|-----------|-------|-------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| Indeno (1,2,3-c,d) Pyrene | 0.002000 | 0.002028  |       | mg/L  | 101    | 25-175       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Dibenz (a,h) Anthracene   | 0.002000 | 0.002054  |       | mg/L  | 103    | 25-175       | 10  | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (g,h,i) Perylene    | 0.002000 | 0.002253  |       | mg/L  | 113    | 25-157       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

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Qual - Qualifiers    RPD: Relative Percent Difference

Work Order: 18-07-1590

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Sample Analysis Summary Report

| Method             | Extraction      | Chemist ID | Instrument | Analytical Location |
|--------------------|-----------------|------------|------------|---------------------|
| EPA 300.0          | N/A             | 27         | IC 7       | 1                   |
| EPA 6010B          | EPA 3010A Total | 1080       | ICP 8300   | 1                   |
| EPA 7470A          | EPA 7470A Total | 868        | Mercury 07 | 1                   |
| EPA 8260B          | EPA 5030C       | 1162       | GC/MS UU   | 2                   |
| EPA 8270C SIM PAHs | EPA 3510C       | 928        | GC/MS EEE  | 1                   |
| SM 2320B           | N/A             | 834        | PCT 1      | 1                   |
| SM 2540 C          | N/A             | 1136       | N/A        | 1                   |
| SM 4500-CI C       | N/A             | 1086       | BUR02      | 1                   |

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-07-1590

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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CHAIN OF CUSTODY RECORD

DATE: 07/20/18

PAGE: 1 OF 8

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| Site Name                                        |                             |
| Provide MRN for retail or AFE for major projects |                             |
| Retail Project (MRN)                             |                             |
| Major Project (AFE)                              |                             |
| Project Name                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501

eurofins

**ExxonMobil Engr:**

|                                                        |  |                                                     |  |                                                                                                                                                                                                                               |  |
|--------------------------------------------------------|--|-----------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| LABORATORY CLIENT:<br><b>Cardno</b>                    |  | GLOBAL ID # / COELY LOG CODE:                       |  | EMES Sub Agreement #A2604415                                                                                                                                                                                                  |  |
| ADDRESS:<br><b>26371 Comemrcentre Drive. Suite 250</b> |  | PROJECT CONTACT:<br><b>David Purdy</b>              |  | LABORATORY NAME:<br><b>18-07-1590</b>                                                                                                                                                                                         |  |
| CITY:<br><b>Lake Forest, CA 92630</b>                  |  | SAMPLER(S)<br><b>Stephen Hunter, Vincent Nguyen</b> |  | COOLER RECEIPT<br>Temp = _____ °C                                                                                                                                                                                             |  |
| TEL:<br><b>949-457-8941</b>                            |  | FAX:<br><b>949-457-8956</b>                         |  | TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |  |
| TURNAROUND TIME                                        |  | REQUESTED ANALYSIS                                  |  |                                                                                                                                                                                                                               |  |

## REQUESTED ANALYSIS

[illegible]

|                             |                      |                         |                    |               |                |
|-----------------------------|----------------------|-------------------------|--------------------|---------------|----------------|
| Relinquished by (Signature) | <i>Stephen Wenth</i> | Received by (Signature) | <i>EdEx</i>        | Date, & Time: | 07/20/16, 1700 |
| Relinquished by (Signature) |                      | Received by (Signature) | <i>[Signature]</i> | Date, & Time: | 7/21/18 1130   |
| Relinquished by (Signature) |                      | Received by (Signature) |                    | Date, & Time: |                |



159.0

**Do Not Lift Using This Tag**

|                                                                                                                 |                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Recipient's Name <i>Please print.</i>                                                                           | Phone Number                                                                                               |
| ORIGIN ID: H0BA (949) 457-8950<br>CARDINO<br>20505 CRESCENT BAY DR<br>LAKE FOREST, CA 92630<br>UNITED STATES US | SHIP DATE: 20JUL18<br>ACTWGT: 57.80 LB<br>CAD: 006994246/SSFE1904<br>DIMS: 15x15x15 IN<br>BILL THIRD PARTY |

TO

**EUROFINS CALSCIENCE INC  
7440 LINCOLN WAY****GROVE CA 92841**(714)  
THU:  
PO:

REF:

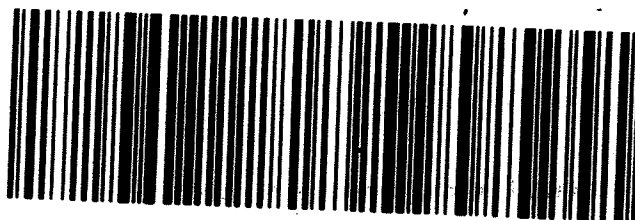
DEPT:

**FedEx  
Express**

J1811118012601w

2 of 5  
MPS# 7727 7903 7958  
0263  
Mstr# 7727 7903 7947

0201

**SATURDAY 12:00P  
PRIORITY OVERNIGHT****X0 APVA****92841  
CA-US SNA**RT **138**  
ST **25**  
3  
12:00  
B  
7958  
07.21





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WORK ORDER NUMBER: 18-07-7570

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: CardnoDATE: 07/21/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 2.8 °C (w/ CF): 2.3 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 802

## CUSTODY SEAL:

Cooler ☒ Present and Intact☐ Present but Not Intact☐ Not Present☐ N/AChecked by: 802Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/AChecked by: 778

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☒ Yes ☐ No ☐ N/AContainer(s) for certain analysis free of headspace ..... ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: 180209B)Aqueous: ☐ VOA ☒ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☒ 125PB ☐ 125PB<sub>znna</sub> (pH 9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH 2) ☒ 250PB ☒ 250PB<sub>n</sub> (pH 2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH 2) ☐ 500PB☒ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGBs (pH 2) ☐ 1AGBs (O&G) ☒ 1PB ☐ 1PB<sub>na</sub> (pH 12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 778s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: 107



Calscience

**WORK ORDER NUMBER: 18-07-1594***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 08/06/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 18-07-1594

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Work Order: 18-07-1594

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/21/18. They were assigned to Work Order 18-07-1594.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
PO Number:  
Date/Time Received: 07/21/18 11:30  
Number of Containers: 23

Attn: David Purdy

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| W-41-MW22             | 18-07-1594-1 | 07/18/18 15:55           | 11                   | Aqueous |
| W-40-MW11             | 18-07-1594-2 | 07/18/18 13:00           | 11                   | Aqueous |
| TRIP BLANK            | 18-07-1594-3 | 07/18/18 00:00           | 1                    | Aqueous |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1594                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |
| Attn: David Purdy          |                                           |

**Analytical Report**

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| <b>Sample ID: 1 (W-41-MW22, Aqueous) Sampled: 07/18/18 15:55</b>                                                                     |          |      |       |               |          |                 |                    |                    |            |
| EPA 300.0 Anions (Extraction Method: N/A) Container - F                                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Sulfate                                                                                                                              | 19       |      | mg/L  | 0.49          | 1.0      | 1.00            | 07/23/18 20:52     | EPA 300.0          | 180723L01  |
| SM 2320B Alkalinity (Extraction Method: N/A) Container - G                                                                           |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Alkalinity, Total (as CaCO3)                                                                                                         | 240      |      | mg/L  | 1.7           | 5.0      | 1.00            | 07/24/18 02:19     | SM 2320B           | I0723ALKB2 |
| SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Solids, Total Dissolved                                                                                                              | 615      |      | mg/L  | 0.870         | 1.00     | 1.00            | 07/24/18 16:00     | SM 2540 C          | I0724TDSL2 |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 34       |      | mg/L  | 0.76          | 2.0      | 1.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | 0.0236   |      | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 0.0223   |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND       |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | ND       |      | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND       |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | 0.0432   |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | ND       |      | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:51     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000161 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 14:39     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - J                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | ug/L  | 0.071         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | ug/L  | 0.072         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | ug/L  | 0.072         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | ug/L  | 0.071         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | ug/L  | 0.058         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | ug/L  | 0.070         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | ug/L  | 0.065         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | ug/L  | 0.065         | 0.19     | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                          | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|-------|------|-----------------|--------------------|--------------------|-----------|
| Fluoranthene                     | ND     |      | ug/L  | 0.071 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Pyrene                           | ND     |      | ug/L  | 0.069 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Anthracene             | ND     |      | ug/L  | 0.075 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Chrysene                         | ND     |      | ug/L  | 0.064 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (k) Fluoranthene           | ND     |      | ug/L  | 0.077 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (b) Fluoranthene           | ND     |      | ug/L  | 0.082 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Pyrene                 | ND     |      | ug/L  | 0.098 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND     |      | ug/L  | 0.079 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND     |      | ug/L  | 0.074 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND     |      | ug/L  | 0.092 | 0.19 | 1.00            | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 87%    |      |       |       |      |                 | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 85%    |      |       |       |      |                 | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 91%    |      |       |       |      |                 | 07/26/18 21:28     | EPA 8270C SIM PAHs | 180725L01 |

## EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                                       |      |   |      |      |      |      |                |           |            |
|---------------------------------------|------|---|------|------|------|------|----------------|-----------|------------|
| Benzene                               | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| Toluene                               | 0.41 | J | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| Ethylbenzene                          | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| o-Xylene                              | ND   |   | ug/L | 0.32 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| p/m-Xylene                            | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| Xylenes (total)                       | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| Methyl-t-Butyl Ether (MTBE)           | ND   |   | ug/L | 0.20 | 1.0  | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1,1,2-Tetrachloroethane             | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1,1-Trichloroethane                 | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1,2,2-Tetrachloroethane             | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1,2-Trichloroethane                 | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND   |   | ug/L | 0.24 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1-Dichloroethane                    | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1-Dichloroethene                    | ND   |   | ug/L | 0.28 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,1-Dichloropropene                   | ND   |   | ug/L | 0.30 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,2,3-Trichlorobenzene                | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,2,3-Trichloropropane                | ND   |   | ug/L | 0.40 | 1.0  | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |
| 1,2,4-Trichlorobenzene                | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:28 | EPA 8260B | 180730L031 |





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                     | Result | Flag | Units | MDL  | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|-----------------------------|--------|------|-------|------|------|-----------------|--------------------|-----------|------------|
| 1,2,4-Trimethylbenzene      | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,3,5-Trimethylbenzene      | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| c-1,2-Dichloroethene        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,2-Dibromo-3-Chloropropane | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,2-Dibromoethane           | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,2-Dichlorobenzene         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,2-Dichloroethane          | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,2-Dichloropropane         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| t-1,2-Dichloroethene        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| c-1,3-Dichloropropene       | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,3-Dichlorobenzene         | ND     |      | ug/L  | 0.28 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,3-Dichloropropane         | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| t-1,3-Dichloropropene       | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 1,4-Dichlorobenzene         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 2,2-Dichloropropane         | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 2-Chlorotoluene             | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 4-Chlorotoluene             | ND     |      | ug/L  | 0.36 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 4-Methyl-2-Pentanone        | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Acetone                     | ND     |      | ug/L  | 4.0  | 10   | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Bromobenzene                | ND     |      | ug/L  | 0.32 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Bromochloromethane          | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Bromoform                   | ND     |      | ug/L  | 0.25 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Bromomethane                | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Carbon Disulfide            | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Carbon Tetrachloride        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Chlorobenzene               | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Dibromochloromethane        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Chloroethane                | ND     |      | ug/L  | 0.32 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Chloroform                  | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Chloromethane               | ND     |      | ug/L  | 0.29 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Dibromomethane              | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Bromodichloromethane        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Dichlorodifluoromethane     | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Hexachloro-1,3-Butadiene    | ND     |      | ug/L  | 0.80 | 2.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Isopropylbenzene            | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 2-Butanone                  | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Methylene Chloride          | ND     |      | ug/L  | 0.80 | 1.0  | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| 2-Hexanone                  | ND     |      | ug/L  | 4.0  | 10   | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| Naphthalene                 | ND     |      | ug/L  | 0.40 | 10   | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| n-Butylbenzene              | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| n-Propylbenzene             | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |
| p-Isopropyltoluene          | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:28     | EPA 8260B | 180730L031 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| sec-Butylbenzene                                                                                                                     | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Styrene                                                                                                                              | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| tert-Butylbenzene                                                                                                                    | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Tetrachloroethene                                                                                                                    | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Trichloroethene                                                                                                                      | ND       |      | ug/L  | 0.29          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Trichlorofluoromethane                                                                                                               | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Vinyl Chloride                                                                                                                       | ND       |      | ug/L  | 0.20          | 0.50     | 1.00            | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| Surr: 1,4-Bromofluorobenzene (68-120%)                                                                                               | 98%      |      |       |               |          |                 | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Surr: Dibromofluoromethane (80-127%)                                                                                                 | 107%     |      |       |               |          |                 | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)                                                                                                | 108%     |      |       |               |          |                 | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 103%     |      |       |               |          |                 | 07/31/18 05:28     | EPA 8260B          | 180730L031 |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| <b>Sample ID: 2 (W-40-MW11, Aqueous) Sampled: 07/18/18 13:00</b>                                                                     |          |      |       |               |          |                 |                    |                    |            |
| EPA 300.0 Anions (Extraction Method: N/A) Container - F                                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Sulfate                                                                                                                              | 68       |      | mg/L  | 0.49          | 1.0      | 1.00            | 07/23/18 21:11     | EPA 300.0          | 180723L01  |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| SM 2320B Alkalinity (Extraction Method: N/A) Container - G                                                                           |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Alkalinity, Total (as CaCO3)                                                                                                         | 440      |      | mg/L  | 1.7           | 5.0      | 1.00            | 07/24/18 02:19     | SM 2320B           | I0723ALKB2 |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Solids, Total Dissolved                                                                                                              | 1040     |      | mg/L  | 0.870         | 10.0     | 1.00            | 07/24/18 16:00     | SM 2540 C          | I0724TDSL2 |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 170      |      | mg/L  | 0.76          | 2.0      | 1.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | 0.00561  | J    | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 0.0445   |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND       |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | ND       |      | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND       |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | ND       |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | 0.00260  | J    | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:52     | EPA 6010B          | 180730LA5  |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000163 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 14:50     | EPA 7470A          | 180802LA1M |
|                                                                                                                                      |          |      |       |               |          |                 |                    |                    |            |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - J                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | ug/L  | 0.071         | 0.19     | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01  |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                          | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|-------|------|-----------------|--------------------|--------------------|-----------|
| 2-Methylnaphthalene              | ND     |      | ug/L  | 0.072 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| 1-Methylnaphthalene              | ND     |      | ug/L  | 0.072 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Acenaphthylene                   | ND     |      | ug/L  | 0.071 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Acenaphthene                     | ND     |      | ug/L  | 0.058 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Fluorene                         | ND     |      | ug/L  | 0.070 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Phenanthrene                     | ND     |      | ug/L  | 0.065 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Anthracene                       | ND     |      | ug/L  | 0.065 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Fluoranthene                     | ND     |      | ug/L  | 0.071 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Pyrene                           | ND     |      | ug/L  | 0.069 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Anthracene             | ND     |      | ug/L  | 0.075 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Chrysene                         | ND     |      | ug/L  | 0.064 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (k) Fluoranthene           | ND     |      | ug/L  | 0.077 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (b) Fluoranthene           | ND     |      | ug/L  | 0.082 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Pyrene                 | ND     |      | ug/L  | 0.098 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND     |      | ug/L  | 0.079 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND     |      | ug/L  | 0.074 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND     |      | ug/L  | 0.092 | 0.19 | 1.00            | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 67%    |      |       |       |      |                 | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 81%    |      |       |       |      |                 | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 85%    |      |       |       |      |                 | 07/26/18 21:48     | EPA 8270C SIM PAHs | 180725L01 |

EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                             |      |   |      |      |      |      |                |           |            |
|-----------------------------|------|---|------|------|------|------|----------------|-----------|------------|
| Benzene                     | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| Toluene                     | 0.50 | J | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| Ethylbenzene                | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| o-Xylene                    | ND   |   | ug/L | 0.32 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| p/m-Xylene                  | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| Xylenes (total)             | ND   |   | ug/L | 0.20 | 0.50 | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |
| Methyl-t-Butyl Ether (MTBE) | ND   |   | ug/L | 0.20 | 1.0  | 1.00 | 07/31/18 05:54 | EPA 8260B | 180730L031 |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                               | Result | Flag | Units | MDL  | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------|--------|------|-------|------|------|-----------------|--------------------|-----------|------------|
| 1,1,1,2-Tetrachloroethane             | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1,1-Trichloroethane                 | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1,2,2-Tetrachloroethane             | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1,2-Trichloroethane                 | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     |      | ug/L  | 0.24 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethane                    | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1-Dichloroethene                    | ND     |      | ug/L  | 0.28 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,1-Dichloropropene                   | ND     |      | ug/L  | 0.30 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2,3-Trichlorobenzene                | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2,3-Trichloropropane                | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2,4-Trichlorobenzene                | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2,4-Trimethylbenzene                | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,3,5-Trimethylbenzene                | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| c-1,2-Dichloroethene                  | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2-Dibromo-3-Chloropropane           | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2-Dibromoethane                     | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2-Dichlorobenzene                   | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2-Dichloroethane                    | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,2-Dichloropropane                   | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| t-1,2-Dichloroethene                  | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| c-1,3-Dichloropropene                 | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,3-Dichlorobenzene                   | ND     |      | ug/L  | 0.28 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,3-Dichloropropane                   | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| t-1,3-Dichloropropene                 | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 1,4-Dichlorobenzene                   | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 2,2-Dichloropropane                   | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 2-Chlorotoluene                       | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 4-Chlorotoluene                       | ND     |      | ug/L  | 0.36 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 4-Methyl-2-Pentanone                  | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Acetone                               | ND     |      | ug/L  | 4.0  | 10   | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Bromobenzene                          | ND     |      | ug/L  | 0.32 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Bromochloromethane                    | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Bromoform                             | ND     |      | ug/L  | 0.25 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Bromomethane                          | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Carbon Disulfide                      | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Carbon Tetrachloride                  | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Chlorobenzene                         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Dibromochloromethane                  | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Chloroethane                          | ND     |      | ug/L  | 0.32 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Chloroform                            | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Chloromethane                         | ND     |      | ug/L  | 0.29 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Dibromomethane                        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL  | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|------|------|-----------------|--------------------|-----------|------------|
| Bromodichloromethane                   | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Dichlorodifluoromethane                | ND     |      | ug/L  | 0.40 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Hexachloro-1,3-Butadiene               | ND     |      | ug/L  | 0.80 | 2.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Isopropylbenzene                       | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 2-Butanone                             | ND     |      | ug/L  | 2.0  | 5.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Methylene Chloride                     | ND     |      | ug/L  | 0.80 | 1.0  | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| 2-Hexanone                             | ND     |      | ug/L  | 4.0  | 10   | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Naphthalene                            | ND     |      | ug/L  | 0.40 | 10   | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| n-Butylbenzene                         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| n-Propylbenzene                        | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| p-Isopropyltoluene                     | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| sec-Butylbenzene                       | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Styrene                                | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| tert-Butylbenzene                      | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Tetrachloroethene                      | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Trichloroethene                        | ND     |      | ug/L  | 0.29 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Trichlorofluoromethane                 | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Vinyl Chloride                         | ND     |      | ug/L  | 0.20 | 0.50 | 1.00            | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 97%    |      |       |      |      |                 | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Surr: Dibromofluoromethane (80-127%)   | 106%   |      |       |      |      |                 | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 103%   |      |       |      |      |                 | 07/31/18 05:54     | EPA 8260B | 180730L031 |
| Surr: Toluene-d8 (80-120%)             | 103%   |      |       |      |      |                 | 07/31/18 05:54     | EPA 8260B | 180730L031 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                 | Blank Value | Qualifiers | Units | QC Batch   | Lab Number       | Analysis Date/Time |
|-----------------------------------------|-------------|------------|-------|------------|------------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |             |            |       |            |                  |                    |
| <b>099-12-906-8665</b>                  |             |            |       |            |                  |                    |
| Sulfate                                 | ND          |            | mg/L  | 180723L01  | 099-12-906-8665  | 07/23/18 10:26     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-19</b>                    |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0723ALKB2 | 099-17-086-19    | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b> |             |            |       |            |                  |                    |
| <b>099-12-180-6308</b>                  |             |            |       |            |                  |                    |
| Solids, Total Dissolved                 | ND          |            | mg/L  | I0724TDSL2 | 099-12-180-6308  | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>            |             |            |       |            |                  |                    |
| <b>099-05-057-2222</b>                  |             |            |       |            |                  |                    |
| Chloride                                | ND          |            | mg/L  | I0724CLCL1 | 099-05-057-2222  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>             |             |            |       |            |                  |                    |
| <b>097-01-003-16987</b>                 |             |            |       |            |                  |                    |
| Arsenic                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Barium                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Cadmium                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Chromium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Lead                                    | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Selenium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Silver                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| <b>EPA 7470A Mercury</b>                |             |            |       |            |                  |                    |
| <b>099-12-457-382</b>                   |             |            |       |            |                  |                    |
| Mercury                                 | 0.0000644   | J          | mg/L  | 180802LA1M | 099-12-457-382   | 08/02/18 14:34     |
| <b>EPA 8270C SIM PAHs</b>               |             |            |       |            |                  |                    |
| <b>099-06-008-1064</b>                  |             |            |       |            |                  |                    |
| Naphthalene                             | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 2-Methylnaphthalene                     | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 1-Methylnaphthalene                     | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthylene                          | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthene                            | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluorene                                | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Phenanthrene                            | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Anthracene                              | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluoranthene                            | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Pyrene                                  | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Benzo (a) Anthracene                    | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Chrysene                                | ND          |            | ug/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                               | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|---------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| Benzo (k) Fluoranthene                | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (b) Fluoranthene                | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Pyrene                      | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Indeno (1,2,3-c,d) Pyrene             | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Dibenz (a,h) Anthracene               | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (g,h,i) Perylene                | ND          |            | ug/L  | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: Nitrobenzene-d5 (28-139%)       | 85%         |            |       | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: 2-Fluorobiphenyl (33-144%)      | 84%         |            |       | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: p-Terphenyl-d14 (23-160%)       | 93%         |            |       | 180725L01  | 099-06-008-1064 | 07/26/18 15:00     |
| <b>EPA 8260B Volatile Organics</b>    |             |            |       |            |                 |                    |
| <b>099-12-878-751</b>                 |             |            |       |            |                 |                    |
| Benzene                               | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| Toluene                               | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| Ethylbenzene                          | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| o-Xylene                              | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| p/m-Xylene                            | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| Xylenes (total)                       | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| Methyl-t-Butyl Ether (MTBE)           | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1,1,2-Tetrachloroethane             | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1,1-Trichloroethane                 | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1,2,2-Tetrachloroethane             | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1,2-Trichloroethane                 | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1-Dichloroethane                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1-Dichloroethene                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,1-Dichloropropene                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2,3-Trichlorobenzene                | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2,3-Trichloropropane                | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2,4-Trichlorobenzene                | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2,4-Trimethylbenzene                | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,3,5-Trimethylbenzene                | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| c-1,2-Dichloroethene                  | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2-Dibromo-3-Chloropropane           | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2-Dibromoethane                     | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2-Dichlorobenzene                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2-Dichloroethane                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,2-Dichloropropane                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| t-1,2-Dichloroethene                  | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| c-1,3-Dichloropropene                 | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |
| 1,3-Dichlorobenzene                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751  | 07/30/18 21:25     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|----------------|--------------------|
| 1,3-Dichloropropane                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| t-1,3-Dichloropropene                  | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 1,4-Dichlorobenzene                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2,2-Dichloropropane                    | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Chlorotoluene                        | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 4-Chlorotoluene                        | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 4-Methyl-2-Pentanone                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Acetone                                | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromobenzene                           | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromochloromethane                     | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromoform                              | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromomethane                           | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Carbon Disulfide                       | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Carbon Tetrachloride                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chlorobenzene                          | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dibromochloromethane                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloroethane                           | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloroform                             | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Chloromethane                          | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dibromomethane                         | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Bromodichloromethane                   | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Dichlorodifluoromethane                | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Hexachloro-1,3-Butadiene               | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Isopropylbenzene                       | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Butanone                             | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Methylene Chloride                     | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| 2-Hexanone                             | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Naphthalene                            | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| n-Butylbenzene                         | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| n-Propylbenzene                        | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| p-Isopropyltoluene                     | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| sec-Butylbenzene                       | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Styrene                                | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| tert-Butylbenzene                      | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Tetrachloroethene                      | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Trichloroethene                        | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Trichlorofluoromethane                 | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Vinyl Chloride                         | ND          |            | ug/L  | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 98%         |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: Dibromofluoromethane (80-127%)   | 102%        |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 99%         |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

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**PROJECT QUALITY CONTROL DATA**  
**Blank**

| Analyte                    | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------|-------------|------------|-------|------------|----------------|--------------------|
| Surr: Toluene-d8 (80-120%) | 101%        |            |       | 180730L031 | 099-12-878-751 | 07/30/18 21:25     |

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                            | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1549-8</b>                |            |          |       |       |             |        |              |            |               |                    |
| Sulfate                            | 68.80      | 130.9    | HX    | mg/L  | 50.00       | 124    | 80-120       | 180723S01  | 18-07-1549-8  | 07/23/18 15:59     |
| <b>SM 4500-CL C Chloride</b>       |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-3</b>                |            |          |       |       |             |        |              |            |               |                    |
| Chloride                           | 46.59      | 150.6    |       | mg/L  | 100.0       | 104    | 80-120       | I0724CLCS1 | 18-07-1591-3  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Arsenic                            | ND         | 0.5183   |       | mg/L  | 0.5000      | 104    | 80-140       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Barium                             | 0.05900    | 0.5690   |       | mg/L  | 0.5000      | 102    | 87-123       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Cadmium                            | ND         | 0.4992   |       | mg/L  | 0.5000      | 100    | 82-124       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Chromium                           | ND         | 0.5051   |       | mg/L  | 0.5000      | 101    | 86-122       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Lead                               | ND         | 0.5154   |       | mg/L  | 0.5000      | 103    | 84-120       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Selenium                           | ND         | 0.5244   |       | mg/L  | 0.5000      | 105    | 79-127       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Silver                             | ND         | 0.02846  | HX    | mg/L  | 0.2500      | 11     | 86-128       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| <b>EPA 7470A Mercury</b>           |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1594-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Mercury                            | ND         | 0.008332 |       | mg/L  | 0.01000     | 83     | 55-133       | 180802SA1  | 18-07-1594-1  | 08/02/18 14:41     |
| <b>EPA 8260B Volatile Organics</b> |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1590-2</b>                |            |          |       |       |             |        |              |            |               |                    |
| Benzene                            | ND         | 12.24    |       | ug/L  | 10.00       | 122    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Toluene                            | 0.7165     | 12.64    |       | ug/L  | 10.00       | 119    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Ethylbenzene                       | ND         | 11.00    |       | ug/L  | 10.00       | 110    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| o-Xylene                           | ND         | 10.52    |       | ug/L  | 10.00       | 105    | 75-127       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| p/m-Xylene                         | ND         | 21.22    |       | ug/L  | 20.00       | 106    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 9.436    |       | ug/L  | 10.00       | 94     | 71-131       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Tert-Butyl Alcohol (TBA)           | ND         | 65.84    |       | ug/L  | 50.00       | 132    | 20-180       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Diisopropyl Ether (DIPE)           | ND         | 11.75    |       | ug/L  | 10.00       | 118    | 64-136       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Ethyl-t-Butyl Ether (ETBE)         | ND         | 10.20    |       | ug/L  | 10.00       | 102    | 73-133       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Tert-Amyl-Methyl Ether (TAME)      | ND         | 10.24    |       | ug/L  | 10.00       | 102    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Ethanol                            | ND         | 124.0    |       | ug/L  | 100.0       | 124    | 73-139       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,1-Dichloroethene                 | ND         | 12.63    |       | ug/L  | 10.00       | 126    | 66-126       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dibromoethane                  | ND         | 9.876    |       | ug/L  | 10.00       | 99     | 75-126       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dichlorobenzene                | ND         | 9.692    |       | ug/L  | 10.00       | 97     | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| 1,2-Dichloroethane                 | ND         | 11.30    |       | ug/L  | 10.00       | 113    | 75-127       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Carbon Tetrachloride               | ND         | 12.05    |       | ug/L  | 10.00       | 121    | 69-135       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Chlorobenzene                      | ND         | 10.15    |       | ug/L  | 10.00       | 102    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Trichloroethene                    | ND         | 11.76    |       | ug/L  | 10.00       | 118    | 75-125       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |
| Vinyl Chloride                     | ND         | 14.06    |       | ug/L  | 10.00       | 141    | 52-142       | 180730S009 | 18-07-1590-2  | 07/30/18 22:49     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                            | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1549-8</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Sulfate                            | 68.80      | 131.3     | HX    | mg/L  | 50.00       | 125    | 80-120       | 0   | 0-20  | 180723S01  | 18-07-1549-8      | 07/23/18 16:18     |
| <b>SM 4500-CL C Chloride</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-3</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Chloride                           | 46.59      | 150.1     |       | mg/L  | 100.0       | 103    | 80-120       | 0   | 0-25  | I0724CLCS1 | 18-07-1591-3      | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Arsenic                            | ND         | 0.5016    |       | mg/L  | 0.5000      | 100    | 80-140       | 3   | 0-11  | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Barium                             | 0.05900    | 0.5666    |       | mg/L  | 0.5000      | 102    | 87-123       | 0   | 0-6   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Cadmium                            | ND         | 0.4994    |       | mg/L  | 0.5000      | 100    | 82-124       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Chromium                           | ND         | 0.5010    |       | mg/L  | 0.5000      | 100    | 86-122       | 1   | 0-8   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Lead                               | ND         | 0.5147    |       | mg/L  | 0.5000      | 103    | 84-120       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Selenium                           | ND         | 0.5160    |       | mg/L  | 0.5000      | 103    | 79-127       | 2   | 0-9   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Silver                             | ND         | 0.06513   | HX,BA | mg/L  | 0.2500      | 26     | 86-128       | 78  | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| <b>EPA 7470A Mercury</b>           |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1594-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Mercury                            | ND         | 0.007775  |       | mg/L  | 0.01000     | 78     | 55-133       | 7   | 0-20  | 180802SA1  | 18-07-1594-1      | 08/02/18 14:48     |
| <b>EPA 8260B Volatile Organics</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1590-2</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                            | ND         | 12.48     |       | ug/L  | 10.00       | 125    | 75-125       | 2   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Toluene                            | 0.7165     | 13.10     |       | ug/L  | 10.00       | 124    | 75-125       | 4   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Ethylbenzene                       | ND         | 11.53     |       | ug/L  | 10.00       | 115    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| o-Xylene                           | ND         | 11.03     |       | ug/L  | 10.00       | 110    | 75-127       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| p/m-Xylene                         | ND         | 21.93     |       | ug/L  | 20.00       | 110    | 75-125       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 10.08     |       | ug/L  | 10.00       | 101    | 71-131       | 7   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Tert-Butyl Alcohol (TBA)           | ND         | 56.42     |       | ug/L  | 50.00       | 113    | 20-180       | 15  | 0-40  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Diisopropyl Ether (DIPE)           | ND         | 12.43     |       | ug/L  | 10.00       | 124    | 64-136       | 6   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Ethyl-t-Butyl Ether (ETBE)         | ND         | 10.77     |       | ug/L  | 10.00       | 108    | 73-133       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Tert-Amyl-Methyl Ether (TAME)      | ND         | 10.81     |       | ug/L  | 10.00       | 108    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Ethanol                            | ND         | 88.17     | BA    | ug/L  | 100.0       | 88     | 73-139       | 34  | 0-27  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,1-Dichloroethene                 | ND         | 12.80     | HX    | ug/L  | 10.00       | 128    | 66-126       | 1   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dibromoethane                  | ND         | 10.43     |       | ug/L  | 10.00       | 104    | 75-126       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dichlorobenzene                | ND         | 10.15     |       | ug/L  | 10.00       | 102    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| 1,2-Dichloroethane                 | ND         | 11.67     |       | ug/L  | 10.00       | 117    | 75-127       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Carbon Tetrachloride               | ND         | 12.41     |       | ug/L  | 10.00       | 124    | 69-135       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Chlorobenzene                      | ND         | 10.65     |       | ug/L  | 10.00       | 106    | 75-125       | 5   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Trichloroethene                    | ND         | 12.25     |       | ug/L  | 10.00       | 122    | 75-125       | 4   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |
| Vinyl Chloride                     | ND         | 13.63     |       | ug/L  | 10.00       | 136    | 52-142       | 3   | 0-20  | 180730S009 | 18-07-1590-2      | 07/30/18 23:16     |

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

**QUALITY CONTROL  
Post Digestion Spike**

| Analyte                     | Orig. Val. | PDS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch     | Sample Spiked | Analysis Date/Time |
|-----------------------------|------------|----------|-------|-------|-------------|--------|--------------|-----------|---------------|--------------------|
| <b>EPA 6010B ICP Metals</b> |            |          |       |       |             |        |              |           |               |                    |
| <b>18-07-1591-1</b>         |            |          |       |       |             |        |              |           |               |                    |
| Arsenic                     | ND         | 0.4856   |       | mg/L  | 0.5000      | 97     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Barium                      | 0.05900    | 0.5799   |       | mg/L  | 0.5000      | 104    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Cadmium                     | ND         | 0.5102   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Chromium                    | ND         | 0.5095   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Lead                        | ND         | 0.5332   |       | mg/L  | 0.5000      | 107    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Selenium                    | ND         | 0.5419   |       | mg/L  | 0.5000      | 108    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Silver                      | ND         | 0.2234   |       | mg/L  | 0.2500      | 89     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |

  
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Qual: Qualifiers



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|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-07-1594                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 07/21/18                    |

QUALITY CONTROL  
Post Digestion Spike Duplicate

| Analyte              | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|----------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| EPA 6010B ICP Metals |            |           |       |       |             |        |              |     |       |           |                   |                    |
| 18-07-1591-1         |            |           |       |       |             |        |              |     |       |           |                   |                    |
| Arsenic              | ND         | 0.4871    |       | mg/L  | 0.5000      | 97     | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Barium               | 0.05900    | 0.5823    |       | mg/L  | 0.5000      | 105    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Cadmium              | ND         | 0.5035    |       | mg/L  | 0.5000      | 101    | 75-125       | 1   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Chromium             | ND         | 0.5110    |       | mg/L  | 0.5000      | 102    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Lead                 | ND         | 0.5142    |       | mg/L  | 0.5000      | 103    | 75-125       | 4   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Selenium             | ND         | 0.4838    |       | mg/L  | 0.5000      | 97     | 75-125       | 11  | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Silver               | ND         | 0.2274    |       | mg/L  | 0.2500      | 91     | 75-125       | 2   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |

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Qual - Qualifiers    RPD: Relative Percent Difference

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1594                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

QUALITY CONTROL  
Sample Duplicate

| Analyte                          | Orig. Val. | Duplicate | Qual. | Units | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------------|------------|-----------|-------|-------|-----|-------|------------|-------------------|--------------------|
| SM 2320B Alkalinity              |            |           |       |       |     |       |            |                   |                    |
| 18-07-1456-3                     |            |           |       |       |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO3)     | 52.80      | 52.74     |       | mg/L  | 0   | 0-25  | I0723ALKD2 | 18-07-1456-3      | 07/24/18 02:19     |
| SM 2540 C Total Dissolved Solids |            |           |       |       |     |       |            |                   |                    |
| 18-07-1387-6                     |            |           |       |       |     |       |            |                   |                    |
| Solids, Total Dissolved          | 32020      | 32040     |       | mg/L  | 0   | 0-20  | I0724TDSD4 | 18-07-1387-6      | 07/24/18 16:00     |

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RPD: Relative Percent Difference.



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1594                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-------------------------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 300.0 Anions</b>                   |            |          |       |       |        |              |            |                    |
| <b>099-12-906-8665</b>                    |            |          |       |       |        |              |            |                    |
| Sulfate                                   | 50.00      | 48.74    |       | mg/L  | 97     | 90-110       | 180723L01  | 07/23/18 10:45     |
| <b>SM 2320B Alkalinity</b>                |            |          |       |       |        |              |            |                    |
| <b>099-17-086-19</b>                      |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0      | 110.3    |       | mg/L  | 110    | 80-120       | 10723ALKB2 | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b>   |            |          |       |       |        |              |            |                    |
| <b>099-12-180-6308</b>                    |            |          |       |       |        |              |            |                    |
| Solids, Total Dissolved                   | 100.0      | 95.00    |       | mg/L  | 95     | 80-120       | 10724TDSL2 | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>              |            |          |       |       |        |              |            |                    |
| <b>099-05-057-2222</b>                    |            |          |       |       |        |              |            |                    |
| Chloride                                  | 100.0      | 100.6    |       | mg/L  | 101    | 80-120       | 10724CLCL1 | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>               |            |          |       |       |        |              |            |                    |
| <b>097-01-003-16987</b>                   |            |          |       |       |        |              |            |                    |
| Arsenic                                   | 0.5000     | 0.4415   |       | mg/L  | 88     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Barium                                    | 0.5000     | 0.5081   |       | mg/L  | 102    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Cadmium                                   | 0.5000     | 0.5186   |       | mg/L  | 104    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Chromium                                  | 0.5000     | 0.4881   |       | mg/L  | 98     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Lead                                      | 0.5000     | 0.5019   |       | mg/L  | 100    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Selenium                                  | 0.5000     | 0.4333   |       | mg/L  | 87     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Silver                                    | 0.2500     | 0.2235   |       | mg/L  | 89     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| <b>EPA 7470A Mercury</b>                  |            |          |       |       |        |              |            |                    |
| <b>099-12-457-382</b>                     |            |          |       |       |        |              |            |                    |
| Mercury                                   | 0.01000    | 0.008974 |       | mg/L  | 90     | 80-120       | 180802LA1M | 08/02/18 14:37     |
| <b>EPA 8270C SIM PAHs</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-06-008-1064</b>                    |            |          |       |       |        |              |            |                    |
| Naphthalene                               | 2.000      | 1.772    |       | ug/L  | 89     | 21-133       | 180725L01  | 07/26/18 15:21     |
| 2-Methylnaphthalene                       | 2.000      | 1.834    |       | ug/L  | 92     | 21-140       | 180725L01  | 07/26/18 15:21     |
| 1-Methylnaphthalene                       | 2.000      | 1.825    |       | ug/L  | 91     | 20-140       | 180725L01  | 07/26/18 15:21     |
| Acenaphthylene                            | 2.000      | 1.684    |       | ug/L  | 84     | 33-145       | 180725L01  | 07/26/18 15:21     |
| Acenaphthene                              | 2.000      | 1.755    |       | ug/L  | 88     | 55-121       | 180725L01  | 07/26/18 15:21     |
| Fluorene                                  | 2.000      | 1.827    |       | ug/L  | 91     | 59-121       | 180725L01  | 07/26/18 15:21     |
| Phenanthrene                              | 2.000      | 1.956    |       | ug/L  | 98     | 54-120       | 180725L01  | 07/26/18 15:21     |
| Anthracene                                | 2.000      | 1.907    |       | ug/L  | 95     | 27-133       | 180725L01  | 07/26/18 15:21     |
| Fluoranthene                              | 2.000      | 1.974    |       | ug/L  | 99     | 26-137       | 180725L01  | 07/26/18 15:21     |
| Pyrene                                    | 2.000      | 1.940    |       | ug/L  | 97     | 45-129       | 180725L01  | 07/26/18 15:21     |
| Benzo (a) Anthracene                      | 2.000      | 1.990    |       | ug/L  | 100    | 33-143       | 180725L01  | 07/26/18 15:21     |
| Chrysene                                  | 2.000      | 1.964    |       | ug/L  | 98     | 17-168       | 180725L01  | 07/26/18 15:21     |
| Benzo (k) Fluoranthene                    | 2.000      | 1.965    |       | ug/L  | 98     | 24-159       | 180725L01  | 07/26/18 15:21     |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1594                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch     | Analysis Date/Time |
|---------------------------|------------|----------|-------|-------|--------|--------------|-----------|--------------------|
| Benzo (b) Fluoranthene    | 2.000      | 2.010    |       | ug/L  | 100    | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (a) Pyrene          | 2.000      | 2.048    |       | ug/L  | 102    | 17-163       | 180725L01 | 07/26/18 15:21     |
| Indeno (1,2,3-c,d) Pyrene | 2.000      | 1.966    |       | ug/L  | 98     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Dibenz (a,h) Anthracene   | 2.000      | 1.865    |       | ug/L  | 93     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Benzo (g,h,i) Perylene    | 2.000      | 2.193    |       | ug/L  | 110    | 25-157       | 180725L01 | 07/26/18 15:21     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

#### EPA 8260B Volatile Organics

**099-12-878-751**

|                               |       |       |       |      |     |        |            |                |
|-------------------------------|-------|-------|-------|------|-----|--------|------------|----------------|
| Benzene                       | 10.00 | 10.98 |       | ug/L | 110 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Toluene                       | 10.00 | 10.83 |       | ug/L | 108 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Ethylbenzene                  | 10.00 | 9.662 |       | ug/L | 97  | 80-120 | 180730L031 | 07/30/18 20:24 |
| o-Xylene                      | 10.00 | 9.707 |       | ug/L | 97  | 80-120 | 180730L031 | 07/30/18 20:24 |
| p/m-Xylene                    | 20.00 | 19.18 |       | ug/L | 96  | 80-120 | 180730L031 | 07/30/18 20:24 |
| Methyl-t-Butyl Ether (MTBE)   | 10.00 | 8.923 |       | ug/L | 89  | 75-123 | 180730L031 | 07/30/18 20:24 |
| Tert-Butyl Alcohol (TBA)      | 50.00 | 57.66 |       | ug/L | 115 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Diisopropyl Ether (DIPE)      | 10.00 | 11.05 |       | ug/L | 110 | 73-121 | 180730L031 | 07/30/18 20:24 |
| Ethyl-t-Butyl Ether (ETBE)    | 10.00 | 9.364 |       | ug/L | 94  | 76-124 | 180730L031 | 07/30/18 20:24 |
| Tert-Amyl-Methyl Ether (TAME) | 10.00 | 9.526 |       | ug/L | 95  | 80-120 | 180730L031 | 07/30/18 20:24 |
| Ethanol                       | 100.0 | 135.1 | LQ,RU | ug/L | 135 | 73-133 | 180730L031 | 07/30/18 20:24 |
| 1,1-Dichloroethene            | 10.00 | 10.26 |       | ug/L | 103 | 77-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dibromoethane             | 10.00 | 9.278 |       | ug/L | 93  | 80-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dichlorobenzene           | 10.00 | 9.419 |       | ug/L | 94  | 80-120 | 180730L031 | 07/30/18 20:24 |
| 1,2-Dichloroethane            | 10.00 | 10.63 |       | ug/L | 106 | 80-122 | 180730L031 | 07/30/18 20:24 |
| Carbon Tetrachloride          | 10.00 | 10.24 |       | ug/L | 102 | 80-129 | 180730L031 | 07/30/18 20:24 |
| Chlorobenzene                 | 10.00 | 9.591 |       | ug/L | 96  | 80-120 | 180730L031 | 07/30/18 20:24 |
| Trichloroethene               | 10.00 | 10.60 |       | ug/L | 106 | 80-120 | 180730L031 | 07/30/18 20:24 |
| Vinyl Chloride                | 10.00 | 12.15 |       | ug/L | 122 | 63-135 | 180730L031 | 07/30/18 20:24 |

Total number of LCS compounds: 19  
Total number of ME compounds: 1  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1594  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                                   | LCS Val. | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|-------------------------------------------|----------|-----------|-------|-------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>SM 2320B Alkalinity</b>                |          |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-19</b>                      |          |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0    | 106.5     |       | mg/L  | 106    | 80-120       | 4   | 0-20  | I0723ALKB2 | 099-17-086-19     | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b>   |          |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-180-6308</b>                    |          |           |       |       |        |              |     |       |            |                   |                    |
| Solids, Total Dissolved                   | 100.0    | 90.00     |       | mg/L  | 90     | 80-120       | 5   | 0-20  | I0724TDSL2 | 099-12-180-6308   | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>              |          |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-05-057-2222</b>                    |          |           |       |       |        |              |     |       |            |                   |                    |
| Chloride                                  | 100.0    | 100.1     |       | mg/L  | 100    | 80-120       | 0   | 0-20  | I0724CLCL1 | 099-05-057-2222   | 07/24/18 18:00     |
| <b>EPA 8270C SIM PAHs</b>                 |          |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-06-008-1064</b>                    |          |           |       |       |        |              |     |       |            |                   |                    |
| Naphthalene                               | 2.000    | 1.763     |       | ug/L  | 88     | 21-133       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 2-Methylnaphthalene                       | 2.000    | 1.816     |       | ug/L  | 91     | 21-140       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 1-Methylnaphthalene                       | 2.000    | 1.826     |       | ug/L  | 91     | 20-140       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthylene                            | 2.000    | 1.727     |       | ug/L  | 86     | 33-145       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthene                              | 2.000    | 1.824     |       | ug/L  | 91     | 55-121       | 4   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluorene                                  | 2.000    | 1.932     |       | ug/L  | 97     | 59-121       | 6   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Phenanthrene                              | 2.000    | 1.987     |       | ug/L  | 99     | 54-120       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Anthracene                                | 2.000    | 1.954     |       | ug/L  | 98     | 27-133       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluoranthene                              | 2.000    | 1.987     |       | ug/L  | 99     | 26-137       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Pyrene                                    | 2.000    | 1.947     |       | ug/L  | 97     | 45-129       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Anthracene                      | 2.000    | 2.008     |       | ug/L  | 100    | 33-143       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Chrysene                                  | 2.000    | 1.995     |       | ug/L  | 100    | 17-168       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (k) Fluoranthene                    | 2.000    | 1.992     |       | ug/L  | 100    | 24-159       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (b) Fluoranthene                    | 2.000    | 2.051     |       | ug/L  | 103    | 24-159       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Pyrene                          | 2.000    | 2.106     |       | ug/L  | 105    | 17-163       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Indeno (1,2,3-c,d) Pyrene                 | 2.000    | 2.028     |       | ug/L  | 101    | 25-175       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Dibenz (a,h) Anthracene                   | 2.000    | 2.054     |       | ug/L  | 103    | 25-175       | 10  | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (g,h,i) Perylene                    | 2.000    | 2.253     |       | ug/L  | 113    | 25-157       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

Qual - Qualifiers RPD: Relative Percent Difference





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Work Order: 18-07-1594

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**Sample Analysis Summary Report**

| <u>Method</u>      | <u>Extraction</u> | <u>Chemist ID</u> | <u>Instrument</u> | <u>Analytical Location</u> |
|--------------------|-------------------|-------------------|-------------------|----------------------------|
| EPA 300.0          | N/A               | 27                | IC 10             | 1                          |
| EPA 6010B          | EPA 3010A Total   | 1080              | ICP 8300          | 1                          |
| EPA 7470A          | EPA 7470A Total   | 868               | Mercury 07        | 1                          |
| EPA 8260B          | EPA 5030C         | 1162              | GC/MS UU          | 2                          |
| EPA 8270C SIM PAHs | EPA 3510C         | 928               | GC/MS EEE         | 1                          |
| SM 2320B           | N/A               | 834               | PCT 1             | 1                          |
| SM 2540 C          | N/A               | 1136              | N/A               | 1                          |
| SM 4500-Cl C       | N/A               | 1086              | BUR02             | 1                          |

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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## CHAIN OF CUSTODY RECORD

DATE: 07/20/18

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|                                                         |                             |
|---------------------------------------------------------|-----------------------------|
| <b>Site Name</b>                                        |                             |
| <b>Provide MRN for retail or AFE for major projects</b> |                             |
| <b>Retail Project (MRN)</b>                             |                             |
| <b>Major Project (AFE)</b>                              |                             |
| <b>Project Name</b>                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501

ExxonMobil Engr: Maria Madden

| LABORATORY CLIENT<br><b>Cardino</b>                                                           |            | GLOBAL ID # COE LT LOG CODE:                         |               | EMES Sub Agreement #A2604415                                                                                                                                                                  |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
|-----------------------------------------------------------------------------------------------|------------|------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|-----------------------------------|-------------------------------|---------------------------------------------------------|------------------------------|------------------------------|--------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------|
| ADDRESS:<br><b>25371 Comemrcentre Drive, Suite 250</b>                                        |            | PROJECT CONTACT:<br><b>David Purdy</b>               |               | LAB USE:<br><b>18-07-1594</b>                                                                                                                                                                 |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| CITY:<br><b>Lake Forest, CA 92630</b>                                                         |            | SAMPLER(S):<br><b>Stephen Hunter, Vincent Nguyen</b> |               | COOLER RECEIPT<br>Temp = _____ °C                                                                                                                                                             |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| TEL: <b>949-457-8941</b>                                                                      |            | FAX: <b>949-457-8956</b>                             |               | TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 10 DAYS |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING |            | ARCHIVE SAMPLES UNTIL _____ / _____ / _____          |               |                                                                                                                                                                                               |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| SPECIAL INSTRUCTIONS<br>New Mexico Site                                                       |            | REQUESTED ANALYSIS                                   |               |                                                                                                                                                                                               |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| Report J values.                                                                              |            |                                                      |               |                                                                                                                                                                                               |          |              |                                   |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |
| LAB USE ONLY                                                                                  | SAMPLE ID  | Field Point Name                                     | SAMPLING DATE | TIME                                                                                                                                                                                          | MAT- RIX | NO. OF CONT. | EPA 8260B LL VOCs only (TC# 6401) | EPA 8270C SIM PAHs (TC# 4741) | EPA 6010B As, Ba, Cd, Cr, Pb, Se and Ag only (TC# 2516) | EPA 7470A Mercury (TC# 5096) | EPA 300.0 Sulfate (TC# 5431) | SM 2320B Alkalinity (TC# 6512) and SM 4500-Cl C Chloride (TC# 755) | SM 2540C Total Dissolved Solids (TC# 4942) | CONTAINER TYPE                                                                                        |
| 1                                                                                             | W-41-MW22  | MW-22                                                | 07/18/18      | 1555                                                                                                                                                                                          | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 2                                                                                             | W-40-MW11  | MW-11                                                | 07/18/18      | 1300                                                                                                                                                                                          | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 3                                                                                             | TRIP BLANK | ACTB                                                 | /             | /                                                                                                                                                                                             | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 4                                                                                             |            |                                                      |               |                                                                                                                                                                                               | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 5                                                                                             |            |                                                      |               |                                                                                                                                                                                               | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 6                                                                                             |            |                                                      |               |                                                                                                                                                                                               | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 7                                                                                             |            |                                                      |               |                                                                                                                                                                                               | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| 8                                                                                             |            |                                                      |               |                                                                                                                                                                                               | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |
| Relinquished by (Signature)                                                                   |            | Stephen Hunter                                       |               | Received by (Signature)                                                                                                                                                                       |          | FedEx        |                                   | Date, & Time                  |                                                         | 07/20/18, 1700               |                              |                                                                    |                                            |                                                                                                       |
| Relinquished by (Signature)                                                                   |            |                                                      |               | Received by (Signature)                                                                                                                                                                       |          |              |                                   | Date, & Time                  |                                                         | 7/21/18, 1130                |                              |                                                                    |                                            |                                                                                                       |
| Relinquished by (Signature)                                                                   |            |                                                      |               | Received by (Signature)                                                                                                                                                                       |          |              |                                   | Date, & Time                  |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |

COC/Gladiola Station-NM Site COC-13 samples

1594

Recipient's Name Please print.

ORIGIN ID: H0BA (949) 457-8950

SHIP DATE: 20 JUL 18  
ACTWGT: 52.20 LB  
CAD: 006994240  
DIMS: 15-3

Part # 1507  
B 7969  
12:00 07:21

CARDINO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

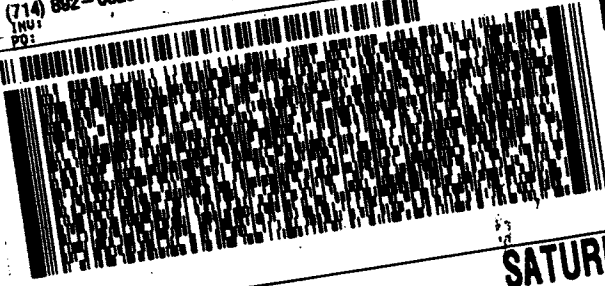
RT 138  
ST 26

EUROFINS CALSCIENCE  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841

(714) 892-5626

REF: DEPT:

INU: PO:



**FedEx**  
Express  


3 of 5  
MPS# 7727 7903 7969  
0263  
Mstr# 7727 7903 7947  
0201

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

**XO APVA**

92841  
CA-US SNA



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Calscience

WORK ORDER NUMBER: 18-07-1594

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno

DATE: 07/21/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 2.8°C (w/ CF): 2.3°C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 802

## CUSTODY SEAL:

Cooler ☒ Present and Intact☐ Present but Not Intact☐ Not Present☐ N/A

Checked by: 802

Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 728

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☒ Yes ☐ No ☐ N/AContainer(s) for certain analysis free of headspace ..... ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: 180709B)

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna<sub>2</sub> ☐ 100PJ ☐ 100PJna<sub>2</sub> ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☒ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☒ 250PB ☒ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☒ 1AGB ☐ 1AGBna<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☒ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 771s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 1017





Calscience

**WORK ORDER NUMBER: 18-07-1591***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825*Cecile L. de Guia*

---

Approved for release on 08/06/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 18-07-1591

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## Work Order Narrative

Work Order: 18-07-1591

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/21/18. They were assigned to Work Order 18-07-1591.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

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Sample Summary

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1591                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | PO Number:                                |
|                            | Date/Time Received: 07/21/18 11:30        |
|                            | Number of Containers: 36                  |
| Attn: David Purdy          |                                           |

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| W-39-B4/MW30          | 18-07-1591-1 | 07/19/18 09:00           | 12                   | Aqueous |
| W-40-B2/MW28          | 18-07-1591-2 | 07/19/18 11:50           | 11                   | Aqueous |
| W-42-B6/MW32          | 18-07-1591-3 | 07/19/18 14:30           | 11                   | Aqueous |
| W-41-B5/MW31          | 18-07-1591-4 | 07/19/18 17:20           | 0                    | Aqueous |
| TRIP BLANK            | 18-07-1591-5 | 07/19/18 00:00           | 2                    | Aqueous |

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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: EPA 300.0  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-F    | 07/19/18 09:00      | Aqueous | IC 7       | N/A           | 07/25/18 00:52     | 180724L02   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Sulfate   | 100    | 2.0 | 0.98 | 2.00 |            |

|              |                |                |         |      |     |                |           |
|--------------|----------------|----------------|---------|------|-----|----------------|-----------|
| W-40-B2/MW28 | 18-07-1591-2-F | 07/19/18 11:50 | Aqueous | IC 7 | N/A | 07/25/18 01:10 | 180724L02 |
|--------------|----------------|----------------|---------|------|-----|----------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF   | Qualifiers |
|-----------|--------|----|-----|------|------------|
| Sulfate   | 430    | 10 | 4.9 | 10.0 |            |

|              |                |                |         |      |     |                |           |
|--------------|----------------|----------------|---------|------|-----|----------------|-----------|
| W-42-B6/MW32 | 18-07-1591-3-F | 07/19/18 14:30 | Aqueous | IC 7 | N/A | 07/23/18 22:08 | 180723L01 |
|--------------|----------------|----------------|---------|------|-----|----------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Sulfate   | 53     | 1.0 | 0.49 | 1.00 |            |

|              |                 |     |         |      |     |                |           |
|--------------|-----------------|-----|---------|------|-----|----------------|-----------|
| Method Blank | 099-12-906-8656 | N/A | Aqueous | IC 7 | N/A | 07/23/18 10:22 | 180723L01 |
|--------------|-----------------|-----|---------|------|-----|----------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Sulfate   | ND     | 1.0 | 0.49 | 1.00 |            |

|              |                 |     |         |      |     |                |           |
|--------------|-----------------|-----|---------|------|-----|----------------|-----------|
| Method Blank | 099-12-906-8657 | N/A | Aqueous | IC 7 | N/A | 07/24/18 20:16 | 180724L02 |
|--------------|-----------------|-----|---------|------|-----|----------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Sulfate   | ND     | 1.0 | 0.49 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 2320B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-G    | 07/19/18 09:00      | Aqueous | PCT 1      | N/A           | 07/24/18 02:19     | I0723ALKB2  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                    | Result | RL  | MDL | DF   | Qualifiers |
|------------------------------|--------|-----|-----|------|------------|
| Alkalinity, Total (as CaCO3) | 170    | 5.0 | 1.7 | 1.00 |            |

|              |                |                |         |       |     |                |            |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|
| W-40-B2/MW28 | 18-07-1591-2-H | 07/19/18 11:50 | Aqueous | PCT 1 | N/A | 07/24/18 02:19 | I0723ALKB2 |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                    | Result | RL  | MDL | DF   | Qualifiers |
|------------------------------|--------|-----|-----|------|------------|
| Alkalinity, Total (as CaCO3) | 140    | 5.0 | 1.7 | 1.00 |            |

|              |                |                |         |       |     |                |            |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|
| W-42-B6/MW32 | 18-07-1591-3-G | 07/19/18 14:30 | Aqueous | PCT 1 | N/A | 07/24/18 02:19 | I0723ALKB2 |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                    | Result | RL  | MDL | DF   | Qualifiers |
|------------------------------|--------|-----|-----|------|------------|
| Alkalinity, Total (as CaCO3) | 450    | 5.0 | 1.7 | 1.00 |            |

|              |              |     |         |       |     |                |            |
|--------------|--------------|-----|---------|-------|-----|----------------|------------|
| Method Blank | 099-17-086-8 | N/A | Aqueous | PCT 1 | N/A | 07/24/18 02:19 | I0723ALKB2 |
|--------------|--------------|-----|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                    | Result | RL  | MDL | DF   | Qualifiers |
|------------------------------|--------|-----|-----|------|------------|
| Alkalinity, Total (as CaCO3) | ND     | 5.0 | 1.7 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 2540 C  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-L    | 07/19/18 09:00      | Aqueous | N/A        | 07/25/18      | 07/25/18 16:00     | I0725TDSL1  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter               | Result | RL   | MDL   | DF   | Qualifiers |
|-------------------------|--------|------|-------|------|------------|
| Solids, Total Dissolved | 725    | 1.00 | 0.870 | 1.00 |            |

|              |                |                |         |     |          |                |            |
|--------------|----------------|----------------|---------|-----|----------|----------------|------------|
| W-40-B2/MW28 | 18-07-1591-2-K | 07/19/18 11:50 | Aqueous | N/A | 07/25/18 | 07/25/18 16:00 | I0725TDSL1 |
|--------------|----------------|----------------|---------|-----|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter               | Result | RL   | MDL   | DF   | Qualifiers |
|-------------------------|--------|------|-------|------|------------|
| Solids, Total Dissolved | 1060   | 10.0 | 0.870 | 1.00 |            |

|              |                |                |         |     |          |                |            |
|--------------|----------------|----------------|---------|-----|----------|----------------|------------|
| W-42-B6/MW32 | 18-07-1591-3-K | 07/19/18 14:30 | Aqueous | N/A | 07/25/18 | 07/25/18 16:00 | I0725TDSL1 |
|--------------|----------------|----------------|---------|-----|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter               | Result | RL   | MDL   | DF   | Qualifiers |
|-------------------------|--------|------|-------|------|------------|
| Solids, Total Dissolved | 705    | 1.00 | 0.870 | 1.00 |            |

|              |                 |     |         |     |          |                |            |
|--------------|-----------------|-----|---------|-----|----------|----------------|------------|
| Method Blank | 099-12-180-6312 | N/A | Aqueous | N/A | 07/25/18 | 07/25/18 16:00 | I0725TDSL1 |
|--------------|-----------------|-----|---------|-----|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter               | Result | RL  | MDL  | DF   | Qualifiers |
|-------------------------|--------|-----|------|------|------------|
| Solids, Total Dissolved | ND     | 1.0 | 0.87 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 4500-Cl C  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-G    | 07/19/18 09:00      | Aqueous | BUR02      | N/A           | 07/24/18 18:00     | I0724CLCL1  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Chloride  | 170    | 2.0 | 0.76 | 1.00 |            |

|              |                |                |         |       |     |                |            |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|
| W-40-B2/MW28 | 18-07-1591-2-G | 07/19/18 11:50 | Aqueous | BUR02 | N/A | 07/24/18 18:00 | I0724CLCL1 |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Chloride  | 220    | 2.0 | 0.76 | 1.00 |            |

|              |                |                |         |       |     |                |            |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|
| W-42-B6/MW32 | 18-07-1591-3-G | 07/19/18 14:30 | Aqueous | BUR02 | N/A | 07/24/18 18:00 | I0724CLCL1 |
|--------------|----------------|----------------|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Chloride  | 47     | 2.0 | 0.76 | 1.00 |            |

|              |                 |     |         |       |     |                |            |
|--------------|-----------------|-----|---------|-------|-----|----------------|------------|
| Method Blank | 099-05-057-2222 | N/A | Aqueous | BUR02 | N/A | 07/24/18 18:00 | I0724CLCL1 |
|--------------|-----------------|-----|---------|-------|-----|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL  | MDL  | DF   | Qualifiers |
|-----------|--------|-----|------|------|------------|
| Chloride  | ND     | 2.0 | 0.76 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-H    | 07/19/18<br>09:00   | Aqueous | ICP 8300   | 07/30/18      | 08/03/18<br>15:35  | 180730LA5   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result  | RL      | MDL     | DF   | Qualifiers |
|-----------|---------|---------|---------|------|------------|
| Arsenic   | 0.00958 | 0.0100  | 0.00438 | 1.00 | J          |
| Barium    | 0.0590  | 0.0100  | 0.00296 | 1.00 |            |
| Cadmium   | ND      | 0.0100  | 0.00269 | 1.00 |            |
| Chromium  | ND      | 0.0100  | 0.00271 | 1.00 |            |
| Lead      | ND      | 0.0100  | 0.00406 | 1.00 |            |
| Selenium  | ND      | 0.0150  | 0.00699 | 1.00 |            |
| Silver    | ND      | 0.00500 | 0.00139 | 1.00 |            |

|              |                |                   |         |          |          |                   |           |
|--------------|----------------|-------------------|---------|----------|----------|-------------------|-----------|
| W-40-B2/MW28 | 18-07-1591-2-H | 07/19/18<br>11:50 | Aqueous | ICP 8300 | 07/30/18 | 08/03/18<br>15:40 | 180730LA5 |
|--------------|----------------|-------------------|---------|----------|----------|-------------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result  | RL      | MDL     | DF   | Qualifiers |
|-----------|---------|---------|---------|------|------------|
| Arsenic   | 0.0156  | 0.0100  | 0.00438 | 1.00 |            |
| Barium    | 0.0874  | 0.0100  | 0.00296 | 1.00 |            |
| Cadmium   | ND      | 0.0100  | 0.00269 | 1.00 |            |
| Chromium  | ND      | 0.0100  | 0.00271 | 1.00 |            |
| Lead      | ND      | 0.0100  | 0.00406 | 1.00 |            |
| Selenium  | 0.0300  | 0.0150  | 0.00699 | 1.00 |            |
| Silver    | 0.00196 | 0.00500 | 0.00139 | 1.00 | J          |

|              |                |                   |         |          |          |                   |           |
|--------------|----------------|-------------------|---------|----------|----------|-------------------|-----------|
| W-42-B6/MW32 | 18-07-1591-3-H | 07/19/18<br>14:30 | Aqueous | ICP 8300 | 07/30/18 | 08/03/18<br>15:41 | 180730LA5 |
|--------------|----------------|-------------------|---------|----------|----------|-------------------|-----------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL      | MDL     | DF   | Qualifiers |
|-----------|--------|---------|---------|------|------------|
| Arsenic   | ND     | 0.0100  | 0.00438 | 1.00 |            |
| Barium    | 0.0799 | 0.0100  | 0.00296 | 1.00 |            |
| Cadmium   | ND     | 0.0100  | 0.00269 | 1.00 |            |
| Chromium  | ND     | 0.0100  | 0.00271 | 1.00 |            |
| Lead      | ND     | 0.0100  | 0.00406 | 1.00 |            |
| Selenium  | 0.0187 | 0.0150  | 0.00699 | 1.00 |            |
| Silver    | ND     | 0.00500 | 0.00139 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

|                                      |                |                 |
|--------------------------------------|----------------|-----------------|
| Cardno                               | Date Received: | 07/21/18        |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591      |
| Lake Forest, CA 92630-8825           | Preparation:   | EPA 3010A Total |
|                                      | Method:        | EPA 6010B       |
|                                      | Units:         | mg/L            |
| Project: ExxonMobil Gladiola Station |                | Page 2 of 2     |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| Method Blank         | 097-01-003-16987  | N/A                 | Aqueous | ICP 8300   | 07/30/18      | 08/03/18 14:53     | 180730LA5   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| <u>Parameter</u> | <u>Result</u> | <u>RL</u> | <u>MDL</u> | <u>DF</u> | <u>Qualifiers</u> |
|------------------|---------------|-----------|------------|-----------|-------------------|
| Arsenic          | ND            | 0.0100    | 0.00438    | 1.00      |                   |
| Barium           | ND            | 0.0100    | 0.00296    | 1.00      |                   |
| Cadmium          | ND            | 0.0100    | 0.00269    | 1.00      |                   |
| Chromium         | ND            | 0.0100    | 0.00271    | 1.00      |                   |
| Lead             | ND            | 0.0100    | 0.00406    | 1.00      |                   |
| Selenium         | ND            | 0.0150    | 0.00699    | 1.00      |                   |
| Silver           | ND            | 0.00500   | 0.00139    | 1.00      |                   |


  
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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 7470A Total  
Method: EPA 7470A  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-H    | 07/19/18 09:00      | Aqueous | Mercury 07 | 08/02/18      | 08/02/18 15:00     | 180802LA1M  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result   | RL       | MDL       | DF   | Qualifiers |
|-----------|----------|----------|-----------|------|------------|
| Mercury   | 0.000102 | 0.000200 | 0.0000453 | 1.00 | B,J        |

|              |                |                |         |            |          |                |            |
|--------------|----------------|----------------|---------|------------|----------|----------------|------------|
| W-40-B2/MW28 | 18-07-1591-2-H | 07/19/18 11:50 | Aqueous | Mercury 07 | 08/02/18 | 08/02/18 15:02 | 180802LA1M |
|--------------|----------------|----------------|---------|------------|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result   | RL       | MDL       | DF   | Qualifiers |
|-----------|----------|----------|-----------|------|------------|
| Mercury   | 0.000104 | 0.000200 | 0.0000453 | 1.00 | B,J        |

|              |                |                |         |            |          |                |            |
|--------------|----------------|----------------|---------|------------|----------|----------------|------------|
| W-42-B6/MW32 | 18-07-1591-3-H | 07/19/18 14:30 | Aqueous | Mercury 07 | 08/02/18 | 08/02/18 15:04 | 180802LA1M |
|--------------|----------------|----------------|---------|------------|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result   | RL       | MDL       | DF   | Qualifiers |
|-----------|----------|----------|-----------|------|------------|
| Mercury   | 0.000153 | 0.000200 | 0.0000453 | 1.00 | B,J        |

|              |                |     |         |            |          |                |            |
|--------------|----------------|-----|---------|------------|----------|----------------|------------|
| Method Blank | 099-12-457-382 | N/A | Aqueous | Mercury 07 | 08/02/18 | 08/02/18 14:34 | 180802LA1M |
|--------------|----------------|-----|---------|------------|----------|----------------|------------|

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result    | RL       | MDL       | DF   | Qualifiers |
|-----------|-----------|----------|-----------|------|------------|
| Mercury   | 0.0000644 | 0.000200 | 0.0000453 | 1.00 | J          |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3510C  
Method: EPA 8270C SIM PAHS  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 1 of 4

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-I    | 07/19/18<br>09:00   | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18<br>18:45  | 180725L01   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                 | Result | RL      | MDL      | DF   | Qualifiers |
|---------------------------|--------|---------|----------|------|------------|
| Naphthalene               | ND     | 0.00020 | 0.000075 | 1.00 |            |
| 2-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| 1-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthylene            | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthene              | ND     | 0.00020 | 0.000062 | 1.00 |            |
| Fluorene                  | ND     | 0.00020 | 0.000074 | 1.00 |            |
| Phenanthrene              | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Anthracene                | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Fluoranthene              | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Pyrene                    | ND     | 0.00020 | 0.000073 | 1.00 |            |
| Benzo (a) Anthracene      | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Chrysene                  | ND     | 0.00020 | 0.000067 | 1.00 |            |
| Benzo (k) Fluoranthene    | ND     | 0.00020 | 0.000082 | 1.00 |            |
| Benzo (b) Fluoranthene    | ND     | 0.00020 | 0.000087 | 1.00 |            |
| Benzo (a) Pyrene          | ND     | 0.00020 | 0.00010  | 1.00 |            |
| Indeno (1,2,3-c,d) Pyrene | ND     | 0.00020 | 0.000084 | 1.00 |            |
| Dibenz (a,h) Anthracene   | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Benzo (g,h,i) Perylene    | ND     | 0.00020 | 0.000097 | 1.00 |            |

| Surrogate        | Rec. (%) | Control Limits | Qualifiers |
|------------------|----------|----------------|------------|
| Nitrobenzene-d5  | 80       | 28-139         |            |
| 2-Fluorobiphenyl | 92       | 33-144         |            |
| p-Terphenyl-d14  | 94       | 23-160         |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3510C  
Method: EPA 8270C SIM PAHS  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 2 of 4

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-40-B2/MW28         | 18-07-1591-2-I    | 07/19/18 11:50      | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18 19:05     | 180725L01   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                 | Result | RL      | MDL      | DF   | Qualifiers |
|---------------------------|--------|---------|----------|------|------------|
| Naphthalene               | ND     | 0.00020 | 0.000075 | 1.00 |            |
| 2-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| 1-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthylene            | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthene              | ND     | 0.00020 | 0.000062 | 1.00 |            |
| Fluorene                  | ND     | 0.00020 | 0.000074 | 1.00 |            |
| Phenanthrene              | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Anthracene                | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Fluoranthene              | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Pyrene                    | ND     | 0.00020 | 0.000073 | 1.00 |            |
| Benzo (a) Anthracene      | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Chrysene                  | ND     | 0.00020 | 0.000067 | 1.00 |            |
| Benzo (k) Fluoranthene    | ND     | 0.00020 | 0.000082 | 1.00 |            |
| Benzo (b) Fluoranthene    | ND     | 0.00020 | 0.000087 | 1.00 |            |
| Benzo (a) Pyrene          | ND     | 0.00020 | 0.00010  | 1.00 |            |
| Indeno (1,2,3-c,d) Pyrene | ND     | 0.00020 | 0.000084 | 1.00 |            |
| Dibenz (a,h) Anthracene   | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Benzo (g,h,i) Perylene    | ND     | 0.00020 | 0.000097 | 1.00 |            |

| Surrogate        | Rec. (%) | Control Limits | Qualifiers |
|------------------|----------|----------------|------------|
| Nitrobenzene-d5  | 85       | 28-139         |            |
| 2-Fluorobiphenyl | 89       | 33-144         |            |
| p-Terphenyl-d14  | 86       | 23-160         |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3510C  
Method: EPA 8270C SIM PAHS  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 3 of 4

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-42-B6/MW32         | 18-07-1591-3-I    | 07/19/18 14:30      | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18 19:26     | 180725L01   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                 | Result | RL      | MDL      | DF   | Qualifiers |
|---------------------------|--------|---------|----------|------|------------|
| Naphthalene               | ND     | 0.00020 | 0.000075 | 1.00 |            |
| 2-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| 1-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthylene            | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthene              | ND     | 0.00020 | 0.000062 | 1.00 |            |
| Fluorene                  | ND     | 0.00020 | 0.000074 | 1.00 |            |
| Phenanthrene              | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Anthracene                | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Fluoranthene              | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Pyrene                    | ND     | 0.00020 | 0.000073 | 1.00 |            |
| Benzo (a) Anthracene      | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Chrysene                  | ND     | 0.00020 | 0.000067 | 1.00 |            |
| Benzo (k) Fluoranthene    | ND     | 0.00020 | 0.000082 | 1.00 |            |
| Benzo (b) Fluoranthene    | ND     | 0.00020 | 0.000087 | 1.00 |            |
| Benzo (a) Pyrene          | ND     | 0.00020 | 0.00010  | 1.00 |            |
| Indeno (1,2,3-c,d) Pyrene | ND     | 0.00020 | 0.000084 | 1.00 |            |
| Dibenz (a,h) Anthracene   | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Benzo (g,h,i) Perylene    | ND     | 0.00020 | 0.000097 | 1.00 |            |

| Surrogate        | Rec. (%) | Control Limits | Qualifiers |
|------------------|----------|----------------|------------|
| Nitrobenzene-d5  | 84       | 28-139         |            |
| 2-Fluorobiphenyl | 100      | 33-144         |            |
| p-Terphenyl-d14  | 89       | 23-160         |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3510C  
Method: EPA 8270C SIM PAHs  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 4 of 4

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| Method Blank         | 099-06-008-1064   | N/A                 | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18 15:00     | 180725L01   |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                 | Result | RL      | MDL      | DF   | Qualifiers |
|---------------------------|--------|---------|----------|------|------------|
| Naphthalene               | ND     | 0.00020 | 0.000075 | 1.00 |            |
| 2-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| 1-Methylnaphthalene       | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthylene            | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Acenaphthene              | ND     | 0.00020 | 0.000062 | 1.00 |            |
| Fluorene                  | ND     | 0.00020 | 0.000074 | 1.00 |            |
| Phenanthrene              | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Anthracene                | ND     | 0.00020 | 0.000069 | 1.00 |            |
| Fluoranthene              | ND     | 0.00020 | 0.000076 | 1.00 |            |
| Pyrene                    | ND     | 0.00020 | 0.000073 | 1.00 |            |
| Benzo (a) Anthracene      | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Chrysene                  | ND     | 0.00020 | 0.000067 | 1.00 |            |
| Benzo (k) Fluoranthene    | ND     | 0.00020 | 0.000082 | 1.00 |            |
| Benzo (b) Fluoranthene    | ND     | 0.00020 | 0.000087 | 1.00 |            |
| Benzo (a) Pyrene          | ND     | 0.00020 | 0.00010  | 1.00 |            |
| Indeno (1,2,3-c,d) Pyrene | ND     | 0.00020 | 0.000084 | 1.00 |            |
| Dibenz (a,h) Anthracene   | ND     | 0.00020 | 0.000079 | 1.00 |            |
| Benzo (g,h,i) Perylene    | ND     | 0.00020 | 0.000097 | 1.00 |            |

| Surrogate        | Rec. (%) | Control Limits | Qualifiers |
|------------------|----------|----------------|------------|
| Nitrobenzene-d5  | 85       | 28-139         |            |
| 2-Fluorobiphenyl | 84       | 33-144         |            |
| p-Terphenyl-d14  | 93       | 23-160         |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 1 of 10

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-39-B4/MW30         | 18-07-1591-1-B    | 07/19/18<br>09:00   | Aqueous | GC/MS UU   | 07/30/18      | 07/31/18<br>04:08  | 180730L031  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                             | Result  | RL      | MDL     | DF   | Qualifiers |
|---------------------------------------|---------|---------|---------|------|------------|
| Benzene                               | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Toluene                               | 0.00025 | 0.00050 | 0.00020 | 1.00 | J          |
| Ethylbenzene                          | ND      | 0.00050 | 0.00020 | 1.00 |            |
| o-Xylene                              | ND      | 0.00050 | 0.00032 | 1.00 |            |
| p/m-Xylene                            | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Xylenes (total)                       | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Methyl-t-Butyl Ether (MTBE)           | ND      | 0.0010  | 0.00020 | 1.00 |            |
| 1,1,1,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,1-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND      | 0.00050 | 0.00024 | 1.00 |            |
| 1,1-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1-Dichloroethene                    | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,1-Dichloropropene                   | ND      | 0.00050 | 0.00030 | 1.00 |            |
| 1,2,3-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,3-Trichloropropane                | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 1,2,4-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,4-Trimethylbenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,3,5-Trimethylbenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| c-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dibromo-3-Chloropropane           | ND      | 0.0050  | 0.0020  | 1.00 |            |
| 1,2-Dibromoethane                     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloropropane                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| t-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| c-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,3-Dichlorobenzene                   | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,3-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| t-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,4-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 2,2-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 2-Chlorotoluene                       | ND      | 0.00050 | 0.00020 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Parameter                | Result   | RL             | MDL        | DF   | Qualifiers |
|--------------------------|----------|----------------|------------|------|------------|
| 4-Chlorotoluene          | ND       | 0.00050        | 0.00036    | 1.00 |            |
| 4-Methyl-2-Pentanone     | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Acetone                  | ND       | 0.010          | 0.0040     | 1.00 |            |
| Bromobenzene             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Bromochloromethane       | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Bromoform                | ND       | 0.00050        | 0.00025    | 1.00 |            |
| Bromomethane             | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Disulfide         | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Tetrachloride     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chlorobenzene            | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dibromochloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloroethane             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Chloroform               | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloromethane            | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Dibromomethane           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Bromodichloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dichlorodifluoromethane  | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Hexachloro-1,3-Butadiene | ND       | 0.0020         | 0.00080    | 1.00 |            |
| Isopropylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| 2-Butanone               | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Methylene Chloride       | ND       | 0.0010         | 0.00080    | 1.00 |            |
| 2-Hexanone               | ND       | 0.010          | 0.0040     | 1.00 |            |
| Naphthalene              | ND       | 0.010          | 0.00040    | 1.00 |            |
| n-Butylbenzene           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| n-Propylbenzene          | ND       | 0.00050        | 0.00020    | 1.00 |            |
| p-Isopropyltoluene       | ND       | 0.00050        | 0.00020    | 1.00 |            |
| sec-Butylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Styrene                  | ND       | 0.00050        | 0.00020    | 1.00 |            |
| tert-Butylbenzene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Tetrachloroethene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Trichloroethene          | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Trichlorofluoromethane   | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Vinyl Chloride           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Surrogate                | Rec. (%) | Control Limits | Qualifiers |      |            |
| 1,4-Bromofluorobenzene   | 97       | 68-120         |            |      |            |
| Dibromofluoromethane     | 103      | 80-127         |            |      |            |
| 1,2-Dichloroethane-d4    | 99       | 80-128         |            |      |            |
| Toluene-d8               | 101      | 80-120         |            |      |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 3 of 10

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-40-B2/MW28         | 18-07-1591-2-B    | 07/19/18<br>11:50   | Aqueous | GC/MS UU   | 07/30/18      | 07/31/18<br>04:35  | 180730L031  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                             | Result  | RL      | MDL     | DF   | Qualifiers |
|---------------------------------------|---------|---------|---------|------|------------|
| Benzene                               | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Toluene                               | 0.00025 | 0.00050 | 0.00020 | 1.00 | J          |
| Ethylbenzene                          | ND      | 0.00050 | 0.00020 | 1.00 |            |
| o-Xylene                              | ND      | 0.00050 | 0.00032 | 1.00 |            |
| p/m-Xylene                            | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Xylenes (total)                       | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Methyl-t-Butyl Ether (MTBE)           | ND      | 0.0010  | 0.00020 | 1.00 |            |
| 1,1,1,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,1-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND      | 0.00050 | 0.00024 | 1.00 |            |
| 1,1-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1-Dichloroethene                    | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,1-Dichloropropene                   | ND      | 0.00050 | 0.00030 | 1.00 |            |
| 1,2,3-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,3-Trichloropropane                | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 1,2,4-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,4-Trimethylbenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,3,5-Trimethylbenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| c-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dibromo-3-Chloropropane           | ND      | 0.0050  | 0.0020  | 1.00 |            |
| 1,2-Dibromoethane                     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloropropane                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| t-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| c-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,3-Dichlorobenzene                   | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,3-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| t-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,4-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 2,2-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 2-Chlorotoluene                       | ND      | 0.00050 | 0.00020 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Parameter                | Result   | RL             | MDL        | DF   | Qualifiers |
|--------------------------|----------|----------------|------------|------|------------|
| 4-Chlorotoluene          | ND       | 0.00050        | 0.00036    | 1.00 |            |
| 4-Methyl-2-Pentanone     | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Acetone                  | ND       | 0.010          | 0.0040     | 1.00 |            |
| Bromobenzene             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Bromochloromethane       | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Bromoform                | ND       | 0.00050        | 0.00025    | 1.00 |            |
| Bromomethane             | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Disulfide         | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Tetrachloride     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chlorobenzene            | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dibromochloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloroethane             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Chloroform               | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloromethane            | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Dibromomethane           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Bromodichloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dichlorodifluoromethane  | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Hexachloro-1,3-Butadiene | ND       | 0.0020         | 0.00080    | 1.00 |            |
| Isopropylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| 2-Butanone               | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Methylene Chloride       | ND       | 0.0010         | 0.00080    | 1.00 |            |
| 2-Hexanone               | ND       | 0.010          | 0.0040     | 1.00 |            |
| Naphthalene              | ND       | 0.010          | 0.00040    | 1.00 |            |
| n-Butylbenzene           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| n-Propylbenzene          | ND       | 0.00050        | 0.00020    | 1.00 |            |
| p-Isopropyltoluene       | ND       | 0.00050        | 0.00020    | 1.00 |            |
| sec-Butylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Styrene                  | ND       | 0.00050        | 0.00020    | 1.00 |            |
| tert-Butylbenzene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Tetrachloroethene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Trichloroethene          | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Trichlorofluoromethane   | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Vinyl Chloride           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Surrogate                | Rec. (%) | Control Limits | Qualifiers |      |            |
| 1,4-Bromofluorobenzene   | 95       | 68-120         |            |      |            |
| Dibromofluoromethane     | 103      | 80-127         |            |      |            |
| 1,2-Dichloroethane-d4    | 99       | 80-128         |            |      |            |
| Toluene-d8               | 102      | 80-120         |            |      |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| W-42-B6/MW32         | 18-07-1591-3-C    | 07/19/18<br>14:30   | Aqueous | GC/MS UU   | 08/01/18      | 08/01/18<br>17:43  | 180801L042  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                             | Result  | RL      | MDL     | DF   | Qualifiers |
|---------------------------------------|---------|---------|---------|------|------------|
| Benzene                               | 0.0041  | 0.00050 | 0.00020 | 1.00 |            |
| Toluene                               | 0.00022 | 0.00050 | 0.00020 | 1.00 | J          |
| Ethylbenzene                          | 0.00042 | 0.00050 | 0.00020 | 1.00 | J          |
| o-Xylene                              | ND      | 0.00050 | 0.00032 | 1.00 |            |
| p/m-Xylene                            | 0.012   | 0.00050 | 0.00020 | 1.00 |            |
| Xylenes (total)                       | 0.012   | 0.00050 | 0.00020 | 1.00 |            |
| Methyl-t-Butyl Ether (MTBE)           | ND      | 0.0010  | 0.00020 | 1.00 |            |
| 1,1,1,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,1-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2,2-Tetrachloroethane             | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloroethane                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND      | 0.00050 | 0.00024 | 1.00 |            |
| 1,1-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,1-Dichloroethene                    | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,1-Dichloropropene                   | ND      | 0.00050 | 0.00030 | 1.00 |            |
| 1,2,3-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,3-Trichloropropane                | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 1,2,4-Trichlorobenzene                | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,4-Trimethylbenzene                | 0.012   | 0.00050 | 0.00020 | 1.00 |            |
| 1,3,5-Trimethylbenzene                | 0.010   | 0.00050 | 0.00020 | 1.00 |            |
| c-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dibromo-3-Chloropropane           | ND      | 0.0050  | 0.0020  | 1.00 |            |
| 1,2-Dibromoethane                     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloroethane                    | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloropropane                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| t-1,2-Dichloroethene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| c-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,3-Dichlorobenzene                   | ND      | 0.00050 | 0.00028 | 1.00 |            |
| 1,3-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| t-1,3-Dichloropropene                 | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 1,4-Dichlorobenzene                   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| 2,2-Dichloropropane                   | ND      | 0.0010  | 0.00040 | 1.00 |            |
| 2-Chlorotoluene                       | ND      | 0.00050 | 0.00020 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 6 of 10

| Parameter                | Result  | RL      | MDL     | DF   | Qualifiers |
|--------------------------|---------|---------|---------|------|------------|
| 4-Chlorotoluene          | ND      | 0.00050 | 0.00036 | 1.00 |            |
| 4-Methyl-2-Pentanone     | ND      | 0.0050  | 0.0020  | 1.00 |            |
| Acetone                  | 0.0050  | 0.010   | 0.0040  | 1.00 | J          |
| Bromobenzene             | ND      | 0.00050 | 0.00032 | 1.00 |            |
| Bromochloromethane       | ND      | 0.0010  | 0.00040 | 1.00 |            |
| Bromoform                | ND      | 0.00050 | 0.00025 | 1.00 |            |
| Bromomethane             | ND      | 0.0010  | 0.00040 | 1.00 |            |
| Carbon Disulfide         | ND      | 0.0010  | 0.00040 | 1.00 |            |
| Carbon Tetrachloride     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Chlorobenzene            | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Dibromochloromethane     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Chloroethane             | ND      | 0.00050 | 0.00032 | 1.00 |            |
| Chloroform               | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Chloromethane            | ND      | 0.00050 | 0.00029 | 1.00 |            |
| Dibromomethane           | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Bromodichloromethane     | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Dichlorodifluoromethane  | ND      | 0.0010  | 0.00040 | 1.00 |            |
| Hexachloro-1,3-Butadiene | ND      | 0.0020  | 0.00080 | 1.00 |            |
| Isopropylbenzene         | 0.0054  | 0.00050 | 0.00020 | 1.00 |            |
| 2-Butanone               | ND      | 0.0050  | 0.0020  | 1.00 |            |
| Methylene Chloride       | ND      | 0.0010  | 0.00080 | 1.00 |            |
| 2-Hexanone               | ND      | 0.010   | 0.0040  | 1.00 |            |
| Naphthalene              | ND      | 0.010   | 0.00040 | 1.00 |            |
| n-Butylbenzene           | ND      | 0.00050 | 0.00020 | 1.00 |            |
| n-Propylbenzene          | 0.00039 | 0.00050 | 0.00020 | 1.00 | J          |
| p-Isopropyltoluene       | 0.0014  | 0.00050 | 0.00020 | 1.00 |            |
| sec-Butylbenzene         | 0.0016  | 0.00050 | 0.00020 | 1.00 |            |
| Styrene                  | ND      | 0.00050 | 0.00020 | 1.00 |            |
| tert-Butylbenzene        | 0.00084 | 0.00050 | 0.00020 | 1.00 |            |
| Tetrachloroethene        | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Trichloroethene          | ND      | 0.00050 | 0.00029 | 1.00 |            |
| Trichlorofluoromethane   | ND      | 0.00050 | 0.00020 | 1.00 |            |
| Vinyl Chloride           | ND      | 0.00050 | 0.00020 | 1.00 |            |

| Surrogate              | Rec. (%) | Control Limits | Qualifiers |
|------------------------|----------|----------------|------------|
| 1,4-Bromofluorobenzene | 98       | 68-120         |            |
| Dibromofluoromethane   | 101      | 80-127         |            |
| 1,2-Dichloroethane-d4  | 102      | 80-128         |            |
| Toluene-d8             | 101      | 80-120         |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 7 of 10

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| Method Blank         | 099-12-878-751    | N/A                 | Aqueous | GC/MS UU   | 07/30/18      | 07/30/18 21:25     | 180730L031  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                             | Result | RL      | MDL     | DF   | Qualifiers |
|---------------------------------------|--------|---------|---------|------|------------|
| Benzene                               | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Toluene                               | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Ethylbenzene                          | ND     | 0.00050 | 0.00020 | 1.00 |            |
| o-Xylene                              | ND     | 0.00050 | 0.00032 | 1.00 |            |
| p/m-Xylene                            | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Xylenes (total)                       | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Methyl-t-Butyl Ether (MTBE)           | ND     | 0.0010  | 0.00020 | 1.00 |            |
| 1,1,1,2-Tetrachloroethane             | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,1-Trichloroethane                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2,2-Tetrachloroethane             | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloroethane                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     | 0.00050 | 0.00024 | 1.00 |            |
| 1,1-Dichloroethane                    | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1-Dichloroethene                    | ND     | 0.00050 | 0.00028 | 1.00 |            |
| 1,1-Dichloropropene                   | ND     | 0.00050 | 0.00030 | 1.00 |            |
| 1,2,3-Trichlorobenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,3-Trichloropropane                | ND     | 0.0010  | 0.00040 | 1.00 |            |
| 1,2,4-Trichlorobenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,4-Trimethylbenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,3,5-Trimethylbenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| c-1,2-Dichloroethene                  | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dibromo-3-Chloropropane           | ND     | 0.0050  | 0.0020  | 1.00 |            |
| 1,2-Dibromoethane                     | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichlorobenzene                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloroethane                    | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloropropane                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| t-1,2-Dichloroethene                  | ND     | 0.00050 | 0.00020 | 1.00 |            |
| c-1,3-Dichloropropene                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,3-Dichlorobenzene                   | ND     | 0.00050 | 0.00028 | 1.00 |            |
| 1,3-Dichloropropane                   | ND     | 0.0010  | 0.00040 | 1.00 |            |
| t-1,3-Dichloropropene                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,4-Dichlorobenzene                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 2,2-Dichloropropane                   | ND     | 0.0010  | 0.00040 | 1.00 |            |
| 2-Chlorotoluene                       | ND     | 0.00050 | 0.00020 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 8 of 10

| Parameter                | Result   | RL             | MDL        | DF   | Qualifiers |
|--------------------------|----------|----------------|------------|------|------------|
| 4-Chlorotoluene          | ND       | 0.00050        | 0.00036    | 1.00 |            |
| 4-Methyl-2-Pentanone     | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Acetone                  | ND       | 0.010          | 0.0040     | 1.00 |            |
| Bromobenzene             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Bromochloromethane       | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Bromoform                | ND       | 0.00050        | 0.00025    | 1.00 |            |
| Bromomethane             | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Disulfide         | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Tetrachloride     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chlorobenzene            | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dibromochloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloroethane             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Chloroform               | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloromethane            | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Dibromomethane           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Bromodichloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dichlorodifluoromethane  | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Hexachloro-1,3-Butadiene | ND       | 0.0020         | 0.00080    | 1.00 |            |
| Isopropylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| 2-Butanone               | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Methylene Chloride       | ND       | 0.0010         | 0.00080    | 1.00 |            |
| 2-Hexanone               | ND       | 0.010          | 0.0040     | 1.00 |            |
| Naphthalene              | ND       | 0.010          | 0.00040    | 1.00 |            |
| n-Butylbenzene           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| n-Propylbenzene          | ND       | 0.00050        | 0.00020    | 1.00 |            |
| p-Isopropyltoluene       | ND       | 0.00050        | 0.00020    | 1.00 |            |
| sec-Butylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Styrene                  | ND       | 0.00050        | 0.00020    | 1.00 |            |
| tert-Butylbenzene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Tetrachloroethene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Trichloroethene          | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Trichlorofluoromethane   | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Vinyl Chloride           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Surrogate                | Rec. (%) | Control Limits | Qualifiers |      |            |
| 1,4-Bromofluorobenzene   | 98       | 68-120         |            |      |            |
| Dibromofluoromethane     | 102      | 80-127         |            |      |            |
| 1,2-Dichloroethane-d4    | 99       | 80-128         |            |      |            |
| Toluene-d8               | 101      | 80-120         |            |      |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

Page 9 of 10

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix  | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|----------------------|-------------------|---------------------|---------|------------|---------------|--------------------|-------------|
| Method Blank         | 099-12-878-754    | N/A                 | Aqueous | GC/MS UU   | 08/01/18      | 08/01/18 17:12     | 180801L042  |

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter                             | Result | RL      | MDL     | DF   | Qualifiers |
|---------------------------------------|--------|---------|---------|------|------------|
| Benzene                               | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Toluene                               | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Ethylbenzene                          | ND     | 0.00050 | 0.00020 | 1.00 |            |
| o-Xylene                              | ND     | 0.00050 | 0.00032 | 1.00 |            |
| p/m-Xylene                            | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Xylenes (total)                       | ND     | 0.00050 | 0.00020 | 1.00 |            |
| Methyl-t-Butyl Ether (MTBE)           | ND     | 0.0010  | 0.00020 | 1.00 |            |
| 1,1,1,2-Tetrachloroethane             | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,1-Trichloroethane                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2,2-Tetrachloroethane             | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloroethane                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     | 0.00050 | 0.00024 | 1.00 |            |
| 1,1-Dichloroethane                    | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,1-Dichloroethene                    | ND     | 0.00050 | 0.00028 | 1.00 |            |
| 1,1-Dichloropropene                   | ND     | 0.00050 | 0.00030 | 1.00 |            |
| 1,2,3-Trichlorobenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,3-Trichloropropane                | ND     | 0.0010  | 0.00040 | 1.00 |            |
| 1,2,4-Trichlorobenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2,4-Trimethylbenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,3,5-Trimethylbenzene                | ND     | 0.00050 | 0.00020 | 1.00 |            |
| c-1,2-Dichloroethene                  | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dibromo-3-Chloropropane           | ND     | 0.0050  | 0.0020  | 1.00 |            |
| 1,2-Dibromoethane                     | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichlorobenzene                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloroethane                    | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,2-Dichloropropane                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| t-1,2-Dichloroethene                  | ND     | 0.00050 | 0.00020 | 1.00 |            |
| c-1,3-Dichloropropene                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,3-Dichlorobenzene                   | ND     | 0.00050 | 0.00028 | 1.00 |            |
| 1,3-Dichloropropane                   | ND     | 0.0010  | 0.00040 | 1.00 |            |
| t-1,3-Dichloropropene                 | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 1,4-Dichlorobenzene                   | ND     | 0.00050 | 0.00020 | 1.00 |            |
| 2,2-Dichloropropane                   | ND     | 0.0010  | 0.00040 | 1.00 |            |
| 2-Chlorotoluene                       | ND     | 0.00050 | 0.00020 | 1.00 |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: mg/L

Project: ExxonMobil Gladiola Station

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| Parameter                | Result   | RL             | MDL        | DF   | Qualifiers |
|--------------------------|----------|----------------|------------|------|------------|
| 4-Chlorotoluene          | ND       | 0.00050        | 0.00036    | 1.00 |            |
| 4-Methyl-2-Pentanone     | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Acetone                  | ND       | 0.010          | 0.0040     | 1.00 |            |
| Bromobenzene             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Bromochloromethane       | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Bromoform                | ND       | 0.00050        | 0.00025    | 1.00 |            |
| Bromomethane             | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Disulfide         | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Carbon Tetrachloride     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chlorobenzene            | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dibromochloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloroethane             | ND       | 0.00050        | 0.00032    | 1.00 |            |
| Chloroform               | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Chloromethane            | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Dibromomethane           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Bromodichloromethane     | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Dichlorodifluoromethane  | ND       | 0.0010         | 0.00040    | 1.00 |            |
| Hexachloro-1,3-Butadiene | ND       | 0.0020         | 0.00080    | 1.00 |            |
| Isopropylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| 2-Butanone               | ND       | 0.0050         | 0.0020     | 1.00 |            |
| Methylene Chloride       | ND       | 0.0010         | 0.00080    | 1.00 |            |
| 2-Hexanone               | ND       | 0.010          | 0.0040     | 1.00 |            |
| Naphthalene              | ND       | 0.010          | 0.00040    | 1.00 |            |
| n-Butylbenzene           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| n-Propylbenzene          | ND       | 0.00050        | 0.00020    | 1.00 |            |
| p-Isopropyltoluene       | ND       | 0.00050        | 0.00020    | 1.00 |            |
| sec-Butylbenzene         | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Styrene                  | ND       | 0.00050        | 0.00020    | 1.00 |            |
| tert-Butylbenzene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Tetrachloroethene        | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Trichloroethene          | ND       | 0.00050        | 0.00029    | 1.00 |            |
| Trichlorofluoromethane   | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Vinyl Chloride           | ND       | 0.00050        | 0.00020    | 1.00 |            |
| Surrogate                | Rec. (%) | Control Limits | Qualifiers |      |            |
| 1,4-Bromofluorobenzene   | 96       | 68-120         |            |      |            |
| Dibromofluoromethane     | 96       | 80-127         |            |      |            |
| 1,2-Dichloroethane-d4    | 97       | 80-128         |            |      |            |
| Toluene-d8               | 101      | 80-120         |            |      |            |

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: EPA 300.0

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| 18-07-1456-3              | Sample                 | Aqueous | IC 7       | N/A           | 07/23/18 18:09 | 180723S01           |
| 18-07-1456-3              | Matrix Spike           | Aqueous | IC 7       | N/A           | 07/23/18 19:04 | 180723S01           |
| 18-07-1456-3              | Matrix Spike Duplicate | Aqueous | IC 7       | N/A           | 07/23/18 19:23 | 180723S01           |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Sulfate   | 225.0        | 50.00       | 294.3    | 139      | 286.3     | 123       | 80-120   | 3   | 0-20   | HX         |

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 4500-Cl C

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| W-42-B6/MW32              | Sample                 | Aqueous | BUR02      | N/A           | 07/24/18 18:00 | I0724CLCS1          |
| W-42-B6/MW32              | Matrix Spike           | Aqueous | BUR02      | N/A           | 07/24/18 18:00 | I0724CLCS1          |
| W-42-B6/MW32              | Matrix Spike Duplicate | Aqueous | BUR02      | N/A           | 07/24/18 18:00 | I0724CLCS1          |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Chloride  | 46.59        | 100.0       | 150.6    | 104      | 150.1     | 103       | 80-120   | 0   | 0-25   |            |

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RPD: Relative Percent Difference. CL: Control Limits





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## Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| W-39-B4/MW30              | Sample                 | Aqueous | ICP 8300   | 07/30/18      | 08/03/18 15:35 | 180730SA5           |
| W-39-B4/MW30              | Matrix Spike           | Aqueous | ICP 8300   | 07/30/18      | 08/03/18 15:36 | 180730SA5           |
| W-39-B4/MW30              | Matrix Spike Duplicate | Aqueous | ICP 8300   | 07/30/18      | 08/03/18 15:37 | 180730SA5           |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Arsenic   | ND           | 0.5000      | 0.5183   | 104      | 0.5016    | 100       | 80-140   | 3   | 0-11   |            |
| Barium    | 0.05900      | 0.5000      | 0.5690   | 102      | 0.5666    | 102       | 87-123   | 0   | 0-6    |            |
| Cadmium   | ND           | 0.5000      | 0.4992   | 100      | 0.4994    | 100       | 82-124   | 0   | 0-7    |            |
| Chromium  | ND           | 0.5000      | 0.5051   | 101      | 0.5010    | 100       | 86-122   | 1   | 0-8    |            |
| Lead      | ND           | 0.5000      | 0.5154   | 103      | 0.5147    | 103       | 84-120   | 0   | 0-7    |            |
| Selenium  | ND           | 0.5000      | 0.5244   | 105      | 0.5160    | 103       | 79-127   | 2   | 0-9    |            |
| Silver    | ND           | 0.2500      | 0.02846  | 11       | 0.06513   | 26        | 86-128   | 78  | 0-7    | HX,BA      |

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

|                                      |                |                 |
|--------------------------------------|----------------|-----------------|
| Cardno                               | Date Received: | 07/21/18        |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591      |
| Lake Forest, CA 92630-8825           | Preparation:   | EPA 7470A Total |
|                                      | Method:        | EPA 7470A       |
| Project: ExxonMobil Gladiola Station |                | Page 4 of 7     |

| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| 18-07-1594-1              | Sample                 | Aqueous | Mercury 07 | 08/02/18      | 08/02/18 14:39 | 180802SA1           |
| 18-07-1594-1              | Matrix Spike           | Aqueous | Mercury 07 | 08/02/18      | 08/02/18 14:41 | 180802SA1           |
| 18-07-1594-1              | Matrix Spike Duplicate | Aqueous | Mercury 07 | 08/02/18      | 08/02/18 14:48 | 180802SA1           |

| Parameter | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Mercury   | ND           | 0.01000     | 0.008332 | 83       | 0.007775  | 78        | 55-133   | 7   | 0-20   |            |


  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| 18-07-1590-2              | Sample                 | Aqueous | GC/MS UU   | 07/30/18      | 07/30/18 22:23 | 180730S009          |
| 18-07-1590-2              | Matrix Spike           | Aqueous | GC/MS UU   | 07/30/18      | 07/30/18 22:49 | 180730S009          |
| 18-07-1590-2              | Matrix Spike Duplicate | Aqueous | GC/MS UU   | 07/30/18      | 07/30/18 23:16 | 180730S009          |

| Parameter                   | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------------------------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Benzene                     | ND           | 0.01000     | 0.01224  | 122      | 0.01248   | 125       | 75-125   | 2   | 0-20   |            |
| Toluene                     | 0.0007165    | 0.01000     | 0.01264  | 119      | 0.01310   | 124       | 75-125   | 4   | 0-20   |            |
| Ethylbenzene                | ND           | 0.01000     | 0.01100  | 110      | 0.01153   | 115       | 75-125   | 5   | 0-20   |            |
| o-Xylene                    | ND           | 0.01000     | 0.01052  | 105      | 0.01103   | 110       | 75-127   | 5   | 0-20   |            |
| p/m-Xylene                  | ND           | 0.02000     | 0.02122  | 106      | 0.02193   | 110       | 75-125   | 3   | 0-20   |            |
| Methyl-t-Butyl Ether (MTBE) | ND           | 0.01000     | 0.009436 | 94       | 0.01008   | 101       | 71-131   | 7   | 0-20   |            |
| 1,1-Dichloroethene          | ND           | 0.01000     | 0.01263  | 126      | 0.01280   | 128       | 66-126   | 1   | 0-20   | HX         |
| 1,2-Dibromoethane           | ND           | 0.01000     | 0.009876 | 99       | 0.01043   | 104       | 75-126   | 5   | 0-20   |            |
| 1,2-Dichlorobenzene         | ND           | 0.01000     | 0.009692 | 97       | 0.01015   | 102       | 75-125   | 5   | 0-20   |            |
| 1,2-Dichloroethane          | ND           | 0.01000     | 0.01130  | 113      | 0.01167   | 117       | 75-127   | 3   | 0-20   |            |
| Carbon Tetrachloride        | ND           | 0.01000     | 0.01205  | 121      | 0.01241   | 124       | 69-135   | 3   | 0-20   |            |
| Chlorobenzene               | ND           | 0.01000     | 0.01015  | 102      | 0.01065   | 106       | 75-125   | 5   | 0-20   |            |
| Trichloroethene             | ND           | 0.01000     | 0.01176  | 118      | 0.01225   | 122       | 75-125   | 4   | 0-20   |            |
| Vinyl Chloride              | ND           | 0.01000     | 0.01406  | 141      | 0.01363   | 136       | 52-142   | 3   | 0-20   |            |

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type                   | Matrix  | Instrument | Date Prepared | Date Analyzed  | MS/MSD Batch Number |
|---------------------------|------------------------|---------|------------|---------------|----------------|---------------------|
| 18-07-1912-4              | Sample                 | Aqueous | GC/MS UU   | 08/01/18      | 08/01/18 21:06 | 180801S009          |
| 18-07-1912-4              | Matrix Spike           | Aqueous | GC/MS UU   | 08/01/18      | 08/01/18 21:36 | 180801S009          |
| 18-07-1912-4              | Matrix Spike Duplicate | Aqueous | GC/MS UU   | 08/01/18      | 08/01/18 22:07 | 180801S009          |

| Parameter                             | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|---------------------------------------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Benzene                               | ND           | 0.01000     | 0.01079  | 108      | 0.01016   | 102       | 75-125   | 6   | 0-20   |            |
| Toluene                               | ND           | 0.01000     | 0.01090  | 109      | 0.01049   | 105       | 75-125   | 4   | 0-20   |            |
| Ethylbenzene                          | ND           | 0.01000     | 0.01137  | 114      | 0.01072   | 107       | 75-125   | 6   | 0-20   |            |
| o-Xylene                              | ND           | 0.01000     | 0.01112  | 111      | 0.01060   | 106       | 75-127   | 5   | 0-20   |            |
| p/m-Xylene                            | ND           | 0.02000     | 0.02181  | 109      | 0.02051   | 103       | 75-125   | 6   | 0-20   |            |
| Methyl-t-Butyl Ether (MTBE)           | ND           | 0.01000     | 0.009409 | 94       | 0.008744  | 87        | 71-131   | 7   | 0-20   |            |
| 1,1,1,2-Tetrachloroethane             | ND           | 0.01000     | 0.01100  | 110      | 0.01006   | 101       | 75-127   | 9   | 0-20   |            |
| 1,1,1-Trichloroethane                 | ND           | 0.01000     | 0.01109  | 111      | 0.01009   | 101       | 72-132   | 9   | 0-20   |            |
| 1,1,2,2-Tetrachloroethane             | ND           | 0.01000     | 0.01053  | 105      | 0.009902  | 99        | 75-132   | 6   | 0-20   |            |
| 1,1,2-Trichloroethane                 | ND           | 0.01000     | 0.01077  | 108      | 0.009842  | 98        | 75-125   | 9   | 0-20   |            |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND           | 0.01000     | 0.009797 | 98       | 0.008720  | 87        | 70-130   | 12  | 0-20   |            |
| 1,1-Dichloroethane                    | ND           | 0.01000     | 0.009761 | 98       | 0.008982  | 90        | 68-128   | 8   | 0-20   |            |
| 1,1-Dichloroethene                    | ND           | 0.01000     | 0.01060  | 106      | 0.009817  | 98        | 66-126   | 8   | 0-20   |            |
| 1,1-Dichloropropene                   | ND           | 0.01000     | 0.01145  | 114      | 0.01031   | 103       | 74-134   | 10  | 0-20   |            |
| 1,2,3-Trichlorobenzene                | ND           | 0.01000     | 0.01066  | 107      | 0.01030   | 103       | 75-125   | 3   | 0-20   |            |
| 1,2,3-Trichloropropane                | ND           | 0.01000     | 0.01039  | 104      | 0.009976  | 100       | 75-125   | 4   | 0-20   |            |
| 1,2,4-Trichlorobenzene                | ND           | 0.01000     | 0.01088  | 109      | 0.01051   | 105       | 75-125   | 3   | 0-20   |            |
| 1,2,4-Trimethylbenzene                | ND           | 0.01000     | 0.01018  | 102      | 0.008936  | 89        | 75-125   | 13  | 0-20   |            |
| 1,3,5-Trimethylbenzene                | ND           | 0.01000     | 0.01080  | 108      | 0.01014   | 101       | 75-127   | 6   | 0-20   |            |
| c-1,2-Dichloroethene                  | ND           | 0.01000     | 0.01110  | 111      | 0.01024   | 102       | 75-130   | 8   | 0-20   |            |
| 1,2-Dibromo-3-Chloropropane           | ND           | 0.01000     | 0.01018  | 102      | 0.01005   | 100       | 75-127   | 1   | 0-20   |            |
| 1,2-Dibromoethane                     | ND           | 0.01000     | 0.01086  | 109      | 0.009946  | 99        | 75-126   | 9   | 0-20   |            |
| 1,2-Dichlorobenzene                   | ND           | 0.01000     | 0.01065  | 106      | 0.01046   | 105       | 75-125   | 2   | 0-20   |            |
| 1,2-Dichloroethane                    | ND           | 0.01000     | 0.01045  | 104      | 0.009834  | 98        | 75-127   | 6   | 0-20   |            |
| 1,2-Dichloropropane                   | ND           | 0.01000     | 0.01071  | 107      | 0.01001   | 100       | 75-125   | 7   | 0-20   |            |
| t-1,2-Dichloroethene                  | ND           | 0.01000     | 0.01139  | 114      | 0.01025   | 102       | 73-133   | 11  | 0-20   |            |
| c-1,3-Dichloropropene                 | ND           | 0.01000     | 0.01110  | 111      | 0.01045   | 104       | 75-128   | 6   | 0-20   |            |
| 1,3-Dichlorobenzene                   | ND           | 0.01000     | 0.01100  | 110      | 0.01050   | 105       | 75-126   | 5   | 0-20   |            |
| 1,3-Dichloropropane                   | ND           | 0.01000     | 0.01081  | 108      | 0.009944  | 99        | 75-125   | 8   | 0-20   |            |
| t-1,3-Dichloropropene                 | ND           | 0.01000     | 0.01149  | 115      | 0.01052   | 105       | 75-125   | 9   | 0-20   |            |
| 1,4-Dichlorobenzene                   | ND           | 0.01000     | 0.01058  | 106      | 0.01015   | 102       | 75-125   | 4   | 0-20   |            |
| 2,2-Dichloropropane                   | ND           | 0.01000     | 0.01210  | 121      | 0.01074   | 107       | 52-160   | 12  | 0-20   |            |
| 2-Chlorotoluene                       | ND           | 0.01000     | 0.01107  | 111      | 0.01060   | 106       | 75-128   | 4   | 0-20   |            |
| 4-Chlorotoluene                       | ND           | 0.01000     | 0.01069  | 107      | 0.01014   | 101       | 75-125   | 5   | 0-20   |            |
| 4-Methyl-2-Pentanone                  | ND           | 0.01000     | 0.009756 | 98       | 0.01001   | 100       | 65-137   | 3   | 0-20   |            |

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: ExxonMobil Gladiola Station

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| Parameter                | Sample Conc. | Spike Added | MS Conc. | MS %Rec. | MSD Conc. | MSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|--------------------------|--------------|-------------|----------|----------|-----------|-----------|----------|-----|--------|------------|
| Acetone                  | ND           | 0.01000     | 0.007230 | 72       | 0.008017  | 80        | 20-180   | 10  | 0-52   |            |
| Bromobenzene             | ND           | 0.01000     | 0.01068  | 107      | 0.01033   | 103       | 75-125   | 3   | 0-20   |            |
| Bromochloromethane       | ND           | 0.01000     | 0.01049  | 105      | 0.009854  | 99        | 75-128   | 6   | 0-20   |            |
| Bromoform                | ND           | 0.01000     | 0.01078  | 108      | 0.01003   | 100       | 71-137   | 7   | 0-20   |            |
| Bromomethane             | ND           | 0.01000     | 0.01270  | 127      | 0.01221   | 122       | 37-181   | 4   | 0-22   |            |
| Carbon Disulfide         | ND           | 0.01000     | 0.01062  | 106      | 0.009998  | 100       | 58-136   | 6   | 0-20   |            |
| Carbon Tetrachloride     | ND           | 0.01000     | 0.01151  | 115      | 0.01028   | 103       | 69-135   | 11  | 0-20   |            |
| Chlorobenzene            | ND           | 0.01000     | 0.01074  | 107      | 0.01002   | 100       | 75-125   | 7   | 0-20   |            |
| Dibromochloromethane     | ND           | 0.01000     | 0.01106  | 111      | 0.01008   | 101       | 75-125   | 9   | 0-20   |            |
| Chloroethane             | ND           | 0.01000     | 0.01036  | 104      | 0.01019   | 102       | 20-180   | 2   | 0-20   |            |
| Chloroform               | ND           | 0.01000     | 0.01111  | 111      | 0.01012   | 101       | 75-128   | 9   | 0-20   |            |
| Chloromethane            | ND           | 0.01000     | 0.01068  | 107      | 0.01089   | 109       | 41-149   | 2   | 0-20   |            |
| Dibromomethane           | ND           | 0.01000     | 0.01065  | 106      | 0.01005   | 101       | 75-129   | 6   | 0-20   |            |
| Bromodichloromethane     | ND           | 0.01000     | 0.01090  | 109      | 0.01029   | 103       | 75-125   | 6   | 0-20   |            |
| Dichlorodifluoromethane  | ND           | 0.01000     | 0.007874 | 79       | 0.007227  | 72        | 28-172   | 9   | 0-20   |            |
| Hexachloro-1,3-Butadiene | ND           | 0.01000     | 0.01072  | 107      | 0.01056   | 106       | 75-129   | 1   | 0-20   |            |
| Isopropylbenzene         | ND           | 0.01000     | 0.01142  | 114      | 0.01092   | 109       | 75-130   | 4   | 0-20   |            |
| 2-Butanone               | ND           | 0.01000     | 0.009591 | 96       | 0.009630  | 96        | 20-180   | 0   | 0-40   |            |
| Methylene Chloride       | ND           | 0.01000     | 0.01171  | 117      | 0.01083   | 108       | 74-128   | 8   | 0-20   |            |
| 2-Hexanone               | ND           | 0.01000     | 0.01025  | 102      | 0.01045   | 104       | 74-122   | 2   | 0-20   |            |
| Naphthalene              | ND           | 0.01000     | 0.009078 | 91       | 0.008974  | 90        | 75-136   | 1   | 0-20   |            |
| n-Butylbenzene           | ND           | 0.01000     | 0.01144  | 114      | 0.01112   | 111       | 75-125   | 3   | 0-20   |            |
| n-Propylbenzene          | ND           | 0.01000     | 0.01139  | 114      | 0.01094   | 109       | 75-129   | 4   | 0-20   |            |
| p-Isopropyltoluene       | ND           | 0.01000     | 0.01101  | 110      | 0.01047   | 105       | 75-125   | 5   | 0-20   |            |
| sec-Butylbenzene         | ND           | 0.01000     | 0.01141  | 114      | 0.01087   | 109       | 75-129   | 5   | 0-20   |            |
| Styrene                  | ND           | 0.01000     | 0.008773 | 88       | 0.007119  | 71        | 28-166   | 21  | 0-30   |            |
| tert-Butylbenzene        | ND           | 0.01000     | 0.01145  | 114      | 0.01105   | 111       | 75-129   | 3   | 0-20   |            |
| Tetrachloroethene        | ND           | 0.01000     | 0.009062 | 91       | 0.008430  | 84        | 58-124   | 7   | 0-20   |            |
| Trichloroethene          | ND           | 0.01000     | 0.01101  | 110      | 0.01028   | 103       | 75-125   | 7   | 0-20   |            |
| Trichlorofluoromethane   | ND           | 0.01000     | 0.009904 | 99       | 0.009517  | 95        | 68-134   | 4   | 0-20   |            |
| Vinyl Chloride           | ND           | 0.01000     | 0.01014  | 101      | 0.01020   | 102       | 52-142   | 1   | 0-20   |            |

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RPD: Relative Percent Difference. CL: Control Limits

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type   | Matrix  | Instrument | Date Prepared  | Date Analyzed  | PDS/PDSD Batch Number |
|---------------------------|--------|---------|------------|----------------|----------------|-----------------------|
| W-39-B4/MW30              | Sample | Aqueous | ICP 8300   | 07/30/18 00:00 | 08/03/18 15:35 | 180730SA5             |
| W-39-B4/MW30              | PDS    | Aqueous | ICP 8300   | 07/30/18 00:00 | 08/03/18 15:37 | 180730SA5             |
| W-39-B4/MW30              | PDSD   | Aqueous | ICP 8300   | 07/30/18 00:00 | 08/03/18 15:38 | 180730SA5             |

| Parameter | Sample Conc. | Spike Added | PDS Conc. | PDS %Rec. | PDSD Conc. | PDSD %Rec. | %Rec. CL | RPD | RPD CL | Qualifiers |
|-----------|--------------|-------------|-----------|-----------|------------|------------|----------|-----|--------|------------|
| Arsenic   | ND           | 0.5000      | 0.4856    | 97        | 0.4871     | 97         | 75-125   | 0   | 0-20   |            |
| Barium    | 0.05900      | 0.5000      | 0.5799    | 104       | 0.5823     | 105        | 75-125   | 0   | 0-20   |            |
| Cadmium   | ND           | 0.5000      | 0.5102    | 102       | 0.5035     | 101        | 75-125   | 1   | 0-20   |            |
| Chromium  | ND           | 0.5000      | 0.5095    | 102       | 0.5110     | 102        | 75-125   | 0   | 0-20   |            |
| Lead      | ND           | 0.5000      | 0.5332    | 107       | 0.5142     | 103        | 75-125   | 4   | 0-20   |            |
| Selenium  | ND           | 0.5000      | 0.5419    | 108       | 0.4838     | 97         | 75-125   | 11  | 0-20   |            |
| Silver    | ND           | 0.2500      | 0.2234    | 89        | 0.2274     | 91         | 75-125   | 2   | 0-20   |            |

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Sample Duplicate

|                                      |                |             |
|--------------------------------------|----------------|-------------|
| Cardno                               | Date Received: | 07/21/18    |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591  |
| Lake Forest, CA 92630-8825           | Preparation:   | N/A         |
|                                      | Method:        | SM 2320B    |
| Project: ExxonMobil Gladiola Station |                | Page 1 of 2 |

| Quality Control Sample ID    | Type             | Matrix              | Instrument       | Date Prepared | Date Analyzed  | Duplicate Batch Number |
|------------------------------|------------------|---------------------|------------------|---------------|----------------|------------------------|
| 18-07-1456-3                 | Sample           | Aqueous             | PCT 1            | N/A           | 07/24/18 02:19 | I0723ALKD2             |
| 18-07-1456-3                 | Sample Duplicate | Aqueous             | PCT 1            | N/A           | 07/24/18 02:19 | I0723ALKD2             |
| <u>Parameter</u>             |                  | <u>Sample Conc.</u> | <u>DUP Conc.</u> | <u>RPD</u>    | <u>RPD CL</u>  | <u>Qualifiers</u>      |
| Alkalinity, Total (as CaCO3) |                  | 52.80               | 52.74            | 0             | 0-25           |                        |

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Sample Duplicate

|                                      |                |             |
|--------------------------------------|----------------|-------------|
| Cardno                               | Date Received: | 07/21/18    |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591  |
| Lake Forest, CA 92630-8825           | Preparation:   | N/A         |
|                                      | Method:        | SM 2540 C   |
| Project: ExxonMobil Gladiola Station |                | Page 2 of 2 |

| Quality Control Sample ID | Type             | Matrix  | Instrument | Date Prepared  | Date Analyzed  | Duplicate Batch Number |
|---------------------------|------------------|---------|------------|----------------|----------------|------------------------|
| 18-07-1407-5              | Sample           | Aqueous | N/A        | 07/25/18 00:00 | 07/25/18 16:00 | I0725TDSD2             |
| 18-07-1407-5              | Sample Duplicate | Aqueous | N/A        | 07/25/18 00:00 | 07/25/18 16:00 | I0725TDSD2             |

| <u>Parameter</u>        | <u>Sample Conc.</u> | <u>DUP Conc.</u> | <u>RPD</u> | <u>RPD CL</u> | <u>Qualifiers</u> |
|-------------------------|---------------------|------------------|------------|---------------|-------------------|
| Solids, Total Dissolved | 615.0               | 630.0            | 2          | 0-20          |                   |

  
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RPD: Relative Percent Difference. CL: Control Limits





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## Quality Control - LCS

|                                      |                |              |
|--------------------------------------|----------------|--------------|
| Cardno                               | Date Received: | 07/21/18     |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591   |
| Lake Forest, CA 92630-8825           | Preparation:   | N/A          |
|                                      | Method:        | EPA 300.0    |
| Project: ExxonMobil Gladiola Station |                | Page 1 of 10 |

| Quality Control Sample ID | Type | Matrix             | Instrument             | Date Prepared    | Date Analyzed   | LCS Batch Number  |
|---------------------------|------|--------------------|------------------------|------------------|-----------------|-------------------|
| 099-12-906-8656           | LCS  | Aqueous            | IC 7                   | N/A              | 07/23/18 10:41  | 180723L01         |
| <u>Parameter</u>          |      | <u>Spike Added</u> | <u>Conc. Recovered</u> | <u>LCS %Rec.</u> | <u>%Rec. CL</u> | <u>Qualifiers</u> |
| Sulfate                   |      | 50.00              | 48.70                  | 97               | 90-110          |                   |

  
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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: EPA 300.0

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type        | Matrix    | Instrument | Date Prepared | Date Analyzed  | LCS/LCSD Batch Number |     |        |            |
|---------------------------|-------------|-----------|------------|---------------|----------------|-----------------------|-----|--------|------------|
| 099-12-906-8657           | LCS         | Aqueous   | IC 7       | N/A           | 07/24/18 20:34 | 180724L02             |     |        |            |
| 099-12-906-8657           | LCSD        | Aqueous   | IC 7       | N/A           | 07/24/18 20:52 | 180724L02             |     |        |            |
| Parameter                 | Spike Added | LCS Conc. | LCS %Rec.  | LCSD Conc.    | LCSD %Rec.     | %Rec. CL              | RPD | RPD CL | Qualifiers |
| Sulfate                   | 50.00       | 48.37     | 97         | 47.26         | 95             | 90-110                | 2   | 0-15   |            |

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS/LCSD

|                                      |                |              |
|--------------------------------------|----------------|--------------|
| Cardno                               | Date Received: | 07/21/18     |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591   |
| Lake Forest, CA 92630-8825           | Preparation:   | N/A          |
|                                      | Method:        | SM 2320B     |
| Project: ExxonMobil Gladiola Station |                | Page 3 of 10 |

| Quality Control Sample ID    | Type        | Matrix    | Instrument | Date Prepared | Date Analyzed  | LCS/LCSD Batch Number |     |        |            |
|------------------------------|-------------|-----------|------------|---------------|----------------|-----------------------|-----|--------|------------|
| 099-17-086-8                 | LCS         | Aqueous   | PCT 1      | N/A           | 07/24/18 02:19 | I0723ALKB2            |     |        |            |
| 099-17-086-8                 | LCSD        | Aqueous   | PCT 1      | N/A           | 07/24/18 02:19 | I0723ALKB2            |     |        |            |
| Parameter                    | Spike Added | LCS Conc. | LCS %Rec.  | LCSD Conc.    | LCSD %Rec.     | %Rec. CL              | RPD | RPD CL | Qualifiers |
| Alkalinity, Total (as CaCO3) | 100.0       | 110.3     | 110        | 106.5         | 106            | 80-120                | 4   | 0-20   |            |


  
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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 2540 C

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type        | Matrix    | Instrument | Date Prepared | Date Analyzed  | LCS/LCSD Batch Number |     |        |            |
|---------------------------|-------------|-----------|------------|---------------|----------------|-----------------------|-----|--------|------------|
| 099-12-180-6312           | LCS         | Aqueous   | N/A        | 07/25/18      | 07/25/18 16:00 | I0725TDSL1            |     |        |            |
| 099-12-180-6312           | LCSD        | Aqueous   | N/A        | 07/25/18      | 07/25/18 16:00 | I0725TDSL1            |     |        |            |
| Parameter                 | Spike Added | LCS Conc. | LCS %Rec.  | LCSD Conc.    | LCSD %Rec.     | %Rec. CL              | RPD | RPD CL | Qualifiers |
| Solids, Total Dissolved   | 100.0       | 100.0     | 100        | 95.00         | 95             | 80-120                | 5   | 0-20   |            |

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: N/A  
Method: SM 4500-Cl C

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type        | Matrix    | Instrument | Date Prepared | Date Analyzed  | LCS/LCSD Batch Number |     |        |            |
|---------------------------|-------------|-----------|------------|---------------|----------------|-----------------------|-----|--------|------------|
| 099-05-057-2222           | LCS         | Aqueous   | BUR02      | N/A           | 07/24/18 18:00 | I0724CLCL1            |     |        |            |
| 099-05-057-2222           | LCSD        | Aqueous   | BUR02      | N/A           | 07/24/18 18:00 | I0724CLCL1            |     |        |            |
| Parameter                 | Spike Added | LCS Conc. | LCS %Rec.  | LCSD Conc.    | LCSD %Rec.     | %Rec. CL              | RPD | RPD CL | Qualifiers |
| Chloride                  | 100.0       | 100.6     | 101        | 100.1         | 100            | 80-120                | 0   | 0-20   |            |

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

|                                      |                |                 |
|--------------------------------------|----------------|-----------------|
| Cardno                               | Date Received: | 07/21/18        |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591      |
| Lake Forest, CA 92630-8825           | Preparation:   | EPA 3010A Total |
|                                      | Method:        | EPA 6010B       |
| Project: ExxonMobil Gladiola Station |                | Page 6 of 10    |

| Quality Control Sample ID | Type | Matrix             | Instrument             | Date Prepared    | Date Analyzed   | LCS Batch Number  |
|---------------------------|------|--------------------|------------------------|------------------|-----------------|-------------------|
| 097-01-003-16987          | LCS  | Aqueous            | ICP 8300               | 07/30/18         | 08/03/18 14:55  | 180730LA5         |
| <u>Parameter</u>          |      | <u>Spike Added</u> | <u>Conc. Recovered</u> | <u>LCS %Rec.</u> | <u>%Rec. CL</u> | <u>Qualifiers</u> |
| Arsenic                   |      | 0.5000             | 0.4415                 | 88               | 80-120          |                   |
| Barium                    |      | 0.5000             | 0.5081                 | 102              | 80-120          |                   |
| Cadmium                   |      | 0.5000             | 0.5186                 | 104              | 80-120          |                   |
| Chromium                  |      | 0.5000             | 0.4881                 | 98               | 80-120          |                   |
| Lead                      |      | 0.5000             | 0.5019                 | 100              | 80-120          |                   |
| Selenium                  |      | 0.5000             | 0.4333                 | 87               | 80-120          |                   |
| Silver                    |      | 0.2500             | 0.2235                 | 89               | 80-120          |                   |

  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

|                                      |                |                 |
|--------------------------------------|----------------|-----------------|
| Cardno                               | Date Received: | 07/21/18        |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591      |
| Lake Forest, CA 92630-8825           | Preparation:   | EPA 7470A Total |
|                                      | Method:        | EPA 7470A       |
| Project: ExxonMobil Gladiola Station |                | Page 7 of 10    |

| Quality Control Sample ID | Type | Matrix             | Instrument             | Date Prepared    | Date Analyzed   | LCS Batch Number  |
|---------------------------|------|--------------------|------------------------|------------------|-----------------|-------------------|
| 099-12-457-382            | LCS  | Aqueous            | Mercury 07             | 08/02/18         | 08/02/18 14:37  | 180802LA1M        |
| <u>Parameter</u>          |      | <u>Spike Added</u> | <u>Conc. Recovered</u> | <u>LCS %Rec.</u> | <u>%Rec. CL</u> | <u>Qualifiers</u> |
| Mercury                   |      | 0.01000            | 0.008974               | 90               | 80-120          |                   |

  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS/LCSD

Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Date Received: 07/21/18  
Work Order: 18-07-1591  
Preparation: EPA 3510C  
Method: EPA 8270C SIM PAHS

Project: ExxonMobil Gladiola Station

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| Quality Control Sample ID | Type | Matrix  | Instrument | Date Prepared | Date Analyzed  | LCS/LCSD Batch Number |
|---------------------------|------|---------|------------|---------------|----------------|-----------------------|
| 099-06-008-1064           | LCS  | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18 15:21 | 180725L01             |
| 099-06-008-1064           | LCSD | Aqueous | GC/MS EEE  | 07/25/18      | 07/26/18 15:41 | 180725L01             |

| Parameter                 | Spike Added | LCS Conc. | LCS %Rec. | LCSD Conc. | LCSD %Rec. | %Rec. CL | ME CL  | RPD | RPD CL | Qualifiers |
|---------------------------|-------------|-----------|-----------|------------|------------|----------|--------|-----|--------|------------|
| Naphthalene               | 0.002000    | 0.001772  | 89        | 0.001763   | 88         | 21-133   | 2-152  | 0   | 0-25   |            |
| 2-Methylnaphthalene       | 0.002000    | 0.001834  | 92        | 0.001816   | 91         | 21-140   | 1-160  | 1   | 0-25   |            |
| 1-Methylnaphthalene       | 0.002000    | 0.001825  | 91        | 0.001826   | 91         | 20-140   | 0-160  | 0   | 0-25   |            |
| Acenaphthylene            | 0.002000    | 0.001684  | 84        | 0.001727   | 86         | 33-145   | 14-164 | 2   | 0-25   |            |
| Acenaphthene              | 0.002000    | 0.001755  | 88        | 0.001824   | 91         | 55-121   | 44-132 | 4   | 0-25   |            |
| Fluorene                  | 0.002000    | 0.001827  | 91        | 0.001932   | 97         | 59-121   | 49-131 | 6   | 0-25   |            |
| Phenanthrene              | 0.002000    | 0.001956  | 98        | 0.001987   | 99         | 54-120   | 43-131 | 2   | 0-25   |            |
| Anthracene                | 0.002000    | 0.001907  | 95        | 0.001954   | 98         | 27-133   | 9-151  | 2   | 0-25   |            |
| Fluoranthene              | 0.002000    | 0.001974  | 99        | 0.001987   | 99         | 26-137   | 8-156  | 1   | 0-25   |            |
| Pyrene                    | 0.002000    | 0.001940  | 97        | 0.001947   | 97         | 45-129   | 31-143 | 0   | 0-25   |            |
| Benzo (a) Anthracene      | 0.002000    | 0.001990  | 100       | 0.002008   | 100        | 33-143   | 15-161 | 1   | 0-25   |            |
| Chrysene                  | 0.002000    | 0.001964  | 98        | 0.001995   | 100        | 17-168   | 0-193  | 2   | 0-25   |            |
| Benzo (k) Fluoranthene    | 0.002000    | 0.001965  | 98        | 0.001992   | 100        | 24-159   | 2-182  | 1   | 0-25   |            |
| Benzo (b) Fluoranthene    | 0.002000    | 0.002010  | 100       | 0.002051   | 103        | 24-159   | 2-182  | 2   | 0-25   |            |
| Benzo (a) Pyrene          | 0.002000    | 0.002048  | 102       | 0.002106   | 105        | 17-163   | 0-187  | 3   | 0-25   |            |
| Indeno (1,2,3-c,d) Pyrene | 0.002000    | 0.001966  | 98        | 0.002028   | 101        | 25-175   | 0-200  | 3   | 0-25   |            |
| Dibenz (a,h) Anthracene   | 0.002000    | 0.001865  | 93        | 0.002054   | 103        | 25-175   | 0-200  | 10  | 0-25   |            |
| Benzo (g,h,i) Perylene    | 0.002000    | 0.002193  | 110       | 0.002253   | 113        | 25-157   | 3-179  | 3   | 0-25   |            |

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

|                                      |                         |
|--------------------------------------|-------------------------|
| Cardno                               | Date Received: 07/21/18 |
| 20505 Crescent Bay Drive             | Work Order: 18-07-1591  |
| Lake Forest, CA 92630-8825           | Preparation: EPA 5030C  |
|                                      | Method: EPA 8260B       |
| Project: ExxonMobil Gladiola Station | Page 9 of 10            |

| Quality Control Sample ID   | Type | Matrix             | Instrument             | Date Prepared    | Date Analyzed   | LCS Batch Number |                   |
|-----------------------------|------|--------------------|------------------------|------------------|-----------------|------------------|-------------------|
| 099-12-878-751              | LCS  | Aqueous            | GC/MS UU               | 07/30/18         | 07/30/18 20:24  | 180730L031       |                   |
| <u>Parameter</u>            |      | <u>Spike Added</u> | <u>Conc. Recovered</u> | <u>LCS %Rec.</u> | <u>%Rec. CL</u> | <u>ME CL</u>     | <u>Qualifiers</u> |
| Benzene                     |      | 0.01000            | 0.01098                | 110              | 80-120          | 73-127           |                   |
| Toluene                     |      | 0.01000            | 0.01083                | 108              | 80-120          | 73-127           |                   |
| Ethylbenzene                |      | 0.01000            | 0.009662               | 97               | 80-120          | 73-127           |                   |
| o-Xylene                    |      | 0.01000            | 0.009707               | 97               | 80-120          | 73-127           |                   |
| p/m-Xylene                  |      | 0.02000            | 0.01918                | 96               | 80-120          | 73-127           |                   |
| Methyl-t-Butyl Ether (MTBE) |      | 0.01000            | 0.008923               | 89               | 75-123          | 67-131           |                   |
| 1,1-Dichloroethene          |      | 0.01000            | 0.01026                | 103              | 77-120          | 70-127           |                   |
| 1,2-Dibromoethane           |      | 0.01000            | 0.009278               | 93               | 80-120          | 73-127           |                   |
| 1,2-Dichlorobenzene         |      | 0.01000            | 0.009419               | 94               | 80-120          | 73-127           |                   |
| 1,2-Dichloroethane          |      | 0.01000            | 0.01063                | 106              | 80-122          | 73-129           |                   |
| Carbon Tetrachloride        |      | 0.01000            | 0.01024                | 102              | 80-129          | 72-137           |                   |
| Chlorobenzene               |      | 0.01000            | 0.009591               | 96               | 80-120          | 73-127           |                   |
| Trichloroethene             |      | 0.01000            | 0.01060                | 106              | 80-120          | 73-127           |                   |
| Vinyl Chloride              |      | 0.01000            | 0.01215                | 122              | 63-135          | 51-147           |                   |

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - LCS

|                                      |                |               |
|--------------------------------------|----------------|---------------|
| Cardno                               | Date Received: | 07/21/18      |
| 20505 Crescent Bay Drive             | Work Order:    | 18-07-1591    |
| Lake Forest, CA 92630-8825           | Preparation:   | EPA 5030C     |
|                                      | Method:        | EPA 8260B     |
| Project: ExxonMobil Gladiola Station |                | Page 10 of 10 |

| Quality Control Sample ID   | Type        | Matrix          | Instrument | Date Prepared | Date Analyzed  | LCS Batch Number |
|-----------------------------|-------------|-----------------|------------|---------------|----------------|------------------|
| 099-12-878-754              | LCS         | Aqueous         | GC/MS UU   | 08/01/18      | 08/01/18 15:49 | 180801L042       |
| Parameter                   | Spike Added | Conc. Recovered | LCS %Rec.  | %Rec. CL      | ME CL          | Qualifiers       |
| Benzene                     | 0.01000     | 0.009745        | 97         | 80-120        | 73-127         |                  |
| Toluene                     | 0.01000     | 0.009920        | 99         | 80-120        | 73-127         |                  |
| Ethylbenzene                | 0.01000     | 0.01028         | 103        | 80-120        | 73-127         |                  |
| o-Xylene                    | 0.01000     | 0.01034         | 103        | 80-120        | 73-127         |                  |
| p/m-Xylene                  | 0.02000     | 0.02007         | 100        | 80-120        | 73-127         |                  |
| Methyl-t-Butyl Ether (MTBE) | 0.01000     | 0.008481        | 85         | 75-123        | 67-131         |                  |
| 1,1-Dichloroethene          | 0.01000     | 0.008728        | 87         | 77-120        | 70-127         |                  |
| 1,2-Dibromoethane           | 0.01000     | 0.01003         | 100        | 80-120        | 73-127         |                  |
| 1,2-Dichlorobenzene         | 0.01000     | 0.01023         | 102        | 80-120        | 73-127         |                  |
| 1,2-Dichloroethane          | 0.01000     | 0.009412        | 94         | 80-122        | 73-129         |                  |
| Carbon Tetrachloride        | 0.01000     | 0.009322        | 93         | 80-129        | 72-137         |                  |
| Chlorobenzene               | 0.01000     | 0.009908        | 99         | 80-120        | 73-127         |                  |
| Trichloroethene             | 0.01000     | 0.009583        | 96         | 80-120        | 73-127         |                  |
| Vinyl Chloride              | 0.01000     | 0.008906        | 89         | 63-135        | 51-147         |                  |

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 18-07-1591 Page 1 of 1

| <u>Method</u>      | <u>Extraction</u> | <u>Chemist ID</u> | <u>Instrument</u> | <u>Analytical Location</u> |
|--------------------|-------------------|-------------------|-------------------|----------------------------|
| EPA 300.0          | N/A               | 27                | IC 7              | 1                          |
| EPA 6010B          | EPA 3010A Total   | 1080              | ICP 8300          | 1                          |
| EPA 7470A          | EPA 7470A Total   | 868               | Mercury 07        | 1                          |
| EPA 8260B          | EPA 5030C         | 1162              | GC/MS UU          | 2                          |
| EPA 8270C SIM PAHs | EPA 3510C         | 928               | GC/MS EEE         | 1                          |
| SM 2320B           | N/A               | 834               | PCT 1             | 1                          |
| SM 2540 C          | N/A               | 1136              | N/A               | 1                          |
| SM 4500-CI C       | N/A               | 1086              | BUR02             | 1                          |

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



Calscience

## Glossary of Terms and Qualifiers

Work Order: 18-07-1591

Page 1 of 1

| Qualifiers | Definition                                                                                                                                                                                                                                                                                                                                                                          |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ         | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B          | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA         | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB         | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU         | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV         | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI         | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF         | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E          | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET         | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE         | The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                              |
| HD         | Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.                                                                                                                                                                                                                                                                                                                   |
| HO         | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT         | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX         | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL         | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J          | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA         | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD         | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP         | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ         | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR         | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND         | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO         | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU         | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG         | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN         | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|            | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|            | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|            | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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**Cecile L de Guia**

---

**From:** Vincent Nguyen <Vincent.Nguyen@cardno.com>  
**Sent:** Monday, July 23, 2018 1:03 PM  
**To:** Cecile L de Guia  
**Cc:** Stephen Hunter; David Purdy  
**Subject:** RE: EMES Gladia Station; 18-07-1591  
**Attachments:** 18-07-1591 Revised.pdf

EXTERNAL EMAIL\*

Hi Cecile,

Attached is the revised Chain of Custody document.

Let me know if there are other revisions needed.

Thanks,

Vincent Nguyen

ENVIRONMENTAL SCIENTIST I  
CARDNO

Direct +1 949 457 8950 Mobile +1 949 532 3228 Fax +1 949 457 8956  
Address 20505 Crescent Bay Drive , Lake Forest, CA 92630  
Email [vincent.nguyen@cardno.com](mailto:vincent.nguyen@cardno.com) Web [www.cardno.com](http://www.cardno.com)

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---

**From:** Cecile L de Guia [<mailto:CecileLdeGuia@eurofinsUS.com>]  
**Sent:** Monday, July 23, 2018 12:28 PM  
**To:** David Purdy <[dave.purdy@cardno.com](mailto:dave.purdy@cardno.com)>; Vincent Nguyen <[Vincent.Nguyen@cardno.com](mailto:Vincent.Nguyen@cardno.com)>  
**Cc:** Stephen Hunter <[stephen.hunter@cardno.com](mailto:stephen.hunter@cardno.com)>  
**Subject:** EMES Gladia Station; 18-07-1591

Good Afternoon,

We received the water samples for the attached COC on 07/21/2018. However, sample #4 (W-41-B5/MW31) was not received. This sample was on another COC, WO# 18-07-1592-2. Please cancel #4 from the attached COC.

The trip blank was marked for all analyses but we only received 2 VOA vials. Please cancel the other methods for Trip Blanks.

Thank you.

Best regards,

Cecile de Guia  
Eurofins Calscience, LLC  
7440 Lincoln Way  
Garden Grove, CA 92841  
USA  
Phone: +1 714 895 5494

Email: [ceciledeguia@eurofinsUS.com](mailto:ceciledeguia@eurofinsUS.com)  
Website: [www.eurofinsUS.com/Calscience](http://www.eurofinsUS.com/Calscience)

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7440 LINCOLN WAY

GARDEN GROVE, CA 92841-1432

TEL: (714) 895-5494 FAX: (714) 894-7501

## Site Name

Provide MRN for retail or AFE for major projects

Retail Project (MRN)

Major Project (AFE)

## Project Name

ExxonMobil Gladiola Station

## CHAIN OF CUSTODY RECORD

DATE: 07/20/18

PAGE: 1 OF 21

ExxonMobil Engr:

Maria Madden

## LABORATORY CLIENT

Cardno

25371 Comemrcentre Drive, Suite 250

CITY

Lake Forest, CA 92630

TEL: 949-457-8941

FAX: 949-457-8956

dave.purdy@cardno.com

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL / /

## SPECIAL INSTRUCTIONS

New Mexico Site

Report J values.

GLOBAL ID # GC02LT LOG CODE:

PROJECT CONTACT

David Purdy

SAMPLER(S)

Stephen Hunter, Vincent Nguyen

EMES Sub Agreement #A2604415

LABORATORY RECEIPT

18-07-1591

COOLER RECEIPT

Temp = °C

## REQUESTED ANALYSIS

| LAB USE ONLY | SAMPLE ID    | Field Point Name | SAMPLING DATE | TIME | MAT- RIX | NO. OF CONT. | EPA 8260B LL VOCs only (TC# 6401) | EPA 8270C SIM PAHs (TC# 4741) | EPA 6010B As, Ba, Cd, Cr, Pb, Se and Ag only (TC# 2516) | EPA 7470A Mercury (TC# 5096) | EPA 300.0 Sulfate (TC# 5431) | SM 2320B Alkalinity (TC# 6512) and SM 4500-Cl C Chloride (TC# 755) | SM 2540C Total Dissolved Solids (TC# 4942) | CONTAINER TYPE                                                                                                    |
|--------------|--------------|------------------|---------------|------|----------|--------------|-----------------------------------|-------------------------------|---------------------------------------------------------|------------------------------|------------------------------|--------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1            | W-39-B4/MW30 | B4/MW30          | 07/19/18      | 0900 | W        | 12           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic, 1L Plastic |
| 2            | W-40-B2/MW28 | B2/MW28          | 07/19/18      | 1150 | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 3            | W-42-B6/MW32 | B6/MW32          | 07/19/18      | 1430 | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 4            | W-41-B5/MW31 | B5/MW31          | 07/19/18      | 1720 | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 5            | TRIP BLANK   | QCTB             | /             | /    | W        | 2            | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 2 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 6            | TRIP BLANK   |                  |               |      | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 7            |              |                  |               |      | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |
| 8            |              |                  |               |      | W        | 11           | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCl, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic             |

Relinquished by (Signature)

Stephan White

Relinquished by (Signature)

RedEx

Date, &amp; Time: 07/20/18; 1700

Relinquished by (Signature)

Date, &amp; Time: 7/21/18 1130

Date, &amp; Time: 7/21/18 1130

COC/Gladiola Station-NM Site COC-13 samples



CHAIN OF CUSTODY RECORD

DATE: 07/20/18

PAGE: 1 OF 21

|                                                                |                             |
|----------------------------------------------------------------|-----------------------------|
| <b>Site Name</b>                                               |                             |
| <b><i>Provide MRN for retail or AFE for major projects</i></b> |                             |
| <b>Retail Project (MRN)</b>                                    |                             |
| <b>Major Project (AFE)</b>                                     |                             |
| <b>Project Name</b>                                            | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 FAX: (714) 894-7501

**ExxonMobil Engr:** **Maria Madden**

|                                     |  |                              |  |                                                                                 |  |
|-------------------------------------|--|------------------------------|--|---------------------------------------------------------------------------------|--|
| LABORATORY CLIENT:                  |  | GLOBAL ID # COELET LOG CODE: |  | EMES Sub Agreement #A2604415                                                    |  |
| Cardno                              |  |                              |  |                                                                                 |  |
| ADDRESS:                            |  | PROJECT CONTACT              |  | <input type="checkbox"/> LAT <input type="checkbox"/> LONG<br><b>18-07-1591</b> |  |
| 25371 Comemrcentre Drive, Suite 250 |  | David Purdy                  |  |                                                                                 |  |
| CITY                                |  | SAMPLER(S)                   |  | COOLER RECEIPT                                                                  |  |
| Lake Forest, CA 92630               |  |                              |  | Temp = _____ °C                                                                 |  |
| TEL. 949.457.8941                   |  | FAX: 949.457.8956            |  | Stephen Hunter, Vincent Nauven<br>dave.purdyv@cardno.com                        |  |

**REQUESTED ANALYSIS**

|                                                                                                                                                                                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <input type="checkbox"/> SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL ____/____/____<br>SPECIAL INSTRUCTIONS:<br>New Mexico Site<br>Report J values. |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

[illegible]

|                             |                         |                |
|-----------------------------|-------------------------|----------------|
| Relinquished by (Signature) | Received by (Signature) | Date, & Time   |
| <i>Steve North</i>          | <i>Ed Ex</i>            | 07/20/18; 1700 |
| Relinquished by (Signature) | Received by (Signature) | Date, & Time   |
|                             | <i>[Signature]</i>      | 7/21/18 1130   |
| Relinquished by (Signature) | Received by (Signature) | Date, & Time   |
|                             |                         |                |

COC\Gladiola Station-NM Site COC-13 samples

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(1591)

|                                                                                                                |                                                                                                            |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Recipient's Name <i>Please print.</i>                                                                          | Phone Number                                                                                               |
| ORIGIN ID:H0BA (949) 457-8950<br>CARDINO<br>20505 CRESCENT BAY DR<br>LAKE FOREST, CA 92630<br>UNITED STATES US | SHIP DATE: 20JUL18<br>ACTWGT: 35.70 LB<br>CAD: 006894246/SSFE1904<br>DIMS: 17x17x17 IN<br>BILL THIRD PARTY |

Part # 156297-433/RRV/EXP 01/19

TO

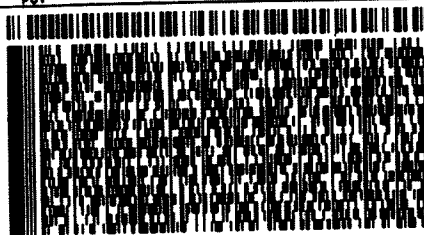
**EUROFINS CALSCIENCE INC**  
**7440 LINCOLN WAY****B**  
7980  
07.21**GARDEN GROVE CA 9284****3**  
12.00

(714) 892-5626

REF:

INVT  
PQ:

DEPT

**138**  
ST 25**edEx**  
Express

J181118012801ev

5 of 5

MP# 7727 7903 7980

Met# 7727 7903 7947

0201

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT****X0 APVA****92841**  
CA-US **SNA**



Calscience

WORK ORDER NUMBER: 18-07-1591

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno

DATE: 07/21/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.0 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 802

## CUSTODY SEAL:

Cooler ☒ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/AChecked by: 802Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 778

## SAMPLE CONDITION:

Yes No N/A

Chain-of-Custody (COC) document(s) received with samples ..... ☒ ☐ ☐COC document(s) received complete ..... ☒ ☐ ☐☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ ☐ ☐Sample container label(s) consistent with COC ..... ☐ ☒ ☐Sample container(s) intact and in good condition ..... ☒ ☐ ☐Proper containers for analyses requested ..... ☒ ☐ ☐Sufficient volume/mass for analyses requested ..... ☒ ☐ ☐Samples received within holding time ..... ☒ ☐ ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ ☐ ☒Proper preservation chemical(s) noted on COC and/or sample container ..... ☒ ☐ ☐

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☒ ☐ ☐Container(s) for certain analysis free of headspace ..... ☒ ☐ ☐☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ ☐ ☒

## CONTAINER TYPE:

(Trip Blank Lot Number: 180709B)Aqueous: ☐ VOA ☒ VOA<sub>h</sub> ☐ VOAn<sub>2</sub> ☐ 100PJ ☐ 100PJn<sub>2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☒ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☒ 250PB ☒ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☒ 1AGB ☐ 1AGBn<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☒ 1PB ☐ 1PBn<sub>2</sub> (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 778s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: 1017



Calscience

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WORK ORDER NUMBER: 18-07-1591

## SAMPLE ANOMALY REPORT

DATE: 07/21 / 2018

## SAMPLES, CONTAINERS, AND LABELS:

- ☒ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ pH outside acceptable range (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☒ Client sample label(s) do not match COC (comment)
- ☐ Project information
- ☐ Client sample ID
- ☐ Sampling date and/or time
- ☐ Number of container(s)
- ☒ Requested analysis
- ☐ Sample container(s) compromised (comment)
- ☐ Broken
- ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
- ☐ Flat
- ☐ Very low in volume
- ☐ Leaking (not transferred; duplicate bag submitted)
- ☐ Leaking (transferred into ECI Tedlar™ bags\*)
- ☐ Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

## MISCELLANEOUS: (Describe)

## HEADSPACE:

(Containers with bubble &gt; 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

| ECI Sample ID | ECI Container ID | Total Number** | ECI Sample ID | ECI Container ID | Total Number** |
|---------------|------------------|----------------|---------------|------------------|----------------|
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |

Comments: \_\_\_\_\_

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

## Comments

(4) not received.  
(same ID, date and time  
as 18-07-1592-2)

(5) Trip blank received  
2 vials for all tests

## Comments

(Containers with bubble for other analysis)

| ECI Sample ID | ECI Container ID | Total Number** | Requested Analysis |
|---------------|------------------|----------------|--------------------|
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |

Reported by: 78Reviewed by: 107



Calscience

**WORK ORDER NUMBER: 18-07-1592***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 08/06/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-07-1592

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Work Order: 18-07-1592

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/21/18. They were assigned to Work Order 18-07-1592.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
PO Number:  
Date/Time Received: 07/21/18 11:30  
Number of Containers: 34

Attn: David Purdy

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| W-39-B1/MW27          | 18-07-1592-1 | 07/19/18 15:00           | 11                   | Aqueous |
| W-41-B5/MW31          | 18-07-1592-2 | 07/19/18 17:20           | 11                   | Aqueous |
| W-39-B3/MW29          | 18-07-1592-3 | 07/19/18 11:30           | 11                   | Aqueous |
| TRIP BLANK            | 18-07-1592-4 | 07/19/18 00:00           | 1                    | Aqueous |

↑  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

## Analytical Report

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| <b>Sample ID: 1 (W-39-B1/MW27, Aqueous) Sampled: 07/19/18 15:00</b>                                                                  |          |      |       |               |          |                 |                    |                    |            |
| EPA 300.0 Anions (Extraction Method: N/A) Container - F                                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Sulfate                                                                                                                              | 130      |      | mg/L  | 0.98          | 2.0      | 2.00            | 07/25/18 01:28     | EPA 300.0          | 180724L02  |
| SM 2320B Alkalinity (Extraction Method: N/A) Container - G                                                                           |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Alkalinity, Total (as CaCO3)                                                                                                         | 170      |      | mg/L  | 1.7           | 5.0      | 1.00            | 07/24/18 02:19     | SM 2320B           | I0723ALKB2 |
| SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Solids, Total Dissolved                                                                                                              | 980      |      | mg/L  | 0.870         | 1.00     | 1.00            | 07/24/18 18:00     | SM 2540 C          | I0724TDSL3 |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 280      |      | mg/L  | 3.8           | 10       | 5.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | 0.0226   |      | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 0.0521   |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND       |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | ND       |      | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND       |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | 0.0519   |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | ND       |      | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:45     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000115 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 15:07     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | mg/L  | 0.000058      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | mg/L  | 0.000070      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                          | Result | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|----------|---------|-----------------|--------------------|--------------------|-----------|
| Fluoranthene                     | ND     |      | mg/L  | 0.000071 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Pyrene                           | ND     |      | mg/L  | 0.000069 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Anthracene             | ND     |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Chrysene                         | ND     |      | mg/L  | 0.000064 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (k) Fluoranthene           | ND     |      | mg/L  | 0.000077 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (b) Fluoranthene           | ND     |      | mg/L  | 0.000082 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Pyrene                 | ND     |      | mg/L  | 0.000098 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND     |      | mg/L  | 0.000079 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND     |      | mg/L  | 0.000074 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND     |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 87%    |      |       |          |         |                 | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 100%   |      |       |          |         |                 | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 89%    |      |       |          |         |                 | 07/26/18 19:46     | EPA 8270C SIM PAHs | 180725L01 |

EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                                       |         |   |      |         |         |      |                |           |            |
|---------------------------------------|---------|---|------|---------|---------|------|----------------|-----------|------------|
| Benzene                               | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| Toluene                               | 0.00025 | J | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| Ethylbenzene                          | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| o-Xylene                              | ND      |   | mg/L | 0.00032 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| p/m-Xylene                            | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| Xylenes (total)                       | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| Methyl-t-Butyl Ether (MTBE)           | ND      |   | mg/L | 0.00020 | 0.0010  | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1,1,2-Tetrachloroethane             | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1,1-Trichloroethane                 | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1,2,2-Tetrachloroethane             | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1,2-Trichloroethane                 | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND      |   | mg/L | 0.00024 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1-Dichloroethane                    | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1-Dichloroethene                    | ND      |   | mg/L | 0.00028 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,1-Dichloropropene                   | ND      |   | mg/L | 0.00030 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,2,3-Trichlorobenzene                | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,2,3-Trichloropropane                | ND      |   | mg/L | 0.00040 | 0.0010  | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |
| 1,2,4-Trichlorobenzene                | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 01:42 | EPA 8260B | 180801L042 |



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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                     | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|-----------------------------|--------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| 1,2,4-Trimethylbenzene      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,3,5-Trimethylbenzene      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| c-1,2-Dichloroethene        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,2-Dibromo-3-Chloropropane | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,2-Dibromoethane           | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,2-Dichlorobenzene         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,2-Dichloroethane          | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,2-Dichloropropane         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| t-1,2-Dichloroethene        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| c-1,3-Dichloropropene       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,3-Dichlorobenzene         | ND     |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,3-Dichloropropane         | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| t-1,3-Dichloropropene       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 1,4-Dichlorobenzene         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 2,2-Dichloropropane         | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 2-Chlorotoluene             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 4-Chlorotoluene             | ND     |      | mg/L  | 0.00036 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 4-Methyl-2-Pentanone        | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Acetone                     | 0.0045 | J    | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Bromobenzene                | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Bromochloromethane          | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Bromoform                   | ND     |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Bromomethane                | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Carbon Disulfide            | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Carbon Tetrachloride        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Chlorobenzene               | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Dibromochloromethane        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Chloroethane                | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Chloroform                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Chloromethane               | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Dibromomethane              | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Bromodichloromethane        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Dichlorodifluoromethane     | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Hexachloro-1,3-Butadiene    | ND     |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Isopropylbenzene            | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 2-Butanone                  | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Methylene Chloride          | ND     |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| 2-Hexanone                  | ND     |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Naphthalene                 | ND     |      | mg/L  | 0.00040 | 0.010   | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| n-Butylbenzene              | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| n-Propylbenzene             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| p-Isopropyltoluene          | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| sec-Butylbenzene                       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Styrene                                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| tert-Butylbenzene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Tetrachloroethene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Trichloroethene                        | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Trichlorofluoromethane                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Vinyl Chloride                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 01:42     | EPA 8260B | 180801L042 |
|                                        |        |      |       |         |         |                 |                    |           |            |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 93%    |      |       |         |         |                 | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Surr: Dibromofluoromethane (80-127%)   | 104%   |      |       |         |         |                 | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 103%   |      |       |         |         |                 | 08/02/18 01:42     | EPA 8260B | 180801L042 |
| Surr: Toluene-d8 (80-120%)             | 100%   |      |       |         |         |                 | 08/02/18 01:42     | EPA 8260B | 180801L042 |

**Sample ID: 2 (W-41-B5/MW31, Aqueous) Sampled: 07/19/18 17:20**

EPA 300.0 Anions (Extraction Method: N/A) Container - F

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|         |     |  |      |      |     |      |                |           |           |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|
| Sulfate | 150 |  | mg/L | 0.98 | 2.0 | 2.00 | 07/25/18 01:47 | EPA 300.0 | 180724L02 |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|

SM 2320B Alkalinity (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |  |      |     |     |      |                |          |            |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|
| Alkalinity, Total (as CaCO3) | 250 |  | mg/L | 1.7 | 5.0 | 1.00 | 07/24/18 02:19 | SM 2320B | I0723ALKB2 |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|

SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |     |  |      |       |      |      |                |           |            |
|-------------------------|-----|--|------|-------|------|------|----------------|-----------|------------|
| Solids, Total Dissolved | 735 |  | mg/L | 0.870 | 1.00 | 1.00 | 07/24/18 18:00 | SM 2540 C | I0724TDSL3 |
|-------------------------|-----|--|------|-------|------|------|----------------|-----------|------------|

SM 4500-CL C Chloride (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|          |     |  |      |      |     |      |                |              |            |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|
| Chloride | 120 |  | mg/L | 0.76 | 2.0 | 1.00 | 07/24/18 18:00 | SM 4500-CL C | I0724CLCL1 |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|

EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|          |         |   |      |         |         |      |                |           |           |
|----------|---------|---|------|---------|---------|------|----------------|-----------|-----------|
| Arsenic  | ND      |   | mg/L | 0.00438 | 0.0100  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Barium   | 0.0633  |   | mg/L | 0.00296 | 0.0100  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Cadmium  | ND      |   | mg/L | 0.00269 | 0.0100  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Chromium | ND      |   | mg/L | 0.00271 | 0.0100  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Lead     | ND      |   | mg/L | 0.00406 | 0.0100  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Selenium | 0.0202  |   | mg/L | 0.00699 | 0.0150  | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |
| Silver   | 0.00222 | J | mg/L | 0.00139 | 0.00500 | 1.00 | 08/03/18 15:45 | EPA 6010B | 180730LA5 |

EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|         |          |     |      |          |          |      |                |           |            |
|---------|----------|-----|------|----------|----------|------|----------------|-----------|------------|
| Mercury | 0.000103 | B,J | mg/L | 0.000045 | 0.000200 | 1.00 | 08/02/18 15:09 | EPA 7470A | 180802LA1M |
|---------|----------|-----|------|----------|----------|------|----------------|-----------|------------|

EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|             |    |  |      |          |         |      |                |                    |           |
|-------------|----|--|------|----------|---------|------|----------------|--------------------|-----------|
| Naphthalene | ND |  | mg/L | 0.000071 | 0.00019 | 1.00 | 07/26/18 20:06 | EPA 8270C SIM PAHs | 180725L01 |
|-------------|----|--|------|----------|---------|------|----------------|--------------------|-----------|



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                          | Result  | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|---------|------|-------|----------|---------|-----------------|--------------------|--------------------|-----------|
| 2-Methylnaphthalene              | ND      |      | mg/L  | 0.000072 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| 1-Methylnaphthalene              | ND      |      | mg/L  | 0.000072 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Acenaphthylene                   | ND      |      | mg/L  | 0.000071 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Acenaphthene                     | ND      |      | mg/L  | 0.000058 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Fluorene                         | 0.00017 | J    | mg/L  | 0.000070 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Phenanthrene                     | ND      |      | mg/L  | 0.000065 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Anthracene                       | ND      |      | mg/L  | 0.000065 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Fluoranthene                     | ND      |      | mg/L  | 0.000071 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Pyrene                           | ND      |      | mg/L  | 0.000069 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Anthracene             | ND      |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Chrysene                         | ND      |      | mg/L  | 0.000064 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (k) Fluoranthene           | ND      |      | mg/L  | 0.000077 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (b) Fluoranthene           | ND      |      | mg/L  | 0.000082 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Pyrene                 | ND      |      | mg/L  | 0.000098 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND      |      | mg/L  | 0.000079 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND      |      | mg/L  | 0.000074 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND      |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 77%     |      |       |          |         |                 | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 88%     |      |       |          |         |                 | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 85%     |      |       |          |         |                 | 07/26/18 20:06     | EPA 8270C SIM PAHs | 180725L01 |

EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                             |         |   |      |         |         |      |                |           |            |
|-----------------------------|---------|---|------|---------|---------|------|----------------|-----------|------------|
| Benzene                     | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Toluene                     | 0.00039 | J | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Ethylbenzene                | ND      |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| o-Xylene                    | ND      |   | mg/L | 0.00032 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| p/m-Xylene                  | 0.0010  |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Xylenes (total)             | 0.0010  |   | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Methyl-t-Butyl Ether (MTBE) | ND      |   | mg/L | 0.00020 | 0.0010  | 1.00 | 08/02/18 13:33 | EPA 8260B | 180802L036 |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                               | Result  | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------|---------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| 1,1,1,2-Tetrachloroethane             | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1,1-Trichloroethane                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1,2,2-Tetrachloroethane             | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1,2-Trichloroethane                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND      |      | mg/L  | 0.00024 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1-Dichloroethane                    | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1-Dichloroethene                    | ND      |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,1-Dichloropropene                   | ND      |      | mg/L  | 0.00030 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2,3-Trichlorobenzene                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2,3-Trichloropropane                | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2,4-Trichlorobenzene                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2,4-Trimethylbenzene                | 0.0019  |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,3,5-Trimethylbenzene                | 0.00091 |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| c-1,2-Dichloroethene                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2-Dibromo-3-Chloropropane           | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2-Dibromoethane                     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2-Dichlorobenzene                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2-Dichloroethane                    | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,2-Dichloropropane                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| t-1,2-Dichloroethene                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| c-1,3-Dichloropropene                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,3-Dichlorobenzene                   | ND      |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,3-Dichloropropane                   | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| t-1,3-Dichloropropene                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 1,4-Dichlorobenzene                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 2,2-Dichloropropane                   | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 2-Chlorotoluene                       | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 4-Chlorotoluene                       | ND      |      | mg/L  | 0.00036 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 4-Methyl-2-Pentanone                  | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Acetone                               | ND      |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Bromobenzene                          | ND      |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Bromochloromethane                    | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Bromoform                             | ND      |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Bromomethane                          | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Carbon Disulfide                      | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Carbon Tetrachloride                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Chlorobenzene                         | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Dibromochloromethane                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Chloroethane                          | ND      |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Chloroform                            | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Chloromethane                         | ND      |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Dibromomethane                        | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                  | Result  | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------|---------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| Bromodichloromethane     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Dichlorodifluoromethane  | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Hexachloro-1,3-Butadiene | ND      |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Isopropylbenzene         | 0.00029 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 2-Butanone               | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Methylene Chloride       | ND      |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| 2-Hexanone               | ND      |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Naphthalene              | ND      |      | mg/L  | 0.00040 | 0.010   | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| n-Butylbenzene           | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| n-Propylbenzene          | 0.00022 | J    | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| p-Isopropyltoluene       | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| sec-Butylbenzene         | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Styrene                  | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| tert-Butylbenzene        | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Tetrachloroethene        | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Trichloroethene          | ND      |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Trichlorofluoromethane   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |
| Vinyl Chloride           | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 13:33     | EPA 8260B | 180802L036 |

|                                        |      |  |  |  |  |  |                |           |            |
|----------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (68-120%) | 102% |  |  |  |  |  | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Surr: Dibromofluoromethane (80-127%)   | 102% |  |  |  |  |  | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 101% |  |  |  |  |  | 08/02/18 13:33 | EPA 8260B | 180802L036 |
| Surr: Toluene-d8 (80-120%)             | 101% |  |  |  |  |  | 08/02/18 13:33 | EPA 8260B | 180802L036 |

#### Sample ID: 3 (W-39-B3/MW29, Aqueous) Sampled: 07/19/18 11:30

EPA 300.0 Anions (Extraction Method: N/A) Container - F

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|         |     |  |      |      |     |      |                |           |           |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|
| Sulfate | 100 |  | mg/L | 0.98 | 2.0 | 2.00 | 07/25/18 02:05 | EPA 300.0 | 180724L02 |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|

SM 2320B Alkalinity (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |  |      |     |     |      |                |          |            |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|
| Alkalinity, Total (as CaCO3) | 170 |  | mg/L | 1.7 | 5.0 | 1.00 | 07/24/18 20:30 | SM 2320B | I0724ALKB1 |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|

SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                         |     |  |      |       |      |      |                |           |            |
|-------------------------|-----|--|------|-------|------|------|----------------|-----------|------------|
| Solids, Total Dissolved | 805 |  | mg/L | 0.870 | 1.00 | 1.00 | 07/24/18 18:00 | SM 2540 C | I0724TDSL3 |
|-------------------------|-----|--|------|-------|------|------|----------------|-----------|------------|

SM 4500-CL C Chloride (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|          |     |  |      |      |     |      |                |              |            |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|
| Chloride | 190 |  | mg/L | 0.76 | 2.0 | 1.00 | 07/24/18 18:00 | SM 4500-CL C | I0724CLCL1 |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|

EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|         |        |  |      |         |        |      |                |           |           |
|---------|--------|--|------|---------|--------|------|----------------|-----------|-----------|
| Arsenic | 0.0213 |  | mg/L | 0.00438 | 0.0100 | 1.00 | 08/03/18 15:46 | EPA 6010B | 180730LA5 |
| Barium  | 0.0809 |  | mg/L | 0.00296 | 0.0100 | 1.00 | 08/03/18 15:46 | EPA 6010B | 180730LA5 |
| Cadmium | ND     |  | mg/L | 0.00269 | 0.0100 | 1.00 | 08/03/18 15:46 | EPA 6010B | 180730LA5 |





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| Chromium                                                                                                                             | ND       |      | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:46     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | ND       |      | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:46     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | 0.0282   |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:46     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | 0.00145  | J    | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:46     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000116 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 15:16     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | mg/L  | 0.000058      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | mg/L  | 0.000070      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Fluoranthene                                                                                                                         | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Pyrene                                                                                                                               | ND       |      | mg/L  | 0.000069      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Anthracene                                                                                                                 | ND       |      | mg/L  | 0.000075      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Chrysene                                                                                                                             | ND       |      | mg/L  | 0.000064      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (k) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000077      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (b) Fluoranthene                                                                                                               | ND       |      | mg/L  | 0.000082      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Pyrene                                                                                                                     | ND       |      | mg/L  | 0.000098      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Indeno (1,2,3-c,d) Pyrene                                                                                                            | ND       |      | mg/L  | 0.000079      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Dibenz (a,h) Anthracene                                                                                                              | ND       |      | mg/L  | 0.000074      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (g,h,i) Perylene                                                                                                               | ND       |      | mg/L  | 0.000092      | 0.00019  | 1.00            | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: Nitrobenzene-d5 (28-139%)                                                                                                      | 71%      |      |       |               |          |                 | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                          | Result | Flag | Units | MDL | RL | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|-----|----|-----------------|--------------------|--------------------|-----------|
| Surr: 2-Fluorobiphenyl (33-144%) | 78%    |      |       |     |    |                 | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 82%    |      |       |     |    |                 | 07/26/18 20:27     | EPA 8270C SIM PAHs | 180725L01 |

EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                                       |    |  |      |         |         |      |                |           |            |
|---------------------------------------|----|--|------|---------|---------|------|----------------|-----------|------------|
| Benzene                               | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| Toluene                               | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| Ethylbenzene                          | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| o-Xylene                              | ND |  | mg/L | 0.00032 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| p/m-Xylene                            | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| Xylenes (total)                       | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| Methyl-t-Butyl Ether (MTBE)           | ND |  | mg/L | 0.00020 | 0.0010  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1,1,2-Tetrachloroethane             | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1,1-Trichloroethane                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1,2,2-Tetrachloroethane             | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1,2-Trichloroethane                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND |  | mg/L | 0.00024 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1-Dichloroethane                    | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1-Dichloroethene                    | ND |  | mg/L | 0.00028 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,1-Dichloropropene                   | ND |  | mg/L | 0.00030 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2,3-Trichlorobenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2,3-Trichloropropane                | ND |  | mg/L | 0.00040 | 0.0010  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2,4-Trichlorobenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2,4-Trimethylbenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,3,5-Trimethylbenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| c-1,2-Dichloroethene                  | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2-Dibromo-3-Chloropropane           | ND |  | mg/L | 0.0020  | 0.0050  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2-Dibromoethane                     | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2-Dichlorobenzene                   | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2-Dichloroethane                    | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,2-Dichloropropane                   | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| t-1,2-Dichloroethene                  | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| c-1,3-Dichloropropene                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,3-Dichlorobenzene                   | ND |  | mg/L | 0.00028 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,3-Dichloropropane                   | ND |  | mg/L | 0.00040 | 0.0010  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| t-1,3-Dichloropropene                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 1,4-Dichlorobenzene                   | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 2,2-Dichloropropane                   | ND |  | mg/L | 0.00040 | 0.0010  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 2-Chlorotoluene                       | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 4-Chlorotoluene                       | ND |  | mg/L | 0.00036 | 0.00050 | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |
| 4-Methyl-2-Pentanone                  | ND |  | mg/L | 0.0020  | 0.0050  | 1.00 | 08/02/18 14:03 | EPA 8260B | 180802L036 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| Acetone                                | ND     |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Bromobenzene                           | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Bromochloromethane                     | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Bromoform                              | ND     |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Bromomethane                           | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Carbon Disulfide                       | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Carbon Tetrachloride                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Chlorobenzene                          | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Dibromochloromethane                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Chloroethane                           | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Chloroform                             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Chloromethane                          | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Dibromomethane                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Bromodichloromethane                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Dichlorodifluoromethane                | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Hexachloro-1,3-Butadiene               | ND     |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Isopropylbenzene                       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| 2-Butanone                             | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Methylene Chloride                     | ND     |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| 2-Hexanone                             | ND     |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Naphthalene                            | ND     |      | mg/L  | 0.00040 | 0.010   | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| n-Butylbenzene                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| n-Propylbenzene                        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| p-Isopropyltoluene                     | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| sec-Butylbenzene                       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Styrene                                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| tert-Butylbenzene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Tetrachloroethene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Trichloroethene                        | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Trichlorofluoromethane                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Vinyl Chloride                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Surr: 1,4-Bromofluorobenzene (68-120%) |        |      |       |         |         |                 | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Surr: Dibromofluoromethane (80-127%)   |        |      |       |         |         |                 | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  |        |      |       |         |         |                 | 08/02/18 14:03     | EPA 8260B | 180802L036 |
| Surr: Toluene-d8 (80-120%)             |        |      |       |         |         |                 | 08/02/18 14:03     | EPA 8260B | 180802L036 |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                 | Blank Value | Qualifiers | Units | QC Batch   | Lab Number       | Analysis Date/Time |
|-----------------------------------------|-------------|------------|-------|------------|------------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |             |            |       |            |                  |                    |
| <b>099-12-906-8657</b>                  |             |            |       |            |                  |                    |
| Sulfate                                 | ND          |            | mg/L  | 180724L02  | 099-12-906-8657  | 07/24/18 20:16     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-21</b>                    |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0723ALKB2 | 099-17-086-21    | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-18</b>                    |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0723ALKB2 | 099-17-086-18    | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-14</b>                    |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0724ALKB1 | 099-17-086-14    | 07/24/18 20:30     |
| <b>SM 2540 C Total Dissolved Solids</b> |             |            |       |            |                  |                    |
| <b>099-12-180-6309</b>                  |             |            |       |            |                  |                    |
| Solids, Total Dissolved                 | ND          |            | mg/L  | I0724TDSL3 | 099-12-180-6309  | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>            |             |            |       |            |                  |                    |
| <b>099-05-057-2222</b>                  |             |            |       |            |                  |                    |
| Chloride                                | ND          |            | mg/L  | I0724CLCL1 | 099-05-057-2222  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>             |             |            |       |            |                  |                    |
| <b>097-01-003-16987</b>                 |             |            |       |            |                  |                    |
| Arsenic                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Barium                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Cadmium                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Chromium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Lead                                    | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Selenium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Silver                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| <b>EPA 7470A Mercury</b>                |             |            |       |            |                  |                    |
| <b>099-12-457-382</b>                   |             |            |       |            |                  |                    |
| Mercury                                 | 0.0000644   | J          | mg/L  | 180802LA1M | 099-12-457-382   | 08/02/18 14:34     |
| <b>EPA 8270C SIM PAHs</b>               |             |            |       |            |                  |                    |
| <b>099-06-008-1064</b>                  |             |            |       |            |                  |                    |
| Naphthalene                             | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 2-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 1-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthylene                          | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |

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*The difference is service*

Client: Cardno  
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Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                          | Blank Value | Qualifiers | Units | QC Batch  | Lab Number      | Analysis Date/Time |
|----------------------------------|-------------|------------|-------|-----------|-----------------|--------------------|
| Fluorene                         | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Phenanthrene                     | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Anthracene                       | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Fluoranthene                     | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Pyrene                           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Anthracene             | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Chrysene                         | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (k) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (b) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Pyrene                 | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Indeno (1,2,3-c,d) Pyrene        | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Dibenz (a,h) Anthracene          | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (g,h,i) Perylene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: Nitrobenzene-d5 (28-139%)  | 85%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: 2-Fluorobiphenyl (33-144%) | 84%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: p-Terphenyl-d14 (23-160%)  | 93%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |

#### EPA 8260B Volatile Organics

##### 099-12-878-754

|                                       |    |  |      |            |                |                |
|---------------------------------------|----|--|------|------------|----------------|----------------|
| Benzene                               | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| Toluene                               | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| Ethylbenzene                          | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| o-Xylene                              | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| p/m-Xylene                            | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| Xylenes (total)                       | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| Methyl-t-Butyl Ether (MTBE)           | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1,1,2-Tetrachloroethane             | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1,1-Trichloroethane                 | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1,2,2-Tetrachloroethane             | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1,2-Trichloroethane                 | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1-Dichloroethane                    | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1-Dichloroethene                    | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,1-Dichloropropene                   | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,2,3-Trichlorobenzene                | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,2,3-Trichloropropane                | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,2,4-Trichlorobenzene                | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,2,4-Trimethylbenzene                | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,3,5-Trimethylbenzene                | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| c-1,2-Dichloroethene                  | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |
| 1,2-Dibromo-3-Chloropropane           | ND |  | mg/L | 180801L042 | 099-12-878-754 | 08/01/18 17:12 |



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Work Order: 18-07-1592  
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Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                  | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|--------------------------|-------------|------------|-------|------------|----------------|--------------------|
| 1,2-Dibromoethane        | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,2-Dichlorobenzene      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,2-Dichloroethane       | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,2-Dichloropropane      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| t-1,2-Dichloroethene     | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| c-1,3-Dichloropropene    | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,3-Dichlorobenzene      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,3-Dichloropropane      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| t-1,3-Dichloropropene    | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 1,4-Dichlorobenzene      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 2,2-Dichloropropane      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 2-Chlorotoluene          | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 4-Chlorotoluene          | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 4-Methyl-2-Pentanone     | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Acetone                  | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Bromobenzene             | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Bromochloromethane       | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Bromoform                | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Bromomethane             | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Carbon Disulfide         | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Carbon Tetrachloride     | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Chlorobenzene            | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Dibromochloromethane     | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Chloroethane             | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Chloroform               | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Chloromethane            | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Dibromomethane           | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Bromodichloromethane     | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Dichlorodifluoromethane  | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Hexachloro-1,3-Butadiene | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Isopropylbenzene         | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 2-Butanone               | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Methylene Chloride       | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| 2-Hexanone               | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Naphthalene              | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| n-Butylbenzene           | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| n-Propylbenzene          | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| p-Isopropyltoluene       | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| sec-Butylbenzene         | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Styrene                  | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| tert-Butylbenzene        | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |


  
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Calscience

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Client: Cardno  
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Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|----------------|--------------------|
| Tetrachloroethene                      | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Trichloroethene                        | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Trichlorofluoromethane                 | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Vinyl Chloride                         | ND          |            | mg/L  | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 96%         |            |       | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Surr: Dibromofluoromethane (80-127%)   | 96%         |            |       | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 97%         |            |       | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| Surr: Toluene-d8 (80-120%)             | 101%        |            |       | 180801L042 | 099-12-878-754 | 08/01/18 17:12     |
| <b>EPA 8260B Volatile Organics</b>     |             |            |       |            |                |                    |
| <b>099-12-878-755</b>                  |             |            |       |            |                |                    |
| Benzene                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Toluene                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Ethylbenzene                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| o-Xylene                               | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| p/m-Xylene                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Xylenes (total)                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Methyl-t-Butyl Ether (MTBE)            | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1,1,2-Tetrachloroethane              | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1,1-Trichloroethane                  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1,2,2-Tetrachloroethane              | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1,2-Trichloroethane                  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1-Dichloroethane                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1-Dichloroethene                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,1-Dichloropropene                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2,3-Trichlorobenzene                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2,3-Trichloropropane                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2,4-Trichlorobenzene                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2,4-Trimethylbenzene                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,3,5-Trimethylbenzene                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| c-1,2-Dichloroethene                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2-Dibromo-3-Chloropropane            | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2-Dibromoethane                      | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2-Dichlorobenzene                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2-Dichloroethane                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,2-Dichloropropane                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| t-1,2-Dichloroethene                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| c-1,3-Dichloropropene                  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,3-Dichlorobenzene                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,3-Dichloropropane                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |



Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|----------------|--------------------|
| t-1,3-Dichloropropene                  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,4-Dichlorobenzene                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2,2-Dichloropropane                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Chlorotoluene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 4-Chlorotoluene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 4-Methyl-2-Pentanone                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Acetone                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromobenzene                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromochloromethane                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromoform                              | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromomethane                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Carbon Disulfide                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Carbon Tetrachloride                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chlorobenzene                          | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dibromochloromethane                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloroethane                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloroform                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloromethane                          | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dibromomethane                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromodichloromethane                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dichlorodifluoromethane                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Hexachloro-1,3-Butadiene               | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Isopropylbenzene                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Butanone                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Methylene Chloride                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Hexanone                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Naphthalene                            | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| n-Butylbenzene                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| n-Propylbenzene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| p-Isopropyltoluene                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| sec-Butylbenzene                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Styrene                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| tert-Butylbenzene                      | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Tetrachloroethene                      | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Trichloroethene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Trichlorofluoromethane                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Vinyl Chloride                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 100%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: Dibromofluoromethane (80-127%)   | 99%         |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 102%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: Toluene-d8 (80-120%)             | 100%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                               | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|---------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>SM 4500-CL C Chloride</b>          |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-3</b>                   |            |          |       |       |             |        |              |            |               |                    |
| Chloride                              | 46.59      | 150.6    |       | mg/L  | 100.0       | 104    | 80-120       | I0724CLCS1 | 18-07-1591-3  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>           |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-1</b>                   |            |          |       |       |             |        |              |            |               |                    |
| Arsenic                               | ND         | 0.5183   |       | mg/L  | 0.5000      | 104    | 80-140       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Barium                                | 0.05900    | 0.5690   |       | mg/L  | 0.5000      | 102    | 87-123       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Cadmium                               | ND         | 0.4992   |       | mg/L  | 0.5000      | 100    | 82-124       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Chromium                              | ND         | 0.5051   |       | mg/L  | 0.5000      | 101    | 86-122       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Lead                                  | ND         | 0.5154   |       | mg/L  | 0.5000      | 103    | 84-120       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Selenium                              | ND         | 0.5244   |       | mg/L  | 0.5000      | 105    | 79-127       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Silver                                | ND         | 0.02846  | HX    | mg/L  | 0.2500      | 11     | 86-128       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| <b>EPA 7470A Mercury</b>              |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1594-1</b>                   |            |          |       |       |             |        |              |            |               |                    |
| Mercury                               | ND         | 0.008332 |       | mg/L  | 0.01000     | 83     | 55-133       | 180802SA1  | 18-07-1594-1  | 08/02/18 14:41     |
| <b>EPA 8260B Volatile Organics</b>    |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1912-4</b>                   |            |          |       |       |             |        |              |            |               |                    |
| Benzene                               | ND         | 0.01079  |       | mg/L  | 0.01000     | 108    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Toluene                               | ND         | 0.01090  |       | mg/L  | 0.01000     | 109    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Ethylbenzene                          | ND         | 0.01137  |       | mg/L  | 0.01000     | 114    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| o-Xylene                              | ND         | 0.01112  |       | mg/L  | 0.01000     | 111    | 75-127       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| p/m-Xylene                            | ND         | 0.02181  |       | mg/L  | 0.02000     | 109    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Methyl-t-Butyl Ether (MTBE)           | ND         | 0.009409 |       | mg/L  | 0.01000     | 94     | 71-131       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1,1,2-Tetrachloroethane             | ND         | 0.01100  |       | mg/L  | 0.01000     | 110    | 75-127       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1,1-Trichloroethane                 | ND         | 0.01109  |       | mg/L  | 0.01000     | 111    | 72-132       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1,2,2-Tetrachloroethane             | ND         | 0.01053  |       | mg/L  | 0.01000     | 105    | 75-132       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1,2-Trichloroethane                 | ND         | 0.01077  |       | mg/L  | 0.01000     | 108    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND         | 0.009797 |       | mg/L  | 0.01000     | 98     | 70-130       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1-Dichloroethane                    | ND         | 0.009761 |       | mg/L  | 0.01000     | 98     | 68-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1-Dichloroethene                    | ND         | 0.01060  |       | mg/L  | 0.01000     | 106    | 66-126       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,1-Dichloropropene                   | ND         | 0.01145  |       | mg/L  | 0.01000     | 114    | 74-134       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2,3-Trichlorobenzene                | ND         | 0.01066  |       | mg/L  | 0.01000     | 107    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2,3-Trichloropropane                | ND         | 0.01039  |       | mg/L  | 0.01000     | 104    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2,4-Trichlorobenzene                | ND         | 0.01088  |       | mg/L  | 0.01000     | 109    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2,4-Trimethylbenzene                | ND         | 0.01018  |       | mg/L  | 0.01000     | 102    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,3,5-Trimethylbenzene                | ND         | 0.01080  |       | mg/L  | 0.01000     | 108    | 75-127       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| c-1,2-Dichloroethene                  | ND         | 0.01110  |       | mg/L  | 0.01000     | 111    | 75-130       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2-Dibromo-3-Chloropropane           | ND         | 0.01018  |       | mg/L  | 0.01000     | 102    | 75-127       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2-Dibromoethane                     | ND         | 0.01086  |       | mg/L  | 0.01000     | 109    | 75-126       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2-Dichlorobenzene                   | ND         | 0.01065  |       | mg/L  | 0.01000     | 106    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,2-Dichloroethane                    | ND         | 0.01045  |       | mg/L  | 0.01000     | 104    | 75-127       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |



Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                  | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|--------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| 1,2-Dichloropropane      | ND         | 0.01071  |       | mg/L  | 0.01000     | 107    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| t-1,2-Dichloroethene     | ND         | 0.01139  |       | mg/L  | 0.01000     | 114    | 73-133       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| c-1,3-Dichloropropene    | ND         | 0.01110  |       | mg/L  | 0.01000     | 111    | 75-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,3-Dichlorobenzene      | ND         | 0.01100  |       | mg/L  | 0.01000     | 110    | 75-126       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,3-Dichloropropane      | ND         | 0.01081  |       | mg/L  | 0.01000     | 108    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| t-1,3-Dichloropropene    | ND         | 0.01149  |       | mg/L  | 0.01000     | 115    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 1,4-Dichlorobenzene      | ND         | 0.01058  |       | mg/L  | 0.01000     | 106    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 2,2-Dichloropropane      | ND         | 0.01210  |       | mg/L  | 0.01000     | 121    | 52-160       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 2-Chlorotoluene          | ND         | 0.01107  |       | mg/L  | 0.01000     | 111    | 75-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 4-Chlorotoluene          | ND         | 0.01069  |       | mg/L  | 0.01000     | 107    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 4-Methyl-2-Pentanone     | ND         | 0.009756 |       | mg/L  | 0.01000     | 98     | 65-137       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Acetone                  | ND         | 0.007230 |       | mg/L  | 0.01000     | 72     | 20-180       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Bromobenzene             | ND         | 0.01068  |       | mg/L  | 0.01000     | 107    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Bromochloromethane       | ND         | 0.01049  |       | mg/L  | 0.01000     | 105    | 75-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Bromoform                | ND         | 0.01078  |       | mg/L  | 0.01000     | 108    | 71-137       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Bromomethane             | ND         | 0.01270  |       | mg/L  | 0.01000     | 127    | 37-181       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Carbon Disulfide         | ND         | 0.01062  |       | mg/L  | 0.01000     | 106    | 58-136       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Carbon Tetrachloride     | ND         | 0.01151  |       | mg/L  | 0.01000     | 115    | 69-135       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Chlorobenzene            | ND         | 0.01074  |       | mg/L  | 0.01000     | 107    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Dibromochloromethane     | ND         | 0.01106  |       | mg/L  | 0.01000     | 111    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Chloroethane             | ND         | 0.01036  |       | mg/L  | 0.01000     | 104    | 20-180       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Chloroform               | ND         | 0.01111  |       | mg/L  | 0.01000     | 111    | 75-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Chloromethane            | ND         | 0.01068  |       | mg/L  | 0.01000     | 107    | 41-149       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Dibromomethane           | ND         | 0.01065  |       | mg/L  | 0.01000     | 106    | 75-129       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Bromodichloromethane     | ND         | 0.01090  |       | mg/L  | 0.01000     | 109    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Dichlorodifluoromethane  | ND         | 0.007874 |       | mg/L  | 0.01000     | 79     | 28-172       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Hexachloro-1,3-Butadiene | ND         | 0.01072  |       | mg/L  | 0.01000     | 107    | 75-129       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Isopropylbenzene         | ND         | 0.01142  |       | mg/L  | 0.01000     | 114    | 75-130       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 2-Butanone               | ND         | 0.009591 |       | mg/L  | 0.01000     | 96     | 20-180       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Methylene Chloride       | ND         | 0.01171  |       | mg/L  | 0.01000     | 117    | 74-128       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| 2-Hexanone               | ND         | 0.01025  |       | mg/L  | 0.01000     | 102    | 74-122       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Naphthalene              | ND         | 0.009078 |       | mg/L  | 0.01000     | 91     | 75-136       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| n-Butylbenzene           | ND         | 0.01144  |       | mg/L  | 0.01000     | 114    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| n-Propylbenzene          | ND         | 0.01139  |       | mg/L  | 0.01000     | 114    | 75-129       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| p-Isopropyltoluene       | ND         | 0.01101  |       | mg/L  | 0.01000     | 110    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| sec-Butylbenzene         | ND         | 0.01141  |       | mg/L  | 0.01000     | 114    | 75-129       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Styrene                  | ND         | 0.008773 |       | mg/L  | 0.01000     | 88     | 28-166       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| tert-Butylbenzene        | ND         | 0.01145  |       | mg/L  | 0.01000     | 114    | 75-129       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Tetrachloroethene        | ND         | 0.009062 |       | mg/L  | 0.01000     | 91     | 58-124       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Trichloroethene          | ND         | 0.01101  |       | mg/L  | 0.01000     | 110    | 75-125       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Trichlorofluoromethane   | ND         | 0.009904 |       | mg/L  | 0.01000     | 99     | 68-134       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |
| Vinyl Chloride           | ND         | 0.01014  |       | mg/L  | 0.01000     | 101    | 52-142       | 180801S009 | 18-07-1912-4  | 08/01/18 21:36     |

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                            | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8260B Volatile Organics</b> |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1647-4</b>                |            |          |       |       |             |        |              |            |               |                    |
| Benzene                            | 0.0005996  | 0.01092  |       | mg/L  | 0.01000     | 103    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Toluene                            | ND         | 0.01063  |       | mg/L  | 0.01000     | 106    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Ethylbenzene                       | 0.0005612  | 0.01109  |       | mg/L  | 0.01000     | 105    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| o-Xylene                           | ND         | 0.01082  |       | mg/L  | 0.01000     | 108    | 75-127       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| p/m-Xylene                         | 0.001045   | 0.02241  |       | mg/L  | 0.02000     | 107    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.008748 |       | mg/L  | 0.01000     | 87     | 71-131       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,1-Dichloroethene                 | ND         | 0.01089  |       | mg/L  | 0.01000     | 109    | 66-126       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dibromoethane                  | ND         | 0.01020  |       | mg/L  | 0.01000     | 102    | 75-126       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dichlorobenzene                | ND         | 0.01045  |       | mg/L  | 0.01000     | 105    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dichloroethane                 | ND         | 0.01051  |       | mg/L  | 0.01000     | 105    | 75-127       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Carbon Tetrachloride               | ND         | 0.01014  |       | mg/L  | 0.01000     | 101    | 69-135       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Chlorobenzene                      | ND         | 0.01025  |       | mg/L  | 0.01000     | 102    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Trichloroethene                    | ND         | 0.01011  |       | mg/L  | 0.01000     | 101    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Vinyl Chloride                     | ND         | 0.01157  |       | mg/L  | 0.01000     | 116    | 52-142       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                               | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|---------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>SM 4500-CL C Chloride</b>          |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-3</b>                   |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Chloride                              | 46.59      | 150.1     |       | mg/L  | 100.0       | 103    | 80-120       | 0   | 0-25  | 10724CLCS1 | 18-07-1591-3      | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>           |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-1</b>                   |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Arsenic                               | ND         | 0.5016    |       | mg/L  | 0.5000      | 100    | 80-140       | 3   | 0-11  | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Barium                                | 0.05900    | 0.5666    |       | mg/L  | 0.5000      | 102    | 87-123       | 0   | 0-6   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Cadmium                               | ND         | 0.4994    |       | mg/L  | 0.5000      | 100    | 82-124       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Chromium                              | ND         | 0.5010    |       | mg/L  | 0.5000      | 100    | 86-122       | 1   | 0-8   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Lead                                  | ND         | 0.5147    |       | mg/L  | 0.5000      | 103    | 84-120       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Selenium                              | ND         | 0.5160    |       | mg/L  | 0.5000      | 103    | 79-127       | 2   | 0-9   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Silver                                | ND         | 0.06513   | HX,BA | mg/L  | 0.2500      | 26     | 86-128       | 78  | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| <b>EPA 7470A Mercury</b>              |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1594-1</b>                   |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Mercury                               | ND         | 0.007775  |       | mg/L  | 0.01000     | 78     | 55-133       | 7   | 0-20  | 180802SA1  | 18-07-1594-1      | 08/02/18 14:48     |
| <b>EPA 8260B Volatile Organics</b>    |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1912-4</b>                   |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                               | ND         | 0.01016   |       | mg/L  | 0.01000     | 102    | 75-125       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Toluene                               | ND         | 0.01049   |       | mg/L  | 0.01000     | 105    | 75-125       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Ethylbenzene                          | ND         | 0.01072   |       | mg/L  | 0.01000     | 107    | 75-125       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| o-Xylene                              | ND         | 0.01060   |       | mg/L  | 0.01000     | 106    | 75-127       | 5   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| p/m-Xylene                            | ND         | 0.02051   |       | mg/L  | 0.02000     | 103    | 75-125       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Methyl-t-Butyl Ether (MTBE)           | ND         | 0.008744  |       | mg/L  | 0.01000     | 87     | 71-131       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1,1,2-Tetrachloroethane             | ND         | 0.01006   |       | mg/L  | 0.01000     | 101    | 75-127       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1,1-Trichloroethane                 | ND         | 0.01009   |       | mg/L  | 0.01000     | 101    | 72-132       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1,2,2-Tetrachloroethane             | ND         | 0.009902  |       | mg/L  | 0.01000     | 99     | 75-132       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1,2-Trichloroethane                 | ND         | 0.009842  |       | mg/L  | 0.01000     | 98     | 75-125       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND         | 0.008720  |       | mg/L  | 0.01000     | 87     | 70-130       | 12  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1-Dichloroethane                    | ND         | 0.008982  |       | mg/L  | 0.01000     | 90     | 68-128       | 8   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1-Dichloroethene                    | ND         | 0.009817  |       | mg/L  | 0.01000     | 98     | 66-126       | 8   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,1-Dichloropropene                   | ND         | 0.01031   |       | mg/L  | 0.01000     | 103    | 74-134       | 10  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2,3-Trichlorobenzene                | ND         | 0.01030   |       | mg/L  | 0.01000     | 103    | 75-125       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2,3-Trichloropropane                | ND         | 0.009976  |       | mg/L  | 0.01000     | 100    | 75-125       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2,4-Trichlorobenzene                | ND         | 0.01051   |       | mg/L  | 0.01000     | 105    | 75-125       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2,4-Trimethylbenzene                | ND         | 0.008936  |       | mg/L  | 0.01000     | 89     | 75-125       | 13  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,3,5-Trimethylbenzene                | ND         | 0.01014   |       | mg/L  | 0.01000     | 101    | 75-127       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| c-1,2-Dichloroethene                  | ND         | 0.01024   |       | mg/L  | 0.01000     | 102    | 75-130       | 8   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2-Dibromo-3-Chloropropane           | ND         | 0.01005   |       | mg/L  | 0.01000     | 100    | 75-127       | 1   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2-Dibromoethane                     | ND         | 0.009946  |       | mg/L  | 0.01000     | 99     | 75-126       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2-Dichlorobenzene                   | ND         | 0.01046   |       | mg/L  | 0.01000     | 105    | 75-125       | 2   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |



Calscience

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                  | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|--------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| 1,2-Dichloroethane       | ND         | 0.009834  |       | mg/L  | 0.01000     | 98     | 75-127       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,2-Dichloropropane      | ND         | 0.01001   |       | mg/L  | 0.01000     | 100    | 75-125       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| t-1,2-Dichloroethene     | ND         | 0.01025   |       | mg/L  | 0.01000     | 102    | 73-133       | 11  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| c-1,3-Dichloropropene    | ND         | 0.01045   |       | mg/L  | 0.01000     | 104    | 75-128       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,3-Dichlorobenzene      | ND         | 0.01050   |       | mg/L  | 0.01000     | 105    | 75-126       | 5   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,3-Dichloropropane      | ND         | 0.009944  |       | mg/L  | 0.01000     | 99     | 75-125       | 8   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| t-1,3-Dichloropropene    | ND         | 0.01052   |       | mg/L  | 0.01000     | 105    | 75-125       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 1,4-Dichlorobenzene      | ND         | 0.01015   |       | mg/L  | 0.01000     | 102    | 75-125       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 2,2-Dichloropropane      | ND         | 0.01074   |       | mg/L  | 0.01000     | 107    | 52-160       | 12  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 2-Chlorotoluene          | ND         | 0.01060   |       | mg/L  | 0.01000     | 106    | 75-128       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 4-Chlorotoluene          | ND         | 0.01014   |       | mg/L  | 0.01000     | 101    | 75-125       | 5   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 4-Methyl-2-Pentanone     | ND         | 0.01001   |       | mg/L  | 0.01000     | 100    | 65-137       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Acetone                  | ND         | 0.008017  |       | mg/L  | 0.01000     | 80     | 20-180       | 10  | 0-52  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Bromobenzene             | ND         | 0.01033   |       | mg/L  | 0.01000     | 103    | 75-125       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Bromochloromethane       | ND         | 0.009854  |       | mg/L  | 0.01000     | 99     | 75-128       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Bromoform                | ND         | 0.01003   |       | mg/L  | 0.01000     | 100    | 71-137       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Bromomethane             | ND         | 0.01221   |       | mg/L  | 0.01000     | 122    | 37-181       | 4   | 0-22  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Carbon Disulfide         | ND         | 0.009998  |       | mg/L  | 0.01000     | 100    | 58-136       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Carbon Tetrachloride     | ND         | 0.01028   |       | mg/L  | 0.01000     | 103    | 69-135       | 11  | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Chlorobenzene            | ND         | 0.01002   |       | mg/L  | 0.01000     | 100    | 75-125       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Dibromochloromethane     | ND         | 0.01008   |       | mg/L  | 0.01000     | 101    | 75-125       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Chloroethane             | ND         | 0.01019   |       | mg/L  | 0.01000     | 102    | 20-180       | 2   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Chloroform               | ND         | 0.01012   |       | mg/L  | 0.01000     | 101    | 75-128       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Chloromethane            | ND         | 0.01089   |       | mg/L  | 0.01000     | 109    | 41-149       | 2   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Dibromomethane           | ND         | 0.01005   |       | mg/L  | 0.01000     | 101    | 75-129       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Bromodichloromethane     | ND         | 0.01029   |       | mg/L  | 0.01000     | 103    | 75-125       | 6   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Dichlorodifluoromethane  | ND         | 0.007227  |       | mg/L  | 0.01000     | 72     | 28-172       | 9   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Hexachloro-1,3-Butadiene | ND         | 0.01056   |       | mg/L  | 0.01000     | 106    | 75-129       | 1   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Isopropylbenzene         | ND         | 0.01092   |       | mg/L  | 0.01000     | 109    | 75-130       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 2-Butanone               | ND         | 0.009630  |       | mg/L  | 0.01000     | 96     | 20-180       | 0   | 0-40  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Methylene Chloride       | ND         | 0.01083   |       | mg/L  | 0.01000     | 108    | 74-128       | 8   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| 2-Hexanone               | ND         | 0.01045   |       | mg/L  | 0.01000     | 104    | 74-122       | 2   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Naphthalene              | ND         | 0.008974  |       | mg/L  | 0.01000     | 90     | 75-136       | 1   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| n-Butylbenzene           | ND         | 0.01112   |       | mg/L  | 0.01000     | 111    | 75-125       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| n-Propylbenzene          | ND         | 0.01094   |       | mg/L  | 0.01000     | 109    | 75-129       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| p-Isopropyltoluene       | ND         | 0.01047   |       | mg/L  | 0.01000     | 105    | 75-125       | 5   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| sec-Butylbenzene         | ND         | 0.01087   |       | mg/L  | 0.01000     | 109    | 75-129       | 5   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Styrene                  | ND         | 0.007119  |       | mg/L  | 0.01000     | 71     | 28-166       | 21  | 0-30  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| tert-Butylbenzene        | ND         | 0.01105   |       | mg/L  | 0.01000     | 111    | 75-129       | 3   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Tetrachloroethene        | ND         | 0.008430  |       | mg/L  | 0.01000     | 84     | 58-124       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Trichloroethene          | ND         | 0.01028   |       | mg/L  | 0.01000     | 103    | 75-125       | 7   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| Trichlorofluoromethane   | ND         | 0.009517  |       | mg/L  | 0.01000     | 95     | 68-134       | 4   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |

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Calscience

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                            | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| Vinyl Chloride                     | ND         | 0.01020   |       | mg/L  | 0.01000     | 102    | 52-142       | 1   | 0-20  | 180801S009 | 18-07-1912-4      | 08/01/18 22:07     |
| <b>EPA 8260B Volatile Organics</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1647-4</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                            | 0.0005996  | 0.01074   |       | mg/L  | 0.01000     | 101    | 75-125       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Toluene                            | ND         | 0.01045   |       | mg/L  | 0.01000     | 105    | 75-125       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Ethylbenzene                       | 0.0005612  | 0.01102   |       | mg/L  | 0.01000     | 105    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| o-Xylene                           | ND         | 0.01068   |       | mg/L  | 0.01000     | 107    | 75-127       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| p/m-Xylene                         | 0.001045   | 0.02220   |       | mg/L  | 0.02000     | 106    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.008666  |       | mg/L  | 0.01000     | 87     | 71-131       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,1-Dichloroethene                 | ND         | 0.01062   |       | mg/L  | 0.01000     | 106    | 66-126       | 3   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dibromoethane                  | ND         | 0.01017   |       | mg/L  | 0.01000     | 102    | 75-126       | 0   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dichlorobenzene                | ND         | 0.01037   |       | mg/L  | 0.01000     | 104    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dichloroethane                 | ND         | 0.01035   |       | mg/L  | 0.01000     | 103    | 75-127       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Carbon Tetrachloride               | ND         | 0.01008   |       | mg/L  | 0.01000     | 101    | 69-135       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Chlorobenzene                      | ND         | 0.01021   |       | mg/L  | 0.01000     | 102    | 75-125       | 0   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Trichloroethene                    | ND         | 0.01022   |       | mg/L  | 0.01000     | 102    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Vinyl Chloride                     | ND         | 0.01140   |       | mg/L  | 0.01000     | 114    | 52-142       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |

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Calscience

The difference is service

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1592                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

QUALITY CONTROL  
Post Digestion Spike

| Analyte              | Orig. Val. | PDS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch     | Sample Spiked | Analysis Date/Time |
|----------------------|------------|----------|-------|-------|-------------|--------|--------------|-----------|---------------|--------------------|
| EPA 6010B ICP Metals |            |          |       |       |             |        |              |           |               |                    |
| 18-07-1591-1         |            |          |       |       |             |        |              |           |               |                    |
| Arsenic              | ND         | 0.4856   |       | mg/L  | 0.5000      | 97     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Barium               | 0.05900    | 0.5799   |       | mg/L  | 0.5000      | 104    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Cadmium              | ND         | 0.5102   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Chromium             | ND         | 0.5095   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Lead                 | ND         | 0.5332   |       | mg/L  | 0.5000      | 107    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Selenium             | ND         | 0.5419   |       | mg/L  | 0.5000      | 108    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Silver               | ND         | 0.2234   |       | mg/L  | 0.2500      | 89     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |

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Qual: Qualifiers



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

**QUALITY CONTROL  
Post Digestion Spike Duplicate**

| Analyte                     | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|-----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| <b>EPA 6010B ICP Metals</b> |            |           |       |       |             |        |              |     |       |           |                   |                    |
| <b>18-07-1591-1</b>         |            |           |       |       |             |        |              |     |       |           |                   |                    |
| Arsenic                     | ND         | 0.4871    |       | mg/L  | 0.5000      | 97     | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Barium                      | 0.05900    | 0.5823    |       | mg/L  | 0.5000      | 105    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Cadmium                     | ND         | 0.5035    |       | mg/L  | 0.5000      | 101    | 75-125       | 1   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Chromium                    | ND         | 0.5110    |       | mg/L  | 0.5000      | 102    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Lead                        | ND         | 0.5142    |       | mg/L  | 0.5000      | 103    | 75-125       | 4   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Selenium                    | ND         | 0.4838    |       | mg/L  | 0.5000      | 97     | 75-125       | 11  | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Silver                      | ND         | 0.2274    |       | mg/L  | 0.2500      | 91     | 75-125       | 2   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |

  
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Qual - Qualifiers RPD: Relative Percent Difference



Calscience

*The difference is service*

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1592                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

**QUALITY CONTROL  
Sample Duplicate**

| Analyte                                   | Orig. Val. | Duplicate | Qual. | Units | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|-------------------------------------------|------------|-----------|-------|-------|-----|-------|------------|-------------------|--------------------|
| <b>SM 2320B Alkalinity</b>                |            |           |       |       |     |       |            |                   |                    |
| <b>18-07-1456-3</b>                       |            |           |       |       |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 52.80      | 52.74     |       | mg/L  | 0   | 0-25  | I0723ALKD2 | 18-07-1456-3      | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>                |            |           |       |       |     |       |            |                   |                    |
| <b>18-07-1599-3</b>                       |            |           |       |       |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 1750       | 1728      |       | mg/L  | 1   | 0-25  | I0724ALKD1 | 18-07-1599-3      | 07/24/18 20:30     |
| <b>SM 2540 C Total Dissolved Solids</b>   |            |           |       |       |     |       |            |                   |                    |
| <b>18-07-1456-3</b>                       |            |           |       |       |     |       |            |                   |                    |
| Solids, Total Dissolved                   | 3370       | 3440      |       | mg/L  | 2   | 0-20  | I0724TDSD6 | 18-07-1456-3      | 07/24/18 18:00     |

  
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RPD: Relative Percent Difference.



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1592                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-------------------------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 300.0 Anions</b>                   |            |          |       |       |        |              |            |                    |
| <b>099-12-906-8657</b>                    |            |          |       |       |        |              |            |                    |
| Sulfate                                   | 50.00      | 48.37    |       | mg/L  | 97     | 90-110       | 180724L02  | 07/24/18 20:34     |
| <b>SM 2320B Alkalinity</b>                |            |          |       |       |        |              |            |                    |
| <b>099-17-086-21</b>                      |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0      | 110.3    |       | mg/L  | 110    | 80-120       | I0723ALKB2 | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>                |            |          |       |       |        |              |            |                    |
| <b>099-17-086-18</b>                      |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0      | 110.3    |       | mg/L  | 110    | 80-120       | I0723ALKB2 | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>                |            |          |       |       |        |              |            |                    |
| <b>099-17-086-14</b>                      |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0      | 116.0    |       | mg/L  | 116    | 80-120       | I0724ALKB1 | 07/24/18 20:30     |
| <b>SM 2540 C Total Dissolved Solids</b>   |            |          |       |       |        |              |            |                    |
| <b>099-12-180-6309</b>                    |            |          |       |       |        |              |            |                    |
| Solids, Total Dissolved                   | 100.0      | 95.00    |       | mg/L  | 95     | 80-120       | I0724TDSL3 | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>              |            |          |       |       |        |              |            |                    |
| <b>099-05-057-2222</b>                    |            |          |       |       |        |              |            |                    |
| Chloride                                  | 100.0      | 100.6    |       | mg/L  | 101    | 80-120       | I0724CLCL1 | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>               |            |          |       |       |        |              |            |                    |
| <b>097-01-003-16987</b>                   |            |          |       |       |        |              |            |                    |
| Arsenic                                   | 0.5000     | 0.4415   |       | mg/L  | 88     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Barium                                    | 0.5000     | 0.5081   |       | mg/L  | 102    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Cadmium                                   | 0.5000     | 0.5186   |       | mg/L  | 104    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Chromium                                  | 0.5000     | 0.4881   |       | mg/L  | 98     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Lead                                      | 0.5000     | 0.5019   |       | mg/L  | 100    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Selenium                                  | 0.5000     | 0.4333   |       | mg/L  | 87     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Silver                                    | 0.2500     | 0.2235   |       | mg/L  | 89     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| <b>EPA 7470A Mercury</b>                  |            |          |       |       |        |              |            |                    |
| <b>099-12-457-382</b>                     |            |          |       |       |        |              |            |                    |
| Mercury                                   | 0.01000    | 0.008974 |       | mg/L  | 90     | 80-120       | 180802LA1M | 08/02/18 14:37     |
| <b>EPA 8270C SIM PAHs</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-06-008-1064</b>                    |            |          |       |       |        |              |            |                    |
| Naphthalene                               | 0.002000   | 0.001772 |       | mg/L  | 89     | 21-133       | 180725L01  | 07/26/18 15:21     |
| 2-Methylnaphthalene                       | 0.002000   | 0.001834 |       | mg/L  | 92     | 21-140       | 180725L01  | 07/26/18 15:21     |
| 1-Methylnaphthalene                       | 0.002000   | 0.001825 |       | mg/L  | 91     | 20-140       | 180725L01  | 07/26/18 15:21     |
| Acenaphthylene                            | 0.002000   | 0.001684 |       | mg/L  | 84     | 33-145       | 180725L01  | 07/26/18 15:21     |
| Acenaphthene                              | 0.002000   | 0.001755 |       | mg/L  | 88     | 55-121       | 180725L01  | 07/26/18 15:21     |
| Fluorene                                  | 0.002000   | 0.001827 |       | mg/L  | 91     | 59-121       | 180725L01  | 07/26/18 15:21     |
| Phenanthrene                              | 0.002000   | 0.001956 |       | mg/L  | 98     | 54-120       | 180725L01  | 07/26/18 15:21     |





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample

| Analyte                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch     | Analysis Date/Time |
|---------------------------|------------|----------|-------|-------|--------|--------------|-----------|--------------------|
| Anthracene                | 0.002000   | 0.001907 |       | mg/L  | 95     | 27-133       | 180725L01 | 07/26/18 15:21     |
| Fluoranthene              | 0.002000   | 0.001974 |       | mg/L  | 99     | 26-137       | 180725L01 | 07/26/18 15:21     |
| Pyrene                    | 0.002000   | 0.001940 |       | mg/L  | 97     | 45-129       | 180725L01 | 07/26/18 15:21     |
| Benzo (a) Anthracene      | 0.002000   | 0.001990 |       | mg/L  | 100    | 33-143       | 180725L01 | 07/26/18 15:21     |
| Chrysene                  | 0.002000   | 0.001964 |       | mg/L  | 98     | 17-168       | 180725L01 | 07/26/18 15:21     |
| Benzo (k) Fluoranthene    | 0.002000   | 0.001965 |       | mg/L  | 98     | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (b) Fluoranthene    | 0.002000   | 0.002010 |       | mg/L  | 100    | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (a) Pyrene          | 0.002000   | 0.002048 |       | mg/L  | 102    | 17-163       | 180725L01 | 07/26/18 15:21     |
| Indeno (1,2,3-c,d) Pyrene | 0.002000   | 0.001966 |       | mg/L  | 98     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Dibenz (a,h) Anthracene   | 0.002000   | 0.001865 |       | mg/L  | 93     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Benzo (g,h,i) Perylene    | 0.002000   | 0.002193 |       | mg/L  | 110    | 25-157       | 180725L01 | 07/26/18 15:21     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

#### EPA 8260B Volatile Organics

##### 099-12-878-754

|                             |         |          |  |      |     |        |            |                |
|-----------------------------|---------|----------|--|------|-----|--------|------------|----------------|
| Benzene                     | 0.01000 | 0.009745 |  | mg/L | 97  | 80-120 | 180801L042 | 08/01/18 15:49 |
| Toluene                     | 0.01000 | 0.009920 |  | mg/L | 99  | 80-120 | 180801L042 | 08/01/18 15:49 |
| Ethylbenzene                | 0.01000 | 0.01028  |  | mg/L | 103 | 80-120 | 180801L042 | 08/01/18 15:49 |
| o-Xylene                    | 0.01000 | 0.01034  |  | mg/L | 103 | 80-120 | 180801L042 | 08/01/18 15:49 |
| p/m-Xylene                  | 0.02000 | 0.02007  |  | mg/L | 100 | 80-120 | 180801L042 | 08/01/18 15:49 |
| Methyl-t-Butyl Ether (MTBE) | 0.01000 | 0.008481 |  | mg/L | 85  | 75-123 | 180801L042 | 08/01/18 15:49 |
| 1,1-Dichloroethene          | 0.01000 | 0.008728 |  | mg/L | 87  | 77-120 | 180801L042 | 08/01/18 15:49 |
| 1,2-Dibromoethane           | 0.01000 | 0.01003  |  | mg/L | 100 | 80-120 | 180801L042 | 08/01/18 15:49 |
| 1,2-Dichlorobenzene         | 0.01000 | 0.01023  |  | mg/L | 102 | 80-120 | 180801L042 | 08/01/18 15:49 |
| 1,2-Dichloroethane          | 0.01000 | 0.009412 |  | mg/L | 94  | 80-122 | 180801L042 | 08/01/18 15:49 |
| Carbon Tetrachloride        | 0.01000 | 0.009322 |  | mg/L | 93  | 80-129 | 180801L042 | 08/01/18 15:49 |
| Chlorobenzene               | 0.01000 | 0.009908 |  | mg/L | 99  | 80-120 | 180801L042 | 08/01/18 15:49 |
| Trichloroethene             | 0.01000 | 0.009583 |  | mg/L | 96  | 80-120 | 180801L042 | 08/01/18 15:49 |
| Vinyl Chloride              | 0.01000 | 0.008906 |  | mg/L | 89  | 63-135 | 180801L042 | 08/01/18 15:49 |

Total number of LCS compounds: 14  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

#### EPA 8260B Volatile Organics

##### 099-12-878-755

|              |         |         |  |      |     |        |            |                |
|--------------|---------|---------|--|------|-----|--------|------------|----------------|
| Benzene      | 0.01000 | 0.01075 |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Toluene      | 0.01000 | 0.01080 |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Ethylbenzene | 0.01000 | 0.01084 |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1592                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

**PROJECT QUALITY CONTROL DATA**  
**Laboratory Control Sample**

| Analyte                     | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-----------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| o-Xylene                    | 0.01000    | 0.01075  |       | mg/L  | 107    | 80-120       | 180802L036 | 08/02/18 09:33     |
| p/m-Xylene                  | 0.02000    | 0.02196  |       | mg/L  | 110    | 80-120       | 180802L036 | 08/02/18 09:33     |
| Methyl-t-Butyl Ether (MTBE) | 0.01000    | 0.008777 |       | mg/L  | 88     | 75-123       | 180802L036 | 08/02/18 09:33     |
| 1,1-Dichloroethene          | 0.01000    | 0.01081  |       | mg/L  | 108    | 77-120       | 180802L036 | 08/02/18 09:33     |
| 1,2-Dibromoethane           | 0.01000    | 0.01018  |       | mg/L  | 102    | 80-120       | 180802L036 | 08/02/18 09:33     |
| 1,2-Dichlorobenzene         | 0.01000    | 0.01072  |       | mg/L  | 107    | 80-120       | 180802L036 | 08/02/18 09:33     |
| 1,2-Dichloroethane          | 0.01000    | 0.01056  |       | mg/L  | 106    | 80-122       | 180802L036 | 08/02/18 09:33     |
| Carbon Tetrachloride        | 0.01000    | 0.01043  |       | mg/L  | 104    | 80-129       | 180802L036 | 08/02/18 09:33     |
| Chlorobenzene               | 0.01000    | 0.01063  |       | mg/L  | 106    | 80-120       | 180802L036 | 08/02/18 09:33     |
| Trichloroethene             | 0.01000    | 0.01069  |       | mg/L  | 107    | 80-120       | 180802L036 | 08/02/18 09:33     |
| Vinyl Chloride              | 0.01000    | 0.01076  |       | mg/L  | 108    | 63-135       | 180802L036 | 08/02/18 09:33     |

Total number of LCS compounds: 14  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

  
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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                                   | LCS Val.     | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|-------------------------------------------|--------------|-----------|-------|-------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 300.0 Anions</b>                   |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-906-8657</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Sulfate                                   | 50.00        | 47.26     |       | mg/L  | 95     | 90-110       | 2   | 0-15  | 180724L02  | 099-12-906-8657   | 07/24/18 20:52     |
| <b>SM 2320B Alkalinity</b>                |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-21</b>                      |              |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0        | 106.5     |       | mg/L  | 106    | 80-120       | 4   | 0-20  | I0723ALKB2 | 099-17-086-21     | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>                |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-18</b>                      |              |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0        | 106.5     |       | mg/L  | 106    | 80-120       | 4   | 0-20  | I0723ALKB2 | 099-17-086-18     | 07/24/18 02:19     |
| <b>SM 2320B Alkalinity</b>                |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-14</b>                      |              |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0        | 96.17     |       | mg/L  | 96     | 80-120       | 19  | 0-20  | I0724ALKB1 | 099-17-086-14     | 07/24/18 20:30     |
| <b>SM 2540 C Total Dissolved Solids</b>   |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-180-6309</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Solids, Total Dissolved                   | 100.0        | 100.0     |       | mg/L  | 100    | 80-120       | 5   | 0-20  | I0724TDSL3 | 099-12-180-6309   | 07/24/18 18:00     |
| <b>SM 4500-CL C Chloride</b>              |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-05-057-2222</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Chloride                                  | 100.0        | 100.1     |       | mg/L  | 100    | 80-120       | 0   | 0-20  | I0724CLCL1 | 099-05-057-2222   | 07/24/18 18:00     |
| <b>EPA 8270C SIM PAHs</b>                 |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-06-008-1064</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Naphthalene                               | 0.00200<br>0 | 0.001763  |       | mg/L  | 88     | 21-133       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 2-Methylnaphthalene                       | 0.00200<br>0 | 0.001816  |       | mg/L  | 91     | 21-140       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 1-Methylnaphthalene                       | 0.00200<br>0 | 0.001826  |       | mg/L  | 91     | 20-140       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthylene                            | 0.00200<br>0 | 0.001727  |       | mg/L  | 86     | 33-145       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthene                              | 0.00200<br>0 | 0.001824  |       | mg/L  | 91     | 55-121       | 4   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluorene                                  | 0.00200<br>0 | 0.001932  |       | mg/L  | 97     | 59-121       | 6   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Phenanthrene                              | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 54-120       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Anthracene                                | 0.00200<br>0 | 0.001954  |       | mg/L  | 98     | 27-133       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluoranthene                              | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 26-137       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Pyrene                                    | 0.00200<br>0 | 0.001947  |       | mg/L  | 97     | 45-129       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Anthracene                      | 0.00200<br>0 | 0.002008  |       | mg/L  | 100    | 33-143       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |

Qual - Qualifiers RPD: Relative Percent Difference



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1592  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                   | LCS Val.     | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|---------------------------|--------------|-----------|-------|-------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| Chrysene                  | 0.00200<br>0 | 0.001995  |       | mg/L  | 100    | 17-168       | 2   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (k) Fluoranthene    | 0.00200<br>0 | 0.001992  |       | mg/L  | 100    | 24-159       | 1   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (b) Fluoranthene    | 0.00200<br>0 | 0.002051  |       | mg/L  | 103    | 24-159       | 2   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Pyrene          | 0.00200<br>0 | 0.002106  |       | mg/L  | 105    | 17-163       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Indeno (1,2,3-c,d) Pyrene | 0.00200<br>0 | 0.002028  |       | mg/L  | 101    | 25-175       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Dibenz (a,h) Anthracene   | 0.00200<br>0 | 0.002054  |       | mg/L  | 103    | 25-175       | 10  | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (g,h,i) Perylene    | 0.00200<br>0 | 0.002253  |       | mg/L  | 113    | 25-157       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

**EPA 8260B Volatile Organics****099-12-878-755**

|                             |         |          |  |      |     |        |   |      |            |                |                |
|-----------------------------|---------|----------|--|------|-----|--------|---|------|------------|----------------|----------------|
| Benzene                     | 0.01000 | 0.01030  |  | mg/L | 103 | 80-120 | 4 | 0-22 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Toluene                     | 0.01000 | 0.01037  |  | mg/L | 104 | 80-120 | 4 | 0-28 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Ethylbenzene                | 0.01000 | 0.01038  |  | mg/L | 104 | 80-120 | 4 | 0-25 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| o-Xylene                    | 0.01000 | 0.01034  |  | mg/L | 103 | 80-120 | 4 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| p/m-Xylene                  | 0.02000 | 0.02090  |  | mg/L | 105 | 80-120 | 5 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Methyl-t-Butyl Ether (MTBE) | 0.01000 | 0.008913 |  | mg/L | 89  | 75-123 | 2 | 0-27 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,1-Dichloroethene          | 0.01000 | 0.01042  |  | mg/L | 104 | 77-120 | 4 | 0-26 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dibromoethane           | 0.01000 | 0.01024  |  | mg/L | 102 | 80-120 | 1 | 0-32 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dichlorobenzene         | 0.01000 | 0.01063  |  | mg/L | 106 | 80-120 | 1 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dichloroethane          | 0.01000 | 0.01058  |  | mg/L | 106 | 80-122 | 0 | 0-23 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Carbon Tetrachloride        | 0.01000 | 0.009910 |  | mg/L | 99  | 80-129 | 5 | 0-36 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Chlorobenzene               | 0.01000 | 0.01025  |  | mg/L | 103 | 80-120 | 4 | 0-29 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Trichloroethene             | 0.01000 | 0.01022  |  | mg/L | 102 | 80-120 | 5 | 0-25 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Vinyl Chloride              | 0.01000 | 0.01009  |  | mg/L | 101 | 63-135 | 7 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Qual - Qualifiers RPD: Relative Percent Difference

Work Order: 18-07-1592

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Sample Analysis Summary Report

| Method             | Extraction      | Chemist ID | Instrument | Analytical Location |
|--------------------|-----------------|------------|------------|---------------------|
| EPA 300.0          | N/A             | 27         | IC 7       | 1                   |
| EPA 6010B          | EPA 3010A Total | 1080       | ICP 8300   | 1                   |
| EPA 7470A          | EPA 7470A Total | 868        | Mercury 07 | 1                   |
| EPA 8260B          | EPA 5030C       | 316        | GC/MS L    | 2                   |
| EPA 8260B          | EPA 5030C       | 1162       | GC/MS UU   | 2                   |
| EPA 8270C SIM PAHs | EPA 3510C       | 928        | GC/MS EEE  | 1                   |
| SM 2320B           | N/A             | 834        | PCT 1      | 1                   |
| SM 2540 C          | N/A             | 1136       | N/A        | 1                   |
| SM 4500-Cl C       | N/A             | 1086       | BUR02      | 1                   |

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-07-1592

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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1592

DO NOT LET ANYONE TAKE THIS LABEL

Recipient's Name Please print

ORIGIN ID: H0BA (949) 457-8950

CARDINO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

SHIP DATE:  
ACTWT: 1.86  
CAD: 00699  
DIMS: 17x

BILL THIR

RT 138  
ST 25  
3 12:00  
B 7970 07.21

TO  
St: EUROFINS CALSCIENCE INC  
7440 LINCOLN WAY  
City: GARDEN GROVE CA 92841

(714) 892-5626 REF: DEPT:

© 2011 F

FedEx  
Express

4 of 5

MPS# 7727 7903 7970  
0263

Mstr# 7727 7903 7947 0201

**XO APVA**

SATURDAY 12:00  
PRIORITY OVERNIGHT

92841  
CA-US SNA

Barcode

Barcode Label Here

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Calscience

WORK ORDER NUMBER: 18-07-7592

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno

DATE: 07/21/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 2.9 °C (w/ CF): 2.6 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 802

## CUSTODY SEAL:

Cooler ☒ Present and Intact☐ Present but Not Intact☐ Not Present☐ N/AChecked by: 802Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/AChecked by: 778

## SAMPLE CONDITION:

Yes No N/A

Chain-of-Custody (COC) document(s) received with samples ..... ☒ ☐ ☐COC document(s) received complete ..... ☒ ☐ ☐☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ ☐ ☐Sample container label(s) consistent with COC ..... ☐ ☒ ☐Sample container(s) intact and in good condition ..... ☒ ☐ ☐Proper containers for analyses requested ..... ☒ ☐ ☐Sufficient volume/mass for analyses requested ..... ☒ ☐ ☐Samples received within holding time ..... ☒ ☐ ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ ☐ ☒Proper preservation chemical(s) noted on COC and/or sample container ..... ☒ ☐ ☐

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☒ ☐ ☐Container(s) for certain analysis free of headspace ..... ☒ ☐ ☐☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ ☐ ☒

## CONTAINER TYPE:

(Trip Blank Lot Number: 180709B)Aqueous: ☐ VOA ☒ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☒ 125PB ☐ 125PB<sub>znna</sub> (pH 9)☐ 250AGB ☐ 250CGB ☐ 250CGB<sub>s</sub> (pH 2) ☒ 250PB ☒ 250PB<sub>h</sub> (pH 2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJ<sub>s</sub> (pH 2) ☐ 500PB☒ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGB<sub>s</sub> (pH 2) ☐ 1AGB<sub>s</sub> (O&G) ☒ 1PB ☐ 1PB<sub>na</sub> (pH 12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 776s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: 1017



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WORK ORDER NUMBER: 18-07-1592

## SAMPLE ANOMALY REPORT

DATE: 07/21/2018

## SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ pH outside acceptable range (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☒ Client sample label(s) do not match COC (comment)
- ☐ Project information
- ☐ Client sample ID
- ☐ Sampling date and/or time
- ☐ Number of container(s)
- ☒ Requested analysis
- ☐ Sample container(s) compromised (comment)
- ☐ Broken
- ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
- ☐ Flat
- ☐ Very low in volume
- ☐ Leaking (not transferred; duplicate bag submitted)
- ☐ Leaking (transferred into ECI Tedlar™ bags\*)
- ☐ Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

## MISCELLANEOUS: (Describe)

## HEADSPACE:

(Containers with bubble &gt; 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

| ECI Sample ID | ECI Container ID | Total Number** | ECI Sample ID | ECI Container ID | Total Number** |
|---------------|------------------|----------------|---------------|------------------|----------------|
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |

Comments: \_\_\_\_\_

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

## Comments

(4) Trip blank received  
2 - Vials for all tests

## Comments

(Containers with bubble for other analysis)

| ECI Sample ID | ECI Container ID | Total Number** | Requested Analysis |
|---------------|------------------|----------------|--------------------|
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |

Reported by: 28Reviewed by: 1017



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**WORK ORDER NUMBER: 18-07-1593***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 08/06/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 18-07-1593

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Work Order: 18-07-1593

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/21/18. They were assigned to Work Order 18-07-1593.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
PO Number:  
Date/Time Received: 07/21/18 11:30  
Number of Containers: 23

Attn: David Purdy

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| W-39-MW6              | 18-07-1593-1 | 07/20/18 07:30           | 11                   | Aqueous |
| W-41-MW10             | 18-07-1593-2 | 07/20/18 08:15           | 11                   | Aqueous |
| TRIP BLANK            | 18-07-1593-3 | 07/20/18 00:00           | 1                    | Aqueous |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

## Analytical Report

| Analyte                                                                                                                              | Result   | Flag | Units | MDL           | RL       | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------|------|-------|---------------|----------|-----------------|--------------------|--------------------|------------|
| <b>Sample ID: 1 (W-39-MW6, Aqueous) Sampled: 07/20/18 07:30</b>                                                                      |          |      |       |               |          |                 |                    |                    |            |
| EPA 300.0 Anions (Extraction Method: N/A) Container - F                                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Sulfate                                                                                                                              | 180      |      | mg/L  | 2.4           | 5.0      | 5.00            | 07/24/18 00:11     | EPA 300.0          | 180723L01  |
| SM 2320B Alkalinity (Extraction Method: N/A) Container - G                                                                           |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Alkalinity, Total (as CaCO3)                                                                                                         | 430      |      | mg/L  | 1.7           | 5.0      | 1.00            | 07/24/18 02:19     | SM 2320B           | I0723ALKB2 |
| SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Solids, Total Dissolved                                                                                                              | 525      |      | mg/L  | 0.870         | 1.00     | 1.00            | 07/24/18 16:00     | SM 2540 C          | I0724TDSL2 |
| SM 4500-CL C Chloride (Extraction Method: N/A) Container - G                                                                         |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Chloride                                                                                                                             | 4.6      |      | mg/L  | 0.76          | 2.0      | 1.00            | 07/24/18 18:00     | SM 4500-CL C       | I0724CLCL1 |
| EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H                                                              |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Arsenic                                                                                                                              | 0.0284   |      | mg/L  | 0.00438       | 0.0100   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Barium                                                                                                                               | 0.288    |      | mg/L  | 0.00296       | 0.0100   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Cadmium                                                                                                                              | ND       |      | mg/L  | 0.00269       | 0.0100   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Chromium                                                                                                                             | 0.00674  | J    | mg/L  | 0.00271       | 0.0100   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Lead                                                                                                                                 | 0.00430  | J    | mg/L  | 0.00406       | 0.0100   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Selenium                                                                                                                             | 0.0344   |      | mg/L  | 0.00699       | 0.0150   | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| Silver                                                                                                                               | ND       |      | mg/L  | 0.00139       | 0.00500  | 1.00            | 08/03/18 15:48     | EPA 6010B          | 180730LA5  |
| EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H                                                                 |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Mercury                                                                                                                              | 0.000190 | B,J  | mg/L  | 0.000045<br>3 | 0.000200 | 1.00            | 08/02/18 15:18     | EPA 7470A          | 180802LA1M |
| EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I                                                                      |          |      |       |               |          |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |          |      |       |               |          |                 |                    |                    |            |
| Naphthalene                                                                                                                          | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| 2-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND       |      | mg/L  | 0.000072      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND       |      | mg/L  | 0.000071      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND       |      | mg/L  | 0.000058      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | ND       |      | mg/L  | 0.000070      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND       |      | mg/L  | 0.000065      | 0.00019  | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                          | Result | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch     |
|----------------------------------|--------|------|-------|----------|---------|-----------------|--------------------|--------------------|-----------|
| Fluoranthene                     | ND     |      | mg/L  | 0.000071 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Pyrene                           | ND     |      | mg/L  | 0.000069 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Anthracene             | ND     |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Chrysene                         | ND     |      | mg/L  | 0.000064 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (k) Fluoranthene           | ND     |      | mg/L  | 0.000077 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (b) Fluoranthene           | ND     |      | mg/L  | 0.000082 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (a) Pyrene                 | ND     |      | mg/L  | 0.000098 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Indeno (1,2,3-c,d) Pyrene        | ND     |      | mg/L  | 0.000079 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Dibenz (a,h) Anthracene          | ND     |      | mg/L  | 0.000074 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Benzo (g,h,i) Perylene           | ND     |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: Nitrobenzene-d5 (28-139%)  | 69%    |      |       |          |         |                 | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: 2-Fluorobiphenyl (33-144%) | 70%    |      |       |          |         |                 | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |
| Surr: p-Terphenyl-d14 (23-160%)  | 71%    |      |       |          |         |                 | 07/26/18 20:47     | EPA 8270C SIM PAHs | 180725L01 |

#### EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

|                                       |    |  |      |         |         |      |                |           |            |
|---------------------------------------|----|--|------|---------|---------|------|----------------|-----------|------------|
| Benzene                               | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| Toluene                               | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| Ethylbenzene                          | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| o-Xylene                              | ND |  | mg/L | 0.00032 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| p/m-Xylene                            | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| Xylenes (total)                       | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| Methyl-t-Butyl Ether (MTBE)           | ND |  | mg/L | 0.00020 | 0.0010  | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1,1,2-Tetrachloroethane             | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1,1-Trichloroethane                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1,2,2-Tetrachloroethane             | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1,2-Trichloroethane                 | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND |  | mg/L | 0.00024 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1-Dichloroethane                    | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1-Dichloroethene                    | ND |  | mg/L | 0.00028 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,1-Dichloropropene                   | ND |  | mg/L | 0.00030 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,2,3-Trichlorobenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,2,3-Trichloropropane                | ND |  | mg/L | 0.00040 | 0.0010  | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |
| 1,2,4-Trichlorobenzene                | ND |  | mg/L | 0.00020 | 0.00050 | 1.00 | 08/02/18 15:33 | EPA 8260B | 180802L036 |





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                     | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|-----------------------------|--------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| 1,2,4-Trimethylbenzene      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,3,5-Trimethylbenzene      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| c-1,2-Dichloroethene        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,2-Dibromo-3-Chloropropane | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,2-Dibromoethane           | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,2-Dichlorobenzene         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,2-Dichloroethane          | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,2-Dichloropropane         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| t-1,2-Dichloroethene        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| c-1,3-Dichloropropene       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,3-Dichlorobenzene         | ND     |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,3-Dichloropropane         | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| t-1,3-Dichloropropene       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 1,4-Dichlorobenzene         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 2,2-Dichloropropane         | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 2-Chlorotoluene             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 4-Chlorotoluene             | ND     |      | mg/L  | 0.00036 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 4-Methyl-2-Pentanone        | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Acetone                     | 0.0041 | J    | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Bromobenzene                | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Bromochloromethane          | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Bromoform                   | ND     |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Bromomethane                | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Carbon Disulfide            | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Carbon Tetrachloride        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Chlorobenzene               | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Dibromochloromethane        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Chloroethane                | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Chloroform                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Chloromethane               | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Dibromomethane              | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Bromodichloromethane        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Dichlorodifluoromethane     | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Hexachloro-1,3-Butadiene    | ND     |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Isopropylbenzene            | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 2-Butanone                  | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Methylene Chloride          | ND     |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| 2-Hexanone                  | ND     |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| Naphthalene                 | ND     |      | mg/L  | 0.00040 | 0.010   | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| n-Butylbenzene              | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| n-Propylbenzene             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |
| p-Isopropyltoluene          | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B | 180802L036 |

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Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method         | Batch      |            |
|----------------------------------------|--------|------|-------|---------|---------|-----------------|--------------------|----------------|------------|------------|
| sec-Butylbenzene                       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Styrene                                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| tert-Butylbenzene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Tetrachloroethene                      | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Trichloroethene                        | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Trichlorofluoromethane                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Vinyl Chloride                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 15:33     | EPA 8260B      | 180802L036 |            |
| Surr: 1,4-Bromofluorobenzene (68-120%) |        |      |       |         |         |                 | 100%               | 08/02/18 15:33 | EPA 8260B  | 180802L036 |
| Surr: Dibromofluoromethane (80-127%)   |        |      |       |         |         |                 | 102%               | 08/02/18 15:33 | EPA 8260B  | 180802L036 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  |        |      |       |         |         |                 | 103%               | 08/02/18 15:33 | EPA 8260B  | 180802L036 |
| Surr: Toluene-d8 (80-120%)             |        |      |       |         |         |                 | 101%               | 08/02/18 15:33 | EPA 8260B  | 180802L036 |

**Sample ID: 2 (W-41-MW10, Aqueous) Sampled: 07/20/18 08:15**

EPA 300.0 Anions (Extraction Method: N/A) Container - F

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|         |     |  |      |      |     |      |                |           |           |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|
| Sulfate | 100 |  | mg/L | 0.98 | 2.0 | 2.00 | 07/24/18 00:29 | EPA 300.0 | 180723L01 |
|---------|-----|--|------|------|-----|------|----------------|-----------|-----------|

SM 2320B Alkalinity (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |  |      |     |     |      |                |          |            |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|
| Alkalinity, Total (as CaCO3) | 600 |  | mg/L | 1.7 | 5.0 | 1.00 | 07/24/18 02:19 | SM 2320B | I0723ALKB2 |
|------------------------------|-----|--|------|-----|-----|------|----------------|----------|------------|

SM 2540 C Total Dissolved Solids (Extraction Method: N/A) Container - K

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |      |  |      |       |      |      |                |           |            |
|-------------------------|------|--|------|-------|------|------|----------------|-----------|------------|
| Solids, Total Dissolved | 1110 |  | mg/L | 0.870 | 10.0 | 1.00 | 07/24/18 16:00 | SM 2540 C | I0724TDSL2 |
|-------------------------|------|--|------|-------|------|------|----------------|-----------|------------|

SM 4500-CL C Chloride (Extraction Method: N/A) Container - G

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|          |     |  |      |      |     |      |                |              |            |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|
| Chloride | 140 |  | mg/L | 0.76 | 2.0 | 1.00 | 07/24/18 18:00 | SM 4500-CL C | I0724CLCL1 |
|----------|-----|--|------|------|-----|------|----------------|--------------|------------|

EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|          |         |   |      |         |         |      |                |           |           |
|----------|---------|---|------|---------|---------|------|----------------|-----------|-----------|
| Arsenic  | ND      |   | mg/L | 0.00438 | 0.0100  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Barium   | 0.0986  |   | mg/L | 0.00296 | 0.0100  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Cadmium  | ND      |   | mg/L | 0.00269 | 0.0100  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Chromium | 0.00305 | J | mg/L | 0.00271 | 0.0100  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Lead     | 0.00666 | J | mg/L | 0.00406 | 0.0100  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Selenium | 0.0235  |   | mg/L | 0.00699 | 0.0150  | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |
| Silver   | ND      |   | mg/L | 0.00139 | 0.00500 | 1.00 | 08/03/18 15:49 | EPA 6010B | 180730LA5 |

EPA 7470A Mercury (Extraction Method: EPA 7470A Total) Container - H

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|         |          |   |      |          |          |      |                |           |            |
|---------|----------|---|------|----------|----------|------|----------------|-----------|------------|
| Mercury | 0.000779 | B | mg/L | 0.000045 | 0.000200 | 1.00 | 08/02/18 15:20 | EPA 7470A | 180802LA1M |
|---------|----------|---|------|----------|----------|------|----------------|-----------|------------|

EPA 8270C SIM PAHs (Extraction Method: EPA 3510C) Container - I

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|             |    |  |      |          |         |      |                |                    |           |
|-------------|----|--|------|----------|---------|------|----------------|--------------------|-----------|
| Naphthalene | ND |  | mg/L | 0.000071 | 0.00019 | 1.00 | 07/26/18 21:07 | EPA 8270C SIM PAHs | 180725L01 |
|-------------|----|--|------|----------|---------|------|----------------|--------------------|-----------|



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result  | Flag | Units | MDL      | RL      | Dilution Factor | Analysis Date/Time | Method             | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|------|-------|----------|---------|-----------------|--------------------|--------------------|------------|
| 2-Methylnaphthalene                                                                                                                  | ND      |      | mg/L  | 0.000073 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| 1-Methylnaphthalene                                                                                                                  | ND      |      | mg/L  | 0.000072 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthylene                                                                                                                       | ND      |      | mg/L  | 0.000072 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Acenaphthene                                                                                                                         | ND      |      | mg/L  | 0.000059 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Fluorene                                                                                                                             | 0.00017 | J    | mg/L  | 0.000071 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Phenanthrene                                                                                                                         | ND      |      | mg/L  | 0.000065 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Anthracene                                                                                                                           | ND      |      | mg/L  | 0.000066 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Fluoranthene                                                                                                                         | ND      |      | mg/L  | 0.000072 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Pyrene                                                                                                                               | ND      |      | mg/L  | 0.000069 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Anthracene                                                                                                                 | ND      |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Chrysene                                                                                                                             | ND      |      | mg/L  | 0.000064 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (k) Fluoranthene                                                                                                               | ND      |      | mg/L  | 0.000078 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (b) Fluoranthene                                                                                                               | ND      |      | mg/L  | 0.000083 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (a) Pyrene                                                                                                                     | ND      |      | mg/L  | 0.000099 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Indeno (1,2,3-c,d) Pyrene                                                                                                            | ND      |      | mg/L  | 0.000080 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Dibenz (a,h) Anthracene                                                                                                              | ND      |      | mg/L  | 0.000075 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Benzo (g,h,i) Perylene                                                                                                               | ND      |      | mg/L  | 0.000092 | 0.00019 | 1.00            | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: Nitrobenzene-d5 (28-139%)                                                                                                      | 76%     |      |       |          |         |                 | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: 2-Fluorobiphenyl (33-144%)                                                                                                     | 85%     |      |       |          |         |                 | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| Surr: p-Terphenyl-d14 (23-160%)                                                                                                      | 90%     |      |       |          |         |                 | 07/26/18 21:07     | EPA 8270C SIM PAHs | 180725L01  |
| EPA 8260B Volatile Organics (Extraction Method: EPA 5030C) Container - A                                                             |         |      |       |          |         |                 |                    |                    |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |         |      |       |          |         |                 |                    |                    |            |
| Benzene                                                                                                                              | 0.00078 |      | mg/L  | 0.00020  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| Toluene                                                                                                                              | ND      |      | mg/L  | 0.00020  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| Ethylbenzene                                                                                                                         | ND      |      | mg/L  | 0.00020  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| o-Xylene                                                                                                                             | ND      |      | mg/L  | 0.00032  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| p/m-Xylene                                                                                                                           | ND      |      | mg/L  | 0.00020  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| Xylenes (total)                                                                                                                      | ND      |      | mg/L  | 0.00020  | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |
| Methyl-t-Butyl Ether (MTBE)                                                                                                          | ND      |      | mg/L  | 0.00020  | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B          | 180802L036 |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                               | Result | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|---------------------------------------|--------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| 1,1,1,2-Tetrachloroethane             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1,1-Trichloroethane                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1,2,2-Tetrachloroethane             | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1,2-Trichloroethane                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND     |      | mg/L  | 0.00024 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1-Dichloroethane                    | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1-Dichloroethene                    | ND     |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,1-Dichloropropene                   | ND     |      | mg/L  | 0.00030 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2,3-Trichlorobenzene                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2,3-Trichloropropane                | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2,4-Trichlorobenzene                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2,4-Trimethylbenzene                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,3,5-Trimethylbenzene                | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| c-1,2-Dichloroethene                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2-Dibromo-3-Chloropropane           | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2-Dibromoethane                     | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2-Dichlorobenzene                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2-Dichloroethane                    | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,2-Dichloropropane                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| t-1,2-Dichloroethene                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| c-1,3-Dichloropropene                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,3-Dichlorobenzene                   | ND     |      | mg/L  | 0.00028 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,3-Dichloropropane                   | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| t-1,3-Dichloropropene                 | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 1,4-Dichlorobenzene                   | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 2,2-Dichloropropane                   | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 2-Chlorotoluene                       | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 4-Chlorotoluene                       | ND     |      | mg/L  | 0.00036 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 4-Methyl-2-Pentanone                  | ND     |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Acetone                               | 0.0081 | J    | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Bromobenzene                          | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Bromochloromethane                    | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Bromoform                             | ND     |      | mg/L  | 0.00025 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Bromomethane                          | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Carbon Disulfide                      | ND     |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Carbon Tetrachloride                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Chlorobenzene                         | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Dibromochloromethane                  | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Chloroethane                          | ND     |      | mg/L  | 0.00032 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Chloroform                            | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Chloromethane                         | ND     |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Dibromomethane                        | ND     |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### Analytical Report

| Analyte                                | Result  | Flag | Units | MDL     | RL      | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|---------|------|-------|---------|---------|-----------------|--------------------|-----------|------------|
| Bromodichloromethane                   | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Dichlorodifluoromethane                | ND      |      | mg/L  | 0.00040 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Hexachloro-1,3-Butadiene               | ND      |      | mg/L  | 0.00080 | 0.0020  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Isopropylbenzene                       | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 2-Butanone                             | ND      |      | mg/L  | 0.0020  | 0.0050  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Methylene Chloride                     | ND      |      | mg/L  | 0.00080 | 0.0010  | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| 2-Hexanone                             | ND      |      | mg/L  | 0.0040  | 0.010   | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Naphthalene                            | ND      |      | mg/L  | 0.00040 | 0.010   | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| n-Butylbenzene                         | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| n-Propylbenzene                        | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| p-Isopropyltoluene                     | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| sec-Butylbenzene                       | 0.00060 |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Styrene                                | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| tert-Butylbenzene                      | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Tetrachloroethene                      | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Trichloroethene                        | ND      |      | mg/L  | 0.00029 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Trichlorofluoromethane                 | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Vinyl Chloride                         | ND      |      | mg/L  | 0.00020 | 0.00050 | 1.00            | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 101%    |      |       |         |         |                 | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Surr: Dibromofluoromethane (80-127%)   | 101%    |      |       |         |         |                 | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 101%    |      |       |         |         |                 | 08/02/18 16:03     | EPA 8260B | 180802L036 |
| Surr: Toluene-d8 (80-120%)             | 101%    |      |       |         |         |                 | 08/02/18 16:03     | EPA 8260B | 180802L036 |


  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                 | Blank Value | Qualifiers | Units | QC Batch   | Lab Number       | Analysis Date/Time |
|-----------------------------------------|-------------|------------|-------|------------|------------------|--------------------|
| <b>EPA 300.0 Anions</b>                 |             |            |       |            |                  |                    |
| <b>099-12-906-8665</b>                  |             |            |       |            |                  |                    |
| Sulfate                                 | ND          |            | mg/L  | 180723L01  | 099-12-906-8665  | 07/23/18 10:26     |
| <b>SM 2320B Alkalinity</b>              |             |            |       |            |                  |                    |
| <b>099-17-086-19</b>                    |             |            |       |            |                  |                    |
| Alkalinity, Total (as CaCO3)            | ND          |            | mg/L  | I0723ALKB2 | 099-17-086-19    | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b> |             |            |       |            |                  |                    |
| <b>099-12-180-6308</b>                  |             |            |       |            |                  |                    |
| Solids, Total Dissolved                 | ND          |            | mg/L  | I0724TDSL2 | 099-12-180-6308  | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>            |             |            |       |            |                  |                    |
| <b>099-05-057-2222</b>                  |             |            |       |            |                  |                    |
| Chloride                                | ND          |            | mg/L  | I0724CLCL1 | 099-05-057-2222  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>             |             |            |       |            |                  |                    |
| <b>097-01-003-16987</b>                 |             |            |       |            |                  |                    |
| Arsenic                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Barium                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Cadmium                                 | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Chromium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Lead                                    | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Selenium                                | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| Silver                                  | ND          |            | mg/L  | 180730LA5  | 097-01-003-16987 | 08/03/18 14:53     |
| <b>EPA 7470A Mercury</b>                |             |            |       |            |                  |                    |
| <b>099-12-457-382</b>                   |             |            |       |            |                  |                    |
| Mercury                                 | 0.0000644   | J          | mg/L  | 180802LA1M | 099-12-457-382   | 08/02/18 14:34     |
| <b>EPA 8270C SIM PAHs</b>               |             |            |       |            |                  |                    |
| <b>099-06-008-1064</b>                  |             |            |       |            |                  |                    |
| Naphthalene                             | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 2-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| 1-Methylnaphthalene                     | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthylene                          | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Acenaphthene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluorene                                | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Phenanthrene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Anthracene                              | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Fluoranthene                            | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Pyrene                                  | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Benzo (a) Anthracene                    | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |
| Chrysene                                | ND          |            | mg/L  | 180725L01  | 099-06-008-1064  | 07/26/18 15:00     |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                          | Blank Value | Qualifiers | Units | QC Batch  | Lab Number      | Analysis Date/Time |
|----------------------------------|-------------|------------|-------|-----------|-----------------|--------------------|
| Benzo (k) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (b) Fluoranthene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (a) Pyrene                 | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Indeno (1,2,3-c,d) Pyrene        | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Dibenz (a,h) Anthracene          | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Benzo (g,h,i) Perylene           | ND          |            | mg/L  | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: Nitrobenzene-d5 (28-139%)  | 85%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: 2-Fluorobiphenyl (33-144%) | 84%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |
| Surr: p-Terphenyl-d14 (23-160%)  | 93%         |            |       | 180725L01 | 099-06-008-1064 | 07/26/18 15:00     |

#### EPA 8260B Volatile Organics

##### 099-12-878-755

|                                       |    |  |      |            |                |                |
|---------------------------------------|----|--|------|------------|----------------|----------------|
| Benzene                               | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| Toluene                               | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| Ethylbenzene                          | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| o-Xylene                              | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| p/m-Xylene                            | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| Xylenes (total)                       | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| Methyl-t-Butyl Ether (MTBE)           | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1,1,2-Tetrachloroethane             | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1,1-Trichloroethane                 | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1,2,2-Tetrachloroethane             | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1,2-Trichloroethane                 | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1-Dichloroethane                    | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1-Dichloroethene                    | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,1-Dichloropropene                   | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2,3-Trichlorobenzene                | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2,3-Trichloropropane                | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2,4-Trichlorobenzene                | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2,4-Trimethylbenzene                | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,3,5-Trimethylbenzene                | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| c-1,2-Dichloroethene                  | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2-Dibromo-3-Chloropropane           | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2-Dibromoethane                     | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2-Dichlorobenzene                   | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2-Dichloroethane                    | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,2-Dichloropropane                   | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| t-1,2-Dichloroethene                  | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| c-1,3-Dichloropropene                 | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |
| 1,3-Dichlorobenzene                   | ND |  | mg/L | 180802L036 | 099-12-878-755 | 08/02/18 11:20 |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|----------------|--------------------|
| 1,3-Dichloropropane                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| t-1,3-Dichloropropene                  | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 1,4-Dichlorobenzene                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2,2-Dichloropropane                    | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Chlorotoluene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 4-Chlorotoluene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 4-Methyl-2-Pentanone                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Acetone                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromobenzene                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromochloromethane                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromoform                              | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromomethane                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Carbon Disulfide                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Carbon Tetrachloride                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chlorobenzene                          | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dibromochloromethane                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloroethane                           | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloroform                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Chloromethane                          | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dibromomethane                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Bromodichloromethane                   | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Dichlorodifluoromethane                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Hexachloro-1,3-Butadiene               | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Isopropylbenzene                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Butanone                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Methylene Chloride                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| 2-Hexanone                             | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Naphthalene                            | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| n-Butylbenzene                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| n-Propylbenzene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| p-Isopropyltoluene                     | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| sec-Butylbenzene                       | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Styrene                                | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| tert-Butylbenzene                      | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Tetrachloroethene                      | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Trichloroethene                        | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Trichlorofluoromethane                 | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Vinyl Chloride                         | ND          |            | mg/L  | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: 1,4-Bromofluorobenzene (68-120%) | 100%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: Dibromofluoromethane (80-127%)   | 99%         |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |
| Surr: 1,2-Dichloroethane-d4 (80-128%)  | 102%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

Attn: David Purdy

PROJECT QUALITY CONTROL DATA  
Blank

| Analyte                    | Blank Value | Qualifiers | Units | QC Batch   | Lab Number     | Analysis Date/Time |
|----------------------------|-------------|------------|-------|------------|----------------|--------------------|
| Surr: Toluene-d8 (80-120%) | 100%        |            |       | 180802L036 | 099-12-878-755 | 08/02/18 11:20     |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike

| Analyte                            | Orig. Val. | MS Val.  | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1549-8</b>                |            |          |       |       |             |        |              |            |               |                    |
| Sulfate                            | 68.80      | 130.9    | HX    | mg/L  | 50.00       | 124    | 80-120       | 180723S01  | 18-07-1549-8  | 07/23/18 15:59     |
| <b>SM 4500-CL C Chloride</b>       |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-3</b>                |            |          |       |       |             |        |              |            |               |                    |
| Chloride                           | 46.59      | 150.6    |       | mg/L  | 100.0       | 104    | 80-120       | I0724CLCS1 | 18-07-1591-3  | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1591-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Arsenic                            | ND         | 0.5183   |       | mg/L  | 0.5000      | 104    | 80-140       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Barium                             | 0.05900    | 0.5690   |       | mg/L  | 0.5000      | 102    | 87-123       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Cadmium                            | ND         | 0.4992   |       | mg/L  | 0.5000      | 100    | 82-124       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Chromium                           | ND         | 0.5051   |       | mg/L  | 0.5000      | 101    | 86-122       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Lead                               | ND         | 0.5154   |       | mg/L  | 0.5000      | 103    | 84-120       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Selenium                           | ND         | 0.5244   |       | mg/L  | 0.5000      | 105    | 79-127       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| Silver                             | ND         | 0.02846  | HX    | mg/L  | 0.2500      | 11     | 86-128       | 180730SA5  | 18-07-1591-1  | 08/03/18 15:36     |
| <b>EPA 7470A Mercury</b>           |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1594-1</b>                |            |          |       |       |             |        |              |            |               |                    |
| Mercury                            | ND         | 0.008332 |       | mg/L  | 0.01000     | 83     | 55-133       | 180802SA1  | 18-07-1594-1  | 08/02/18 14:41     |
| <b>EPA 8260B Volatile Organics</b> |            |          |       |       |             |        |              |            |               |                    |
| <b>18-07-1647-4</b>                |            |          |       |       |             |        |              |            |               |                    |
| Benzene                            | 0.0005996  | 0.01092  |       | mg/L  | 0.01000     | 103    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Toluene                            | ND         | 0.01063  |       | mg/L  | 0.01000     | 106    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Ethylbenzene                       | 0.0005612  | 0.01109  |       | mg/L  | 0.01000     | 105    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| o-Xylene                           | ND         | 0.01082  |       | mg/L  | 0.01000     | 108    | 75-127       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| p/m-Xylene                         | 0.001045   | 0.02241  |       | mg/L  | 0.02000     | 107    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.008748 |       | mg/L  | 0.01000     | 87     | 71-131       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,1-Dichloroethene                 | ND         | 0.01089  |       | mg/L  | 0.01000     | 109    | 66-126       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dibromoethane                  | ND         | 0.01020  |       | mg/L  | 0.01000     | 102    | 75-126       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dichlorobenzene                | ND         | 0.01045  |       | mg/L  | 0.01000     | 105    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| 1,2-Dichloroethane                 | ND         | 0.01051  |       | mg/L  | 0.01000     | 105    | 75-127       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Carbon Tetrachloride               | ND         | 0.01014  |       | mg/L  | 0.01000     | 101    | 69-135       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Chlorobenzene                      | ND         | 0.01025  |       | mg/L  | 0.01000     | 102    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Trichloroethene                    | ND         | 0.01011  |       | mg/L  | 0.01000     | 101    | 75-125       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |
| Vinyl Chloride                     | ND         | 0.01157  |       | mg/L  | 0.01000     | 116    | 52-142       | 180802S009 | 18-07-1647-4  | 08/02/18 14:33     |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                            | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 300.0 Anions</b>            |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1549-8</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Sulfate                            | 68.80      | 131.3     | HX    | mg/L  | 50.00       | 125    | 80-120       | 0   | 0-20  | 180723S01  | 18-07-1549-8      | 07/23/18 16:18     |
| <b>SM 4500-CL C Chloride</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-3</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Chloride                           | 46.59      | 150.1     |       | mg/L  | 100.0       | 103    | 80-120       | 0   | 0-25  | 10724CLCS1 | 18-07-1591-3      | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1591-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Arsenic                            | ND         | 0.5016    |       | mg/L  | 0.5000      | 100    | 80-140       | 3   | 0-11  | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Barium                             | 0.05900    | 0.5666    |       | mg/L  | 0.5000      | 102    | 87-123       | 0   | 0-6   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Cadmium                            | ND         | 0.4994    |       | mg/L  | 0.5000      | 100    | 82-124       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Chromium                           | ND         | 0.5010    |       | mg/L  | 0.5000      | 100    | 86-122       | 1   | 0-8   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Lead                               | ND         | 0.5147    |       | mg/L  | 0.5000      | 103    | 84-120       | 0   | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Selenium                           | ND         | 0.5160    |       | mg/L  | 0.5000      | 103    | 79-127       | 2   | 0-9   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| Silver                             | ND         | 0.06513   | HX,BA | mg/L  | 0.2500      | 26     | 86-128       | 78  | 0-7   | 180730SA5  | 18-07-1591-1      | 08/03/18 15:37     |
| <b>EPA 7470A Mercury</b>           |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1594-1</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Mercury                            | ND         | 0.007775  |       | mg/L  | 0.01000     | 78     | 55-133       | 7   | 0-20  | 180802SA1  | 18-07-1594-1      | 08/02/18 14:48     |
| <b>EPA 8260B Volatile Organics</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-1647-4</b>                |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                            | 0.0005996  | 0.01074   |       | mg/L  | 0.01000     | 101    | 75-125       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Toluene                            | ND         | 0.01045   |       | mg/L  | 0.01000     | 105    | 75-125       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Ethylbenzene                       | 0.0005612  | 0.01102   |       | mg/L  | 0.01000     | 105    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| o-Xylene                           | ND         | 0.01068   |       | mg/L  | 0.01000     | 107    | 75-127       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| p/m-Xylene                         | 0.001045   | 0.02220   |       | mg/L  | 0.02000     | 106    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Methyl-t-Butyl Ether (MTBE)        | ND         | 0.008666  |       | mg/L  | 0.01000     | 87     | 71-131       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,1-Dichloroethene                 | ND         | 0.01062   |       | mg/L  | 0.01000     | 106    | 66-126       | 3   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dibromoethane                  | ND         | 0.01017   |       | mg/L  | 0.01000     | 102    | 75-126       | 0   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dichlorobenzene                | ND         | 0.01037   |       | mg/L  | 0.01000     | 104    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| 1,2-Dichloroethane                 | ND         | 0.01035   |       | mg/L  | 0.01000     | 103    | 75-127       | 2   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Carbon Tetrachloride               | ND         | 0.01008   |       | mg/L  | 0.01000     | 101    | 69-135       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Chlorobenzene                      | ND         | 0.01021   |       | mg/L  | 0.01000     | 102    | 75-125       | 0   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Trichloroethene                    | ND         | 0.01022   |       | mg/L  | 0.01000     | 102    | 75-125       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |
| Vinyl Chloride                     | ND         | 0.01140   |       | mg/L  | 0.01000     | 114    | 52-142       | 1   | 0-20  | 180802S009 | 18-07-1647-4      | 08/02/18 15:03     |

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Calscience

The difference is service

|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-07-1593                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 07/21/18                    |

QUALITY CONTROL  
Post Digestion Spike

| Analyte              | Orig. Val. | PDS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch     | Sample Spiked | Analysis Date/Time |
|----------------------|------------|----------|-------|-------|-------------|--------|--------------|-----------|---------------|--------------------|
| EPA 6010B ICP Metals |            |          |       |       |             |        |              |           |               |                    |
| 18-07-1591-1         |            |          |       |       |             |        |              |           |               |                    |
| Arsenic              | ND         | 0.4856   |       | mg/L  | 0.5000      | 97     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Barium               | 0.05900    | 0.5799   |       | mg/L  | 0.5000      | 104    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Cadmium              | ND         | 0.5102   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Chromium             | ND         | 0.5095   |       | mg/L  | 0.5000      | 102    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Lead                 | ND         | 0.5332   |       | mg/L  | 0.5000      | 107    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Selenium             | ND         | 0.5419   |       | mg/L  | 0.5000      | 108    | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |
| Silver               | ND         | 0.2234   |       | mg/L  | 0.2500      | 89     | 75-125       | 180730SA5 | 18-07-1591-1  | 08/03/18 15:37     |

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Qual: Qualifiers



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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

**QUALITY CONTROL  
Post Digestion Spike Duplicate**

| Analyte                     | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|-----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| <b>EPA 6010B ICP Metals</b> |            |           |       |       |             |        |              |     |       |           |                   |                    |
| <b>18-07-1591-1</b>         |            |           |       |       |             |        |              |     |       |           |                   |                    |
| Arsenic                     | ND         | 0.4871    |       | mg/L  | 0.5000      | 97     | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Barium                      | 0.05900    | 0.5823    |       | mg/L  | 0.5000      | 105    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Cadmium                     | ND         | 0.5035    |       | mg/L  | 0.5000      | 101    | 75-125       | 1   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Chromium                    | ND         | 0.5110    |       | mg/L  | 0.5000      | 102    | 75-125       | 0   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Lead                        | ND         | 0.5142    |       | mg/L  | 0.5000      | 103    | 75-125       | 4   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Selenium                    | ND         | 0.4838    |       | mg/L  | 0.5000      | 97     | 75-125       | 11  | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |
| Silver                      | ND         | 0.2274    |       | mg/L  | 0.2500      | 91     | 75-125       | 2   | 0-20  | 180730SA5 | 18-07-1591-1      | 08/03/18 15:38     |

  
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Qual - Qualifiers RPD: Relative Percent Difference

|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-07-1593                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 07/21/18                    |

QUALITY CONTROL  
Sample Duplicate

| Analyte                          | Orig. Val. | Duplicate | Qual. | Units | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------------|------------|-----------|-------|-------|-----|-------|------------|-------------------|--------------------|
| SM 2320B Alkalinity              |            |           |       |       |     |       |            |                   |                    |
| 18-07-1456-3                     |            |           |       |       |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO3)     | 52.80      | 52.74     |       | mg/L  | 0   | 0-25  | I0723ALKD2 | 18-07-1456-3      | 07/24/18 02:19     |
| SM 2540 C Total Dissolved Solids |            |           |       |       |     |       |            |                   |                    |
| 18-07-1387-6                     |            |           |       |       |     |       |            |                   |                    |
| Solids, Total Dissolved          | 32020      | 32040     |       | mg/L  | 0   | 0-20  | I0724TDSD4 | 18-07-1387-6      | 07/24/18 16:00     |

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RPD: Relative Percent Difference.



Calscience

*The difference is service*

|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-07-1593                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 07/21/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-------------------------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 300.0 Anions</b>                   |            |          |       |       |        |              |            |                    |
| <b>099-12-906-8665</b>                    |            |          |       |       |        |              |            |                    |
| Sulfate                                   | 50.00      | 48.74    |       | mg/L  | 97     | 90-110       | 180723L01  | 07/23/18 10:45     |
| <b>SM 2320B Alkalinity</b>                |            |          |       |       |        |              |            |                    |
| <b>099-17-086-19</b>                      |            |          |       |       |        |              |            |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0      | 110.3    |       | mg/L  | 110    | 80-120       | 10723ALKB2 | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b>   |            |          |       |       |        |              |            |                    |
| <b>099-12-180-6308</b>                    |            |          |       |       |        |              |            |                    |
| Solids, Total Dissolved                   | 100.0      | 95.00    |       | mg/L  | 95     | 80-120       | 10724TDSL2 | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>              |            |          |       |       |        |              |            |                    |
| <b>099-05-057-2222</b>                    |            |          |       |       |        |              |            |                    |
| Chloride                                  | 100.0      | 100.6    |       | mg/L  | 101    | 80-120       | 10724CLCL1 | 07/24/18 18:00     |
| <b>EPA 6010B ICP Metals</b>               |            |          |       |       |        |              |            |                    |
| <b>097-01-003-16987</b>                   |            |          |       |       |        |              |            |                    |
| Arsenic                                   | 0.5000     | 0.4415   |       | mg/L  | 88     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Barium                                    | 0.5000     | 0.5081   |       | mg/L  | 102    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Cadmium                                   | 0.5000     | 0.5186   |       | mg/L  | 104    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Chromium                                  | 0.5000     | 0.4881   |       | mg/L  | 98     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Lead                                      | 0.5000     | 0.5019   |       | mg/L  | 100    | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Selenium                                  | 0.5000     | 0.4333   |       | mg/L  | 87     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| Silver                                    | 0.2500     | 0.2235   |       | mg/L  | 89     | 80-120       | 180730LA5  | 08/03/18 14:55     |
| <b>EPA 7470A Mercury</b>                  |            |          |       |       |        |              |            |                    |
| <b>099-12-457-382</b>                     |            |          |       |       |        |              |            |                    |
| Mercury                                   | 0.01000    | 0.008974 |       | mg/L  | 90     | 80-120       | 180802LA1M | 08/02/18 14:37     |
| <b>EPA 8270C SIM PAHs</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-06-008-1064</b>                    |            |          |       |       |        |              |            |                    |
| Naphthalene                               | 0.002000   | 0.001772 |       | mg/L  | 89     | 21-133       | 180725L01  | 07/26/18 15:21     |
| 2-Methylnaphthalene                       | 0.002000   | 0.001834 |       | mg/L  | 92     | 21-140       | 180725L01  | 07/26/18 15:21     |
| 1-Methylnaphthalene                       | 0.002000   | 0.001825 |       | mg/L  | 91     | 20-140       | 180725L01  | 07/26/18 15:21     |
| Acenaphthylene                            | 0.002000   | 0.001684 |       | mg/L  | 84     | 33-145       | 180725L01  | 07/26/18 15:21     |
| Acenaphthene                              | 0.002000   | 0.001755 |       | mg/L  | 88     | 55-121       | 180725L01  | 07/26/18 15:21     |
| Fluorene                                  | 0.002000   | 0.001827 |       | mg/L  | 91     | 59-121       | 180725L01  | 07/26/18 15:21     |
| Phenanthrene                              | 0.002000   | 0.001956 |       | mg/L  | 98     | 54-120       | 180725L01  | 07/26/18 15:21     |
| Anthracene                                | 0.002000   | 0.001907 |       | mg/L  | 95     | 27-133       | 180725L01  | 07/26/18 15:21     |
| Fluoranthene                              | 0.002000   | 0.001974 |       | mg/L  | 99     | 26-137       | 180725L01  | 07/26/18 15:21     |
| Pyrene                                    | 0.002000   | 0.001940 |       | mg/L  | 97     | 45-129       | 180725L01  | 07/26/18 15:21     |
| Benzo (a) Anthracene                      | 0.002000   | 0.001990 |       | mg/L  | 100    | 33-143       | 180725L01  | 07/26/18 15:21     |
| Chrysene                                  | 0.002000   | 0.001964 |       | mg/L  | 98     | 17-168       | 180725L01  | 07/26/18 15:21     |
| Benzo (k) Fluoranthene                    | 0.002000   | 0.001965 |       | mg/L  | 98     | 24-159       | 180725L01  | 07/26/18 15:21     |

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample

| Analyte                   | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch     | Analysis Date/Time |
|---------------------------|------------|----------|-------|-------|--------|--------------|-----------|--------------------|
| Benzo (b) Fluoranthene    | 0.002000   | 0.002010 |       | mg/L  | 100    | 24-159       | 180725L01 | 07/26/18 15:21     |
| Benzo (a) Pyrene          | 0.002000   | 0.002048 |       | mg/L  | 102    | 17-163       | 180725L01 | 07/26/18 15:21     |
| Indeno (1,2,3-c,d) Pyrene | 0.002000   | 0.001966 |       | mg/L  | 98     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Dibenz (a,h) Anthracene   | 0.002000   | 0.001865 |       | mg/L  | 93     | 25-175       | 180725L01 | 07/26/18 15:21     |
| Benzo (g,h,i) Perylene    | 0.002000   | 0.002193 |       | mg/L  | 110    | 25-157       | 180725L01 | 07/26/18 15:21     |

Total number of LCS compounds: 18  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

#### EPA 8260B Volatile Organics

##### 099-12-878-755

|                             |         |          |  |      |     |        |            |                |
|-----------------------------|---------|----------|--|------|-----|--------|------------|----------------|
| Benzene                     | 0.01000 | 0.01075  |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Toluene                     | 0.01000 | 0.01080  |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Ethylbenzene                | 0.01000 | 0.01084  |  | mg/L | 108 | 80-120 | 180802L036 | 08/02/18 09:33 |
| o-Xylene                    | 0.01000 | 0.01075  |  | mg/L | 107 | 80-120 | 180802L036 | 08/02/18 09:33 |
| p/m-Xylene                  | 0.02000 | 0.02196  |  | mg/L | 110 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Methyl-t-Butyl Ether (MTBE) | 0.01000 | 0.008777 |  | mg/L | 88  | 75-123 | 180802L036 | 08/02/18 09:33 |
| 1,1-Dichloroethene          | 0.01000 | 0.01081  |  | mg/L | 108 | 77-120 | 180802L036 | 08/02/18 09:33 |
| 1,2-Dibromoethane           | 0.01000 | 0.01018  |  | mg/L | 102 | 80-120 | 180802L036 | 08/02/18 09:33 |
| 1,2-Dichlorobenzene         | 0.01000 | 0.01072  |  | mg/L | 107 | 80-120 | 180802L036 | 08/02/18 09:33 |
| 1,2-Dichloroethane          | 0.01000 | 0.01056  |  | mg/L | 106 | 80-122 | 180802L036 | 08/02/18 09:33 |
| Carbon Tetrachloride        | 0.01000 | 0.01043  |  | mg/L | 104 | 80-129 | 180802L036 | 08/02/18 09:33 |
| Chlorobenzene               | 0.01000 | 0.01063  |  | mg/L | 106 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Trichloroethene             | 0.01000 | 0.01069  |  | mg/L | 107 | 80-120 | 180802L036 | 08/02/18 09:33 |
| Vinyl Chloride              | 0.01000 | 0.01076  |  | mg/L | 108 | 63-135 | 180802L036 | 08/02/18 09:33 |

Total number of LCS compounds: 14  
Total number of ME compounds: 0  
Total number of ME compounds allowed: 1  
LCS ME CL validation result: Pass

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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                                   | LCS Val.     | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|-------------------------------------------|--------------|-----------|-------|-------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>SM 2320B Alkalinity</b>                |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-17-086-19</b>                      |              |           |       |       |        |              |     |       |            |                   |                    |
| Alkalinity, Total (as CaCO <sub>3</sub> ) | 100.0        | 106.5     |       | mg/L  | 106    | 80-120       | 4   | 0-20  | I0723ALKB2 | 099-17-086-19     | 07/24/18 02:19     |
| <b>SM 2540 C Total Dissolved Solids</b>   |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-12-180-6308</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Solids, Total Dissolved                   | 100.0        | 90.00     |       | mg/L  | 90     | 80-120       | 5   | 0-20  | I0724TDSL2 | 099-12-180-6308   | 07/24/18 16:00     |
| <b>SM 4500-CL C Chloride</b>              |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-05-057-2222</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Chloride                                  | 100.0        | 100.1     |       | mg/L  | 100    | 80-120       | 0   | 0-20  | I0724CLCL1 | 099-05-057-2222   | 07/24/18 18:00     |
| <b>EPA 8270C SIM PAHs</b>                 |              |           |       |       |        |              |     |       |            |                   |                    |
| <b>099-06-008-1064</b>                    |              |           |       |       |        |              |     |       |            |                   |                    |
| Naphthalene                               | 0.00200<br>0 | 0.001763  |       | mg/L  | 88     | 21-133       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 2-Methylnaphthalene                       | 0.00200<br>0 | 0.001816  |       | mg/L  | 91     | 21-140       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| 1-Methylnaphthalene                       | 0.00200<br>0 | 0.001826  |       | mg/L  | 91     | 20-140       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthylene                            | 0.00200<br>0 | 0.001727  |       | mg/L  | 86     | 33-145       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Acenaphthene                              | 0.00200<br>0 | 0.001824  |       | mg/L  | 91     | 55-121       | 4   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluorene                                  | 0.00200<br>0 | 0.001932  |       | mg/L  | 97     | 59-121       | 6   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Phenanthrene                              | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 54-120       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Anthracene                                | 0.00200<br>0 | 0.001954  |       | mg/L  | 98     | 27-133       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Fluoranthene                              | 0.00200<br>0 | 0.001987  |       | mg/L  | 99     | 26-137       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Pyrene                                    | 0.00200<br>0 | 0.001947  |       | mg/L  | 97     | 45-129       | 0   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Anthracene                      | 0.00200<br>0 | 0.002008  |       | mg/L  | 100    | 33-143       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Chrysene                                  | 0.00200<br>0 | 0.001995  |       | mg/L  | 100    | 17-168       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (k) Fluoranthene                    | 0.00200<br>0 | 0.001992  |       | mg/L  | 100    | 24-159       | 1   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (b) Fluoranthene                    | 0.00200<br>0 | 0.002051  |       | mg/L  | 103    | 24-159       | 2   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Benzo (a) Pyrene                          | 0.00200<br>0 | 0.002106  |       | mg/L  | 105    | 17-163       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Indeno (1,2,3-c,d) Pyrene                 | 0.00200<br>0 | 0.002028  |       | mg/L  | 101    | 25-175       | 3   | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |
| Dibenz (a,h) Anthracene                   | 0.00200<br>0 | 0.002054  |       | mg/L  | 103    | 25-175       | 10  | 0-25  | 180725L01  | 099-06-008-1064   | 07/26/18 15:41     |

Qual - Qualifiers RPD: Relative Percent Difference



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-07-1593  
Project Name: ExxonMobil Gladiola Station  
Date Received: 07/21/18

### PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

| Analyte                | LCS Val.     | Duplicate | Qual. | Units | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|------------------------|--------------|-----------|-------|-------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| Benzo (g,h,i) Perylene | 0.00200<br>0 | 0.002253  |       | mg/L  | 113    | 25-157       | 3   | 0-25  | 180725L01 | 099-06-008-1064   | 07/26/18 15:41     |

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

**EPA 8260B Volatile Organics****099-12-878-755**

|                             |         |          |  |      |     |        |   |      |            |                |                |
|-----------------------------|---------|----------|--|------|-----|--------|---|------|------------|----------------|----------------|
| Benzene                     | 0.01000 | 0.01030  |  | mg/L | 103 | 80-120 | 4 | 0-22 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Toluene                     | 0.01000 | 0.01037  |  | mg/L | 104 | 80-120 | 4 | 0-28 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Ethylbenzene                | 0.01000 | 0.01038  |  | mg/L | 104 | 80-120 | 4 | 0-25 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| o-Xylene                    | 0.01000 | 0.01034  |  | mg/L | 103 | 80-120 | 4 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| p/m-Xylene                  | 0.02000 | 0.02090  |  | mg/L | 105 | 80-120 | 5 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Methyl-t-Butyl Ether (MTBE) | 0.01000 | 0.008913 |  | mg/L | 89  | 75-123 | 2 | 0-27 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,1-Dichloroethene          | 0.01000 | 0.01042  |  | mg/L | 104 | 77-120 | 4 | 0-26 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dibromoethane           | 0.01000 | 0.01024  |  | mg/L | 102 | 80-120 | 1 | 0-32 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dichlorobenzene         | 0.01000 | 0.01063  |  | mg/L | 106 | 80-120 | 1 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| 1,2-Dichloroethane          | 0.01000 | 0.01058  |  | mg/L | 106 | 80-122 | 0 | 0-23 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Carbon Tetrachloride        | 0.01000 | 0.009910 |  | mg/L | 99  | 80-129 | 5 | 0-36 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Chlorobenzene               | 0.01000 | 0.01025  |  | mg/L | 103 | 80-120 | 4 | 0-29 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Trichloroethene             | 0.01000 | 0.01022  |  | mg/L | 102 | 80-120 | 5 | 0-25 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |
| Vinyl Chloride              | 0.01000 | 0.01009  |  | mg/L | 101 | 63-135 | 7 | 0-30 | 180802L036 | 099-12-878-755 | 08/02/18 10:02 |

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Qual - Qualifiers RPD: Relative Percent Difference



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Work Order: 18-07-1593

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**Sample Analysis Summary Report**

| <u>Method</u>      | <u>Extraction</u> | <u>Chemist ID</u> | <u>Instrument</u> | <u>Analytical Location</u> |
|--------------------|-------------------|-------------------|-------------------|----------------------------|
| EPA 300.0          | N/A               | 27                | IC 10             | 1                          |
| EPA 6010B          | EPA 3010A Total   | 1080              | ICP 8300          | 1                          |
| EPA 7470A          | EPA 7470A Total   | 868               | Mercury 07        | 1                          |
| EPA 8260B          | EPA 5030C         | 316               | GC/MS L           | 2                          |
| EPA 8270C SIM PAHs | EPA 3510C         | 928               | GC/MS EEE         | 1                          |
| SM 2320B           | N/A               | 834               | PCT 1             | 1                          |
| SM 2540 C          | N/A               | 1136              | N/A               | 1                          |
| SM 4500-CI C       | N/A               | 1086              | BUR02             | 1                          |

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-07-1593

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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## CHAIN OF CUSTODY RECORD

DATE: 07/20/18

PAGE: 1 OF 2

|                                                         |                             |
|---------------------------------------------------------|-----------------------------|
| <b>Site Name</b>                                        |                             |
| <b>Provide MRN for retail or AFE for major projects</b> |                             |
| <b>Retail Project (MRN)</b>                             |                             |
| <b>Major Project (AFE)</b>                              |                             |
| <b>Project Name</b>                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501

ExxonMobil Engr: Maria Madden

|                                                                                                                                                                                                       |                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>LABORATORY CLIENT:</b><br>Cardno                                                                                                                                                                   | <b>GLOBAL ID # COELT LOG CODE:</b>                  |
| <b>ADDRESS:</b><br>25371 Comemircentre Drive, Suite 250                                                                                                                                               | <b>EMES Sub Agreement #</b> A2604415                |
| <b>CITY:</b><br>Lake Forest, CA 92630                                                                                                                                                                 | <b>PROJECT CONTACT:</b><br>David Purdy              |
| <b>TEL:</b> 949-457-8941 <b>FAX:</b> 949-457-8956                                                                                                                                                     | <b>SAMPLER(S):</b><br>Stepha Hunter, Vincent Nguyen |
| <b>TURNAROUND TIME:</b><br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 10 DAYS | <b>COOLER RECEIPT:</b><br>18-07-1593<br>Temp = °C   |

## REQUESTED ANALYSIS

| LAB USE ONLY | SAMPLE ID  | Field Point Name | SAMPLING |      | NO OF CONT. | CONTAINER TYPE                    |                               |                                                         |                              |                              |                                                                    |                                            |                                                                                                       |  |  |
|--------------|------------|------------------|----------|------|-------------|-----------------------------------|-------------------------------|---------------------------------------------------------|------------------------------|------------------------------|--------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------|--|--|
|              |            |                  | DATE     | TIME |             | EPA 8260B LL VOCs only (TC# 6401) | EPA 8270C SIM PAHs (TC# 4741) | EPA 6010B As, Ba, Cd, Cr, Pb, Se and Ag only (TC# 2516) | EPA 7470A Mercury (TC# 5096) | EPA 300.0 Sulfate (TC# 5431) | SM 2320B Alkalinity (TC# 6512) and SM 4500-Cl C Chloride (TC# 755) | SM 2540C Total Dissolved Solids (TC# 4942) |                                                                                                       |  |  |
| 1            | W-39-MW6   | MW6              | 07/20/18 | 0730 | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 2            | V-41-MW10  | MW10             | 07/20/18 | 0815 | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 3            | TRIP BLANK | QCTB             | /        | /    | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 4            |            |                  |          |      | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 5            |            |                  |          |      | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 6            |            |                  |          |      | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 7            |            |                  |          |      | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |
| 8            |            |                  |          |      | 11          | X                                 | X                             | X                                                       | X                            | X                            | X                                                                  | X                                          | 5 vials with HCL, 2-1L Amber Glass, 250mL Plastic with HNO3, 125mL Plastic, 250mL Plastic, 1L Plastic |  |  |

|                                                            |                                             |                                           |
|------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| <b>Relinquished by (Signature)</b><br><i>Stepha Hunter</i> | <b>Received by (Signature)</b><br>FedEx     | <b>Date, &amp; Time</b><br>07/20/18, 1700 |
| <b>Relinquished by (Signature)</b>                         | <b>Received by (Signature)</b><br><i>ec</i> | <b>Date, &amp; Time</b><br>7/21/18 1130   |
| <b>Relinquished by (Signature)</b>                         | <b>Received by (Signature)</b>              | <b>Date, &amp; Time</b>                   |

1593

... HUBA (949) 457-8950  
CARDINO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

SHIP DATE: 20JUL18  
ACTWGT: 45.50 LB  
CAD: 006994246/SSFE1904  
DIMS: 15x15x15 IN  
BILL THIRD PARTY

Part # 156297-333/RSO/EXP 01/19

EUROFINS CALSCIENCE INC  
7440 LINCOLN WAY

GARDEN GROVE CA 92841

(714) 882-5826  
REF: DEPT:

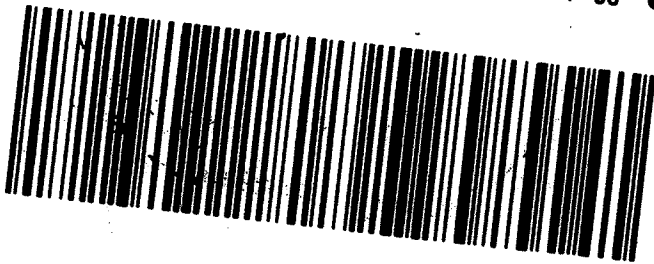


1 of 5  
TRK# 7727 7903 7947  
0201  
## MASTER ##

SATURDAY 12:00P  
PRIORITY OVERNIGHT

XO APVA

92841  
CA-US SNA



RT 138  
ST 25

3 12:00 B  
7947  
07.21

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Calscience

WORK ORDER NUMBER: 18-07-1959

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Cardno

DATE: 07/21/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.5°C); Temperature (w/o CF): 2.9°C (w/ CF): 2.6°C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: [Signature]

## CUSTODY SEAL:

Cooler ☒ Present and Intact☐ Present but Not Intact☐ Not Present☐ N/A

Checked by: [Signature]

Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: [Signature]

## SAMPLE CONDITION:

Yes No N/A

Chain-of-Custody (COC) document(s) received with samples ..... ☒ ☐ ☐COC document(s) received complete ..... ☒ ☐ ☐☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ ☐ ☐Sample container label(s) consistent with COC ..... ☒ ☐ ☐Sample container(s) intact and in good condition ..... ☒ ☐ ☐Proper containers for analyses requested ..... ☒ ☐ ☐Sufficient volume/mass for analyses requested ..... ☒ ☐ ☐Samples received within holding time ..... ☒ ☐ ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ ☐ ☒Proper preservation chemical(s) noted on COC and/or sample container ..... ☒ ☐ ☐

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☒ ☐ ☐Container(s) for certain analysis free of headspace ..... ☒ ☐ ☐☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ ☐ ☒

## CONTAINER TYPE:

(Trip Blank Lot Number: 180709B)

Aqueous: ☐ VOA ☒ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☒ 125PB ☐ 125PB<sub>znna</sub> (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGB<sub>s</sub> (pH\_\_2) ☒ 250PB ☒ 250PB<sub>n</sub> (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJ<sub>s</sub> (pH\_\_2) ☐ 500PB☒ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGB<sub>s</sub> (pH\_\_2) ☐ 1AGB<sub>s</sub> (O&G) ☒ 1PB ☐ 1PB<sub>na</sub> (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: [Signature]s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: [Signature]



Calscience

**WORK ORDER NUMBER: 18-06-1971***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 07/12/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-06-1971

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Work Order: 18-06-1971

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**Work Order Narrative**

---

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/27/18. They were assigned to Work Order 18-06-1971.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1971                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | PO Number: 0136122018                     |
|                            | Date/Time Received: 06/27/18 10:00        |
|                            | Number of Containers: 3                   |
| Attn: David Purdy          |                                           |

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix |
|-----------------------|--------------|--------------------------|----------------------|--------|
| S-45-B6               | 18-06-1971-1 | 06/19/18 14:41           | 1                    | Solid  |
| S-50-B6               | 18-06-1971-2 | 06/19/18 15:36           | 2                    | Solid  |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1971  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag   | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-------|-------|------|-----------------|--------------------|-----------|------------|
| <b>Sample ID: 1 (S-45-B6, Solid) Sampled: 06/19/18 14:41</b>                                                                         |        |        |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 2.5    | HD,B,J | mg/kg | 1.2   | 5.0  | 1.00            | 07/07/18 00:57     | EPA 8015B | 180702B17  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 119%   |        |       |       |      |                 | 07/07/18 00:57     | EPA 8015B | 180702B17  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - A                                                                           |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |        | mg/kg | 0.095 | 0.52 | 1.00            | 07/02/18 16:03     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 87%    |        |       |       |      |                 | 07/02/18 16:03     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - A                                                                     |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | 0.13   | J      | ug/kg | 0.13  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |        | ug/kg | 0.52  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |        | ug/kg | 0.15  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |        | ug/kg | 0.56  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| p/m-Xylene                                                                                                                           | 0.76   | J      | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Xylenes (total)                                                                                                                      | 0.76   | JA     | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 97%    |        |       |       |      |                 | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 103%   |        |       |       |      |                 | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 117%   |        |       |       |      |                 | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 103%   |        |       |       |      |                 | 06/29/18 08:38     | EPA 8260B | 180628L027 |
| <b>Sample ID: 2 (S-50-B6, Solid) Sampled: 06/19/18 15:36</b>                                                                         |        |        |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 1.6    | HD,B,J | mg/kg | 1.2   | 5.0  | 1.00            | 07/07/18 01:20     | EPA 8015B | 180702B17  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 113%   |        |       |       |      |                 | 07/07/18 01:20     | EPA 8015B | 180702B17  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |        | mg/kg | 0.092 | 0.51 | 1.00            | 07/02/18 16:37     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 86%    |        |       |       |      |                 | 07/02/18 16:37     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |        |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |        |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |        | ug/kg | 0.13  | 5.0  | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |        | ug/kg | 0.51  | 5.0  | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |        | ug/kg | 0.15  | 5.0  | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |        | ug/kg | 0.56  | 5.0  | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1971  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL  | RL  | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|------|-----|-----------------|--------------------|-----------|------------|
| p/m-Xylene                             | ND     |      | ug/kg | 0.27 | 5.0 | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Xylenes (total)                        | ND     |      | ug/kg | 0.27 | 5.0 | 1.00            | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 99%    |      |       |      |     |                 | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%)   | 105%   |      |       |      |     |                 | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 115%   |      |       |      |     |                 | 06/29/18 09:07     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%)             | 103%   |      |       |      |     |                 | 06/29/18 09:07     | EPA 8260B | 180628L027 |

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1971  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| <b>EPA 8015B DRO</b>                   |             |            |       |            |                 |                    |
| <b>099-15-414-1140</b>                 |             |            |       |            |                 |                    |
| Diesel Range Organics                  | 1.7         | J          | mg/kg | 180702B17  | 099-15-414-1140 | 07/02/18 19:09     |
| Surr: n-Octacosane (42-162%)           | 101%        |            |       | 180702B17  | 099-15-414-1140 | 07/02/18 19:09     |
| <b>EPA 8015B GRO</b>                   |             |            |       |            |                 |                    |
| <b>099-12-024-1217</b>                 |             |            |       |            |                 |                    |
| Gasoline Range Organics                | ND          |            | mg/kg | 180702L022 | 099-12-024-1217 | 07/02/18 12:42     |
| Surr: 1,4-Bromofluorobenzene (42-126%) | 84%         |            |       | 180702L022 | 099-12-024-1217 | 07/02/18 12:42     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2083</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Toluene                                | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Ethylbenzene                           | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| o-Xylene                               | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| p/m-Xylene                             | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Xylenes (total)                        | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 98%         |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: Dibromofluoromethane (79-133%)   | 104%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 117%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: Toluene-d8 (80-120%)             | 104%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |


  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1971  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

**QUALITY CONTROL  
Matrix Spike**

| Analyte                    | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|----------------------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1971-2</b>        |            |         |       |       |             |        |              |            |               |                    |
| Diesel Range Organics      | ND         | 401.7   |       | mg/kg | 400.0       | 100    | 33-153       | 180702S17  | 18-06-1971-2  | 07/07/18 00:12     |
| <b>EPA 8015B GRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2033-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics    | ND         | 4.213   | HX    | mg/kg | 10.00       | 42     | 66-108       | 180702S009 | 18-06-2033-1  | 07/02/18 14:23     |
| <b>EPA 8260B BTEX/MTBE</b> |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1959-4</b>        |            |         |       |       |             |        |              |            |               |                    |
| Benzene                    | ND         | 33.04   |       | ug/kg | 50.00       | 66     | 61-127       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| Toluene                    | ND         | 31.48   |       | ug/kg | 50.00       | 63     | 63-123       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| Ethylbenzene               | ND         | 31.05   |       | ug/kg | 50.00       | 62     | 57-129       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| o-Xylene                   | ND         | 28.36   | HX    | ug/kg | 50.00       | 57     | 70-130       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| p/m-Xylene                 | ND         | 59.65   | HX    | ug/kg | 100.0       | 60     | 70-130       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1971                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL**  
**Matrix Spike Duplicate**

| Analyte                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1971-2</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Diesel Range Organics      | ND         | 374.8     |       | mg/kg | 400.0       | 94     | 33-153       | 7   | 0-32  | 180702S17  | 18-06-1971-2      | 07/07/18 00:35     |
| <b>EPA 8015B GRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2033-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics    | ND         | 4.904     | HX    | mg/kg | 10.00       | 49     | 66-108       | 15  | 0-18  | 180702S009 | 18-06-2033-1      | 07/02/18 14:56     |
| <b>EPA 8260B BTEX/MTBE</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1959-4</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                    | ND         | 34.17     |       | ug/kg | 50.00       | 68     | 61-127       | 3   | 0-20  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| Toluene                    | ND         | 33.22     |       | ug/kg | 50.00       | 66     | 63-123       | 5   | 0-20  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| Ethylbenzene               | ND         | 33.84     |       | ug/kg | 50.00       | 68     | 57-129       | 9   | 0-22  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| o-Xylene                   | ND         | 30.78     | HX    | ug/kg | 50.00       | 62     | 70-130       | 8   | 0-30  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| p/m-Xylene                 | ND         | 64.39     | HX    | ug/kg | 100.0       | 64     | 70-130       | 8   | 0-30  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |

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|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-06-1971                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 06/27/18                    |

PROJECT QUALITY CONTROL DATA  
Laboratory Control Sample

| Analyte                 | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|-------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| EPA 8015B DRO           |            |          |       |       |        |              |            |                    |
| 099-15-414-1140         |            |          |       |       |        |              |            |                    |
| Diesel Range Organics   | 400.0      | 365.2    |       | mg/kg | 91     | 67-121       | 180702B17  | 07/02/18 19:39     |
| EPA 8015B GRO           |            |          |       |       |        |              |            |                    |
| 099-12-024-1217         |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics | 10.00      | 7.660    |       | mg/kg | 77     | 70-118       | 180702L022 | 07/02/18 12:08     |
| EPA 8260B BTEX/MTBE     |            |          |       |       |        |              |            |                    |
| 099-12-882-2083         |            |          |       |       |        |              |            |                    |
| Benzene                 | 50.00      | 47.03    |       | ug/kg | 94     | 80-120       | 180628L027 | 06/29/18 04:48     |
| Toluene                 | 50.00      | 48.21    |       | ug/kg | 96     | 80-120       | 180628L027 | 06/29/18 04:48     |
| Ethylbenzene            | 50.00      | 49.66    |       | ug/kg | 99     | 80-120       | 180628L027 | 06/29/18 04:48     |
| o-Xylene                | 50.00      | 49.79    |       | ug/kg | 100    | 75-125       | 180628L027 | 06/29/18 04:48     |
| p/m-Xylene              | 100.0      | 97.42    |       | ug/kg | 97     | 75-125       | 180628L027 | 06/29/18 04:48     |

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Work Order: 18-06-1971

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### Sample Analysis Summary Report

| <u>Method</u> | <u>Extraction</u> | <u>Chemist ID</u> | <u>Instrument</u> | <u>Analytical Location</u> |
|---------------|-------------------|-------------------|-------------------|----------------------------|
| EPA 8015B     | EPA 3550B         | 972               | GC 48             | 1                          |
| EPA 8015B     | EPA 5030C         | 607               | GC 22             | 2                          |
| EPA 8260B     | EPA 5030C         | 1120              | GC/MS BB          | 2                          |

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-06-1971

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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Site Name

Provide MRN for retail or AFE for major projects

Retail Project (MRN)

Major Project (AFE)

Project Name

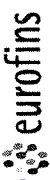
ExxonMobil Gladiola Station

CHAIN OF CUSTODY RECORD

DATE: 6/19/18

PAGE: 1 OF 1

7440 LINCOLN WAY  
CalScience GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501



ExxonMobil Engr: Maria Madden

LABORATORY CLIENT: Cardno

ADDRESS: 20505 Crescent Bay

CITY: Lake Forest, CA 92630

TEL: 949-457-8941

FAX: 949-457-8956

TURNAROUND TIME: ☒ 24 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL / /

SPECIAL INSTRUCTIONS: New Mexico Site

Report J values.

GLOBAL ID # COELT LOG CODE:

PROJECT CONTACT: David Purdy

SAMPLER(S): Vincent Nguyen

P.O. 0136122018

18-16-1971

DOOR RESERVE

Temp = °C

| REQUESTED ANALYSIS |           |                  |          |      |         |             |                |               |               | CONTAINER TYPE |  |
|--------------------|-----------|------------------|----------|------|---------|-------------|----------------|---------------|---------------|----------------|--|
| LAB USE ONLY       | SAMPLE ID | Field Point Name | SAMPLING |      | MAT-RIX | NO OF CONT. | EPA 8260B BTEX | EPA 8015B GRO | EPA 8015B DRO |                |  |
|                    |           |                  | DATE     | TIME |         |             |                |               |               |                |  |
| 1                  | S-45-B6   | B6/MV32          | 6/19/18  | 1441 | S       | 1           | X              | X             | X             | 2x2oz jars     |  |
| 2                  | S-50-B6   | B6/MV32          | 6/19/18  | 1536 | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 3                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 4                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 5                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 6                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 7                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 8                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 9                  |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |
| 10                 |           |                  |          |      | S       | 2           | X              | X             | X             | 2x2oz jars     |  |

Received by (Signature): Vincent Nguyen (Cardno)

Received by (Signature): FedEx

Received by (Signature): [Signature]

Date, & Time: 6/26/18 ; 1130

Date, & Time: 6/27/18 1000

Date, & Time:

1971

ORIGIN ID:MAFA (949) 532-3228  
VINCENT NGUYEN  
CARDNO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

SHIP DATE: 26JUN18  
ACTWGT: 46.20 LB  
CAD: 006994482/SSFE1904  
DIMS: 24x14x13 IN  
BILL THIRD PARTY

Part # 156293443J488DEF-25LP 09/18

TO **SAMPLE CONTROL**  
**EUROFINS**  
**7440 LINCOLN WAY**

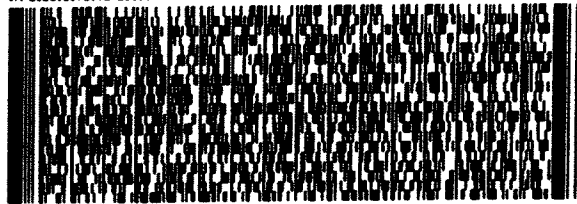
**GARDEN GROVE CA 92841**

(800) 000-0000  
THU:  
PO:

REF:

DEPT:

011 0000001001000001 0001 000 011 01 001 0000 0000 001 0 001 11 000 001

**FedEx**  
Express

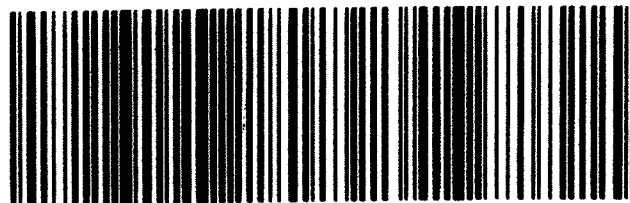
m10921081181F

TRK#  
0201 7815 9039 3835

**WED - 27 JUN 10:30A**  
**PRIORITY OVERNIGHT**

**A7 APVA**

**92841**  
**CA-US SNA**



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Calscience

WORK ORDER NUMBER: 18-06-1971

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: CARDNO

DATE: 06/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 5.6 °C (w/ CF): 5.7 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 15

## CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 9

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: me

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☐ Yes ☒ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☒ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna<sub>2</sub> ☐ 100PJ ☐ 100PJna<sub>2</sub> ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBz<sub>2</sub>na (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☐ 250PB ☐ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☐ 1AGB ☐ 1AGBna<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☒ 20000 ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 826s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>2</sub>na = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 1053



Calscience

Page 16 of 16  
WORK ORDER NUMBER: **18-06-1971****SAMPLE ANOMALY REPORT**DATE: **06/27/2018****SAMPLES, CONTAINERS, AND LABELS:**

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ pH outside acceptable range (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
- ☐ Project information
- ☐ Client sample ID
- ☐ Sampling date and/or time
- ☐ Number of container(s)
- ☐ Requested analysis
- ☒ Sample container(s) compromised (comment)
- ☐ Broken
- ☒ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
- ☐ Flat
- ☐ Very low in volume
- ☐ Leaking (not transferred; duplicate bag submitted)
- ☐ Leaking (transferred into ECI Tedlar™ bags\*)
- ☐ Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

**MISCELLANEOUS: (Describe)****HEADSPACE:**

(Containers with bubble &gt; 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

| ECI Sample ID | ECI Container ID | Total Number** | ECI Sample ID | ECI Container ID | Total Number** |
|---------------|------------------|----------------|---------------|------------------|----------------|
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |

Comments: \_\_\_\_\_

**Comments**(1) H<sub>2</sub>O, present**Comments**

(Containers with bubble for other analysis)

| ECI Sample ID | ECI Container ID | Total Number** | Requested Analysis |
|---------------|------------------|----------------|--------------------|
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

Reported by: *AS*Reviewed by: *1053*





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**WORK ORDER NUMBER: 18-06-1970***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 07/12/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-06-1970

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*The difference is service*

Work Order: 18-06-1970

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---

**Work Order Narrative**

---

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/27/18. They were assigned to Work Order 18-06-1970.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
PO Number: 0136122018  
Date/Time Received: 06/27/18 10:00  
Number of Containers: 20

Attn: David Purdy

Sample Summary

| Sample Identification | Lab Number    | Collection Date and Time | Number of Containers | Matrix |
|-----------------------|---------------|--------------------------|----------------------|--------|
| S-5-B1                | 18-06-1970-1  | 06/20/18 11:00           | 2                    | Solid  |
| S-10-B1               | 18-06-1970-2  | 06/20/18 11:14           | 2                    | Solid  |
| S-15-B1               | 18-06-1970-3  | 06/20/18 11:24           | 2                    | Solid  |
| S-20-B1               | 18-06-1970-4  | 06/20/18 11:37           | 2                    | Solid  |
| S-25-B1               | 18-06-1970-5  | 06/20/18 11:50           | 2                    | Solid  |
| S-30-B1               | 18-06-1970-6  | 06/20/18 12:05           | 2                    | Solid  |
| S-35-B1               | 18-06-1970-7  | 06/20/18 12:27           | 2                    | Solid  |
| S-40-B1               | 18-06-1970-8  | 06/20/18 12:42           | 2                    | Solid  |
| S-45-B1               | 18-06-1970-9  | 06/20/18 13:14           | 2                    | Solid  |
| S-50-B1               | 18-06-1970-10 | 06/20/18 13:50           | 2                    | Solid  |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| <b>Sample ID: 1 (S-5-B1, Solid) Sampled: 06/20/18 11:00</b>                                                                          |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 18     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/03/18 03:25     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 91%    |      |       |       |      |                 | 07/03/18 03:25     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.087 | 0.48 | 1.00            | 07/01/18 13:39     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 47%    |      |       |       |      |                 | 07/01/18 13:39     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 93%    |      |       |       |      |                 | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 99%    |      |       |       |      |                 | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 101%   |      |       |       |      |                 | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 99%    |      |       |       |      |                 | 06/28/18 01:48     | EPA 8260B | 180627L037 |
| <b>Sample ID: 2 (S-10-B1, Solid) Sampled: 06/20/18 11:14</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 13     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/03/18 03:45     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 89%    |      |       |       |      |                 | 07/03/18 03:45     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.087 | 0.48 | 1.00            | 07/01/18 13:06     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 73%    |      |       |       |      |                 | 07/01/18 13:06     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.53  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.57  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 93%    |      |       |       |      |                 | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 103%   |      |       |       |      |                 | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 103%   |      |       |       |      |                 | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 99%    |      |       |       |      |                 | 06/28/18 02:16     | EPA 8260B | 180627L037 |
| <b>Sample ID: 3 (S-15-B1, Solid) Sampled: 06/20/18 11:24</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 5.1    | HD   | mg/kg | 1.2   | 5.0  | 1.00            | 07/03/18 04:05     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 89%    |      |       |       |      |                 | 07/03/18 04:05     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.093 | 0.51 | 1.00            | 07/01/18 12:32     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 82%    |      |       |       |      |                 | 07/01/18 12:32     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 94%    |      |       |       |      |                 | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 103%   |      |       |       |      |                 | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 103%   |      |       |       |      |                 | 06/28/18 02:44     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 100%   |      |       |       |      |                 | 06/28/18 02:44     | EPA 8260B | 180627L037 |

**Sample ID: 4 (S-20-B1, Solid) Sampled: 06/20/18 11:37**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |    |       |     |     |      |                |           |           |
|------------------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics        | 5.5 | HD | mg/kg | 1.2 | 4.9 | 1.00 | 07/03/18 04:24 | EPA 8015B | 180627B06 |
| Surr: n-Octacosane (42-162%) | 90% |    |       |     |     |      | 07/03/18 04:24 | EPA 8015B | 180627B06 |

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.087 | 0.48 | 1.00 | 07/01/18 11:59 | EPA 8015B | 180701L002 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) 82%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/01/18 11:59     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%) 95%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%) 101%                                                                                            |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%) 104%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%) 100%                                                                                                      |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:12     | EPA 8260B | 180627L037 |
| Sample ID: 5 (S-25-B1, Solid) Sampled: 06/20/18 11:50                                                                                |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 11     | HD   | mg/kg | 1.2   | 4.9  | 1.00            | 07/03/18 04:44     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%) 96%                                                                                                     |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 04:44     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.092 | 0.51 | 1.00            | 07/01/18 11:26     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%) 72%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/01/18 11:26     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%) 94%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%) 103%                                                                                            |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%) 103%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:39     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%) 101%                                                                                                      |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 06/28/18 03:39     | EPA 8260B | 180627L037 |

**Sample ID: 6 (S-30-B1, Solid) Sampled: 06/20/18 12:05**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                                                                                                  | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Diesel Range Organics                                                                                                                                                                                    | 7.3    | HD   | mg/kg | 1.2   | 4.9  | 1.00            | 07/03/18 05:04     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                                                                                             | 89%    |      |       |       |      |                 | 07/03/18 05:04     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                                                                                                  | ND     |      | mg/kg | 0.093 | 0.51 | 1.00            | 07/01/18 07:33     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                                                                                                   | 75%    |      |       |       |      |                 | 07/01/18 07:33     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.52  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                                                                                             | ND     |      | ug/kg | 0.15  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                                                                                                 | ND     |      | ug/kg | 0.56  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                                                                                               | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                                                                                          | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                                                                                                   | 93%    |      |       |       |      |                 | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                                                                                     | 99%    |      |       |       |      |                 | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                                                                                    | 99%    |      |       |       |      |                 | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                                                                                               | 99%    |      |       |       |      |                 | 06/27/18 23:56     | EPA 8260B | 180627L037 |
| <b>Sample ID: 7 (S-35-B1, Solid) Sampled: 06/20/18 12:27</b>                                                                                                                                             |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                                                                                    | 150    | HD   | mg/kg | 1.2   | 4.9  | 1.00            | 07/03/18 05:23     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                                                                                             | 92%    |      |       |       |      |                 | 07/03/18 05:23     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                                                                                                  | ND     |      | mg/kg | 0.088 | 0.49 | 1.00            | 07/01/18 10:53     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                                                                                                   | 69%    |      |       |       |      |                 | 07/01/18 10:53     | EPA 8015B | 180701L002 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                                                                                             | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                                                                                                 | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                                                                                               | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                                                                                          | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 04:07     | EPA 8260B | 180627L037 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL | RL | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|-----|----|-----------------|--------------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (80-120%) | 94%    |      |       |     |    |                 | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)   | 102%   |      |       |     |    |                 | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 106%   |      |       |     |    |                 | 06/28/18 04:07     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)             | 101%   |      |       |     |    |                 | 06/28/18 04:07     | EPA 8260B | 180627L037 |

**Sample ID: 8 (S-40-B1, Solid) Sampled: 06/20/18 12:42**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                       |     |    |       |     |     |      |                |           |           |
|-----------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics | 220 | HD | mg/kg | 1.3 | 5.0 | 1.00 | 07/03/18 05:43 | EPA 8015B | 180627B06 |
|-----------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|

|                              |     |  |  |  |  |  |                |           |           |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|
| Surr: n-Octacosane (42-162%) | 86% |  |  |  |  |  | 07/03/18 05:43 | EPA 8015B | 180627B06 |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |      |  |       |       |      |      |                |           |            |
|-------------------------|------|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | 0.92 |  | mg/kg | 0.090 | 0.50 | 1.00 | 07/01/18 10:19 | EPA 8015B | 180701L002 |
|-------------------------|------|--|-------|-------|------|------|----------------|-----------|------------|

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) | 85% |  |  |  |  |  | 07/01/18 10:19 | EPA 8015B | 180701L002 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                 |      |   |       |      |     |      |                |           |            |
|-----------------|------|---|-------|------|-----|------|----------------|-----------|------------|
| Benzene         | 0.27 | J | ug/kg | 0.13 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |
| Toluene         | 1.1  | J | ug/kg | 0.51 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |
| Ethylbenzene    | 7.1  |   | ug/kg | 0.15 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |
| o-Xylene        | 6.7  |   | ug/kg | 0.55 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |
| p/m-Xylene      | 19   |   | ug/kg | 0.27 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |
| Xylenes (total) | 25   |   | ug/kg | 0.27 | 5.0 | 1.00 | 06/28/18 04:35 | EPA 8260B | 180627L037 |

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (80-120%) | 98% |  |  |  |  |  | 06/28/18 04:35 | EPA 8260B | 180627L037 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

|                                      |      |  |  |  |  |  |                |           |            |
|--------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: Dibromofluoromethane (79-133%) | 100% |  |  |  |  |  | 06/28/18 04:35 | EPA 8260B | 180627L037 |
|--------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|

|                                       |      |  |  |  |  |  |                |           |            |
|---------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,2-Dichloroethane-d4 (71-155%) | 102% |  |  |  |  |  | 06/28/18 04:35 | EPA 8260B | 180627L037 |
|---------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|

|                            |      |  |  |  |  |  |                |           |            |
|----------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: Toluene-d8 (80-120%) | 103% |  |  |  |  |  | 06/28/18 04:35 | EPA 8260B | 180627L037 |
|----------------------------|------|--|--|--|--|--|----------------|-----------|------------|

**Sample ID: 9 (S-45-B1, Solid) Sampled: 06/20/18 13:14**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                       |    |    |       |     |     |      |                |           |           |
|-----------------------|----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics | 11 | HD | mg/kg | 1.2 | 4.9 | 1.00 | 07/03/18 06:02 | EPA 8015B | 180627B06 |
|-----------------------|----|----|-------|-----|-----|------|----------------|-----------|-----------|

|                              |     |  |  |  |  |  |                |           |           |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|
| Surr: n-Octacosane (42-162%) | 91% |  |  |  |  |  | 07/03/18 06:02 | EPA 8015B | 180627B06 |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.087 | 0.48 | 1.00 | 07/01/18 09:46 | EPA 8015B | 180701L002 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) | 69% |  |  |  |  |  | 07/01/18 09:46 | EPA 8015B | 180701L002 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Benzene                                                                                                                              | 0.18   | J    | ug/kg | 0.13  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.51  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | 0.19   | J    | ug/kg | 0.15  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.55  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | 0.44   | J    | ug/kg | 0.26  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | 0.44   | JA   | ug/kg | 0.26  | 4.9  | 1.00            | 06/28/18 05:31     | EPA 8260B | 180627L037 |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 94%    |      |       |       |      |                 | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 95%    |      |       |       |      |                 | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 98%    |      |       |       |      |                 | 06/28/18 05:31     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 98%    |      |       |       |      |                 | 06/28/18 05:31     | EPA 8260B | 180627L037 |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| <b>Sample ID: 10 (S-50-B1, Solid) Sampled: 06/20/18 13:50</b>                                                                        |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 2.7    | HD,J | mg/kg | 1.2   | 5.0  | 1.00            | 07/03/18 06:22     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 93%    |      |       |       |      |                 | 07/03/18 06:22     | EPA 8015B | 180627B06  |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.096 | 0.53 | 1.00            | 07/01/18 09:13     | EPA 8015B | 180701L002 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 81%    |      |       |       |      |                 | 07/01/18 09:13     | EPA 8015B | 180701L002 |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 93%    |      |       |       |      |                 | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 94%    |      |       |       |      |                 | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 95%    |      |       |       |      |                 | 06/28/18 05:59     | EPA 8260B | 180627L037 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 99%    |      |       |       |      |                 | 06/28/18 05:59     | EPA 8260B | 180627L037 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1970  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| <b>EPA 8015B DRO</b>                   |             |            |       |            |                 |                    |
| <b>099-15-414-1135</b>                 |             |            |       |            |                 |                    |
| Diesel Range Organics                  | ND          |            | mg/kg | 180627B06  | 099-15-414-1135 | 07/02/18 22:29     |
| Surr: n-Octacosane (42-162%)           | 95%         |            |       | 180627B06  | 099-15-414-1135 | 07/02/18 22:29     |
| <b>EPA 8015B GRO</b>                   |             |            |       |            |                 |                    |
| <b>099-12-024-1219</b>                 |             |            |       |            |                 |                    |
| Gasoline Range Organics                | ND          |            | mg/kg | 180701L002 | 099-12-024-1219 | 07/01/18 06:26     |
| Surr: 1,4-Bromofluorobenzene (42-126%) | 69%         |            |       | 180701L002 | 099-12-024-1219 | 07/01/18 06:26     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2081</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Toluene                                | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Ethylbenzene                           | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| o-Xylene                               | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| p/m-Xylene                             | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Xylenes (total)                        | ND          |            | ug/kg | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 93%         |            |       | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Surr: Dibromofluoromethane (79-133%)   | 98%         |            |       | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 89%         |            |       | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |
| Surr: Toluene-d8 (80-120%)             | 97%         |            |       | 180627L037 | 099-12-882-2081 | 06/27/18 23:01     |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1970                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL  
Matrix Spike**

| Analyte                    | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|----------------------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1968-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Diesel Range Organics      | 17.92      | 435.8   |       | mg/kg | 400.0       | 104    | 33-153       | 180627S06  | 18-06-1968-1  | 07/02/18 23:09     |
| <b>EPA 8015B GRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1970-6</b>        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics    | ND         | 7.432   |       | mg/kg | 10.00       | 74     | 66-108       | 180701S001 | 18-06-1970-6  | 07/01/18 08:06     |
| <b>EPA 8260B BTEX/MTBE</b> |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1970-6</b>        |            |         |       |       |             |        |              |            |               |                    |
| Benzene                    | ND         | 42.56   |       | ug/kg | 50.00       | 85     | 61-127       | 180627S012 | 18-06-1970-6  | 06/28/18 00:24     |
| Toluene                    | ND         | 43.91   |       | ug/kg | 50.00       | 88     | 63-123       | 180627S012 | 18-06-1970-6  | 06/28/18 00:24     |
| Ethylbenzene               | ND         | 44.68   |       | ug/kg | 50.00       | 89     | 57-129       | 180627S012 | 18-06-1970-6  | 06/28/18 00:24     |
| o-Xylene                   | ND         | 44.59   |       | ug/kg | 50.00       | 89     | 70-130       | 180627S012 | 18-06-1970-6  | 06/28/18 00:24     |
| p/m-Xylene                 | ND         | 91.56   |       | ug/kg | 100.0       | 92     | 70-130       | 180627S012 | 18-06-1970-6  | 06/28/18 00:24     |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1970                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL**  
**Matrix Spike Duplicate**

| Analyte                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1968-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Diesel Range Organics      | 17.92      | 400.3     |       | mg/kg | 400.0       | 96     | 33-153       | 8   | 0-32  | 180627S06  | 18-06-1968-1      | 07/02/18 23:28     |
| <b>EPA 8015B GRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1970-6</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics    | ND         | 7.547     |       | mg/kg | 10.00       | 75     | 66-108       | 2   | 0-18  | 180701S001 | 18-06-1970-6      | 07/01/18 08:39     |
| <b>EPA 8260B BTEX/MTBE</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1970-6</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                    | ND         | 38.86     |       | ug/kg | 50.00       | 78     | 61-127       | 9   | 0-20  | 180627S012 | 18-06-1970-6      | 06/28/18 00:52     |
| Toluene                    | ND         | 40.52     |       | ug/kg | 50.00       | 81     | 63-123       | 8   | 0-20  | 180627S012 | 18-06-1970-6      | 06/28/18 00:52     |
| Ethylbenzene               | ND         | 40.60     |       | ug/kg | 50.00       | 81     | 57-129       | 10  | 0-22  | 180627S012 | 18-06-1970-6      | 06/28/18 00:52     |
| o-Xylene                   | ND         | 40.09     |       | ug/kg | 50.00       | 80     | 70-130       | 11  | 0-30  | 180627S012 | 18-06-1970-6      | 06/28/18 00:52     |
| p/m-Xylene                 | ND         | 82.80     |       | ug/kg | 100.0       | 83     | 70-130       | 10  | 0-30  | 180627S012 | 18-06-1970-6      | 06/28/18 00:52     |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1970                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**PROJECT QUALITY CONTROL DATA**  
**Laboratory Control Sample**

| Analyte                    | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|----------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-15-414-1135</b>     |            |          |       |       |        |              |            |                    |
| Diesel Range Organics      | 400.0      | 365.3    |       | mg/kg | 91     | 67-121       | 180627B06  | 07/02/18 22:49     |
| <b>EPA 8015B GRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1219</b>     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics    | 10.00      | 8.030    |       | mg/kg | 80     | 70-118       | 180701L002 | 07/01/18 05:53     |
| <b>EPA 8260B BTEX/MTBE</b> |            |          |       |       |        |              |            |                    |
| <b>099-12-882-2081</b>     |            |          |       |       |        |              |            |                    |
| Benzene                    | 50.00      | 44.09    |       | ug/kg | 88     | 80-120       | 180627L037 | 06/27/18 22:05     |
| Toluene                    | 50.00      | 45.24    |       | ug/kg | 90     | 80-120       | 180627L037 | 06/27/18 22:05     |
| Ethylbenzene               | 50.00      | 45.28    |       | ug/kg | 91     | 80-120       | 180627L037 | 06/27/18 22:05     |
| o-Xylene                   | 50.00      | 46.11    |       | ug/kg | 92     | 75-125       | 180627L037 | 06/27/18 22:05     |
| p/m-Xylene                 | 100.0      | 91.44    |       | ug/kg | 91     | 75-125       | 180627L037 | 06/27/18 22:05     |

  
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Work Order: 18-06-1970 Page 1 of 1

Sample Analysis Summary Report

| Method    | Extraction | Chemist ID | Instrument | Analytical Location |
|-----------|------------|------------|------------|---------------------|
| EPA 8015B | EPA 3550B  | 682        | GC 50      | 1                   |
| EPA 8015B | EPA 5030C  | 607        | GC 22      | 2                   |
| EPA 8260B | EPA 5030C  | 486        | GC/MS QQ   | 2                   |

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-06-1970

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## Glossary of Terms and Qualifiers

| Qualifiers | Definition                                                                                                                                                                                                                                                                                                                                                                          |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ         | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B          | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA         | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB         | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU         | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV         | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI         | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF         | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E          | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET         | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE         | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD         | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO         | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT         | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX         | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL         | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J          | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA         | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD         | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP         | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ         | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR         | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND         | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO         | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU         | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG         | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN         | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|            | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|            | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|            | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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CHAIN OF CUSTODY RECORD

DATE: 6/20/18

PAGE: 1 OF 1

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| Site Name                                        |                             |
| Provide MRN for retail or AFE for major projects |                             |
| Retail Project (MRN)                             |                             |
| Major Project (AFE)                              |                             |
| Project Name                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
CalScience GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501

ExxonMobil Engr: Maria Madden

|                                                                                                                                                                                                                                          |  |                                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|
| LABORATORY CLIENT:<br>Cardno                                                                                                                                                                                                             |  | GLOBAL ID # COELT LOG CODE:     |  |
| ADDRESS:<br>20505 Crescent Bay                                                                                                                                                                                                           |  | P.O. 0136122018                 |  |
| CITY:<br>Lake Forest, CA 92630                                                                                                                                                                                                           |  | PROJECT CONTACT:<br>David Purdy |  |
| TEL: 949-457-8941                                                                                                                                                                                                                        |  | SAMPLER(S):<br>Vincent Nguyen   |  |
| FAX: 949-457-8956                                                                                                                                                                                                                        |  | Temp = °C                       |  |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input checked="" type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |  |                                 |  |
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / /                                                                                         |  |                                 |  |
| SPECIAL INSTRUCTIONS:<br>New Mexico Site                                                                                                                                                                                                 |  |                                 |  |
| Report J values.                                                                                                                                                                                                                         |  |                                 |  |

REQUESTED ANALYSIS

| LAB<br>NO. | SAMPLE ID | Field Point Name | SAMPLING |                     | NO. OF<br>CONT. | EPA 8260B BTEX | EPA 8015B GRO | EPA 8015B DRO | CONTAINER TYPE |
|------------|-----------|------------------|----------|---------------------|-----------------|----------------|---------------|---------------|----------------|
|            |           |                  | DATE     | MAT-<br>RUX<br>TIME |                 |                |               |               |                |
| 1          | S-S-B1    | B1/MW27          | 6/20/18  | 1100                | 2               | X              | X             | X             | 2x2oz jars     |
| 2          | S-10-B1   |                  |          | 1114                | 2               | X              | X             | X             | 2x2oz jars     |
| 3          | S-15-B1   |                  |          | 1124                | 2               | X              | X             | X             | 2x2oz jars     |
| 4          | S-20-B1   |                  |          | 1137                | 2               | X              | X             | X             | 2x2oz jars     |
| 5          | S-25-B1   |                  |          | 1150                | 2               | X              | X             | X             | 2x2oz jars     |
| 6          | S-30-B1   |                  |          | 1205                | 2               | X              | X             | X             | 2x2oz jars     |
| 7          | S-35-B1   |                  |          | 1227                | 2               | X              | X             | X             | 2x2oz jars     |
| 8          | S-40-B1   |                  |          | 1242                | 2               | X              | X             | X             | 2x2oz jars     |
| 9          | S-45-B1   |                  |          | 1314                | 2               | X              | X             | X             | 2x2oz jars     |
| 10         | S-50-B1   | B1/MW27          | 6/20/18  | 1350                | 2               | X              | X             | X             | 2x2oz jars     |

|                                                         |                                   |                              |
|---------------------------------------------------------|-----------------------------------|------------------------------|
| Relinquished by: (Signature)<br>Vincent Nguyen (Cardno) | Received by: (Signature)<br>Felix | Date & Time:<br>6/20/18 1130 |
| Relinquished by: (Signature)                            | Received by: (Signature)          | Date & Time:<br>6/27/18 1000 |
| Relinquished by: (Signature)                            | Received by: (Signature)          | Date & Time:                 |



(1970)

ORIGIN ID:MAFA (949) 532-3228  
VINCENT NGUYEN  
CARDNO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

SHIP DATE: 26JUN18  
ACTWGT: 46.20 LB  
CAD: 006994482/SSFE1904  
DIMS: 24x14x13 IN  
BILL THIRD PARTY

Part # 156297443 J68087-EXP 09/18

TO **SAMPLE CONTROL**  
**EUROFINS**  
**7440 LINCOLN WAY**

**GARDEN GROVE CA 92841**

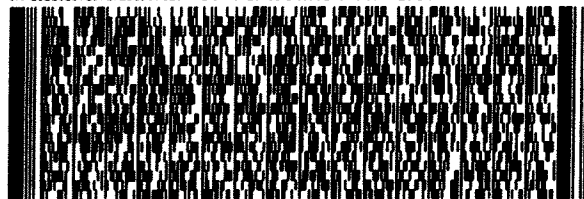
(800) 000-0000

REF:

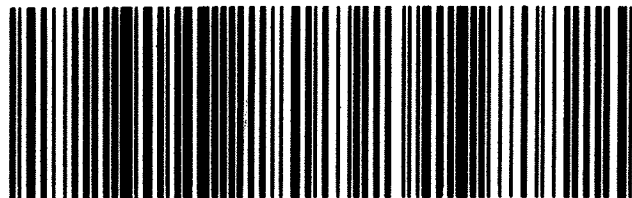
INU:

DEPT:

PO: \_\_\_\_\_

**FedEx**  
Express

J18111301280104

TRK# 7815 9039 3835  
0201**WED - 27 JUN 10:30A**  
**PRIORITY OVERNIGHT****A7 APVA****92841**  
**CA-US SNA**



Calscience

WORK ORDER NUMBER: 18-06-1970

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: CARDNODATE: 06/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 5.6 °C (w/ CF): 5.7 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: IS

## CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: ISSample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: sm

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☒ Volatile Organics ☒ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: ☐ VOA ☐ VOAH ☐ VOAna<sub>2</sub> ☐ 100PJ ☐ 100PJna<sub>2</sub> ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☐ 250PB ☐ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☐ 1AGB ☐ 1AGBna<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) 1202005 ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: sms = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: 1083



Calscience

**WORK ORDER NUMBER: 18-06-1969***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 07/12/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-06-1969

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*The difference is service*

Work Order: 18-06-1969

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/27/18. They were assigned to Work Order 18-06-1969.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1969  
Project Name: ExxonMobil Gladiola Station  
PO Number: 0136122018  
Date/Time Received: 06/27/18 10:00  
Number of Containers: 8

Attn: David Purdy

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix |
|-----------------------|--------------|--------------------------|----------------------|--------|
| S-40-B2               | 18-06-1969-1 | 06/21/18 08:10           | 2                    | Solid  |
| S-50-B2               | 18-06-1969-2 | 06/21/18 08:55           | 2                    | Solid  |
| S-40-B4               | 18-06-1969-3 | 06/21/18 11:40           | 2                    | Solid  |
| S-50-B4               | 18-06-1969-4 | 06/21/18 12:30           | 2                    | Solid  |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1969  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| <b>Sample ID: 1 (S-40-B2, Solid) Sampled: 06/21/18 08:10</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 91     | HD   | mg/kg | 1.2   | 5.0  | 1.00            | 07/05/18 16:19     | EPA 8015B | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 98%    |      |       |       |      |                 | 07/05/18 16:19     | EPA 8015B | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.095 | 0.52 | 1.00            | 07/02/18 17:10     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 84%    |      |       |       |      |                 | 07/02/18 17:10     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.53  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.16  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.57  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.28  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.28  | 5.2  | 1.00            | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 99%    |      |       |       |      |                 | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 107%   |      |       |       |      |                 | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 121%   |      |       |       |      |                 | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 105%   |      |       |       |      |                 | 06/29/18 09:36     | EPA 8260B | 180628L027 |
| <b>Sample ID: 2 (S-50-B2, Solid) Sampled: 06/21/18 08:55</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | ND     |      | mg/kg | 1.2   | 4.9  | 1.00            | 07/05/18 16:41     | EPA 8015B | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 99%    |      |       |       |      |                 | 07/05/18 16:41     | EPA 8015B | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.087 | 0.48 | 1.00            | 07/02/18 17:43     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 75%    |      |       |       |      |                 | 07/02/18 17:43     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.51  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.55  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1969  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 98%    |      |       |       |      |                 | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 103%   |      |       |       |      |                 | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 115%   |      |       |       |      |                 | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 103%   |      |       |       |      |                 | 06/29/18 10:04     | EPA 8260B | 180628L027 |
| <b>Sample ID: 3 (S-40-B4, Solid) Sampled: 06/21/18 11:40</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 13     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/05/18 17:02     | EPA 8015B | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 98%    |      |       |       |      |                 | 07/05/18 17:02     | EPA 8015B | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.094 | 0.52 | 1.00            | 07/02/18 18:17     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 76%    |      |       |       |      |                 | 07/02/18 18:17     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 97%    |      |       |       |      |                 | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 104%   |      |       |       |      |                 | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 118%   |      |       |       |      |                 | 06/29/18 10:33     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 104%   |      |       |       |      |                 | 06/29/18 10:33     | EPA 8260B | 180628L027 |

**Sample ID: 4 (S-50-B4, Solid) Sampled: 06/21/18 12:30**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                              |      |      |       |     |     |      |                |           |           |
|------------------------------|------|------|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics        | 1.4  | HD,J | mg/kg | 1.2 | 5.0 | 1.00 | 07/05/18 17:22 | EPA 8015B | 180627B07 |
| Surr: n-Octacosane (42-162%) | 103% |      |       |     |     |      | 07/05/18 17:22 | EPA 8015B | 180627B07 |

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.089 | 0.49 | 1.00 | 07/02/18 18:50 | EPA 8015B | 180702L022 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1969  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result | Flag | Units | MDL  | RL  | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|------|-----|-----------------|--------------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) 74%                                                                                           |        |      |       |      |     |                 | 07/02/18 18:50     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |      |     |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |      |     |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.53 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.16 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.57 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27 | 5.1 | 1.00            | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Surr: 1,4-Bromofluorobenzene (80-120%) 96%                                                                                           |        |      |       |      |     |                 | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Surr: Dibromofluoromethane (79-133%) 105%                                                                                            |        |      |       |      |     |                 | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Surr: 1,2-Dichloroethane-d4 (71-155%) 116%                                                                                           |        |      |       |      |     |                 | 06/29/18 11:02     | EPA 8260B | 180628L027 |
| Surr: Toluene-d8 (80-120%) 103%                                                                                                      |        |      |       |      |     |                 | 06/29/18 11:02     | EPA 8260B | 180628L027 |


  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1969  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| <b>EPA 8015B DRO</b>                   |             |            |       |            |                 |                    |
| <b>099-15-414-1129</b>                 |             |            |       |            |                 |                    |
| Diesel Range Organics                  | ND          |            | mg/kg | 180627B07  | 099-15-414-1129 | 06/27/18 19:45     |
| Surr: n-Octacosane (42-162%)           | 83%         |            |       | 180627B07  | 099-15-414-1129 | 06/27/18 19:45     |
| <b>EPA 8015B GRO</b>                   |             |            |       |            |                 |                    |
| <b>099-12-024-1217</b>                 |             |            |       |            |                 |                    |
| Gasoline Range Organics                | ND          |            | mg/kg | 180702L022 | 099-12-024-1217 | 07/02/18 12:42     |
| Surr: 1,4-Bromofluorobenzene (42-126%) | 84%         |            |       | 180702L022 | 099-12-024-1217 | 07/02/18 12:42     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2083</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Toluene                                | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Ethylbenzene                           | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| o-Xylene                               | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| p/m-Xylene                             | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Xylenes (total)                        | ND          |            | ug/kg | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 98%         |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: Dibromofluoromethane (79-133%)   | 104%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 117%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |
| Surr: Toluene-d8 (80-120%)             | 104%        |            |       | 180628L027 | 099-12-882-2083 | 06/29/18 05:45     |


  
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|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-06-1969                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 06/27/18                    |

QUALITY CONTROL  
Matrix Spike

| Analyte                    | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|----------------------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2008-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Diesel Range Organics      | ND         | 331.9   |       | mg/kg | 400.0       | 83     | 33-153       | 180627S07  | 18-06-2008-1  | 06/27/18 20:26     |
| <b>EPA 8015B GRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2033-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics    | ND         | 4.213   | HX    | mg/kg | 10.00       | 42     | 66-108       | 180702S009 | 18-06-2033-1  | 07/02/18 14:23     |
| <b>EPA 8260B BTEX/MTBE</b> |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1959-4</b>        |            |         |       |       |             |        |              |            |               |                    |
| Benzene                    | ND         | 33.04   |       | ug/kg | 50.00       | 66     | 61-127       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| Toluene                    | ND         | 31.48   |       | ug/kg | 50.00       | 63     | 63-123       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| Ethylbenzene               | ND         | 31.05   |       | ug/kg | 50.00       | 62     | 57-129       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| o-Xylene                   | ND         | 28.36   | HX    | ug/kg | 50.00       | 57     | 70-130       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |
| p/m-Xylene                 | ND         | 59.65   | HX    | ug/kg | 100.0       | 60     | 70-130       | 180628S012 | 18-06-1959-4  | 06/29/18 07:11     |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1969                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL  
Matrix Spike Duplicate**

| Analyte                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2008-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Diesel Range Organics      | ND         | 315.8     |       | mg/kg | 400.0       | 79     | 33-153       | 5   | 0-32  | 180627S07  | 18-06-2008-1      | 06/27/18 20:48     |
| <b>EPA 8015B GRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2033-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics    | ND         | 4.904     | HX    | mg/kg | 10.00       | 49     | 66-108       | 15  | 0-18  | 180702S009 | 18-06-2033-1      | 07/02/18 14:56     |
| <b>EPA 8260B BTEX/MTBE</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1959-4</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                    | ND         | 34.17     |       | ug/kg | 50.00       | 68     | 61-127       | 3   | 0-20  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| Toluene                    | ND         | 33.22     |       | ug/kg | 50.00       | 66     | 63-123       | 5   | 0-20  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| Ethylbenzene               | ND         | 33.84     |       | ug/kg | 50.00       | 68     | 57-129       | 9   | 0-22  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| o-Xylene                   | ND         | 30.78     | HX    | ug/kg | 50.00       | 62     | 70-130       | 8   | 0-30  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |
| p/m-Xylene                 | ND         | 64.39     | HX    | ug/kg | 100.0       | 64     | 70-130       | 8   | 0-30  | 180628S012 | 18-06-1959-4      | 06/29/18 07:40     |

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| Client: Cardno             | Work Order: 18-06-1969                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**PROJECT QUALITY CONTROL DATA**  
**Laboratory Control Sample**

| Analyte                    | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|----------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-15-414-1129</b>     |            |          |       |       |        |              |            |                    |
| Diesel Range Organics      | 400.0      | 320.8    |       | mg/kg | 80     | 67-121       | 180627B07  | 06/27/18 20:05     |
| <b>EPA 8015B GRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1217</b>     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics    | 10.00      | 7.660    |       | mg/kg | 77     | 70-118       | 180702L022 | 07/02/18 12:08     |
| <b>EPA 8260B BTEX/MTBE</b> |            |          |       |       |        |              |            |                    |
| <b>099-12-882-2083</b>     |            |          |       |       |        |              |            |                    |
| Benzene                    | 50.00      | 47.03    |       | ug/kg | 94     | 80-120       | 180628L027 | 06/29/18 04:48     |
| Toluene                    | 50.00      | 48.21    |       | ug/kg | 96     | 80-120       | 180628L027 | 06/29/18 04:48     |
| Ethylbenzene               | 50.00      | 49.66    |       | ug/kg | 99     | 80-120       | 180628L027 | 06/29/18 04:48     |
| o-Xylene                   | 50.00      | 49.79    |       | ug/kg | 100    | 75-125       | 180628L027 | 06/29/18 04:48     |
| p/m-Xylene                 | 100.0      | 97.42    |       | ug/kg | 97     | 75-125       | 180628L027 | 06/29/18 04:48     |

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Work Order: 18-06-1969

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Sample Analysis Summary Report

| Method    | Extraction | Chemist ID | Instrument | Analytical Location |
|-----------|------------|------------|------------|---------------------|
| EPA 8015B | EPA 3550B  | 972        | GC 49      | 1                   |
| EPA 8015B | EPA 5030C  | 607        | GC 22      | 2                   |
| EPA 8260B | EPA 5030C  | 1120       | GC/MS BB   | 2                   |

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-06-1969

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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7440 LINCOLN WAY  
Calscience GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501

ExxonMobil Engr:

|                        |              |
|------------------------|--------------|
| LABORATORY CLIENT:     |              |
| Cardno                 |              |
| ADDRESS:               |              |
| 20505 Crescent Bay     |              |
| CITY:                  |              |
| Lake Forest, CA 92630  |              |
| TEL:                   | 040 457 9044 |
| FAX:                   | 040 457 9066 |
| dave.nurdev@cardno.com |              |

| TURNAROUND TIME |  | 1-3 DAYS |  | 4-5 DAYS |  | 6-7 DAYS |  | 8-9 DAYS |  | 10-11 DAYS |  | 12-13 DAYS |  | 14-15 DAYS |  | 16-17 DAYS |  | 18-19 DAYS |  | 20-21 DAYS |  | 22-23 DAYS |  | 24-25 DAYS |  | 26-27 DAYS |  | 28-29 DAYS |  | 30-31 DAYS |  | 32-33 DAYS |  | 34-35 DAYS |  | 36-37 DAYS |  | 38-39 DAYS |  | 40-41 DAYS |  | 42-43 DAYS |  | 44-45 DAYS |  | 46-47 DAYS |  | 48-49 DAYS |  | 50-51 DAYS |  | 52-53 DAYS |  | 54-55 DAYS |  | 56-57 DAYS |  | 58-59 DAYS |  | 60-61 DAYS |  | 62-63 DAYS |  | 64-65 DAYS |  | 66-67 DAYS |  | 68-69 DAYS |  | 70-71 DAYS |  | 72-73 DAYS |  | 74-75 DAYS |  | 76-77 DAYS |  | 78-79 DAYS |  | 80-81 DAYS |  | 82-83 DAYS |  | 84-85 DAYS |  | 86-87 DAYS |  | 88-89 DAYS |  | 90-91 DAYS |  | 92-93 DAYS |  | 94-95 DAYS |  | 96-97 DAYS |  | 98-99 DAYS |  | 100-101 DAYS |  | 102-103 DAYS |  | 104-105 DAYS |  | 106-107 DAYS |  | 108-109 DAYS |  | 110-111 DAYS |  | 112-113 DAYS |  | 114-115 DAYS |  | 116-117 DAYS |  | 118-119 DAYS |  | 120-121 DAYS |  | 122-123 DAYS |  | 124-125 DAYS |  | 126-127 DAYS |  | 128-129 DAYS |  | 130-131 DAYS |  | 132-133 DAYS |  | 134-135 DAYS |  | 136-137 DAYS |  | 138-139 DAYS |  | 140-141 DAYS |  | 142-143 DAYS |  | 144-145 DAYS |  | 146-147 DAYS |  | 148-149 DAYS |  | 150-151 DAYS |  | 152-153 DAYS |  | 154-155 DAYS |  | 156-157 DAYS |  | 158-159 DAYS |  | 160-161 DAYS |  | 162-163 DAYS |  | 164-165 DAYS |  | 166-167 DAYS |  | 168-169 DAYS |  | 170-171 DAYS |  | 172-173 DAYS |  | 174-175 DAYS |  | 176-177 DAYS |  | 178-179 DAYS |  | 180-181 DAYS |  | 182-183 DAYS |  | 184-185 DAYS |  | 186-187 DAYS |  | 188-189 DAYS |  | 190-191 DAYS |  | 192-193 DAYS |  | 194-195 DAYS |  | 196-197 DAYS |  | 198-199 DAYS |  | 200-201 DAYS |  | 202-203 DAYS |  | 204-205 DAYS |  | 206-207 DAYS |  | 208-209 DAYS |  | 210-211 DAYS |  | 212-213 DAYS |  | 214-215 DAYS |  | 216-217 DAYS |  | 218-219 DAYS |  | 220-221 DAYS |  | 222-223 DAYS |  | 224-225 DAYS |  | 226-227 DAYS |  | 228-229 DAYS |  | 230-231 DAYS |  | 232-233 DAYS |  | 234-235 DAYS |  | 236-237 DAYS |  | 238-239 DAYS |  | 240-241 DAYS |  | 242-243 DAYS |  | 244-245 DAYS |  | 246-247 DAYS |  | 248-249 DAYS |  | 250-251 DAYS |  | 252-253 DAYS |  | 254-255 DAYS |  | 256-257 DAYS |  | 258-259 DAYS |  | 260-261 DAYS |  | 262-263 DAYS |  | 264-265 DAYS |  | 266-267 DAYS |  | 268-269 DAYS |  | 270-271 DAYS |  | 272-273 DAYS |  | 274-275 DAYS |  | 276-277 DAYS |  | 278-279 DAYS |  | 280-281 DAYS |  | 282-283 DAYS |  | 284-285 DAYS |  | 286-287 DAYS |  | 288-289 DAYS |  | 290-291 DAYS |  | 292-293 DAYS |  | 294-295 DAYS |  | 296-297 DAYS |  | 298-299 DAYS |  | 300-301 DAYS |  | 302-303 DAYS |  | 304-305 DAYS |  | 306-307 DAYS |  | 308-309 DAYS |  | 310-311 DAYS |  | 312-313 DAYS |  | 314-315 DAYS |  | 316-317 DAYS |  | 318-319 DAYS |  | 320-321 DAYS |  | 322-323 DAYS |  | 324-325 DAYS |  | 326-327 DAYS |  | 328-329 DAYS |  | 330-331 DAYS |  | 332-333 DAYS |  | 334-335 DAYS |  | 336-337 DAYS |  | 338-339 DAYS |  | 340-341 DAYS |  | 342-343 DAYS |  | 344-345 DAYS |  | 346-347 DAYS |  | 348-349 DAYS |  | 350-351 DAYS |  | 352-353 DAYS |  | 354-355 DAYS |  | 356-357 DAYS |  | 358-359 DAYS |  | 360-361 DAYS |  | 362-363 DAYS |  | 364-365 DAYS |  | 366-367 DAYS |  | 368-369 DAYS |  | 370-371 DAYS |  | 372-373 DAYS |  | 374-375 DAYS |  | 376-377 DAYS |  | 378-379 DAYS |  | 380-381 DAYS |  | 382-383 DAYS |  | 384-385 DAYS |  | 386-387 DAYS |  | 388-389 DAYS |  | 390-391 DAYS |  | 392-393 DAYS |  | 394-395 DAYS |  | 396-397 DAYS |  | 398-399 DAYS |  | 400-401 DAYS |  | 402-403 DAYS |  | 404-405 DAYS |  | 406-407 DAYS |  | 408-409 DAYS |  | 410-411 DAYS |  | 412-413 DAYS |  | 414-415 DAYS |  | 416-417 DAYS |  | 418-419 DAYS |  | 420-421 DAYS |  | 422-423 DAYS |  | 424-425 DAYS |  | 426-427 DAYS |  | 428-429 DAYS |  | 430-431 DAYS |  | 432-433 DAYS |  | 434-435 DAYS |  | 436-437 DAYS |  | 438-439 DAYS |  | 440-441 DAYS |  | 442-443 DAYS |  | 444-445 DAYS |  | 446-447 DAYS |  | 448-449 DAYS |  | 450-451 DAYS |  | 452-453 DAYS |  | 454-455 DAYS |  | 456-457 DAYS |  | 458-459 DAYS |  | 460-461 DAYS |  | 462-463 DAYS |  | 464-465 DAYS |  | 466-467 DAYS |  | 468-469 DAYS |  | 470-471 DAYS |  | 472-473 DAYS |  | 474-475 DAYS |  | 476-477 DAYS |  | 478-479 DAYS |  | 480-481 DAYS |  | 482-483 DAYS |  | 484-485 DAYS |  | 486-487 DAYS |  | 488-489 DAYS |  | 490-491 DAYS |  | 492-493 |  |
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|                                   |                                |                                           |                                |                                 |                                             |
|-----------------------------------|--------------------------------|-------------------------------------------|--------------------------------|---------------------------------|---------------------------------------------|
| <input type="checkbox"/> SAME DAY | <input type="checkbox"/> 24 HR | <input checked="" type="checkbox"/> 48 HR | <input type="checkbox"/> 72 HR | <input type="checkbox"/> 5 DAYS | <input checked="" type="checkbox"/> 10 DAYS |
|-----------------------------------|--------------------------------|-------------------------------------------|--------------------------------|---------------------------------|---------------------------------------------|

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING      ☐ ARCHIVE SAMPLES UNTIL \_\_\_\_/\_\_\_\_/\_\_\_\_

SPECIAL INSTRUCTIONS:

New Mexico Site

Report J values.

| LAB USE ONLY | SAMPLE ID | Field Point Name | SAMPLING |      | MAT. RIX | NO. OF CONT. |
|--------------|-----------|------------------|----------|------|----------|--------------|
|              |           |                  | DATE     | TIME |          |              |
| 1            | S-40-B2   | B2/MJ28          | 6/21/18  | 0810 | S        | 2            |
| 2            | S-50-B2   | B2/MJ28          | 6/21/18  | 0855 | S        | 2            |
| 3            |           |                  |          |      | S        | 2            |
| 4            | S-40-B4   | B4/MJ30          | 6/21/18  | 1140 | S        | 2            |
| 5            | S-50-B4   | B4/MJ30          | 6/21/18  | 1230 | S        | 2            |
| 6            |           |                  |          |      | S        | 2            |
| 7            |           |                  |          |      | S        | 2            |
| 8            |           |                  |          |      | S        | 2            |
| 9            |           |                  |          |      | S        | 2            |
| 10           |           |                  |          |      | S        | 2            |

| 10                           | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20                           | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30                | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|------------------------------|----|----|----|----|----|----|----|----|----|------------------------------|----|----|----|----|----|----|----|----|----|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| Relinquished by: (Signature) |    |    |    |    |    |    |    |    |    | <i>Wesley M. [Signature]</i> |    |    |    |    |    |    |    |    |    | Received by: (\$) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Relinquished by: (Signature) |    |    |    |    |    |    |    |    |    | <i>Wesley M. [Signature]</i> |    |    |    |    |    |    |    |    |    | Received by: (\$) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Relinquished by: (Signature) |    |    |    |    |    |    |    |    |    |                              |    |    |    |    |    |    |    |    |    | Received by: (\$) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |

C:\C\Gladiola Station-NM Site COC-soil

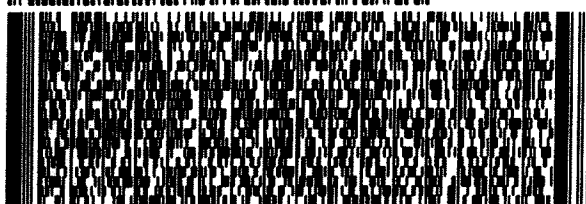


1964

Part # 1562934083-1588287-25K P 09/18

YHU:  
PD:

DEPT:

**FedEx**  
Express

**WED - 27 JUN 10:30A**  
**PRIORITY OVERNIGHT**

## A7 APVA

92841  
CA-US SNA





Calscience

WORK ORDER NUMBER: 18-06-1969

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: CARDNODATE: 06/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 5.6 °C (w/ CF): 5.7 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 15

## CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 15Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: me

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☒ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna<sub>2</sub> ☐ 100PJ ☐ 100PJna<sub>2</sub> ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☐ 250PB ☐ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☐ 1AGB ☐ 1AGBna<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☒ 2 oz CGJ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: mes = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: 1053



Calscience



**WORK ORDER NUMBER: 18-06-1968**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Cardno

**Client Project Name:** ExxonMobil Gladiola Station

**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

*Cecile L. de Guia*

Approved for release on 07/12/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Client Project Name: ExxonMobil Gladiola Station  
Work Order Number: 18-06-1968

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Calscience

*The difference is service*

Work Order: 18-06-1968

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**Work Order Narrative**

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/27/18. They were assigned to Work Order 18-06-1968.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

EPA 8015B(M) GRO

Please note that samples S-25-B3 and S-30-B3 were analyzed past the holding time. Samples were loaded in the machine within holding time but got analyzed just past midnight.

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1968                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | PO Number: 0136122018                     |
|                            | Date/Time Received: 06/27/18 10:00        |
|                            | Number of Containers: 20                  |
| Attn: David Purdy          |                                           |

### Sample Summary

| Sample Identification | Lab Number    | Collection Date and Time | Number of Containers | Matrix |
|-----------------------|---------------|--------------------------|----------------------|--------|
| S-5-B3                | 18-06-1968-1  | 06/22/18 07:25           | 2                    | Solid  |
| S-10-B3               | 18-06-1968-2  | 06/22/18 07:30           | 2                    | Solid  |
| S-15-B3               | 18-06-1968-3  | 06/22/18 07:38           | 2                    | Solid  |
| S-20-B3               | 18-06-1968-4  | 06/22/18 07:46           | 2                    | Solid  |
| S-25-B3               | 18-06-1968-5  | 06/22/18 08:03           | 2                    | Solid  |
| S-30-B3               | 18-06-1968-6  | 06/22/18 08:17           | 2                    | Solid  |
| S-35-B3               | 18-06-1968-7  | 06/22/18 08:25           | 2                    | Solid  |
| S-40-B3               | 18-06-1968-8  | 06/22/18 09:50           | 2                    | Solid  |
| S-45-B3               | 18-06-1968-9  | 06/22/18 10:05           | 2                    | Solid  |
| S-50-B3               | 18-06-1968-10 | 06/22/18 10:35           | 2                    | Solid  |

  
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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| <b>Sample ID: 1 (S-5-B3, Solid) Sampled: 06/22/18 07:25</b>                                                                          |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 18     | HD   | mg/kg | 1.2   | 4.9  | 1.00            | 07/02/18 23:48     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 90%    |      |       |       |      |                 | 07/02/18 23:48     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.087 | 0.48 | 1.00            | 07/06/18 22:15     | EPA 8015B | 180706L055 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 84%    |      |       |       |      |                 | 07/06/18 22:15     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.53  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.16  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.57  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.28  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.28  | 5.1  | 1.00            | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 95%    |      |       |       |      |                 | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 97%    |      |       |       |      |                 | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 101%   |      |       |       |      |                 | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 95%    |      |       |       |      |                 | 07/02/18 23:59     | EPA 8260B | 180702L041 |
| <b>Sample ID: 2 (S-10-B3, Solid) Sampled: 06/22/18 07:30</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 18     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/03/18 00:07     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 90%    |      |       |       |      |                 | 07/03/18 00:07     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.089 | 0.49 | 1.00            | 07/06/18 22:48     | EPA 8015B | 180706L055 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 83%    |      |       |       |      |                 | 07/06/18 22:48     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.51  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.55  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 95%    |      |       |       |      |                 | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 95%    |      |       |       |      |                 | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 97%    |      |       |       |      |                 | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 95%    |      |       |       |      |                 | 07/03/18 00:26     | EPA 8260B | 180702L041 |
| <b>Sample ID: 3 (S-15-B3, Solid) Sampled: 06/22/18 07:38</b>                                                                         |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 6.6    | HD   | mg/kg | 1.2   | 5.0  | 1.00            | 07/03/18 00:27     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 87%    |      |       |       |      |                 | 07/03/18 00:27     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.091 | 0.50 | 1.00            | 07/06/18 23:21     | EPA 8015B | 180706L055 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 69%    |      |       |       |      |                 | 07/06/18 23:21     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 97%    |      |       |       |      |                 | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 96%    |      |       |       |      |                 | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 102%   |      |       |       |      |                 | 07/03/18 00:53     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 95%    |      |       |       |      |                 | 07/03/18 00:53     | EPA 8260B | 180702L041 |

**Sample ID: 4 (S-20-B3, Solid) Sampled: 06/22/18 07:46**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                              |     |    |       |     |     |      |                |           |           |
|------------------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics        | 21  | HD | mg/kg | 1.2 | 4.9 | 1.00 | 07/03/18 00:47 | EPA 8015B | 180627B06 |
| Surr: n-Octacosane (42-162%) | 91% |    |       |     |     |      | 07/03/18 00:47 | EPA 8015B | 180627B06 |

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.087 | 0.48 | 1.00 | 07/06/18 23:54 | EPA 8015B | 180706L055 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|





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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

## Analytical Report

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) 81%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/06/18 23:54     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.53  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.57  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%) 96%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%) 95%                                                                                             |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%) 99%                                                                                            |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%) 95%                                                                                                       |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:20     | EPA 8260B | 180702L041 |
| Sample ID: 5 (S-25-B3, Solid) Sampled: 06/22/18 08:03                                                                                |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 11     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/03/18 01:06     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%) 93%                                                                                                     |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:06     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     | BU   | mg/kg | 0.089 | 0.49 | 1.00            | 07/07/18 00:27     | EPA 8015B | 180706L055 |
| Surr: 1,4-Bromofluorobenzene (42-126%) 70%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/07/18 00:27     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%) 98%                                                                                           |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%) 95%                                                                                             |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%) 99%                                                                                            |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:47     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%) 94%                                                                                                       |        |      |       |       |      |                 |                    |           |            |
|                                                                                                                                      |        |      |       |       |      |                 | 07/03/18 01:47     | EPA 8260B | 180702L041 |

### Sample ID: 6 (S-30-B3, Solid) Sampled: 06/22/18 08:17

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                                                                                                  | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Diesel Range Organics                                                                                                                                                                                    | 29     | HD   | mg/kg | 1.2   | 5.0  | 1.00            | 07/03/18 01:27     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                                                                                             | 84%    |      |       |       |      |                 | 07/03/18 01:27     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                                                                                                  | ND     | BU   | mg/kg | 0.093 | 0.51 | 1.00            | 07/07/18 01:00     | EPA 8015B | 180706L055 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                                                                                                   | 77%    |      |       |       |      |                 | 07/07/18 01:00     | EPA 8015B | 180706L055 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.51  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                                                                                             | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                                                                                                 | ND     |      | ug/kg | 0.55  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                                                                                               | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                                                                                          | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                                                                                                   | 97%    |      |       |       |      |                 | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                                                                                     | 97%    |      |       |       |      |                 | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                                                                                    | 100%   |      |       |       |      |                 | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                                                                                               | 93%    |      |       |       |      |                 | 07/03/18 02:13     | EPA 8260B | 180702L041 |
| <b>Sample ID: 7 (S-35-B3, Solid) Sampled: 06/22/18 08:25</b>                                                                                                                                             |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                                                                                    | 48     | HD   | mg/kg | 1.2   | 5.0  | 1.00            | 07/03/18 01:46     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                                                                                             | 87%    |      |       |       |      |                 | 07/03/18 01:46     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.       |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                                                                                                  | ND     |      | mg/kg | 0.095 | 0.52 | 1.00            | 07/06/18 20:35     | EPA 8015B | 180706L054 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                                                                                                   | 86%    |      |       |       |      |                 | 07/06/18 20:35     | EPA 8015B | 180706L054 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B<br>- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.13  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                                                                                                  | ND     |      | ug/kg | 0.53  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                                                                                             | ND     |      | ug/kg | 0.15  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                                                                                                 | ND     |      | ug/kg | 0.57  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                                                                                               | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                                                                                          | ND     |      | ug/kg | 0.27  | 5.1  | 1.00            | 07/03/18 02:40     | EPA 8260B | 180702L041 |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1968                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |
| Attn: David Purdy          |                                           |

**Analytical Report**

| Analyte                                | Result | Flag | Units | MDL | RL | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|----------------------------------------|--------|------|-------|-----|----|-----------------|--------------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (80-120%) | 105%   |      |       |     |    |                 | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)   | 97%    |      |       |     |    |                 | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 100%   |      |       |     |    |                 | 07/03/18 02:40     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)             | 99%    |      |       |     |    |                 | 07/03/18 02:40     | EPA 8260B | 180702L041 |

**Sample ID: 8 (S-40-B3, Solid) Sampled: 06/22/18 09:50**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                       |    |    |       |     |     |      |                |           |           |
|-----------------------|----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics | 19 | HD | mg/kg | 1.2 | 5.0 | 1.00 | 07/03/18 02:07 | EPA 8015B | 180627B06 |
|-----------------------|----|----|-------|-----|-----|------|----------------|-----------|-----------|

|                              |     |  |  |  |  |  |                |           |           |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|
| Surr: n-Octacosane (42-162%) | 89% |  |  |  |  |  | 07/03/18 02:07 | EPA 8015B | 180627B06 |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.093 | 0.51 | 1.00 | 07/06/18 21:07 | EPA 8015B | 180706L054 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) | 80% |  |  |  |  |  | 07/06/18 21:07 | EPA 8015B | 180706L054 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                 |    |  |       |      |     |      |                |           |            |
|-----------------|----|--|-------|------|-----|------|----------------|-----------|------------|
| Benzene         | ND |  | ug/kg | 0.14 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |
| Toluene         | ND |  | ug/kg | 0.54 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |
| Ethylbenzene    | ND |  | ug/kg | 0.16 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |
| o-Xylene        | ND |  | ug/kg | 0.58 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |
| p/m-Xylene      | ND |  | ug/kg | 0.28 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |
| Xylenes (total) | ND |  | ug/kg | 0.28 | 5.2 | 1.00 | 07/03/18 03:07 | EPA 8260B | 180702L041 |

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (80-120%) | 96% |  |  |  |  |  | 07/03/18 03:07 | EPA 8260B | 180702L041 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

|                                      |     |  |  |  |  |  |                |           |            |
|--------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: Dibromofluoromethane (79-133%) | 97% |  |  |  |  |  | 07/03/18 03:07 | EPA 8260B | 180702L041 |
|--------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

|                                       |      |  |  |  |  |  |                |           |            |
|---------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,2-Dichloroethane-d4 (71-155%) | 101% |  |  |  |  |  | 07/03/18 03:07 | EPA 8260B | 180702L041 |
|---------------------------------------|------|--|--|--|--|--|----------------|-----------|------------|

|                            |     |  |  |  |  |  |                |           |            |
|----------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: Toluene-d8 (80-120%) | 94% |  |  |  |  |  | 07/03/18 03:07 | EPA 8260B | 180702L041 |
|----------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

**Sample ID: 9 (S-45-B3, Solid) Sampled: 06/22/18 10:05**

EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                       |     |    |       |     |     |      |                |           |           |
|-----------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|
| Diesel Range Organics | 9.4 | HD | mg/kg | 1.3 | 5.0 | 1.00 | 07/03/18 02:26 | EPA 8015B | 180627B06 |
|-----------------------|-----|----|-------|-----|-----|------|----------------|-----------|-----------|

|                              |     |  |  |  |  |  |                |           |           |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|
| Surr: n-Octacosane (42-162%) | 90% |  |  |  |  |  | 07/03/18 02:26 | EPA 8015B | 180627B06 |
|------------------------------|-----|--|--|--|--|--|----------------|-----------|-----------|

EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.

|                         |    |  |       |       |      |      |                |           |            |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|
| Gasoline Range Organics | ND |  | mg/kg | 0.088 | 0.49 | 1.00 | 07/06/18 21:39 | EPA 8015B | 180706L054 |
|-------------------------|----|--|-------|-------|------|------|----------------|-----------|------------|

|                                        |     |  |  |  |  |  |                |           |            |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|
| Surr: 1,4-Bromofluorobenzene (42-126%) | 76% |  |  |  |  |  | 07/06/18 21:39 | EPA 8015B | 180706L054 |
|----------------------------------------|-----|--|--|--|--|--|----------------|-----------|------------|

EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B

- Results were evaluated to the MDL (DL), concentrations &gt;= to the MDL (DL) but &lt; RL (LOQ), if found, are qualified with a "J" flag.



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### Analytical Report

| Analyte                                                                                                                              | Result | Flag | Units | MDL   | RL   | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|-----------------|--------------------|-----------|------------|
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.52  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 03:34     | EPA 8260B | 180702L041 |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 98%    |      |       |       |      |                 | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 97%    |      |       |       |      |                 | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 100%   |      |       |       |      |                 | 07/03/18 03:34     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 99%    |      |       |       |      |                 | 07/03/18 03:34     | EPA 8260B | 180702L041 |
|                                                                                                                                      |        |      |       |       |      |                 |                    |           |            |
| <b>Sample ID: 10 (S-50-B3, Solid) Sampled: 06/22/18 10:35</b>                                                                        |        |      |       |       |      |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 10     | HD   | mg/kg | 1.3   | 5.0  | 1.00            | 07/03/18 02:46     | EPA 8015B | 180627B06  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 88%    |      |       |       |      |                 | 07/03/18 02:46     | EPA 8015B | 180627B06  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.089 | 0.49 | 1.00            | 07/06/18 22:10     | EPA 8015B | 180706L054 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 51%    |      |       |       |      |                 | 07/06/18 22:10     | EPA 8015B | 180706L054 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |       |      |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |       |      |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | ug/kg | 0.13  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Toluene                                                                                                                              | ND     |      | ug/kg | 0.51  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Ethylbenzene                                                                                                                         | ND     |      | ug/kg | 0.15  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| o-Xylene                                                                                                                             | ND     |      | ug/kg | 0.56  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| p/m-Xylene                                                                                                                           | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Xylenes (total)                                                                                                                      | ND     |      | ug/kg | 0.27  | 5.0  | 1.00            | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 96%    |      |       |       |      |                 | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 98%    |      |       |       |      |                 | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 101%   |      |       |       |      |                 | 07/03/18 04:01     | EPA 8260B | 180702L041 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 102%   |      |       |       |      |                 | 07/03/18 04:01     | EPA 8260B | 180702L041 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1968  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

### PROJECT QUALITY CONTROL DATA Blank

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| <b>EPA 8015B DRO</b>                   |             |            |       |            |                 |                    |
| <b>099-15-414-1135</b>                 |             |            |       |            |                 |                    |
| Diesel Range Organics                  | ND          |            | mg/kg | 180627B06  | 099-15-414-1135 | 07/02/18 22:29     |
| Surr: n-Octacosane (42-162%)           | 95%         |            |       | 180627B06  | 099-15-414-1135 | 07/02/18 22:29     |
| <b>EPA 8015B GRO</b>                   |             |            |       |            |                 |                    |
| <b>099-12-024-1221</b>                 |             |            |       |            |                 |                    |
| Gasoline Range Organics                | ND          |            | mg/kg | 180706L055 | 099-12-024-1221 | 07/06/18 21:41     |
| Surr: 1,4-Bromofluorobenzene (42-126%) | 79%         |            |       | 180706L055 | 099-12-024-1221 | 07/06/18 21:41     |
| <b>EPA 8015B GRO</b>                   |             |            |       |            |                 |                    |
| <b>099-12-024-1220</b>                 |             |            |       |            |                 |                    |
| Gasoline Range Organics                | ND          |            | mg/kg | 180706L054 | 099-12-024-1220 | 07/06/18 19:32     |
| Surr: 1,4-Bromofluorobenzene (42-126%) | 76%         |            |       | 180706L054 | 099-12-024-1220 | 07/06/18 19:32     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2086</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Toluene                                | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Ethylbenzene                           | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| o-Xylene                               | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| p/m-Xylene                             | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Xylenes (total)                        | ND          |            | ug/kg | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 97%         |            |       | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Surr: Dibromofluoromethane (79-133%)   | 96%         |            |       | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 98%         |            |       | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |
| Surr: Toluene-d8 (80-120%)             | 93%         |            |       | 180702L041 | 099-12-882-2086 | 07/02/18 23:05     |

  
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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1968                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL  
Matrix Spike**

| Analyte                    | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|----------------------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1968-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Diesel Range Organics      | 17.92      | 435.8   |       | mg/kg | 400.0       | 104    | 33-153       | 180627S06  | 18-06-1968-1  | 07/02/18 23:09     |
| <b>EPA 8015B GRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1968-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics    | ND         | 6.322   | HX    | mg/kg | 10.00       | 63     | 66-108       | 180706S021 | 18-06-1968-1  | 07/07/18 01:33     |
| <b>EPA 8015B GRO</b>       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-07-0166-4</b>        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics    | ND         | 7.126   |       | mg/kg | 10.00       | 71     | 66-108       | 180706S020 | 18-07-0166-4  | 07/07/18 09:27     |
| <b>EPA 8260B BTEX/MTBE</b> |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1968-1</b>        |            |         |       |       |             |        |              |            |               |                    |
| Benzene                    | ND         | 36.27   |       | ug/kg | 50.00       | 73     | 61-127       | 180702S016 | 18-06-1968-1  | 07/03/18 05:21     |
| Toluene                    | ND         | 37.17   |       | ug/kg | 50.00       | 74     | 63-123       | 180702S016 | 18-06-1968-1  | 07/03/18 05:21     |
| Ethylbenzene               | ND         | 38.69   |       | ug/kg | 50.00       | 77     | 57-129       | 180702S016 | 18-06-1968-1  | 07/03/18 05:21     |
| o-Xylene                   | ND         | 38.45   |       | ug/kg | 50.00       | 77     | 70-130       | 180702S016 | 18-06-1968-1  | 07/03/18 05:21     |
| p/m-Xylene                 | ND         | 75.87   |       | ug/kg | 100.0       | 76     | 70-130       | 180702S016 | 18-06-1968-1  | 07/03/18 05:21     |

  
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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1968                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL**  
**Matrix Spike Duplicate**

| Analyte                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|----------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1968-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Diesel Range Organics      | 17.92      | 400.3     |       | mg/kg | 400.0       | 96     | 33-153       | 8   | 0-32  | 180627S06  | 18-06-1968-1      | 07/02/18 23:28     |
| <b>EPA 8015B GRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1968-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics    | ND         | 5.685     | HX    | mg/kg | 10.00       | 57     | 66-108       | 11  | 0-18  | 180706S021 | 18-06-1968-1      | 07/07/18 02:06     |
| <b>EPA 8015B GRO</b>       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-07-0166-4</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics    | ND         | 6.617     |       | mg/kg | 10.00       | 66     | 66-108       | 7   | 0-18  | 180706S020 | 18-07-0166-4      | 07/07/18 09:59     |
| <b>EPA 8260B BTEX/MTBE</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1968-1</b>        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                    | ND         | 35.57     |       | ug/kg | 50.00       | 71     | 61-127       | 2   | 0-20  | 180702S016 | 18-06-1968-1      | 07/03/18 05:48     |
| Toluene                    | ND         | 36.65     |       | ug/kg | 50.00       | 73     | 63-123       | 1   | 0-20  | 180702S016 | 18-06-1968-1      | 07/03/18 05:48     |
| Ethylbenzene               | ND         | 39.34     |       | ug/kg | 50.00       | 79     | 57-129       | 2   | 0-22  | 180702S016 | 18-06-1968-1      | 07/03/18 05:48     |
| o-Xylene                   | ND         | 38.65     |       | ug/kg | 50.00       | 77     | 70-130       | 1   | 0-30  | 180702S016 | 18-06-1968-1      | 07/03/18 05:48     |
| p/m-Xylene                 | ND         | 77.31     |       | ug/kg | 100.0       | 77     | 70-130       | 2   | 0-30  | 180702S016 | 18-06-1968-1      | 07/03/18 05:48     |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1968                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**PROJECT QUALITY CONTROL DATA**  
**Laboratory Control Sample**

| Analyte                    | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|----------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 8015B DRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-15-414-1135</b>     |            |          |       |       |        |              |            |                    |
| Diesel Range Organics      | 400.0      | 365.3    |       | mg/kg | 91     | 67-121       | 180627B06  | 07/02/18 22:49     |
| <b>EPA 8015B GRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1221</b>     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics    | 10.00      | 7.290    |       | mg/kg | 73     | 70-118       | 180706L055 | 07/07/18 09:01     |
| <b>EPA 8015B GRO</b>       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1220</b>     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics    | 10.00      | 7.398    |       | mg/kg | 74     | 70-118       | 180706L054 | 07/06/18 19:00     |
| <b>EPA 8260B BTEX/MTBE</b> |            |          |       |       |        |              |            |                    |
| <b>099-12-882-2086</b>     |            |          |       |       |        |              |            |                    |
| Benzene                    | 50.00      | 45.67    |       | ug/kg | 91     | 80-120       | 180702L041 | 07/02/18 22:12     |
| Toluene                    | 50.00      | 46.52    |       | ug/kg | 93     | 80-120       | 180702L041 | 07/02/18 22:12     |
| Ethylbenzene               | 50.00      | 48.61    |       | ug/kg | 97     | 80-120       | 180702L041 | 07/02/18 22:12     |
| o-Xylene                   | 50.00      | 48.57    |       | ug/kg | 97     | 75-125       | 180702L041 | 07/02/18 22:12     |
| p/m-Xylene                 | 100.0      | 96.53    |       | ug/kg | 97     | 75-125       | 180702L041 | 07/02/18 22:12     |

  
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Work Order: 18-06-1968 Page 1 of 1

Sample Analysis Summary Report

| Method    | Extraction | Chemist ID | Instrument | Analytical Location |
|-----------|------------|------------|------------|---------------------|
| EPA 8015B | EPA 3550B  | 682        | GC 50      | 1                   |
| EPA 8015B | EPA 5030C  | 607        | GC 22      | 2                   |
| EPA 8015B | EPA 5030C  | 607        | GC 56      | 2                   |
| EPA 8260B | EPA 5030C  | 1055       | GC/MS Q    | 2                   |

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841  
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



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Work Order: 18-06-1968

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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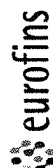
CHAIN OF CUSTODY RECORD

DATE: 6/22/18

PAGE: 1 OF 1

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| Site Name                                        |                             |
| Provide MRN for retail or AFE for major projects |                             |
| Retail Project (MRN)                             |                             |
| Major Project (AFE)                              |                             |
| Project Name                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
Calscience GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501



ExxonMobil Engr: Maria Madden

|                                                                                                                                                                                                                                          |                   |                                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------|--|
| LABORATORY CLIENT:<br>Cardno                                                                                                                                                                                                             |                   | GLOBAL ID # COELT LOG CODE:     |  |
| ADDRESS:<br>20505 Crescent Bay                                                                                                                                                                                                           |                   | PROJECT CONTACT:<br>David Purdy |  |
| CITY:<br>Lake Forest, CA 92630                                                                                                                                                                                                           |                   | SAMPLER(S):<br>Vincent Nguyen   |  |
| TEL: 949-457-8941                                                                                                                                                                                                                        | FAX: 949-457-8956 | P.O. 0136122018                 |  |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input checked="" type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                   | COOLER RECEIPT<br>Temp = °C     |  |
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / /                                                                                         |                   |                                 |  |
| SPECIAL INSTRUCTIONS:<br>New Mexico Site                                                                                                                                                                                                 |                   |                                 |  |
| Report J values.                                                                                                                                                                                                                         |                   |                                 |  |

REQUESTED ANALYSIS

| LAB USE ONLY | SAMPLE ID | Field Point Name | SAMPLING |      | MAT. RIX | NO. OF CONT. |                |               |               |  |  |  |  |  |  |  | CONTAINER TYPE |
|--------------|-----------|------------------|----------|------|----------|--------------|----------------|---------------|---------------|--|--|--|--|--|--|--|----------------|
|              |           |                  | DATE     | TIME |          |              | EPA 8260B BTEX | EPA 8015B GRO | EPA 8015B DRO |  |  |  |  |  |  |  |                |
| 1            | S-5-B3    | B3/MW2A          | 6/22/18  | 0725 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 2            | S-10-B3   |                  |          | 0730 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 3            | S-15-B3   |                  |          | 0738 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 4            | S-20-B3   |                  |          | 0746 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 5            | S-25-B3   |                  |          | 0803 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 6            | S-30-B3   |                  |          | 0817 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 7            | S-35-B3   |                  |          | 0825 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 8            | S-40-B3   |                  |          | 0950 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 9            | S-45-B3   |                  |          | 1005 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |
| 10           | S-50-B3   | B3/MW2A          | 6/22/18  | 1035 | S        | 2            | X              | X             | X             |  |  |  |  |  |  |  | 2x2oz jars     |

Date, & Time: 6/22/18 1130

Date, & Time: 6/27/18 1000

Date, & Time:

Date, & Time:

Date, & Time:

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

1968

ORIGIN ID:MAFA (949) 532-3228  
VINCENT NGUYEN  
CARDNO  
20505 CRESCENT BAY DRLAKE FOREST, CA 92630  
UNITED STATES USSHIP DATE: 26JUN18  
ACTWGT: 46.20 LB  
CAD: 006994482/SSFE1904  
DIMS: 24x14x13 IN

BILL THIRD PARTY

Part # 156293443 J6825-25P 09/18

TO **SAMPLE CONTROL**  
**EUROFINS**  
**7440 LINCOLN WAY****GARDEN GROVE CA 92841**

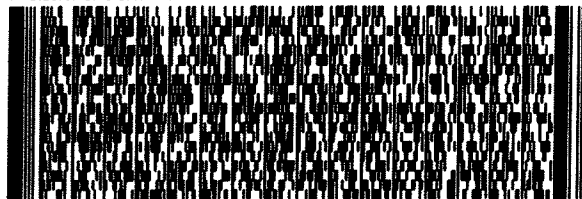
(800) 000-0000

REF:

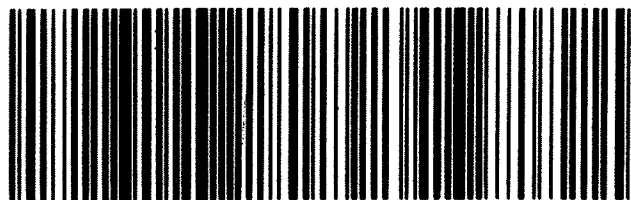
INU:

DEPT:

PO:

**FedEx**  
Express

JUN18110811181J

TRK# 7815 9039 3835  
0201**WED - 27 JUN 10:30A**  
**PRIORITY OVERNIGHT****A7 APVA****92841**  
**CA-US SNA**

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Calscience

WORK ORDER NUMBER: 18-06-1961

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: CARNO

DATE: 06/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 5.6 °C (w/ CF): 5.7 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 15

## CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: J26

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☒ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna ☐ 100PJ ☐ 100PJna ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☐ 250PB ☐ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☐ 1AGB ☐ 1AGBna ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (2/20/06) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: J26s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 1053



Supplemental Report 1

Additional requested analyses have been added to the original report.

**WORK ORDER NUMBER: 18-06-1967***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Cardno**Client Project Name:** ExxonMobil Gladiola Station**Attention:** David Purdy  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825Approved for release on 07/12/2018 by:  
Cecile deGuia  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.





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Work Order Number: 18-06-1967

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Work Order: 18-06-1967

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**Work Order Narrative**

---

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 06/27/18. They were assigned to Work Order 18-06-1967.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

**DoD Projects:**

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

  
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Calscience

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | PO Number: 0136122018                     |
|                            | Date/Time Received: 06/27/18 10:00        |
|                            | Number of Containers: 6                   |
| Attn: David Purdy          |                                           |

Sample Summary

| Sample Identification | Lab Number   | Collection Date and Time | Number of Containers | Matrix  |
|-----------------------|--------------|--------------------------|----------------------|---------|
| S-40-B5               | 18-06-1967-1 | 06/23/18 08:45           | 2                    | Solid   |
| S-50-B5               | 18-06-1967-2 | 06/23/18 10:23           | 2                    | Solid   |
| Profile-1             | 18-06-1967-3 | 06/23/18 08:45           | 2                    | Solid   |
| Temperature Blank     | 18-06-1967-4 | 06/23/18 00:00           | 0                    | Aqueous |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL     | RL     | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|---------|--------|-----------------|--------------------|-----------|------------|
| <b>Sample ID: 1 (S-40-B5, Solid) Sampled: 06/23/18 08:45</b>                                                                         |        |      |       |         |        |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | 210    | HD   | mg/kg | 1.3     | 5.0    | 1.00            | 06/27/18 21:09     | EPA 8015B | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 82%    |      |       |         |        |                 | 06/27/18 21:09     | EPA 8015B | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | 7.4    |      | mg/kg | 0.088   | 0.49   | 1.00            | 06/28/18 23:48     | EPA 8015B | 180628L036 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 100%   |      |       |         |        |                 | 06/28/18 23:48     | EPA 8015B | 180628L036 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | mg/kg | 0.00013 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Toluene                                                                                                                              | ND     |      | mg/kg | 0.00051 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Ethylbenzene                                                                                                                         | 0.0057 |      | mg/kg | 0.00015 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| o-Xylene                                                                                                                             | 0.0010 | J    | mg/kg | 0.00055 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| p/m-Xylene                                                                                                                           | 0.020  |      | mg/kg | 0.00026 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Xylenes (total)                                                                                                                      | 0.021  | JA   | mg/kg | 0.00026 | 0.0049 | 1.00            | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 103%   |      |       |         |        |                 | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 95%    |      |       |         |        |                 | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 96%    |      |       |         |        |                 | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 99%    |      |       |         |        |                 | 07/03/18 15:06     | EPA 8260B | 180703L006 |
| <b>Sample ID: 2 (S-50-B5, Solid) Sampled: 06/23/18 10:23</b>                                                                         |        |      |       |         |        |                 |                    |           |            |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Diesel Range Organics                                                                                                                | ND     | HD   | mg/kg | 1.3     | 5.0    | 1.00            | 06/27/18 21:29     | EPA 8015B | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 89%    |      |       |         |        |                 | 06/27/18 21:29     | EPA 8015B | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg | 0.087   | 0.48   | 1.00            | 07/02/18 19:57     | EPA 8015B | 180702L022 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 75%    |      |       |         |        |                 | 07/02/18 19:57     | EPA 8015B | 180702L022 |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | mg/kg | 0.00013 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B | 180703L006 |
| Toluene                                                                                                                              | ND     |      | mg/kg | 0.00053 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B | 180703L006 |
| Ethylbenzene                                                                                                                         | ND     |      | mg/kg | 0.00016 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B | 180703L006 |
| o-Xylene                                                                                                                             | ND     |      | mg/kg | 0.00058 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B | 180703L006 |

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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units    | MDL     | RL     | Dilution Factor | Analysis Date/Time | Method            | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|----------|---------|--------|-----------------|--------------------|-------------------|------------|
| p/m-Xylene                                                                                                                           | ND     |      | mg/kg    | 0.00028 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| Xylenes (total)                                                                                                                      | ND     |      | mg/kg    | 0.00028 | 0.0052 | 1.00            | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 98%    |      |          |         |        |                 | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 96%    |      |          |         |        |                 | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 99%    |      |          |         |        |                 | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 95%    |      |          |         |        |                 | 07/03/18 15:33     | EPA 8260B         | 180703L006 |
| <b>Sample ID: 3 (Profile-1, Solid) Sampled: 06/23/18 08:45</b>                                                                       |        |      |          |         |        |                 |                    |                   |            |
| EPA 1010A(M) Ignitability (Extraction Method: N/A) Container - B                                                                     |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Ignitability                                                                                                                         | >212   |      | °F       | 70      | 70     | 1.00            | 06/28/18 13:00     | EPA 1010A(M)      | I0628FPD1  |
| EPA 9045C pH (Extraction Method: N/A) Container - A                                                                                  |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| pH                                                                                                                                   | 8.65   |      | pH units | 0.01    | 0.01   | 1.00            | 06/27/18 20:00     | EPA 9045C         | I0627PHD3  |
| SW-846 Chapter 7 Reactive Cyanide (Extraction Method: N/A) Container - A                                                             |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Cyanide, Reactive                                                                                                                    | ND     |      | mg/kg    | 0.24    | 0.50   | 1.00            | 06/27/18 16:00     | SW-846, Chapter 7 | I0627RCNB1 |
| SW-846 Chapter 7 Reactive Sulfide (Extraction Method: N/A) Container - A                                                             |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Sulfide, Reactive                                                                                                                    | ND     |      | mg/kg    | 1.2     | 2.0    | 1.00            | 06/27/18 16:13     | SW-846, Chapter 7 | I0627RSB1  |
| EPA 8015B DRO (Extraction Method: EPA 3550B) Container - A                                                                           |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Diesel Range Organics                                                                                                                | 160    | HD   | mg/kg    | 1.2     | 5.0    | 1.00            | 06/27/18 21:50     | EPA 8015B         | 180627B07  |
| Surr: n-Octacosane (42-162%)                                                                                                         | 91%    |      |          |         |        |                 | 06/27/18 21:50     | EPA 8015B         | 180627B07  |
| EPA 8015B GRO (Extraction Method: EPA 5030C) Container - B                                                                           |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Gasoline Range Organics                                                                                                              | ND     |      | mg/kg    | 0.090   | 0.50   | 1.00            | 06/28/18 15:02     | EPA 8015B         | 180628L036 |
| Surr: 1,4-Bromofluorobenzene (42-126%)                                                                                               | 58%    |      |          |         |        |                 | 06/28/18 15:02     | EPA 8015B         | 180628L036 |
| EPA 6010B/7471A CAC Title 22 Metals (Extraction Method: EPA 3050B) Container - A                                                     |        |      |          |         |        |                 |                    |                   |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |          |         |        |                 |                    |                   |            |
| Antimony                                                                                                                             | ND     |      | mg/kg    | 0.154   | 0.773  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Arsenic                                                                                                                              | 20.8   |      | mg/kg    | 0.267   | 0.773  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Barium                                                                                                                               | 143    |      | mg/kg    | 0.159   | 0.515  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Beryllium                                                                                                                            | ND     |      | mg/kg    | 0.141   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Cadmium                                                                                                                              | 0.199  | J    | mg/kg    | 0.140   | 0.515  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Chromium                                                                                                                             | 2.60   |      | mg/kg    | 0.147   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Cobalt                                                                                                                               | 1.02   |      | mg/kg    | 0.153   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Copper                                                                                                                               | 3.49   |      | mg/kg    | 0.139   | 0.515  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |
| Lead                                                                                                                                 | ND     |      | mg/kg    | 0.136   | 0.515  | 1.03            | 06/28/18 17:44     | EPA 6010B         | 180628L03  |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**Analytical Report**

| Analyte                                                                                                                              | Result | Flag | Units | MDL     | RL     | Dilution Factor | Analysis Date/Time | Method    | Batch      |
|--------------------------------------------------------------------------------------------------------------------------------------|--------|------|-------|---------|--------|-----------------|--------------------|-----------|------------|
| Molybdenum                                                                                                                           | 0.413  |      | mg/kg | 0.136   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Nickel                                                                                                                               | 2.60   |      | mg/kg | 0.149   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Selenium                                                                                                                             | ND     |      | mg/kg | 0.309   | 0.773  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Silver                                                                                                                               | 0.260  |      | mg/kg | 0.0884  | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Thallium                                                                                                                             | ND     |      | mg/kg | 0.156   | 0.773  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Vanadium                                                                                                                             | 11.6   |      | mg/kg | 0.146   | 0.258  | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| Zinc                                                                                                                                 | 4.11   |      | mg/kg | 0.183   | 1.03   | 1.03            | 06/28/18 17:44     | EPA 6010B | 180628L03  |
| EPA 7471A Mercury (Extraction Method: EPA 7471A Total) Container - A                                                                 |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Mercury                                                                                                                              | ND     |      | mg/kg | 0.00578 | 0.0820 | 1.00            | 06/28/18 12:59     | EPA 7471A | 180627L03  |
| EPA 8260B BTEX/MTBE (Extraction Method: EPA 5030C) Container - B                                                                     |        |      |       |         |        |                 |                    |           |            |
| - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. |        |      |       |         |        |                 |                    |           |            |
| Benzene                                                                                                                              | ND     |      | mg/kg | 0.00013 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Toluene                                                                                                                              | ND     |      | mg/kg | 0.00052 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Ethylbenzene                                                                                                                         | ND     |      | mg/kg | 0.00015 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| o-Xylene                                                                                                                             | ND     |      | mg/kg | 0.00056 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| p/m-Xylene                                                                                                                           | ND     |      | mg/kg | 0.00027 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Xylenes (total)                                                                                                                      | ND     |      | mg/kg | 0.00027 | 0.0050 | 1.00            | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Surr: 1,4-Bromofluorobenzene (80-120%)                                                                                               | 90%    |      |       |         |        |                 | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Surr: Dibromofluoromethane (79-133%)                                                                                                 | 91%    |      |       |         |        |                 | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Surr: 1,2-Dichloroethane-d4 (71-155%)                                                                                                | 86%    |      |       |         |        |                 | 06/27/18 15:30     | EPA 8260B | 180627L019 |
| Surr: Toluene-d8 (80-120%)                                                                                                           | 98%    |      |       |         |        |                 | 06/27/18 15:30     | EPA 8260B | 180627L019 |

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Client: Cardno

20505 Crescent Bay Drive

Lake Forest, CA 92630-8825

Work Order: 18-06-1967

Project Name: ExxonMobil Gladiola Station

Date Received: 06/27/18

Attn: David Purdy

PROJECT QUALITY CONTROL DATA

Blank

| Analyte                                    | Blank Value | Qualifiers | Units | QC Batch   | Lab Number       | Analysis Date/Time |
|--------------------------------------------|-------------|------------|-------|------------|------------------|--------------------|
| <b>SW-846 Chapter 7 Reactive Cyanide</b>   |             |            |       |            |                  |                    |
| <b>099-05-031-2416</b>                     |             |            |       |            |                  |                    |
| Cyanide, Reactive                          | ND          |            | mg/kg | I0627RCNB1 | 099-05-031-2416  | 06/27/18 16:00     |
| <b>SW-846 Chapter 7 Reactive Sulfide</b>   |             |            |       |            |                  |                    |
| <b>099-05-033-3365</b>                     |             |            |       |            |                  |                    |
| Sulfide, Reactive                          | ND          |            | mg/kg | I0627RSB1  | 099-05-033-3365  | 06/27/18 16:13     |
| <b>EPA 8015B DRO</b>                       |             |            |       |            |                  |                    |
| <b>099-15-414-1129</b>                     |             |            |       |            |                  |                    |
| Diesel Range Organics                      | ND          |            | mg/kg | 180627B07  | 099-15-414-1129  | 06/27/18 19:45     |
| Surr: n-Octacosane (42-162%)               | 83%         |            |       | 180627B07  | 099-15-414-1129  | 06/27/18 19:45     |
| <b>EPA 8015B GRO</b>                       |             |            |       |            |                  |                    |
| <b>099-12-024-1216</b>                     |             |            |       |            |                  |                    |
| Gasoline Range Organics                    | ND          |            | mg/kg | 180628L036 | 099-12-024-1216  | 06/28/18 13:51     |
| Surr: 1,4-Bromofluorobenzene (42-126%)     | 50%         |            |       | 180628L036 | 099-12-024-1216  | 06/28/18 13:51     |
| <b>EPA 8015B GRO</b>                       |             |            |       |            |                  |                    |
| <b>099-12-024-1217</b>                     |             |            |       |            |                  |                    |
| Gasoline Range Organics                    | ND          |            | mg/kg | 180702L022 | 099-12-024-1217  | 07/02/18 12:42     |
| Surr: 1,4-Bromofluorobenzene (42-126%)     | 84%         |            |       | 180702L022 | 099-12-024-1217  | 07/02/18 12:42     |
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |             |            |       |            |                  |                    |
| <b>097-01-002-26499</b>                    |             |            |       |            |                  |                    |
| Antimony                                   | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Arsenic                                    | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Barium                                     | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Beryllium                                  | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Cadmium                                    | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Chromium                                   | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Cobalt                                     | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Copper                                     | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Lead                                       | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Molybdenum                                 | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Nickel                                     | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Selenium                                   | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Silver                                     | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Thallium                                   | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Vanadium                                   | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| Zinc                                       | ND          |            | mg/kg | 180628L03  | 097-01-002-26499 | 06/28/18 17:22     |
| <b>EPA 7471A Mercury</b>                   |             |            |       |            |                  |                    |



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

Attn: David Purdy

**PROJECT QUALITY CONTROL DATA**  
**Blank**

| Analyte                                | Blank Value | Qualifiers | Units | QC Batch   | Lab Number      | Analysis Date/Time |
|----------------------------------------|-------------|------------|-------|------------|-----------------|--------------------|
| <b>099-16-272-3926</b>                 |             |            |       |            |                 |                    |
| Mercury                                | ND          |            | mg/kg | 180627L03  | 099-16-272-3926 | 06/27/18 17:49     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2085</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Toluene                                | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Ethylbenzene                           | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| o-Xylene                               | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| p/m-Xylene                             | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Xylenes (total)                        | ND          |            | mg/kg | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 97%         |            |       | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Surr: Dibromofluoromethane (79-133%)   | 97%         |            |       | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 99%         |            |       | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| Surr: Toluene-d8 (80-120%)             | 94%         |            |       | 180703L006 | 099-12-882-2085 | 07/03/18 10:57     |
| <b>EPA 8260B BTEX/MTBE</b>             |             |            |       |            |                 |                    |
| <b>099-12-882-2080</b>                 |             |            |       |            |                 |                    |
| Benzene                                | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Toluene                                | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Ethylbenzene                           | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| o-Xylene                               | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| p/m-Xylene                             | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Xylenes (total)                        | ND          |            | mg/kg | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Surr: 1,4-Bromofluorobenzene (80-120%) | 89%         |            |       | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Surr: Dibromofluoromethane (79-133%)   | 102%        |            |       | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Surr: 1,2-Dichloroethane-d4 (71-155%)  | 101%        |            |       | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |
| Surr: Toluene-d8 (80-120%)             | 100%        |            |       | 180627L019 | 099-12-882-2080 | 06/27/18 11:52     |

  
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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL  
Matrix Spike**

| Analyte                                    | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|--------------------------------------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| <b>EPA 8015B DRO</b>                       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2008-1</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Diesel Range Organics                      | ND         | 331.9   |       | mg/kg | 400.0       | 83     | 33-153       | 180627S07  | 18-06-2008-1  | 06/27/18 20:26     |
| <b>EPA 8015B GRO</b>                       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1967-3</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics                    | ND         | 7.004   |       | mg/kg | 10.00       | 70     | 66-108       | 180628S011 | 18-06-1967-3  | 06/28/18 15:37     |
| <b>EPA 8015B GRO</b>                       |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2033-1</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Gasoline Range Organics                    | ND         | 4.213   | HX    | mg/kg | 10.00       | 42     | 66-108       | 180702S009 | 18-06-2033-1  | 07/02/18 14:23     |
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2045-1</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Antimony                                   | ND         | 4.916   | HX    | mg/kg | 25.00       | 20     | 50-115       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Arsenic                                    | 4.178      | 28.35   |       | mg/kg | 25.00       | 97     | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Barium                                     | 79.92      | 105.8   |       | mg/kg | 25.00       | 104    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Beryllium                                  | ND         | 27.23   |       | mg/kg | 25.00       | 109    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Cadmium                                    | ND         | 26.90   |       | mg/kg | 25.00       | 108    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Chromium                                   | 6.359      | 33.42   |       | mg/kg | 25.00       | 108    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Cobalt                                     | 4.257      | 31.44   |       | mg/kg | 25.00       | 109    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Copper                                     | 8.372      | 33.52   |       | mg/kg | 25.00       | 101    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Lead                                       | 7.527      | 34.48   |       | mg/kg | 25.00       | 108    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Molybdenum                                 | 0.4633     | 21.67   |       | mg/kg | 25.00       | 85     | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Nickel                                     | 4.048      | 31.25   |       | mg/kg | 25.00       | 109    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Selenium                                   | 2.075      | 25.07   |       | mg/kg | 25.00       | 92     | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Silver                                     | ND         | 12.99   |       | mg/kg | 12.50       | 104    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Thallium                                   | ND         | 28.44   |       | mg/kg | 25.00       | 114    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Vanadium                                   | 20.56      | 46.52   |       | mg/kg | 25.00       | 104    | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| Zinc                                       | 30.38      | 52.48   |       | mg/kg | 25.00       | 88     | 75-125       | 180628S03  | 18-06-2045-1  | 06/28/18 17:27     |
| <b>EPA 7471A Mercury</b>                   |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-1790-5</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Mercury                                    | ND         | 0.7783  |       | mg/kg | 0.8350      | 93     | 71-137       | 180627S03  | 18-06-1790-5  | 06/27/18 17:56     |
| <b>EPA 8260B BTEX/MTBE</b>                 |            |         |       |       |             |        |              |            |               |                    |
| <b>18-06-2114-2</b>                        |            |         |       |       |             |        |              |            |               |                    |
| Benzene                                    | ND         | 26.47   |       | mg/kg | 25.00       | 106    | 61-127       | 180703S003 | 18-06-2114-2  | 07/03/18 12:25     |
| Toluene                                    | ND         | 26.74   |       | mg/kg | 25.00       | 107    | 63-123       | 180703S003 | 18-06-2114-2  | 07/03/18 12:25     |
| Ethylbenzene                               | ND         | 28.82   |       | mg/kg | 25.00       | 115    | 57-129       | 180703S003 | 18-06-2114-2  | 07/03/18 12:25     |
| o-Xylene                                   | ND         | 27.97   |       | mg/kg | 25.00       | 112    | 70-130       | 180703S003 | 18-06-2114-2  | 07/03/18 12:25     |
| p/m-Xylene                                 | ND         | 57.33   |       | mg/kg | 50.00       | 115    | 70-130       | 180703S003 | 18-06-2114-2  | 07/03/18 12:25     |
| <b>EPA 8260B BTEX/MTBE</b>                 |            |         |       |       |             |        |              |            |               |                    |

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|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

QUALITY CONTROL  
Matrix Spike

| Analyte      | Orig. Val. | MS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch      | Sample Spiked | Analysis Date/Time |
|--------------|------------|---------|-------|-------|-------------|--------|--------------|------------|---------------|--------------------|
| 18-06-1864-1 |            |         |       |       |             |        |              |            |               |                    |
| Benzene      | ND         | 0.03818 |       | mg/kg | 0.05000     | 76     | 61-127       | 180627S001 | 18-06-1864-1  | 06/27/18 14:08     |
| Toluene      | ND         | 0.03484 |       | mg/kg | 0.05000     | 70     | 63-123       | 180627S001 | 18-06-1864-1  | 06/27/18 14:08     |
| Ethylbenzene | ND         | 0.02885 |       | mg/kg | 0.05000     | 58     | 57-129       | 180627S001 | 18-06-1864-1  | 06/27/18 14:08     |
| o-Xylene     | ND         | 0.02730 | HX    | mg/kg | 0.05000     | 55     | 70-130       | 180627S001 | 18-06-1864-1  | 06/27/18 14:08     |
| p/m-Xylene   | ND         | 0.05338 | HX    | mg/kg | 0.1000      | 53     | 70-130       | 180627S001 | 18-06-1864-1  | 06/27/18 14:08     |

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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

### QUALITY CONTROL Matrix Spike Duplicate

| Analyte                                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|--------------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 8015B DRO</b>                       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2008-1</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Diesel Range Organics                      | ND         | 315.8     |       | mg/kg | 400.0       | 79     | 33-153       | 5   | 0-32  | 180627S07  | 18-06-2008-1      | 06/27/18 20:48     |
| <b>EPA 8015B GRO</b>                       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1967-3</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics                    | ND         | 6.956     |       | mg/kg | 10.00       | 70     | 66-108       | 1   | 0-18  | 180628S011 | 18-06-1967-3      | 06/28/18 16:12     |
| <b>EPA 8015B GRO</b>                       |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2033-1</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Gasoline Range Organics                    | ND         | 4.904     | HX    | mg/kg | 10.00       | 49     | 66-108       | 15  | 0-18  | 180702S009 | 18-06-2033-1      | 07/02/18 14:56     |
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2045-1</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Antimony                                   | ND         | 3.551     | HX,BA | mg/kg | 25.00       | 14     | 50-115       | 32  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Arsenic                                    | 4.178      | 26.73     |       | mg/kg | 25.00       | 90     | 75-125       | 6   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Barium                                     | 79.92      | 98.57     |       | mg/kg | 25.00       | 75     | 75-125       | 7   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Beryllium                                  | ND         | 25.14     |       | mg/kg | 25.00       | 101    | 75-125       | 8   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Cadmium                                    | ND         | 24.92     |       | mg/kg | 25.00       | 100    | 75-125       | 8   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Chromium                                   | 6.359      | 31.20     |       | mg/kg | 25.00       | 99     | 75-125       | 7   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Cobalt                                     | 4.257      | 28.29     |       | mg/kg | 25.00       | 96     | 75-125       | 11  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Copper                                     | 8.372      | 31.28     |       | mg/kg | 25.00       | 92     | 75-125       | 7   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Lead                                       | 7.527      | 31.09     |       | mg/kg | 25.00       | 94     | 75-125       | 10  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Molybdenum                                 | 0.4633     | 19.84     |       | mg/kg | 25.00       | 78     | 75-125       | 9   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Nickel                                     | 4.048      | 28.14     |       | mg/kg | 25.00       | 96     | 75-125       | 10  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Selenium                                   | 2.075      | 21.25     |       | mg/kg | 25.00       | 77     | 75-125       | 17  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Silver                                     | ND         | 12.00     |       | mg/kg | 12.50       | 96     | 75-125       | 8   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Thallium                                   | ND         | 24.77     |       | mg/kg | 25.00       | 99     | 75-125       | 14  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Vanadium                                   | 20.56      | 43.38     |       | mg/kg | 25.00       | 91     | 75-125       | 7   | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| Zinc                                       | 30.38      | 47.34     | HX    | mg/kg | 25.00       | 68     | 75-125       | 10  | 0-20  | 180628S03  | 18-06-2045-1      | 06/28/18 17:28     |
| <b>EPA 7471A Mercury</b>                   |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-1790-5</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Mercury                                    | ND         | 0.7600    |       | mg/kg | 0.8350      | 91     | 71-137       | 2   | 0-14  | 180627S03  | 18-06-1790-5      | 06/27/18 17:58     |
| <b>EPA 8260B BTEX/MTBE</b>                 |            |           |       |       |             |        |              |     |       |            |                   |                    |
| <b>18-06-2114-2</b>                        |            |           |       |       |             |        |              |     |       |            |                   |                    |
| Benzene                                    | ND         | 20.63     | BA    | mg/kg | 25.00       | 83     | 61-127       | 25  | 0-20  | 180703S003 | 18-06-2114-2      | 07/03/18 12:52     |
| Toluene                                    | ND         | 20.84     | BA    | mg/kg | 25.00       | 83     | 63-123       | 25  | 0-20  | 180703S003 | 18-06-2114-2      | 07/03/18 12:52     |
| Ethylbenzene                               | ND         | 22.55     | BA    | mg/kg | 25.00       | 90     | 57-129       | 24  | 0-22  | 180703S003 | 18-06-2114-2      | 07/03/18 12:52     |
| o-Xylene                                   | ND         | 21.89     |       | mg/kg | 25.00       | 88     | 70-130       | 24  | 0-30  | 180703S003 | 18-06-2114-2      | 07/03/18 12:52     |
| p/m-Xylene                                 | ND         | 44.95     |       | mg/kg | 50.00       | 90     | 70-130       | 24  | 0-30  | 180703S003 | 18-06-2114-2      | 07/03/18 12:52     |
| <b>EPA 8260B BTEX/MTBE</b>                 |            |           |       |       |             |        |              |     |       |            |                   |                    |

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*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

**QUALITY CONTROL  
Matrix Spike Duplicate**

| Analyte             | Orig.<br>Val. | Duplicate | Qual. | Units | Spike<br>Conc. | %<br>Rec. | Target<br>Range | RPD | Limit | Batch      | Sample<br>Duplicated | Analysis<br>Date/Time |
|---------------------|---------------|-----------|-------|-------|----------------|-----------|-----------------|-----|-------|------------|----------------------|-----------------------|
| <b>18-06-1864-1</b> |               |           |       |       |                |           |                 |     |       |            |                      |                       |
| Benzene             | ND            | 0.03656   |       | mg/kg | 0.05000        | 73        | 61-127          | 4   | 0-20  | 180627S001 | 18-06-1864-1         | 06/27/18 14:35        |
| Toluene             | ND            | 0.03268   |       | mg/kg | 0.05000        | 65        | 63-123          | 6   | 0-20  | 180627S001 | 18-06-1864-1         | 06/27/18 14:35        |
| Ethylbenzene        | ND            | 0.02606   | HX    | mg/kg | 0.05000        | 52        | 57-129          | 10  | 0-22  | 180627S001 | 18-06-1864-1         | 06/27/18 14:35        |
| o-Xylene            | ND            | 0.02485   | HX    | mg/kg | 0.05000        | 50        | 70-130          | 9   | 0-30  | 180627S001 | 18-06-1864-1         | 06/27/18 14:35        |
| p/m-Xylene          | ND            | 0.04851   | HX    | mg/kg | 0.1000         | 49        | 70-130          | 10  | 0-30  | 180627S001 | 18-06-1864-1         | 06/27/18 14:35        |

  
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Calscience

*The difference is service*

Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

**QUALITY CONTROL  
Post Digestion Spike**

| Analyte                                    | Orig. Val. | PDS Val. | Qual. | Units | Spike Conc. | % Rec. | Target Range | Batch     | Sample Spiked | Analysis Date/Time |
|--------------------------------------------|------------|----------|-------|-------|-------------|--------|--------------|-----------|---------------|--------------------|
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |            |          |       |       |             |        |              |           |               |                    |
| <b>18-06-2045-1</b>                        |            |          |       |       |             |        |              |           |               |                    |
| Antimony                                   | ND         | 22.50    |       | mg/kg | 25.00       | 90     | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Arsenic                                    | 4.178      | 28.53    |       | mg/kg | 25.00       | 97     | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Barium                                     | 79.92      | 108.3    |       | mg/kg | 25.00       | 114    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Beryllium                                  | ND         | 26.17    |       | mg/kg | 25.00       | 105    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Cadmium                                    | ND         | 26.30    |       | mg/kg | 25.00       | 105    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Chromium                                   | 6.359      | 32.40    |       | mg/kg | 25.00       | 104    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Cobalt                                     | 4.257      | 29.54    |       | mg/kg | 25.00       | 101    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Copper                                     | 8.372      | 33.73    |       | mg/kg | 25.00       | 101    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Lead                                       | 7.527      | 33.43    |       | mg/kg | 25.00       | 104    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Molybdenum                                 | 0.4633     | 25.80    |       | mg/kg | 25.00       | 101    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Nickel                                     | 4.048      | 29.44    |       | mg/kg | 25.00       | 102    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Selenium                                   | 2.075      | 27.32    |       | mg/kg | 25.00       | 101    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Silver                                     | ND         | 13.13    |       | mg/kg | 12.50       | 105    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Thallium                                   | ND         | 26.16    |       | mg/kg | 25.00       | 105    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Vanadium                                   | 20.56      | 45.96    |       | mg/kg | 25.00       | 102    | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |
| Zinc                                       | 30.38      | 54.38    |       | mg/kg | 25.00       | 96     | 75-125       | 180628S03 | 18-06-2045-1  | 06/28/18 17:30     |

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Qual: Qualifiers



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Client: Cardno  
20505 Crescent Bay Drive  
Lake Forest, CA 92630-8825

Work Order: 18-06-1967  
Project Name: ExxonMobil Gladiola Station  
Date Received: 06/27/18

### QUALITY CONTROL Post Digestion Spike Duplicate

| Analyte                                    | Orig. Val. | Duplicate | Qual. | Units | Spike Conc. | % Rec. | Target Range | RPD | Limit | Batch     | Sample Duplicated | Analysis Date/Time |
|--------------------------------------------|------------|-----------|-------|-------|-------------|--------|--------------|-----|-------|-----------|-------------------|--------------------|
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |            |           |       |       |             |        |              |     |       |           |                   |                    |
| <b>18-06-2045-1</b>                        |            |           |       |       |             |        |              |     |       |           |                   |                    |
| Antimony                                   | ND         | 21.57     |       | mg/kg | 25.00       | 86     | 75-125       | 4   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Arsenic                                    | 4.178      | 28.16     |       | mg/kg | 25.00       | 96     | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Barium                                     | 79.92      | 108.6     |       | mg/kg | 25.00       | 115    | 75-125       | 0   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Beryllium                                  | ND         | 26.12     |       | mg/kg | 25.00       | 104    | 75-125       | 0   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Cadmium                                    | ND         | 26.13     |       | mg/kg | 25.00       | 105    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Chromium                                   | 6.359      | 32.45     |       | mg/kg | 25.00       | 104    | 75-125       | 0   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Cobalt                                     | 4.257      | 29.91     |       | mg/kg | 25.00       | 103    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Copper                                     | 8.372      | 34.04     |       | mg/kg | 25.00       | 103    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Lead                                       | 7.527      | 34.06     |       | mg/kg | 25.00       | 106    | 75-125       | 2   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Molybdenum                                 | 0.4633     | 25.63     |       | mg/kg | 25.00       | 101    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Nickel                                     | 4.048      | 29.83     |       | mg/kg | 25.00       | 103    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Selenium                                   | 2.075      | 29.18     |       | mg/kg | 25.00       | 108    | 75-125       | 7   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Silver                                     | ND         | 13.31     |       | mg/kg | 12.50       | 106    | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Thallium                                   | ND         | 26.98     |       | mg/kg | 25.00       | 108    | 75-125       | 3   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Vanadium                                   | 20.56      | 46.05     |       | mg/kg | 25.00       | 102    | 75-125       | 0   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |
| Zinc                                       | 30.38      | 55.12     |       | mg/kg | 25.00       | 99     | 75-125       | 1   | 0-20  | 180628S03 | 18-06-2045-1      | 06/28/18 17:30     |

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Qual - Qualifiers RPD: Relative Percent Difference



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

**QUALITY CONTROL**  
**Sample Duplicate**

| Analyte                                  | Orig. Val. | Duplicate | Qual. | Units    | RPD | Limit | Batch      | Sample Duplicated | Analysis Date/Time |
|------------------------------------------|------------|-----------|-------|----------|-----|-------|------------|-------------------|--------------------|
| <b>EPA 1010A(M) Ignitability</b>         |            |           |       |          |     |       |            |                   |                    |
| <b>18-06-1967-3</b>                      |            |           |       |          |     |       |            |                   |                    |
| Ignitability                             | >212       | >212      |       | °F       | 0   | 0-25  | I0628FPD1  | 18-06-1967-3      | 06/28/18 09:30     |
| <b>EPA 9045C pH</b>                      |            |           |       |          |     |       |            |                   |                    |
| <b>18-06-1967-3</b>                      |            |           |       |          |     |       |            |                   |                    |
| pH                                       | 8.650      | 8.670     |       | pH units | 0   | 0-25  | I0627PHD3  | 18-06-1967-3      | 06/27/18 20:00     |
| <b>SW-846 Chapter 7 Reactive Cyanide</b> |            |           |       |          |     |       |            |                   |                    |
| <b>18-06-1967-3</b>                      |            |           |       |          |     |       |            |                   |                    |
| Cyanide, Reactive                        | ND         | ND        |       | mg/kg    | N/A | 0-25  | I0627RCND1 | 18-06-1967-3      | 06/27/18 16:00     |
| <b>SW-846 Chapter 7 Reactive Sulfide</b> |            |           |       |          |     |       |            |                   |                    |
| <b>18-06-1815-5</b>                      |            |           |       |          |     |       |            |                   |                    |
| Sulfide, Reactive                        | ND         | ND        |       | mg/kg    | N/A | 0-25  | I0627RSD1  | 18-06-1815-5      | 06/27/18 16:13     |

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RPD: Relative Percent Difference.



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|                            |                                           |
|----------------------------|-------------------------------------------|
| Client: Cardno             | Work Order: 18-06-1967                    |
| 20505 Crescent Bay Drive   | Project Name: ExxonMobil Gladiola Station |
| Lake Forest, CA 92630-8825 | Date Received: 06/27/18                   |

### PROJECT QUALITY CONTROL DATA

#### Laboratory Control Sample

| Analyte                                    | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|--------------------------------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| <b>EPA 8015B DRO</b>                       |            |          |       |       |        |              |            |                    |
| <b>099-15-414-1129</b>                     |            |          |       |       |        |              |            |                    |
| Diesel Range Organics                      | 400.0      | 320.8    |       | mg/kg | 80     | 67-121       | 180627B07  | 06/27/18 20:05     |
| <b>EPA 8015B GRO</b>                       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1216</b>                     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics                    | 10.00      | 9.088    |       | mg/kg | 91     | 70-118       | 180628L036 | 06/28/18 13:16     |
| <b>EPA 8015B GRO</b>                       |            |          |       |       |        |              |            |                    |
| <b>099-12-024-1217</b>                     |            |          |       |       |        |              |            |                    |
| Gasoline Range Organics                    | 10.00      | 7.660    |       | mg/kg | 77     | 70-118       | 180702L022 | 07/02/18 12:08     |
| <b>EPA 6010B/7471A CAC Title 22 Metals</b> |            |          |       |       |        |              |            |                    |
| <b>097-01-002-26499</b>                    |            |          |       |       |        |              |            |                    |
| Antimony                                   | 25.00      | 23.86    |       | mg/kg | 95     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Arsenic                                    | 25.00      | 23.81    |       | mg/kg | 95     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Barium                                     | 25.00      | 25.62    |       | mg/kg | 102    | 80-120       | 180628L03  | 06/28/18 17:24     |
| Beryllium                                  | 25.00      | 24.39    |       | mg/kg | 98     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Cadmium                                    | 25.00      | 24.86    |       | mg/kg | 99     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Chromium                                   | 25.00      | 24.52    |       | mg/kg | 98     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Cobalt                                     | 25.00      | 24.51    |       | mg/kg | 98     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Copper                                     | 25.00      | 24.55    |       | mg/kg | 98     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Lead                                       | 25.00      | 24.92    |       | mg/kg | 100    | 80-120       | 180628L03  | 06/28/18 17:24     |
| Molybdenum                                 | 25.00      | 23.57    |       | mg/kg | 94     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Nickel                                     | 25.00      | 24.91    |       | mg/kg | 100    | 80-120       | 180628L03  | 06/28/18 17:24     |
| Selenium                                   | 25.00      | 24.19    |       | mg/kg | 97     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Silver                                     | 12.50      | 11.90    |       | mg/kg | 95     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Thallium                                   | 25.00      | 24.26    |       | mg/kg | 97     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Vanadium                                   | 25.00      | 23.86    |       | mg/kg | 95     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Zinc                                       | 25.00      | 24.57    |       | mg/kg | 98     | 80-120       | 180628L03  | 06/28/18 17:24     |
| Total number of LCS compounds: 16          |            |          |       |       |        |              |            |                    |
| Total number of ME compounds: 0            |            |          |       |       |        |              |            |                    |
| Total number of ME compounds allowed: 1    |            |          |       |       |        |              |            |                    |
| LCS ME CL validation result: Pass          |            |          |       |       |        |              |            |                    |
| <b>EPA 7471A Mercury</b>                   |            |          |       |       |        |              |            |                    |
| <b>099-16-272-3926</b>                     |            |          |       |       |        |              |            |                    |
| Mercury                                    | 0.8350     | 0.7552   |       | mg/kg | 90     | 85-121       | 180627L03  | 06/27/18 17:51     |
| <b>EPA 8260B BTEX/MTBE</b>                 |            |          |       |       |        |              |            |                    |
| <b>099-12-882-2085</b>                     |            |          |       |       |        |              |            |                    |
| Benzene                                    | 0.05000    | 0.04354  |       | mg/kg | 87     | 80-120       | 180703L006 | 07/03/18 09:52     |
| Toluene                                    | 0.05000    | 0.04410  |       | mg/kg | 88     | 80-120       | 180703L006 | 07/03/18 09:52     |
| Ethylbenzene                               | 0.05000    | 0.04593  |       | mg/kg | 92     | 80-120       | 180703L006 | 07/03/18 09:52     |

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|         |                            |                |                             |
|---------|----------------------------|----------------|-----------------------------|
| Client: | Cardno                     | Work Order:    | 18-06-1967                  |
|         | 20505 Crescent Bay Drive   | Project Name:  | ExxonMobil Gladiola Station |
|         | Lake Forest, CA 92630-8825 | Date Received: | 06/27/18                    |

PROJECT QUALITY CONTROL DATA  
Laboratory Control Sample

| Analyte             | Known Val. | Analyzed | Qual. | Units | % Rec. | Target Range | Batch      | Analysis Date/Time |
|---------------------|------------|----------|-------|-------|--------|--------------|------------|--------------------|
| o-Xylene            | 0.05000    | 0.04597  |       | mg/kg | 92     | 75-125       | 180703L006 | 07/03/18 09:52     |
| p/m-Xylene          | 0.1000     | 0.09181  |       | mg/kg | 92     | 75-125       | 180703L006 | 07/03/18 09:52     |
| EPA 8260B BTEX/MTBE |            |          |       |       |        |              |            |                    |
| 099-12-882-2080     |            |          |       |       |        |              |            |                    |
| Benzene             | 0.05000    | 0.05014  |       | mg/kg | 100    | 80-120       | 180627L019 | 06/27/18 09:35     |
| Toluene             | 0.05000    | 0.05200  |       | mg/kg | 104    | 80-120       | 180627L019 | 06/27/18 09:35     |
| Ethylbenzene        | 0.05000    | 0.05226  |       | mg/kg | 105    | 80-120       | 180627L019 | 06/27/18 09:35     |
| o-Xylene            | 0.05000    | 0.04974  |       | mg/kg | 99     | 75-125       | 180627L019 | 06/27/18 09:35     |
| p/m-Xylene          | 0.1000     | 0.1005   |       | mg/kg | 100    | 75-125       | 180627L019 | 06/27/18 09:35     |

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Work Order: 18-06-1967

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**Sample Analysis Summary Report**

| <u>Method</u>     | <u>Extraction</u> | <u>Chemist ID</u> | <u>Instrument</u> | <u>Analytical Location</u> |
|-------------------|-------------------|-------------------|-------------------|----------------------------|
| EPA 1010A(M)      | N/A               | 1050              | FP 4              | 1                          |
| EPA 6010B         | EPA 3050B         | 935               | ICP 7300          | 1                          |
| EPA 7471A         | EPA 7471A Total   | 868               | Mercury 07        | 1                          |
| EPA 8015B         | EPA 3550B         | 972               | GC 49             | 1                          |
| EPA 8015B         | EPA 5030C         | 607               | GC 22             | 2                          |
| EPA 8015B         | EPA 5030C         | 1161              | GC 42             | 2                          |
| EPA 8260B         | EPA 5030C         | 867               | GC/MS LL          | 2                          |
| EPA 8260B         | EPA 5030C         | 1055              | GC/MS Q           | 2                          |
| EPA 9045C         | N/A               | 1139              | PH 4              | 1                          |
| SW-846, Chapter 7 | N/A               | 1155              | BUR04             | 1                          |
| SW-846, Chapter 7 | N/A               | 1155              | UV 9              | 1                          |

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841





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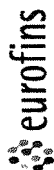
Work Order: 18-06-1967

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**Glossary of Terms and Qualifiers**

| <b>Qualifiers</b> | <b>Definition</b>                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AZ                | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.                                                                                                                                                          |
| B                 | Analyte was present in the associated method blank.                                                                                                                                                                                                                                                                                                                                 |
| BA                | The MS/MSD RPD was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                                                                             |
| BB                | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.                                                                                                                                                                                                       |
| BU                | Sample analyzed after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| BV                | Sample received after holding time expired.                                                                                                                                                                                                                                                                                                                                         |
| CI                | See case narrative.                                                                                                                                                                                                                                                                                                                                                                 |
| DF                | Reporting limits elevated due to matrix interferences.                                                                                                                                                                                                                                                                                                                              |
| E                 | Concentration exceeds the calibration range.                                                                                                                                                                                                                                                                                                                                        |
| ET                | Sample was extracted past end of recommended max. holding time.                                                                                                                                                                                                                                                                                                                     |
| GE                | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.                                                                                                                                                                                                                                                             |
| HD                | Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.                                                                                                                                                                                                                                                                                                                   |
| HO                | High concentration matrix spike recovery out of limits                                                                                                                                                                                                                                                                                                                              |
| HT                | Analytical value calculated using results from associated tests.                                                                                                                                                                                                                                                                                                                    |
| HX                | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.                                                                                                                                                                                                                        |
| IL                | Relative percent difference out of control.                                                                                                                                                                                                                                                                                                                                         |
| J                 | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.                                                                                                                                                                                                                                     |
| JA                | Analyte positively identified but quantitation is an estimate.                                                                                                                                                                                                                                                                                                                      |
| LD                | Analyte presence was not confirmed by second column or GC/MS analysis.                                                                                                                                                                                                                                                                                                              |
| LP                | The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.                                                                                                                                                                                  |
| LQ                | LCS recovery above method control limits.                                                                                                                                                                                                                                                                                                                                           |
| LR                | LCS recovery below method control limits.                                                                                                                                                                                                                                                                                                                                           |
| ND                | Parameter not detected at the indicated reporting limit.                                                                                                                                                                                                                                                                                                                            |
| QO                | Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.                                                                                                                                                                                                                                                     |
| RU                | LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).                                                                                                                                                                                                                                                                            |
| SG                | A silica gel cleanup procedure was performed.                                                                                                                                                                                                                                                                                                                                       |
| SN                | See applicable analysis comment.                                                                                                                                                                                                                                                                                                                                                    |
|                   | Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.                                                                                                                                                                                                           |
|                   | Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time. |
|                   | A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.                                                                                           |

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7440 LINCOLN WAY  
Calscience GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-6494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/23/18  
PAGE: 1 OF 1

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| <b>Site Name</b>                                 |                             |
| Provide MRN for retail or AFE for major projects |                             |
| Retail Project (MRN)                             |                             |
| Major Project (AFE)                              |                             |
| <b>Project Name</b>                              | ExxonMobil Gladiola Station |

ExxonMobil Engr: Maria Madden

|                                                                  |                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------|
| LABORATORY CLIENT:                                               |                                                                             |
| Cardno                                                           |                                                                             |
| ADDRESS:                                                         |                                                                             |
| 20505 Crescent Bay                                               |                                                                             |
| CITY:                                                            |                                                                             |
| Lake Forest, CA 92630                                            |                                                                             |
| TEL: 949-457-8941                                                | FAX: 949-457-8956                                                           |
| TURNAROUND TIME                                                  |                                                                             |
| <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR | <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS |

|                                                   |                                                               |
|---------------------------------------------------|---------------------------------------------------------------|
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) |                                                               |
| <input type="checkbox"/> RWQCB REPORTING          | <input type="checkbox"/> ARCHIVE SAMPLES UNTIL ____/____/____ |
| SPECIAL INSTRUCTIONS:                             |                                                               |
| New Mexico Site                                   |                                                               |
| Report J values.                                  |                                                               |

24 hour turnaround time for sample "Profile - 1"

|                             |                 |
|-----------------------------|-----------------|
| GLOBAL ID # COELT LOG CODE: | P.O. 0136122018 |
| PROJECT CONTACT:            | David Purdy     |
| SAMPLER(S):                 | Vincent Nguyen  |
| COOLER REQUIRED:            | Temp = ____ °C  |

| REQUESTED ANALYSIS |               |               |               |     |  |  |  |  |  | CONTAINER TYPE   |  |
|--------------------|---------------|---------------|---------------|-----|--|--|--|--|--|------------------|--|
|                    |               |               |               |     |  |  |  |  |  |                  |  |
| EPA 8260B BTEX     | EPA 8015B GRO | EPA 8015B DRO | Time 22 Metab | RLI |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars - DMP |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |
|                    |               |               |               |     |  |  |  |  |  | 2x2oz jars       |  |

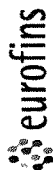
|                              |                          |                              |
|------------------------------|--------------------------|------------------------------|
| Relinquished by: (Signature) | Received by: (Signature) | Date, & Time: 6/26/18 : 1130 |
| Relinquished by: (Signature) | Received by: (Signature) | Date, & Time: 6/27/18 1000   |
| Relinquished by: (Signature) | Received by: (Signature) | Date, & Time:                |

CHAIN OF CUSTODY RECORD

DATE: 6/23/18  
PAGE: 1 OF 1

|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| Site Name                                        |                             |
| Provide MRN for retail or AFE for major projects |                             |
| Retail Project (MRN)                             |                             |
| Major Project (AFE)                              |                             |
| Project Name                                     | ExxonMobil Gladiola Station |

7440 LINCOLN WAY  
Calcsence GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 . FAX: (714) 894-7501



ExxonMobil Engr: Maria Madden

|                                                                                                                                                                                                                                          |                                 |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------|
| LABORATORY CLIENT:<br>Cardno                                                                                                                                                                                                             | GLOBAL ID # COELT LOG CODE:     | P.O. 0136122018                    |
| ADDRESS:<br>20505 Crescent Bay                                                                                                                                                                                                           | PROJECT CONTACT:<br>David Purdy | 18-06-1967                         |
| CITY:<br>Lake Forest, CA 92630                                                                                                                                                                                                           | SAMPLER(S):<br>Vincent Nguyen   | COOLER REQUIRED<br>Temp = _____ °C |
| TEL: 949-457-8941                                                                                                                                                                                                                        | FAX: 949-457-8956               | dave.purdy@cardno.com              |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input checked="" type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                                 |                                    |
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL ____/____/____                                                                              |                                 |                                    |
| SPECIAL INSTRUCTIONS:<br>New Mexico Site<br>Report J values.                                                                                                                                                                             |                                 |                                    |

REQUESTED ANALYSIS

| LAB USE ONLY | SAMPLE ID         | Field Point Name | SAMPLING |      | MAT. RIX | NO. OF CONT. | REQUESTED ANALYSIS |               |               |     |                |  |  |  |  |  | CONTAINER TYPE |
|--------------|-------------------|------------------|----------|------|----------|--------------|--------------------|---------------|---------------|-----|----------------|--|--|--|--|--|----------------|
|              |                   |                  | DATE     | TIME |          |              | EPA 8260B BTEX     | EPA 8015B GRO | EPA 8015B DRO | PCI | Time 22 Metals |  |  |  |  |  |                |
| 1            | S-40-B5           | B5 MW31          | 6/23/18  | 0845 | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 2            | S-50-B5           | B5 MW31          | 6/23/18  | 1023 | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 3            | Profile - 1       | Profile          | 6/23/18  | 0845 | S        | 2            | X                  | X             | X             | X   |                |  |  |  |  |  | 2x2oz jars     |
| 4            | REFB              |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 5            | Temperature Blank | QCTB             |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 6            |                   |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 7            |                   |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 8            |                   |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 9            |                   |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |
| 10           |                   |                  |          |      | S        | 2            | X                  | X             | X             |     |                |  |  |  |  |  | 2x2oz jars     |

|                                                         |                                   |                                 |
|---------------------------------------------------------|-----------------------------------|---------------------------------|
| Relinquished by: (Signature)<br>Vincent Nguyen (Cardno) | Received by: (Signature)<br>Fader | Date, & Time:<br>6/26/18 : 1130 |
| Relinquished by: (Signature)                            | Received by: (Signature)          | Date, & Time:<br>6/27/18 1000   |
| Relinquished by: (Signature)                            | Received by: (Signature)          | Date, & Time:                   |

1967

ORIGIN ID:MAFA (949) 532-3228  
VINCENT NGUYEN  
CARDNO  
20505 CRESCENT BAY DR  
LAKE FOREST, CA 92630  
UNITED STATES US

SHIP DATE: 26 JUN 18  
ACTWGT: 46.20 LB  
CAD: 006994482/SSFE1904  
DIMS: 24x14x13 IN  
BILL THIRD PARTY

Part # 15629344348823-23P 09/18

TO **SAMPLE CONTROL**  
**EUROFINS**  
**7440 LINCOLN WAY**

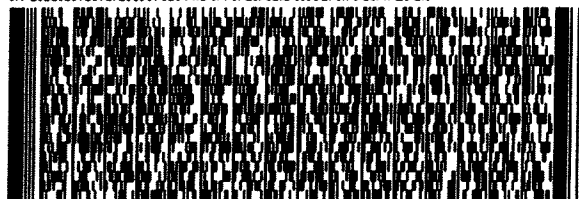
**GARDEN GROVE CA 92841**

(800) 000-0000  
IMU:  
PO:

REF:

DEPT:

011 00000001 001 00000001 000 1 000 01 01 001 0000 000 0 01 01 0 001 01 000 000

**FedEx**  
Express

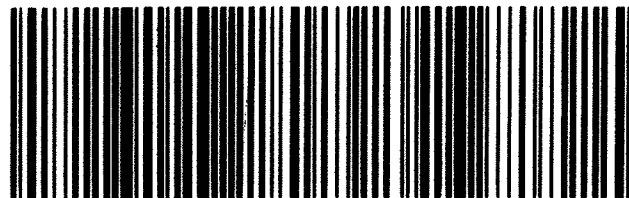
AN108210811181F

TRK# 7815 9039 3835  
0201

**WED - 27 JUN 10:30A**  
**PRIORITY OVERNIGHT**

**A7 APVA**

**92841**  
**CA-US SNA**



Return to Contents



Calscience

WORK ORDER NUMBER: 18-06-1967

## SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: CARDNODATE: 06/27/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.1°C); Temperature (w/o CF): 5.6 °C (w/ CF): 5.7 °C; ☒ Blank ☒ Sample

6/27/18

☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 15

## CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 15Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: sub

## SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/ASamples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ..... ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

## CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna<sub>2</sub> ☐ 100PJ ☐ 100PJna<sub>2</sub> ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH\_\_9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH\_\_2) ☐ 250PB ☐ 250PBn (pH\_\_2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH\_\_2) ☐ 500PB☐ 1AGB ☐ 1AGBna<sub>2</sub> ☐ 1AGBs (pH\_\_2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH\_\_12) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_) ☐ EnCores® (\_\_\_\_) ☐ TerraCores® (\_\_\_\_) ☒ 2ozCGJ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ Other Matrix (\_\_\_\_): ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: subs = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOHReviewed by: sub





Calscience

Page 25 of 25  
WORK ORDER NUMBER: **18-06-1967****SAMPLE ANOMALY REPORT**DATE: **06/27/2018****SAMPLES, CONTAINERS, AND LABELS:**

- ☒ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ pH outside acceptable range (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
- ☐ Project information
- ☐ Client sample ID
- ☐ Sampling date and/or time
- ☐ Number of container(s)
- ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
- ☐ Broken
- ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
- ☐ Flat
- ☐ Very low in volume
- ☐ Leaking (not transferred; duplicate bag submitted)
- ☐ Leaking (transferred into ECI Tedlar™ bags\*)
- ☐ Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

**Comments***C-4) NOT RECEIVED.***MISCELLANEOUS: (Describe)****Comments****HEADSPACE:**

(Containers with bubble &gt; 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

| ECI Sample ID | ECI Container ID | Total Number** | ECI Sample ID | ECI Container ID | Total Number** |
|---------------|------------------|----------------|---------------|------------------|----------------|
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |
|               |                  |                |               |                  |                |

(Containers with bubble for other analysis)

| ECI Sample ID | ECI Container ID | Total Number** | Requested Analysis |
|---------------|------------------|----------------|--------------------|
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |
|               |                  |                |                    |

Comments: \_\_\_\_\_

Reported by: *AS*Reviewed by: *PO*

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

## **APPENDIX F**

### **FIELD DATA**

final



June

Mud

Very Silty but  
less visible

Sfms

Silly but ~~cheer~~

Much clearer

1000 Set up on B2/mw28

1110 Demb on B2/MW28

10 ft stainless  
steel bailer

0820 Demob on B3

| Cardno Job#                                                        | Quarter      | Year                     | Surging |                        |             |
|--------------------------------------------------------------------|--------------|--------------------------|---------|------------------------|-------------|
| Client/Site:                                                       |              |                          | Start   | Stop                   |             |
| Location:                                                          |              |                          | Start   | Stop                   |             |
| Sample Tech(s):                                                    |              |                          | Start   | Stop                   |             |
| DATE:                                                              |              |                          | Start   | Stop                   |             |
| Weather:                                                           |              |                          | Start   | Stop                   |             |
| WELL ID: B4/MW30                                                   |              |                          |         |                        |             |
| TIME                                                               | PURGE VOLUME | Temp                     | COND    | pH                     | Turbidity   |
| hr:min                                                             | Gal (50)     | deg C F                  |         | unit                   | mg/L        |
|                                                                    |              | 1 deg                    | 10%     | 0.1                    | Less Than 5 |
| 0652                                                               | 5            | 24.5                     | 0       | 8.35                   | 0.0         |
| 0702                                                               | 10           | 22.5                     | 0.0     | 7.46                   | 0           |
| 0709                                                               | 30           | 22.5                     | 0       | 7.35                   | 0           |
| 0713                                                               | 40           | 20.0                     | 0       | 7.25                   | 0           |
| 0715                                                               | 50           | 20.5                     | 0.1     | 7.32                   | 0           |
| 0719                                                               | 55           | 20.8                     | 0.1     | 7.29                   | 0.1         |
| Water became significantly clearer by the last hour. Still cloudy. |              |                          |         |                        |             |
| Total Purge Volume                                                 |              |                          | Gallons |                        |             |
| CASING VOL. FACTOR                                                 |              | WELL INFORMATION         |         |                        |             |
| diameter                                                           |              | TD: 53.82                |         | 3 ft casing elongation |             |
| 2"-dia:                                                            |              | DTW <sub>i</sub> : 39.11 |         |                        |             |
| 4"-dia:                                                            |              | h: 14.71                 |         |                        |             |
| 6"-dia:                                                            |              | csg vol: 9.60 gal        |         |                        |             |
| COMMENTS                                                           |              |                          |         |                        |             |

w fl stainless steel boiler

No surge block

OG45 Set up development on B4/M470

0715 Demolition R4

Very silty  
SAME  
Silty but clearer  
much clearer  
very clear, some silt  
settled out on  
bottom

|                                                                                                        |                             |                  |       |          |             |           |           |
|--------------------------------------------------------------------------------------------------------|-----------------------------|------------------|-------|----------|-------------|-----------|-----------|
| Cardno Job#                                                                                            | 3612                        | Quarter          | 3     | Year     | 2018        | Surging   |           |
| Client/Site:                                                                                           | XOM EMES / Gladiola Station |                  |       |          | Start       | 1205 1159 | Stop 1219 |
| Location:                                                                                              | Near Tatum, NM              |                  |       |          | Start       | 1232      | Stop 1238 |
| Sample Tech(s):                                                                                        | Vincent Nguyen              |                  |       |          | Start       | 1247      | Stop 1253 |
| DATE:                                                                                                  | 06/24/18                    |                  |       |          | Start       | 1306      | Stop 1321 |
| Weather:                                                                                               | hot & sunny, light winds    |                  |       |          | Start       |           | Stop      |
| WELL ID:                                                                                               | BC/MW32                     |                  |       |          |             |           |           |
| TIME                                                                                                   | PURGE VOLUME                | Temp             | COND  | pH       | Turbidity   |           |           |
| hr:min                                                                                                 | Gal                         | deg C F          | MS/cm | unit     | mg/L        |           |           |
|                                                                                                        |                             | 1 deg            | 10%   | 0.1      | Less Than 5 |           |           |
| 1205                                                                                                   | 7                           | 21.4             | 0.2   | 7.81     | 0.1         |           |           |
| 1219                                                                                                   | 16                          | 23.5             | 0.2   | 7.49     | 0.1         |           | stop      |
| 1232                                                                                                   | 22                          | 22.2             | 0.2   | 7.36     | 0.2         |           |           |
| 1238                                                                                                   | 29                          | 20.4             | 0.2   | 7.31     | 0.1         |           | stop      |
| 1247                                                                                                   | 32                          | 19.9             | 0.2   | 7.34     | 0.1         |           |           |
| 1251                                                                                                   | 35                          | 23.1             | 0.2   | 7.42     | 0.1         |           |           |
| 1253                                                                                                   | 39                          | 21.8             | 0.3   | 7.51     | 0.1         |           | stop      |
| 1306                                                                                                   | 44                          | 23.1             | 0.3   | 7.40     | 0.1         |           |           |
| 1321                                                                                                   | 50                          | 22.0             | 0.3   | 7.46     | 0.1         |           | stop      |
| Total Purge Volume                                                                                     |                             | 50 Gallons       |       |          |             |           |           |
| CASING VOL. FACTOR                                                                                     |                             | WELL INFORMATION |       |          |             |           |           |
| diameter                                                                                               |                             | TD:              |       | 55.60    |             |           |           |
| 2"-dia:                                                                                                |                             | DTW:             |       | 43.51    |             |           |           |
| 4"-dia:                                                                                                |                             | h:               |       | 12.09    |             |           |           |
| 6"-dia:                                                                                                |                             | csg vol:         |       | 7.73 gal |             |           |           |
| COMMENTS                                                                                               |                             |                  |       |          |             |           |           |
| Well developed w/ a 6 foot stainless steel bailer<br>Well has periodically dried up during development |                             |                  |       |          |             |           |           |



[illegible]

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[illegible]



[illegible]

[illegible]

[illegible]

[illegible]



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|                                                           |       |             |            |                    |       |                         |      |          |           |
|-----------------------------------------------------------|-------|-------------|------------|--------------------|-------|-------------------------|------|----------|-----------|
| Cardno Job #: 3612                                        |       | Quarter: 3  |            | Year: 2018         |       | Comments                |      |          |           |
| Client/Site: ExxonMobil / Gladiola Station                |       |             |            |                    |       | [W-40-B2/MW28]          |      |          |           |
| Location: Near Tatum, NM                                  |       |             |            |                    |       |                         |      |          |           |
| Sample Technician: Vincent Nguyen                         |       |             |            |                    |       |                         |      |          |           |
| DATE: 07/19/18                                            |       |             |            |                    |       |                         |      |          |           |
| Weather: 91°F, 25% humidity, 30 inches Hg., 10 MPH from S |       |             |            |                    |       |                         |      |          |           |
| WELL ID: B2/MW28                                          |       |             |            |                    |       |                         |      |          |           |
| TIME                                                      | DTW   | Total Depth | Flow Rate  | Temp               | COND  | pH                      | DO   | ORP      | Turbidity |
| hr:min                                                    | feet  | feet        | ml/min     | deg C F            | µS/cm | unit                    | mg/L | mV       | NTU       |
|                                                           |       |             |            | 1 deg              | 3%    | 0.1                     | 0.3  | 10% or 5 | 10% or 5  |
| 0940                                                      | 39.62 |             | 800        | 21.5               | 1854  | 7.27                    | 2.89 | 115.1    | 5.0       |
| 0950                                                      | 39.62 |             | 800        | 21.3               | 1841  | 7.27                    | 3.43 | 159.2    | 3.3       |
| 1000                                                      | 39.66 |             | 800        | 21.4               | 1825  | 7.18                    | 2.49 | 162.0    | 2.7       |
| 1010                                                      | 39.83 |             | 800        | 21.0               | 1856  | 7.19                    | 2.78 | 165.6    | 3.1       |
| 1020                                                      | 40.26 |             | 800        | 21.3               | 1853  | 7.19                    | 2.99 | 163.4    | 3.8       |
| 1030                                                      | 40.68 |             | 800        | 21.5               | 1829  | 7.18                    | 3.26 | 167.1    | 1.8       |
| 1040                                                      | 40.60 |             | 800        | 21.1               | 1853  | 7.21                    | 3.80 | 157.4    | 1.1       |
| 1050                                                      | 40.62 |             | 800        | 21.2               | 1845  | 7.18                    | 3.81 | 161.2    | 1.6       |
| 1100                                                      | 40.62 |             | 800        | 21.1               | 1867  | 7.19                    | 4.20 | 171.8    | 1.0       |
| 1110                                                      | 40.65 |             | 800        | 21.3               | 1835  | 7.22                    | 4.18 | 168.7    | 0.8       |
| 1120                                                      | 40.67 |             | 800        | 21.1               | 1841  | 7.23                    | 4.36 | 152.8    | 0.1       |
| 1130                                                      | 40.65 |             | 800        | 21.1               | 1845  | 7.23                    | 4.87 | 160.1    | 2.6       |
| 1140                                                      | 40.69 |             | 800        | 21.0               | 1822  | 7.22                    | 4.52 | 158.3    | 1.1       |
| Depth to Pump Intake                                      |       | 50          | Feet       | 1000 mL = 1 Liter  |       | 1 gallon = 3.785 Liters |      |          |           |
| Total Purge Volume                                        |       | 26          | Gallons    | Liters             |       | GALLONS                 |      |          |           |
|                                                           |       |             |            | WELL INFORMATION   |       | SAMPLE COLLECTION       |      |          |           |
| DTW final:                                                | 40.69 |             | Conversion | TD:                | 52.91 | DTW final :             |      |          |           |
| DTW initial:                                              | 39.62 |             | 0.163      | DTW <sub>i</sub> : | 39.65 | 39.97                   |      |          |           |
|                                                           |       |             | 0.652      | h:                 | 13.16 | TIME:                   |      |          |           |
| Drawdown:                                                 | 1.07  |             | 1.457      | csg vol:           | 8.58  | 1150                    |      |          |           |
| COMMENTS                                                  |       |             |            |                    |       |                         |      |          |           |
| 4 inch diameter well                                      |       |             |            |                    |       |                         |      |          |           |
| h <sub>root</sub> = 42.30 feet bgs                        |       |             |            |                    |       |                         |      |          |           |

W-39-B3/MW29



[W-39-B4/MW30]



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[illegible]

## **APPENDIX G**

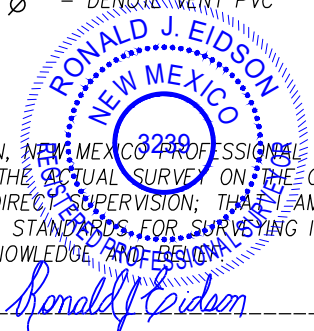
### **SURVEY DATA**





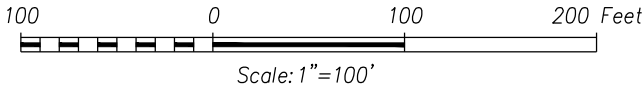
LEGEND:

- - DENOTES NEW MONITOR WELL
- ∅ - DENOTE VENT PVC



I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON *Ronald J. Eidson* DATE: 08/27/2018



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO HOBBS, N.M. 88240  
(575) 393-3117 [www.jwsc.biz](http://www.jwsc.biz)  
TBPLS# 10021000

| WELL   | COORDINATES              | ELEVATIONS                                                                          |
|--------|--------------------------|-------------------------------------------------------------------------------------|
| MW-#1  | 839163.9 N<br>914699.9 E | NATURAL GROUND - 3866.28'<br>TOP OF CONCRETE - 3866.49'<br>TOP OF 2" PVC - 3866.77' |
| MW-#2  | DESTROYED                |                                                                                     |
| MW-#3  | 839108.8 N<br>914778.1 E | NATURAL GROUND - 3866.01'<br>TOP OF CONCRETE - 3866.16'<br>TOP OF 2" PVC - 3865.34' |
| MW-#4  | 839171.8 N<br>914750.0 E | NATURAL GROUND - 3866.57'<br>TOP OF CONCRETE - 3866.79'<br>TOP OF 2" PVC - 3866.32' |
| MW-#5  | 839148.9 N<br>914594.1 E | NATURAL GROUND - 3865.92'<br>TOP OF CONCRETE - 3866.08'<br>TOP OF 2" PVC - 3868.65' |
| MW-#6  | 839036.6 N<br>914772.7 E | NATURAL GROUND - 3865.77'<br>TOP OF CONCRETE - 3866.06'<br>TOP OF 2" PVC - 3868.66' |
| MW-#7  | 839143.3 N<br>914800.1 E | NATURAL GROUND - 3866.18'<br>TOP OF CONCRETE - 3866.19'<br>TOP OF 2" PVC - 3865.76' |
| MW-#9  | 839149.3 N<br>914902.6 E | NATURAL GROUND - 3867.10'<br>TOP OF CONCRETE - 3867.31'<br>TOP OF 2" PVC - 3869.90' |
| MW-#10 | 839228.8 N<br>914900.3 E | NATURAL GROUND - 3867.61'<br>TOP OF CONCRETE - 3867.89'<br>TOP OF 2" PVC - 3870.47' |
| MW-#11 | 839242.1 N<br>914949.9 E | NATURAL GROUND - 3866.65'<br>TOP OF CONCRETE - 3867.11'<br>TOP OF 2" PVC - 3869.68' |
| MW-#12 | 839322.4 N<br>914765.5 E | NATURAL GROUND - 3866.31'<br>TOP OF CONCRETE - 3866.75'<br>TOP OF 2" PVC - 3869.40' |
| MW-#13 | 839208.2 N<br>914532.3 E | NATURAL GROUND - 3865.89'<br>TOP OF CONCRETE - 3866.18'<br>TOP OF 2" PVC - 3868.76' |
| MW-#14 | 839105.4 N<br>914540.6 E | NATURAL GROUND - 3865.67'<br>TOP OF CONCRETE - 3866.05'<br>TOP OF 2" PVC - 3868.62' |
| MW-#15 | 839161.8 N<br>914635.6 E | NATURAL GROUND - 3866.03'<br>TOP OF CONCRETE - 3866.28'<br>TOP OF 2" PVC - 3868.86' |
| MW-#16 | 839036.9 N<br>914696.6 E | NATURAL GROUND - 3865.85'<br>TOP OF CONCRETE - 3866.15'<br>TOP OF 2" PVC - 3868.68' |
| MW-#17 | 839345.0 N<br>914764.0 E | NATURAL GROUND - 3866.05'<br>TOP OF CONCRETE - 3866.38'<br>TOP OF 2" PVC - 3869.27' |

| WELL   | COORDINATES              | ELEVATIONS                                                                          |
|--------|--------------------------|-------------------------------------------------------------------------------------|
| MW-#18 | 839263.3 N<br>914470.4 E | NATURAL GROUND - 3865.94'<br>TOP OF CONCRETE - 3866.27'<br>TOP OF 2" PVC - 3868.94' |
| MW-#19 | 839037.3 N<br>914546.7 E | NATURAL GROUND - 3866.06'<br>TOP OF CONCRETE - 3866.32'<br>TOP OF 2" PVC - 3868.90' |
| MW-#20 | 839338.0 N<br>914432.1 E | NATURAL GROUND - 3866.23'<br>TOP OF CONCRETE - 3866.54'<br>TOP OF 2" PVC - 3869.15' |
| MW-21  | 839218.7 N<br>914380.7 E | NATURAL GROUND - 3866.15'<br>TOP OF CONCRETE - 3866.47'<br>TOP OF 2" PVC - 3869.07' |
| MW-#22 | 839473.6 N<br>914896.6 E | NATURAL GROUND - 3866.80'<br>TOP OF CONCRETE - 3867.24'<br>TOP OF 2" PVC - 3869.86' |
| MW-#23 | 839160.6 N<br>914454.4 E | NATURAL GROUND - 3865.94'<br>TOP OF CONCRETE - 3866.18'<br>TOP OF 2" PVC - 3869.22' |
| MW-#24 | 839242.8 N<br>914653.2 E | NATURAL GROUND - 3864.74'<br>TOP OF CONCRETE - 3865.03'<br>TOP OF 2" PVC - 3868.04' |
| MW-#25 | 839323.0 N<br>914561.3 E | NATURAL GROUND - 3865.95'<br>TOP OF CONCRETE - 3866.20'<br>TOP OF 2" PVC - 3869.14' |
| MW-#26 | 839457.3 N<br>914663.7 E | NATURAL GROUND - 3866.11'<br>TOP OF CONCRETE - 3866.35'<br>TOP OF 2" PVC - 3869.15' |
| MW-#27 | 839394.5 N<br>914511.1 E | NATURAL GROUND - 3866.13'<br>TOP OF CONCRETE - 3866.26'<br>TOP OF 2" PVC - 3869.12' |
| MW-#28 | 839367.8 N<br>914371.7 E | NATURAL GROUND - 3866.47'<br>TOP OF CONCRETE - 3866.51'<br>TOP OF 2" PVC - 3869.32' |
| MW-#29 | 839213.3 N<br>914320.1 E | NATURAL GROUND - 3866.25'<br>TOP OF CONCRETE - 3866.46'<br>TOP OF 2" PVC - 3869.36' |
| MW-#30 | 839098.7 N<br>914375.9 E | NATURAL GROUND - 3865.94'<br>TOP OF CONCRETE - 3866.04'<br>TOP OF 2" PVC - 3869.10' |
| MW-#31 | 839153.5 N<br>914969.1 E | NATURAL GROUND - 3865.94'<br>TOP OF CONCRETE - 3866.20'<br>TOP OF 2" PVC - 3869.05' |
| MW-#32 | 839411.3 N<br>914834.0 E | NATURAL GROUND - 3867.29'<br>TOP OF CONCRETE - 3867.40'<br>TOP OF 2" PVC - 3870.35' |

COORDINATE TABLE  
COORDINATES VALUES SHOWN ARE RELATIVE TO THE NORTH AMERICAN DATUM 1983, "NEW MEXICO EAST ZONE".  
ELEVATIONS ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM 1988

CARDNO

MONITOR WELLS LOCATED  
IN SECTIONS 4 & 5, TOWNSHIP 12 SOUTH,  
RANGE 38 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO

|                       |                    |                            |
|-----------------------|--------------------|----------------------------|
| Survey Date: 07/20/18 | CAD Date: 08/20/18 | Drawn By: LSL              |
| W.O. No.: 18110852    | Rev:               | Rel. W.O.:<br>Sheet 1 of 1 |

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General Information  
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Online Phone Directory  
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS

Action 409553

CONDITIONS

|                                                                            |                                                                          |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Operator:<br>EXXON MOBIL CORPORATION<br>P.O. Box 4358<br>Houston, TX 77210 | OGRID:<br>7673                                                           |
|                                                                            | Action Number:<br>409553                                                 |
|                                                                            | Action Type:<br>[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |

CONDITIONS

| Created By       | Condition                                                                                                                                | Condition Date |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| michael.buchanan | R01 Well Installation for six (6) off-site groundwater wells accepted for the record. App ID: 409553, approved by Brad Billings in 2018. | 12/11/2024     |