

2019 Annual Groundwater Monitoring Report Former Dowell Schlumberger Facility Artesia, New Mexico

507 East Richey Avenue
Artesia, Eddy County, New Mexico

Prepared for

Schlumberger Technology Corporation and
The Dow Chemical Company

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CH2M HILL Engineers, Inc.

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Acronyms and Abbreviations

bgs	below ground surface
CH2M	CH2M HILL Engineers, Inc.
CVOC	chlorinated volatile organic compound
CZA	capture zone analysis
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
Dowell	a defunct joint venture between Schlumberger Technology Corporation and The Dow Chemical Company
DPT	direct-push technology
Fe-EDTA	chelated iron
EW	extraction well
GAC	granular activated carbon
gpm	gallon(s) per minute
ISCO	in situ chemical oxidation
KP	potassium persulfate
mg/L	milligram(s) per liter
MW	monitoring well
NaMnO ₄	sodium permanganate
NMED	New Mexico Environmental Department
NMOCD	New Mexico Oil Conservation Division
NMOSE	New Mexico Office of the State Engineer
NMWQCC	New Mexico Water Quality Control Commission
PCE	tetrachloroethene
PVC	polyvinyl chloride
site	Former Dowell Schlumberger Facility, Artesia, New Mexico
SP	sodium persulfate
SVE	soil vapor extraction
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
USTB	Underground Storage Tank Bureau
VOC	volatile organic compound
ZVI	zero valent iron

Introduction

CH2M HILL Engineers, Inc. (CH2M) has completed the 2019 groundwater monitoring program and remedial activities at the Former Dowell Schlumberger Facility (site), which is located at 507 East Richey Avenue, Artesia, Eddy County, New Mexico. Dowell Schlumberger Incorporated (Dowell) is a defunct joint venture between Schlumberger Technology Corporation and The Dow Chemical Company. The site was regulated by the New Mexico Oil Conservation Division (NMOCD) under Discharge Permit GW-114 until August 2019 when the Stage I and Stage II Abatement Plans were approved by the NMOCD. Figure 1-1 shows the site location, and Figure 1-2 shows the site plan.

This report documents the annual groundwater sampling and remedial action results and presents recommendations for future activities.

Site Background

Section 2 provides an overview of the site background, history of operations, and geology and hydrogeology.

2.1 Site Description and History

The site was used as an oilfield services facility operated by Dowell between 1969 and 1990, and in the early 2000s. In 1988, the New Mexico Environment Department (NMED) Underground Storage Tank Bureau (USTB) directed response actions in connection with fuel-related volatile organic compound (VOC) releases from underground storage tanks (USTs) at the site. During the early 1990s, the NMOCD assumed responsibility for regulatory oversight of the site.

In 1988, fuel-related VOC impacts to site soil and groundwater were discovered during UST removal activities and were regulated by the NMED-USTB. In 1995, a chlorinated VOC (CVOC) groundwater plume was discovered onsite near the former Wash Bay and was determined to be migrating to an adjacent downgradient property. The NMED Groundwater Protection and Remediation Bureau began to oversee the CVOC plume response and continued to regulate the pre-1995 UST impacts. In response to the discovery of the plume, Dowell purchased the downgradient property. Following the purchase of the adjacent land, it was discovered that Eddy County, New Mexico, owns right-of-way property between numerous land parcels and, as of 2015, remains the owner of the right-of-way between the two adjacent properties.

The USTs and acid plant have been decommissioned and removed, but the office, maintenance, and storage buildings remain at the site (Figure 1-2). Concrete blending activities began at the site in October 2018 and are ongoing. No new tanks for storage of liquid materials are currently planned for the site. The remaining property outside the former oilfield services facility fence line is undeveloped, other than for limited environmental-related infrastructure and an electrical transmission line owned by others.

The initial remedial response, excavation and soil vapor extraction (SVE), were implemented to remove petroleum hydrocarbons and CVOCs from site groundwater and soil surrounding the former USTs, Former Wash Bay, and Former Acid Plant (Figure 1-2). During the early to mid-1990s, soil contaminated with fuel-related VOCs and CVOCs was excavated at these locations. Following soil excavation in January 1994, SVE systems began operation at the location of the former USTs and at the former Wash Bay. The SVE system at the location of the former USTs effectively removed fuel-related VOCs within that area and was decommissioned in the early 2000s (Western Water Consultants Inc. 2004). The former Wash Bay SVE system was decommissioned in 2014.

Between 2001 and 2002, zero-valent iron (ZVI) was injected in the downgradient portions of the CVOC groundwater plume. However, the ZVI was difficult to inject, distribution was inconsistent, and there was minimal CVOC concentration reduction. In 2014, sodium permanganate (NaMnO_4) was injected into eight injection wells 20 feet upgradient of MW-25 (CH2M 2015) to use in situ chemical oxidation (ISCO) to accelerate CVOC destruction at the site.

In 2016, a soil and groundwater investigation was completed near the location of the former SVE systems to delineate the residual petroleum hydrocarbon and CVOC plume (CH2M 2017a). In October 2017, a pilot-scale ISCO application using sodium persulfate (SP) was completed in accordance with the *MW-12 Investigation Report, Former Dowell Schlumberger Facility, Artesia, New Mexico* (CH2M 2017a).

A groundwater extraction and treatment system, which was installed in December 2008 (Duell Environmental LLC 2009) and upgraded in 2015 (CH2M 2016), operates at the downgradient end of the plume as defined by MW-28, MW-29, and MW-30. Groundwater is extracted from EW-01, EW-03, and

EW-04; treated using granular activated carbon (GAC); and discharged into the ground by gravity at the subsurface infiltration gallery, which is approximately 230 yards upgradient, adjacent to MW-31.

On July 9, 2019, Schlumberger Technology Corporation, CH2M, and the NMOCD met for a site status update, at which time the Stage I and Stage II Abatement Plan (CH2M 2017b) was revisited and the current Addendum was presented; refer to the meeting notes (CH2M 2019b). NMOCD subsequently approved the Stage I and Stage II Abatement Plan and current Addendum, and the proposed revisions to the monitoring network on August 14, 2019 (Appendix A). In accordance with Title 19, Chapter 15, Part 30, Section 10 of the New Mexico Administrative Code (NMAC 2002), the abatement standards that will be continued to be used will be those presented in the Stage I and II Abatement Plan (CH2M 2017b).

2.2 Geology and Hydrogeology

2.2.1 Regional Geology and Hydrogeology

The underlying geology in the area includes the east-dipping Permian San Andres Limestone. Overlying the Permian San Andres Limestone are the Artesia Group and Quaternary alluvium (Lyford 1973).

Artesia, New Mexico, is in the Roswell groundwater basin. The basin's boundaries are as follows:

- Northern is 20 miles north of Roswell.
- Southern is in the Seven Rivers area between Artesia and Carlsbad
- Eastern is the Pecos River.
- Western is roughly 20 miles west of Artesia.

The Roswell groundwater basin is made up of two aquifers, separated by a leaky confining layer. The upper aquifer is contained in the quartzose unit of the Quaternary alluvium, and the lower aquifer consists of the Permian San Andres Limestone. The upper aquifer is unconfined and is composed of Quaternary alluvial valley fill. Most of the water-producing zones in the aquifer are in the quartzose unit. The zones are typically sand and gravel, separated by adjacent zones of silt and clay. Most zones are around 20 feet thick (Welder 1983).

The leaky confining layer between the two aquifers is formed from the lower three formations of the Artesia Group, which are mudstones. The moderately permeable layers form a leaky confining layer between the lower and upper aquifers (Hendrickson and Jones 1952). The layers vary in thickness across the basin due to erosion and solution collapse. The lower aquifer is within the San Andres Limestone and the lower part of the Artesia Group. There are five different water-bearing zones in the deep aquifer. The thickness of the aquifer ranges from 260 to 460 feet, with water-bearing zones typically 50 feet or less in thickness. In the northern part of the basin, near Roswell, the middle of the San Andres Limestone is the main water-producing zone. Near Artesia, in the middle of the basin, the main zone of production is the top of the San Andres Limestone. In the southern part of the basin, the main zone of production is the lower part of the Artesia Group (Welder 1983).

The transmissivities of the two aquifers vary due to irregular fractures, solution permeability in the deep aquifer, and erratic occurrences of sand and gravel in the shallow aquifer (Hendrickson and Jones 1952). The transmissivities range from 7,500 to 196,000 square feet per day in the deep aquifer, and 4,200 to 186,000 square feet per day in the shallow aquifer (Welder 1983). The aquifer zone yields vary greatly due to groundwater moving principally through cavities and fractures (Hendrickson and Jones 1952) at various depths. As a result, it is difficult to find specific water-bearing depth intervals in the aquifer during monitoring well installation (Welder 1983). Groundwater moves from the lower aquifer to the shallow, although Welder (1983) states that flow may reverse due to heavy pumping in the lower aquifer. The estimated net rate of upward leakage is around 12,400 acre-feet per month (Welder 1983). Several water-bearing units in the leaky confining layer exist, and wells have been advanced and

completed in the zones (Welder 1983). In general, in the Roswell basin, groundwater flow is to the east; however, groundwater pumping in the Artesia area has caused a depression in the potentiometric surface of nearly 90 feet.

2.2.2 Site Geology and Hydrogeology

Western Water Consultants, Inc. assessed the geology and hydrogeology beneath the site during a March 1995 investigation. Observations during drilling activities indicated that the predominant lithologies consist of light-brown to reddish-brown silt and silty clay, interbedded with clay layers and stringers of carbonate rubble. The very-fine-grained sediments were deposited in an arid, alluvial overbank environment and can be expected to be more laterally continuous than coarse-grained alluvial channel deposits (Western Water Consultants, Inc. 1995). The carbonate layers are believed to be the result of the evaporation of water containing elevated concentrations of dissolved solids. The 1995 investigation concluded that the stringers of carbonate rubble constitute the primary water-bearing zones. The rubble layers were observed at depths ranging from 20 to 26 feet below ground surface (Western Water Consultants, Inc. 1995).

2019 Site Activities

As detailed below, the following activities occurred at the site during 2019:

- Collection of semiannual groundwater samples and depth-to-water measurements. During the October event, seven existing monitoring wells were removed from the semiannual sampling program but were retained for the collection of potentiometric surface data.
- Installation of three new groundwater monitoring wells (MW-36, MW-37, and MW-38) near MW-12, in the ISCO injection area (Figure 1-2). Baseline groundwater samples were collected in August.
- Completion of the second phase of ISCO application, in accordance with the *MW-12 Investigation Report, Former Dowell Schlumberger Facility, Artesia, New Mexico* (CH2M 2017a) and *2018 Annual Monitoring Report, Former Dowell Schlumberger Facility, Artesia, New Mexico* (CH2M 2019a). One performance monitoring groundwater sampling event was conducted in October to assess ISCO effectiveness.
- Continued operations and maintenance of the groundwater extraction and treatment system, replacement of the GAC, and rehabilitation of EW-03 and EW-04. In July 2019, the system was optimized based on capture zone analysis (CZA) recommendations. The CZA was updated for this report using the October 2019 analytical and system data.

3.1 Groundwater Monitoring Activities

3.1.1 Semiannual Groundwater Monitoring

Depth-to-water was measured at the 19 site monitoring wells in April 2019 and 22 site monitoring wells in October 2019. The April event included groundwater sample collection from 17 of 19 site monitoring wells sampled semiannually (MW-11, MW-12, MW-15, MW-17C, MW-18, MW-21, MW-22, MW-25, MW-26, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, MW-34, and MW-35). The October event included groundwater sample collection from 15 of 22 site wells sampled annually (MW-11, MW-12, MW-17C, MW-22, MW-25, MW-28, MW-29, MW-30, MW-31, MW-32, MW-34, MW-35, and the three new wells, MW-36, MW-37, and MW-38).

Except for MW-11, MW-12, and MW-17C (discussed in Section 3.1.2) and MW-36, MW-37, and MW-38 (discussed in Section 3.2.4), groundwater samples were collected using HydraSleeves and submitted for laboratory analysis of the target list of VOCs (1,1-dichloroethene [1,1-DCE], 1,1-dichloroethane [1,1-DCA], naphthalene, benzene, and tetrachloroethene[PCE]) by the U.S. Environmental Protection Agency (USEPA) SW-846 Method 8260B. In April and October, groundwater samples from 11 monitoring wells were also submitted for laboratory analysis of dissolved manganese by USEPA Method 6020. The manganese sampling and analysis is a condition of NMOCD Discharge Permit Amendment Approval to implement ISCO. Appendix A contains correspondence with NMOCD regarding the required geochemical monitoring.

In a modification to the Stage I and Stage II Abatement Plan (CH2M, 2019b), approved by the NMOCD in August 2019 (Bradford Billings/NMOCD 2019) seven monitoring wells (MW-8, MW-15, MW-18, MW-20, MW-21, MW-26, and MW-33) were removed from the semiannual monitoring plan based on historical analytical data indicating no constituents had exceeded New Mexico Water Quality Control Commission (NMWQCC) standards since 2015. Monitoring wells were retained at the site for potentiometric surface measurements. The NMOCD approval of the modification is included in Appendix A.

3.1.2 ISCO Performance Monitoring

Performance monitoring groundwater samples were collected in the MW-12 ISCO injection area as part of the April and October semiannual groundwater sampling events. Groundwater samples were collected from MW-11, MW-12, and MW-17C in April and October and submitted for laboratory analysis of the target list of VOCs by USEPA Method 8260B. As a condition of NMOCD Discharge Permit Amendment Approval to inject sodium and potassium persulfate (KP) at the site, groundwater samples from were also collected and submitted for laboratory analysis of sulfate by USEPA Method 300.0.

Before groundwater was sampled, MW-11, MW-12, and MW-17C were purged with a peristaltic pump using low-flow methods. Field parameters (temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential) were measured and recorded during purging activities. Appendix B contains performance monitoring field data sheets for the sampling events conducted in April and October.

Groundwater extracted during purging activities was contained in 5-gallon buckets and transferred to the groundwater treatment system for treatment and re-infiltration.

3.2 Monitoring Well Installation

Groundwater monitoring well installation in August included the following components:

- Submittal and approval of well installation permits
- Utility clearances
- Drilling and installation of three soil monitoring wells by hollow-stem auger
- Well development and groundwater sampling

3.2.1 Well Installation Permits

Well permit applications for non-consumptive use of water were submitted to the New Mexico Office of the State Engineer (NMOSE). On August 19, 2019, the NMOSE granted well permits, which are included in Appendix C. On August 26, 2019, Talon/LPE, a licensed New Mexico driller, mobilized to the site to install three monitoring wells in the MW-12 ISCO injection area to monitor the performance of the ISCO remedy.

3.2.2 Utility Clearances

Before drilling activities began, monitoring well locations were staked, a New Mexico OneCall ticket was initiated, and a third-party utility-locating service used a ground penetrating radar survey to identify utilities within a 10-foot diameter around each boring location.

3.2.3 Drilling and Construction

MW-36, MW-37, and MW-38 were installed to 25 feet below ground surface (bgs) using hollow-stem auger drilling techniques. The monitoring wells were drilled using 4.25-inch-inside-diameter augers with continuous coring methods, and soil was described lithologically logged in accordance with the Unified Soil Classification System. Soil boring logs are included in Appendix D.

The wells were constructed of flush-threaded, 2-inch diameter schedule 40 polyvinyl chloride (PVC) blank casing, bottom cap, and PVC screen. The wells were screened from 15 to 25 feet bgs using a 0.010-inch mil slot screen with a flush-threaded schedule 40 PVC bottom cap. The soil boring logs and well construction diagrams show filter-pack type and size, bentonite seal depth, and grout mixture (Appendix D). Monitoring well locations are presented on Figure 1-2.

After monitoring wells were installed, they were developed by surging with a surge block, followed by bailing out the fine-grained sediment that entered the well screen during the surging step. Finally, a

submersible pump was placed into the well and pumped at a suitable flow rate to prevent the screen interval from dewatering, until the water's turbidity began to decrease. Development was considered complete when the measured turbidity of the groundwater was less than 10 nephelometric turbidity units.

3.2.4 Groundwater Sampling

Immediately after the completion of well development, a groundwater sample was collected from each new monitoring well with the submersible pump. Samples were submitted for laboratory analysis of the target list of VOCs by USEPA Method 8260B and sulfate by Method 300.0 (required as a condition of NMOCD Discharge Permit Amendment Approval to inject SP and KP). Along with MW-11, MW-12, and MW-17C, the three new monitoring wells (MW-36, MW-37, and MW-38) were sampled again in October for the same parameters to assess ISCO effectiveness.

Before groundwater was collected, MW-36, MW-37, and MW-38 were purged with a peristaltic pump using low-flow methods. Field parameters (temperature, pH, conductivity, turbidity, dissolved oxygen, and oxidation-reduction potential) were measured and recorded during purging activities. Appendix B contains performance monitoring field data sheets for the baseline sampling event conducted in August and the semiannual groundwater sampling event conducted in October.

3.3 Phase II ISCO Injections

Based on the April analytical results at MW-12 (described in Section 4.3), the second phase of the ISCO injections was completed in 2019 using a direct push technology (DPT) drilling rig. As discussed in the *Stage I and Stage II Abatement Plan* (CH2M 2017b) and the *2017 Annual Monitoring Report* (CH2M 2018), a combination of SP (Klozur SP) and KP (Klozur KP) was selected for remediating the CVOCs in the MW-12 area. While Klozur SP is fast-acting and starts the oxidation process in the aquifer, Klozur KP has a longer life in the aquifer and is best for addressing the target VOCs as they desorb or diffuse from the clay. Chelated iron (Fe-EDTA) was added to activate the persulfate.

During the pilot-scale study injection event, boreholes were abandoned after injections (CH2M 2018); however, based on current concentrations of 1,1-dichloroethane (1,1-DCA) and sulfate in the injection area, injection wells were installed in the DPT borings for potential follow-on carbon substrate injections. Well permit applications for non-consumptive use of water were submitted to the NMOSE. Well permits were granted by the NMOSE on September 20, 2019 and are included in Appendix C. Because the injection wells are less than 2.375 inches in diameter, a New Mexico-licensed driller was not required to install wells.

On September 30, 2019, FRx, Inc, a specialty injection contractor, and Earth Worx Environmental Services, a DPT contractor, mobilized to the site. The Klozur SP, Klozur KP, and Fe-EDTA were delivered to the site and stored inside a shed with existing secondary containment. Potable water was obtained from a potable water source connected to the Schlumberger facility.

Beginning on September 30, 2019, the injections were implemented as follows:

- DPT drilling rig was used to advance a 2-inch-diameter drill rod to the desired depth of each fracture.
- The drilling rod was extracted to expose a 2-foot-long section of open borehole.
- Potable water was used to inscribe a kerf into the wall of the open borehole to focus injection stresses and propagate the fracture with hydraulic pressure.
- The slurry composed of 55 to 165 pounds of Klozur SP, 385 to 750 pounds of Klozur KP, and 3 pounds of an Fe-EDTA was injected through the kerf.

This process was repeated for 48 fractures in 12 boreholes (Figure 3-1). Table 3-1 details the volume of slurry injected into each fracture. After the slurry was injected into each fracture, groundwater parameters were monitored at MW-12, MW-36, MW-37, or MW-38, based on their distance from DPT location. Groundwater quality parameters were collected using a dedicated bailer and string, removing one full bailer of water, and collecting readings from the water quality meter. Excess water from the bailer was contained in 5-gallon buckets and transferred to the treatment system for treatment and reinjection. Table 3-2 shows groundwater quality parameters collected from monitoring wells during DPT injections.

At the completion of the injections 1-inch-inside-diameter injection wells were installed into each 2-inch-diameter borehole. The injection wells were constructed of flush-threaded, 1-inch-diameter schedule 40 PVC blank casing, bottom cap, and PVC screen. The wells were screened from 14 to 24 feet bgs using a 0.010-inch mil slot screen with a flush-threaded schedule 40 PVC bottom cap. The well construction diagrams show filter-pack type and size, bentonite seal depth, and grout mixture (Appendix D). Figure 3-1 shows the injection well locations.

3.4 Groundwater Extraction and Treatment Operations

Groundwater extraction and treatment system operations included the following components:

- Collection of GAC performance monitoring samples
- Documentation of the flowrates from the extraction wells and the combined outflow
- Quarterly system inspections and maintenance in February, April, September, and October, which also included the replacement of the cartridge filters in October and replacement and offsite reactivation of the spent GAC in October
- Extraction well rehabilitation
- Optimization of the groundwater extraction rates in July, based on recommendations presented in the July 9, 2019 meeting with NMOCD

3.4.1 GAC Performance Monitoring

Samples were collected from the GAC inlet, mid-GAC, and GAC outlet in April and October, and submitted for laboratory analysis of the target list of VOCs by USEPA Method 8260B and dissolved manganese by USEPA Method 6020.

3.4.2 System Flow Rates

Based on the flow totalizer, approximately 11.86 million gallons of groundwater were extracted, treated, and re-infiltrated in 2019. The average extraction rates at the extraction wells in 2019 were 7.8 gallons per minute (gpm) at EW-01, 10.8 gpm at EW-03, and 11.0 gpm at EW-04.

Based on recommendations presented in the spring 2019 CZA described in Section 4.4.1, extraction rates were optimized on June 18, 2019. Extraction optimization included shutting off EW-01, decreasing the flow rate at EW-03 to 8 to 10 gpm, and increasing the flow rate at EW-04 to 13 to 15 gpm.

3.4.3 System Inspections and Maintenance

Daily emails were received from the onboard telemetry that reported flow rates, system pressure, total gallons through the system, and upset conditions. During the maintenance site visits, the activities included the measurement of extraction well flow rates and the combined outflow, physical inspection of the system to observe for leaks and/or upset conditions, and the replacement of cartridge filters.

In addition, the GAC vessels were drained, and the GAC was replaced in October. Spent GAC was transported offsite for reactivation.

The groundwater extraction and treatment system was unintentionally shut down three times during the 2019 reporting period. The system shut down in March and June due to power outages in the Artesia area, likely due to thunderstorms. Operations personnel were unable to remotely connect to the system after power was restored and had to mobilize to the site to reset the modem and restart the system. In July, the system restart was not successful by operations personnel and the diagnosis of a local electrician indicated the uninterrupted power supply required replacement. The uninterrupted power supply was replaced, and the system was restarted. The system was shut down in August due to a blockage in the equilibration tank, the blockage was removed, and the system was restarted. The system was not operational for a total of approximately 30 days during the 2019 reporting period.

3.4.4 Extraction Well Rehabilitation

EW-03 and EW-04 were rehabilitated by chemical treatment in April and September to reduce the growth of iron-reducing bacteria. Rehabilitation included brushing/swabbing the well casing and screen to physically remove the bacterial deposits, removing debris using a bailer, and placing NuWell chemical solution into the well screen. After the NuWell chemical solution was placed, the well screen and sand pack were swabbed and surged. The NuWell chemical solution was left in the well screen and sand pack overnight. The following day, the well screen and sand pack were swabbed, surged, and bailed to remove debris that had accumulated overnight. Groundwater and NuWell chemical solutions bailed from EW-03 and EW-04 were temporarily contained in open-top 55-gallon steel drums and transferred to the groundwater extraction and treatment system for treatment and re-infiltration.

3.4.5 Capture Zone Analysis

A CZA was presented to NMOCD in a meeting on July 9, 2019 (CH2M 2019b), using analytical and extraction system data to evaluate the 2018 operational period. The CZA was updated in late 2019 to evaluate the 2019 operational period. The evaluation included an interpretation of multiple lines of evidence per USEPA guidance for evaluating capture zones at pump-and-treat systems (USEPA 2008). The following lines of evidence used to complete the CZA:

- The target capture zone was identified using April and October 2019 concentration isopleths for tetrachloroethene (PCE) and 1,1-dichloroethene (1,1-DCE).
- The 2018 and 2019 capture zones were estimated using the groundwater flow net from potentiometric surface elevation data.
- Site hydrogeological properties were refined using fundamental hydrogeologic calculations using site hydrogeological data and an iterative approach to match the calculation output to the inferred current capture zone.
- Contaminant concentration trends at sentinel monitoring wells (MW-28, MW-29, and MW-35) collected in April and October 2019 were used to identify evidence of plume capture.
- The optimum groundwater extraction rate to produce a capture zone sufficient to achieve the target capture zone was estimated.

3.5 Waste Management

Soil waste from the installation of MW-36, MW-37, and MW-38 was containerized in steel 55-gallon open-top drums. Waste characterization samples were collected, and a soil profile was generated. Six drums were transported from the site for disposal by Safety Kleen in October 2019.

Groundwater extracted during purging activities was contained in 5-gallon buckets and transferred to the groundwater treatment system for treatment and re-infiltration. Water removed from wells during development was containerized and transferred to the GAC system for treatment and reinjection.

Results and Discussion

4.1 Groundwater Elevation and Gradient

Figures 4-1 and 4-2 show the April and October 2019 potentiometric maps. Table 4-1 presents historical and 2019 groundwater elevation data.

An area of localized groundwater mounding was observed at MW-31, which is near the gravity infiltration trench. Conversely, groundwater elevations in the monitoring wells at northern boundary of the site (MW-28, MW-29, MW-30, and MW-35) are relatively depressed because of the extraction and treatment system.

The overall groundwater gradient was 0.0076 feet per foot for the April event, with the overall direction of groundwater flow to the northeast. The overall groundwater gradient was 0.0072 feet per foot for the October event, with the overall direction of groundwater flow to the northeast. The gradient and groundwater flow direction are consistent with historical results.

4.2 Groundwater Treatment System Sampling Results

Table 4-2 shows the groundwater extraction and treatment system performance monitoring analytical results. Concentrations of 1,1-DCE exceeded the NMWQCC standard of 0.005 milligrams per liter (mg/L) in the inlet and middle GAC sampling location during both April and October. Analytical results indicated breakthrough of the GAC by October and GAC was changed out during the October 2019 sampling event.

4.3 Groundwater Analytical Results

Table 4-3 summarizes the groundwater analytical results for 2019. Appendix E contains the 2019 laboratory analytical reports. In addition to the semiannual data from April and October, Table 4-3 and Appendix E also include the results from August baseline sampling at monitoring wells MW-36, MW-37, and MW-38, as well as the October performance monitoring event of the monitoring wells inside the ISCO footprint. Appendix B includes the baseline sampling and performance monitoring field data sheets for monitoring wells inside the ISCO footprint. Results from before 2019 are included in previous annual reports.

The groundwater analytical results are compared to the NMWQCC standards, which are included in Table 4-2. Figures 4-3, 4-4, 4-5, 4-6, and 4-7 present concentrations in groundwater for the target VOCs that exceeded NMWQCC standards during a given sampling event. The extent of the exceedance of the NMWQCC standard is shown as an isopleth line on each figure.

As Figure 4-3 shows, the naphthalene concentration exceeded its NMWQCC standard of 0.03 mg/L at MW-12 during the April sampling event. Naphthalene concentrations were less than the NMWQCC standards in 2018 (CH2M 2019a) and October 2019. Based on the recommendations presented in the *2018 Annual Monitoring Report* (CH2M 2019a), the Phase II ISCO application was completed.

4.3.1 MW-36, MW-37, and MW-38 Baseline Results

The following points summarize the August 2019 baseline results for MW-36, MW-37, and MW-38:

Naphthalene and PCE concentrations did not exceed their respective NMWQCC standards of 0.03 mg/L and 0.02 mg/L at the three new performance monitoring wells (Figures 4-3 and 4-7).

- As Figure 4-4 shows, the baseline benzene concentrations at MW-36 exceeded the NMWQCC standard of 0.01 mg/L.
- 1,1-DCE (Figure 4-5) concentrations exceeded the NMWQCC standard of 0.005 mg/L at MW-37 and MW-38.
- 1,1-DCA concentrations exceeded the NMWQCC standard of 0.025 mg/L at MW-36, MW-37, and MW-38 (Figure 4-6).
- Sulfate concentrations exceeded the NMWQCC standard of 600 mg/L at all three performance monitoring wells, indicating sulfate concentrations naturally exceed the NMWQCC standard in site groundwater.

4.3.2 ISCO Phase II Results

Post-injection groundwater samples were collected as part of the October 2019 semiannual sampling event, 1 month after ISCO injections. The following points summarize the results:

- As shown on Figure 4-3, the naphthalene concentration at MW-12 was less than its NMWQCC standard during the 1-month post-injection sampling event, decreasing from 0.0466 in April 2019 to 0.0297 mg/L in October 2019 (Table 4-3); concentrations at MW-11, MW-17C, MW-35, MW-36, and MW-37 remained less than the NMWQCC standard.
- Benzene concentrations exceeded its NMWQCC standard at MW-36, decreasing from 0.0292 mg/L in August 2019 to 0.0129 mg/L in October 2019. Benzene concentrations at MW-11, MW-12, MW-17C, MW-37, and MW-38 were below its NMWQCC standard during the October sampling event.
- 1,1-DCE concentrations exceeded its NMWQCC standard at MW-37 and MW-38, though concentrations decreased by 34 and 30 percent, respectively, after the ISCO injections (Figure 4-5 and Table 4-3). 1,1-DCE concentrations remained below its NMWQCC standard at MW-11, MW-12, MW-17C, and MW-36.
- PCE concentrations were below its NMWQCC standard during the October sampling event at MW-11, MW-12, MW-17C, MW-36, MW-37, and MW-38.
- 1,1-DCA was detected in all six performance monitoring wells during the 1-month post-injection sampling event (October 2019); concentrations at MW-12, MW-36, MW-37, and MW-38 exceeded its NMWQCC standard (Figure 4-6).
- Sulfate concentrations exceeded its NMWQCC standard at MW-11, MW-12, MW-17C, MW-36, MW-37, and MW-38 during the 1-month post-injection sampling event. Sulfate concentrations, which naturally exceed the NMWQCC standard (CH2M 2017), have likely fluctuated since the pilot study application due to the slow release of persulfate from the injection of Klorur KP. The average sulfate concentration during the 1-month post-injection sampling event was 1,501 mg/L.

4.3.3 Downgradient Plume Results

The downgradient plume results are summarized below:

- As shown on Figure 4-5, 1,1-DCE concentrations exceeded its NMWQCC standard of 0.005 mg/L at the distal end of the plume at MW-28, MW-29, and MW-35 during the April and October sampling events. 1,1-DCE concentrations at MW-28, MW-29, and MW-35 generally remained stable in 2019 though concentrations increased slightly between the April and October sampling events (Table 4-3).

- The PCE concentrations at MW-29 and MW-35 exceeded its NMWQCC standard of 0.02 mg/L in April and October. As Figure 4-7 shows, the exceedances are limited to the distal end of the plume, with the maximum concentration at MW-29 (0.0365 mg/L in October), where concentrations have continued to increase slightly since April 2016 (CH2M 2017c, 2018, 2019). The PCE concentrations at MW-35 have remained relatively stable since 2017 and are generally consistent with MW-29.
- Dissolved manganese samples were collected at a subset of monitoring wells during the April and October sampling events to demonstrate that the 2014 injection of NaMnO₄ did not increase the concentration of manganese in the aquifer beyond the ISCO target treatment zone. Of the 17 total samples collected during both semiannual groundwater sampling events, manganese was detected in four samples in April 2019 and only exceeded its NMWQCC standard at MW-25; MW-25 is downgradient of the injection area and re-infiltration gallery. In October 2019, manganese concentrations were detected in eight samples, none of which exceeded the NMWQCC standard. As discussed in the 2018 Annual Groundwater Monitoring Report (CH2M 2019), the exceedance of dissolved manganese downgradient of the re-infiltration gallery is likely a byproduct of the routine extraction well rehabilitation rather than the 2014 ISCO application.

4.4 Capture Zone Analysis Results

4.4.1 Initial Assessment

The CZA completed using October 2018 analytical data and April 2019 groundwater elevation data indicated that the current configuration of the groundwater extraction and treatment system was unlikely to capture the full downgradient extent of the 1,1-DCE and PCE plume (CH2M 2019b). A summary of the CZA observations based on 1,1-DCE and PCE concentration trends are as follows:

- PCE and 1,1-DCE concentrations at MW-35 (downgradient of the EW-03 capture zone) has increased since the monitoring well was installed in late 2016 (CH2M 2017c, 2018, and 2019a), suggesting this portion of the plume is advancing, and the core of plume has not passed this location, suggesting this location was outside of the capture zones at the time of the assessment.
- Inside the capture zone, PCE and 1,1-DCE concentrations at MW-28 have been stable since 2014, and PCE and 1,1-DCE concentrations at MW-29 appear to have been increasing slightly since 2016 (CH2M 2017c, 2018, and 2019a). These results suggest a portion of the plume is being captured by EW-03 and EW-04.
- Adjacent to the EW-01 capture zone, MW-26 and MW-32 continue to have no exceedances of NMWQCC standards for PCE and 1,1-DCE since 2016 (CH2M 2017c, 2018, and 2019a), suggesting the current capture zone is preventing the plume from migrating to these locations. Concentrations at MW-30 have stabilized at or less than the NMWQCC standards, indicating the EW-01 capture zone is capturing the groundwater near MW-30; as a comparison, the 1,1-DCE concentration was nearly eight times the standard in 2013. However, the generally increasing concentration trend at MW-29 since 2013 indicates the capture zone does not extend to this monitoring well.

Because the estimated capture zones were smaller than the target capture zone, the CZA recommended optimizing extraction rates to improve plume capture. Recommended optimization included increasing extraction rates at EW-04 to 16 gpm, supplementing with lower extraction rates at EW-03, and turning EW-01 off. The CZA indicated the optimized extraction rates would result in the capture zone spanning the width of the plume, but possibly not capturing the downgradient portion of the plume. Extraction rates were optimized during a site visit on June 18, 2019, following NMOC approval of the current Addendum to the Stage 1 and II Abatement Plan (Appendix A).

4.4.2 Late 2019 Update

The CZA was updated using analytical and groundwater elevation data collected in October 2019 to assess the optimization of extraction rates completed in June. The updated CZA indicated the estimated capture zones for EW-03 and EW-04 intercepted approximately 80 percent of the 1,1-DCE and PCE plumes, but likely do not capture the downgradient-most part of either plume (Figure 4-8), although the downgradient extent of either plume is not defined.

Observations from the updated evaluation based on current 1,1-DCE and PCE concentration trends are summarized as follows:

- PCE and 1,1-DCE concentrations at MW-35 (downgradient of the capture zone) have increased since the monitoring well was installed in late 2016 (CH2M 2017c, 2018, and 2019a), suggesting this portion of the plume appears to be advancing and the core of plume has not passed this location. These findings are consistent with the original CZA assessment. Since this location is within the estimated capture zone, the increase in concentrations suggests that higher concentrations are outside of this location relative to EW-03 and at least some of the higher concentrations outside of this location will be captured by the extraction system.
- Inside the capture zones, PCE and 1,1-DCE concentrations at MW-28 have been stable since 2014, indicating that this monitoring well is located within the dilute upgradient portion of the plume.
- PCE and 1,1-DCE concentrations at MW-29 appear to be increasing (CH2M 2017c, 2018, and 2019), possibly as the center of greatest concentrations are being pulled past MW-29 towards EW-04.
- At MW-30, the increasing concentration from 2000 through 2010 and the subsequent decreasing concentration through 2019 indicate the core of the plume has approached and passed this location. These results suggest a portion of the plume is being captured by EW-03 and EW-04.
- Steadily declining concentrations at MW-32 and MW-34 indicate that the PCE and 1,1-DCE plumes have passed those locations. Because these locations are within the capture zones of EW-03 and EW-04, the system may eventually capture the relatively clean groundwater at these locations.

The optimized extraction rates implemented in June 2019 at EW-04 (15.4 gpm) and EW-03 (10.9 gpm) appears to have created a combined capture zone wider than the groundwater plumes. However, the downgradient edge of the capture zone may not extend to the estimated downgradient edge of the groundwater plume.

Summary and Recommendations

5.1 Summary

Groundwater monitoring has been conducted at the site since 1991. The following are the key findings:

- Overall, compared to historical data, target VOCs concentrations are generally stable or decreasing because of groundwater extraction since 2015, the NaMnO₄ injections in 2014, the pilot-scale ISCO application in 2017, and the Phase II ISCO application in 2019.
- One month after the Phase II ISCO application in the MW-12 area, 1,1-DCE, 1,1-DCA, and benzene concentrations continue to exceed their respective NMWQCC standards. Target VOC concentrations decreased the most at MW-37, which is the closest to the newest injection locations and also the location with the greatest sulfate concentration after persulfate injections. While 1-month post-injection sampling results do not show a significant decrease in target VOC concentrations, the new performance monitoring wells are located further from the injection locations than MW-12 was from the 2017 ISCO injection locations. Furthermore, because most of the injected oxidant comprised the slow-release KP, it is expected that the treatment process will extend beyond the first month.
- PCE and/or 1,1-DCE concentrations continue to exceed NMWQCC standards at the distal end of the plume (MW-28, MW-29, and MW-35). In general, the concentrations at MW-28, which is close to EW-03, are stable, while those at MW-29 and MW-35 are slightly increasing. The other target VOC concentrations within the historical downgradient plume footprint are less than their respective NMWQCC standards.
- Although the manganese concentration at MW-25 exceeded the NMWQCC standard in April 2019 and was detected at concentrations below the NMWQCC standard at all locations where samples were collected during the October sampling event, the presence of manganese in the aquifer is likely a by-product of the routine extraction well rehabilitation rather than the 2014 ISCO application.
- While the CZA indicated the entire width of the 1,1-DCE and PCE plumes were captured by the current configuration of the groundwater extraction and treatment system, the full extent of the downgradient plumes is not likely being captured. However, the extent of the 1,1-DCE and PCE plumes downgradient of MW-35 are unknown.

5.2 Recommendations

5.2.1 Performance Monitoring at the MW-12 ISCO Injection Area

Performance monitoring in the MW-12 injection area will be performed during both the April and October semiannual sampling events as well as in July, which will be approximately 9 months post-injection. Performance monitoring data will be used to assess whether the ISCO injections were successful at remediating the target VOCs in the MW-12 area, whether the sulfate concentrations return to baseline conditions approximately 12-months post-injection, and whether contingent injections using the new injection wells are warranted.

5.2.2 Semiannual Groundwater Monitoring

The groundwater monitoring program, will continue semiannually. Sulfate samples will be also collected from monitoring wells within the ISCO footprint during the semiannual groundwater sampling events.

Sampling for dissolved manganese at monitoring wells located in the 2014 ISCO injection area should be discontinued. Concentrations fluctuate semiannually and there is no discernable pattern indicating detected concentrations are the result of potassium permanganate remaining in the aquifer from the 2014 ISCO injections.

5.2.3 Delineation of the Downgradient Plume

Analytical results at MW-28, MW-29, and MW-35 indicate that PCE and 1,1-DCE concentrations continue to exceed their respective NMWQCC standards downgradient of the property line. Furthermore, the CZA indicated the downgradient plumes may not be captured with the existing groundwater extraction and treatment system and groundwater extraction rate optimization. Therefore, up to 10 temporary groundwater sampling points are proposed downgradient of MW-28, MW-29, and MW-35 to define the extent of the plume (Figure 4-9). The sampling points will be sampled for 1,1-DCE and PCE and then will be abandoned per NMOSE regulations.

The proposed temporary groundwater sampling points will be installed using a DPT drilling rig on property north of the site. While Schlumberger Technology Corporation has an existing access agreement with the property owner, an amendment will be required before executing the downgradient delineation..

5.2.4 CZA Update

The CZA will be updated with groundwater elevation and target VOC data collected from the downgradient temporary sampling points. The updated CZA will be used to assess the need for potential additional monitoring or extraction wells and determine well placement(s).

5.2.5 Operations and Maintenance of the Groundwater Extraction and Treatment System

Automated daily system monitoring and notifications by email will continue, and site visits will take place, as necessary, to evaluate and repair upset conditions. Site visits will continue quarterly to maintain the groundwater extraction and treatment system. During quarterly maintenance visits in April and October, water samples will be collected from the influent, between the lead and lag GAC vessels, and effluent to assess treatment system performance. Semiannual performance monitoring will be used to assess when GAC replacement is needed.

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Tables

Table 3-1. Summary of Persulfate Injections

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Injection Location	Injection Depth				Elapsed Time	KKP	KSP	Fe	Carrier Fluid	Chase Water	Average
ID	(ft bgs)	Date	Start time	End Time	(min)	(lbs)	(lbs)	(lbs)	(gal)	(gal)	Flow Rate
IJ-9	15	10/2/2019	16:53	17:03	0:10	550	110	3	40	25	9.8
	18	10/3/2019	8:57	9:03	0:06	440	55	3	30	10	11.2
	21	10/3/2019	10:07	10:13	0:06	385	110	3	40	10	12.2
	24	10/3/2019	11:29	11:33	0:04	130	15	0.75	20	0	7.0
IJ-10	15	10/4/2019	9:01	9:09	0:08	440	55	3	40	25	11.5
	18	10/4/2019	10:08	10:14	0:06	385	110	3	40	25	14.7
	20	10/4/2019	11:00	11:07	0:07	440	55	2	40	25	13.1
	24	10/4/2019	12:05	12:20	0:15	550	110	2	50	25	7.2
IJ-11	15	10/4/2019	9:15	9:23	0:08	385	110	3	40	25	11.0
	18	10/4/2019	10:21	10:29	0:08	440	55	2	40	25	11.5
	21	10/4/2019	11:22	11:32	0:10	550	165	2	60	25	11.8
	24	10/4/2019	12:27	12:38	0:11	550	110	2	50	25	9.8
IJ-12	15	10/2/2019	16:42	16:50	0:08	550	110	3	40	25	12.3
	18	10/3/2019	9:11	9:22	0:11	385	110	3	40	25	8.0
	21	10/3/2019	10:33	10:39	0:06	440	55	3	40	25	15.3
	24	10/3/2019	15:14	15:30	0:16	750	150	5	70	25	8.8
IJ-13	15	10/1/2019	16:40	16:48	0:08	550	110	2	50	25	13.5
	18	10/2/2019	8:37	8:44	0:07	550	110	2	40	25	14.0
	21	10/2/2019	9:39	9:46	0:07	550	110	2	40	25	14.0
	24	10/2/2019	11:47	11:58	0:11	550	110	3	40	25	8.9
IJ-14	15	10/1/2019	16:04	16:12	0:08	550	110	2	50	25	13.5
	18	10/2/2019	8:55	9:01	0:06	550	110	2	40	25	16.3
	21	10/2/2019	10:10	10:17	0:07	550	110	2	40	25	14.0
	24	10/2/2019	11:27	11:34	0:07	550	110	3	40	25	14.0
IJ-15	15.5	10/1/2019	8:44	8:55	0:11	550	110	2	40	25	8.9
	18	10/1/2019	10:36	10:46	0:10	550	110	2	50	25	10.8
	21	10/1/2019	11:19	11:29	0:10	550	110	2	50	25	10.8
	24	10/1/2019	12:20	12:34	0:14	550	110	2	50	25	7.7
IJ-16	15	10/2/2019	16:19	16:27	0:08	550	110	3	40	25	12.3
	18	10/3/2019	9:37	9:44	0:07	440	55	3	40	25	13.1
	20	10/3/2019	10:49	10:56	0:07	385	110	3	40	25	12.6
	24	No injection conducted. Hard rock refusal at 21-ft, substrate injected into 24-ft interval at IJ-12 and IJ-19.									
IJ-17	15	10/1/2019	16:22	16:30	0:08	550	110	2	50	25	13.5
	18	10/2/2019	9:09	9:15	0:06	550	110	2	40	25	16.3
	20	10/2/2019	10:25	10:35	0:10	550	55	2	40	25	14.0
	24	10/2/2019	11:13	11:21	0:08	550	165	2	40	25	12.3
IJ-18	15.5	9/30/2019	14:39	14:45	0:06	550	110	2	40	25	16.3
	18	9/30/2019	15:38	15:46	0:08	550	110	2	60	25	14.8
	21	10/1/2019	10:19	10:26	0:07	550	110	2	50	25	15.4
	24	10/1/2019	12:00	12:12	0:12	550	110	2	50	25	9.0
IJ-19	15	10/4/2019	8:43	8:52	0:09	385	110	3	40	25	9.8
	18	10/4/2019	9:45	9:54	0:09	440	55	3	40	25	10.2
	21	10/4/2019	10:40	10:53	0:13	385	110	2	40	25	6.8
	23.5	10/4/2019	11:47	11:56	0:09	660	165	2	70	10	13.3
IJ-20	15.5	9/30/2019	14:01	14:11	0:10	550	110	2	140	25	19.8
	18	9/30/2019	15:15	15:23	0:08	550	110	2	40	25	12.3
	20	10/1/2019	10:54	11:03	0:09	550	110	2	50	25	12.0
	24	10/1/2019	12:45	12:52	0:07	550	110	2	50	25	15.4
Totals						23815	4840	111.75	2170		

Acronyms:

Fe = Fe-EDTA, chelated iron

ft bgs = feet below ground surface

gal = gallon(s)

gpm = gallon(s) per minute

ID = identification

KKP = potassium persulfate

KSP = sodium persulfate

min = minute(s)

Table 3-2. Summary of Groundwater Quality Parameters at Monitoring Wells during DPT Injections

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Date	Time	Monitoring Well ID	Associated Injection Location (depth in ft bgs)	Depth to Water (ft btoc)	DO (mg/L)	ORP (mV)	Specific Conductivity (mS/cm)	pH (S.U.)	Temp. (°C)	Turbidity (NTU)	Notes
8/28/2019	17:21	MW-38	N/A	NR	NR	227	NR	7.24	NR	9.2	Post-development sampling parameters
8/28/2019	19:37	MW-37	N/A	NR	NR	-57	NR	7.24	NR	6.1	Post-development sampling parameters
8/29/2019	11:35	MW-36	N/A	NR	NR	-34	NR	7.22	NR	4.8	Post-development sampling parameters
9/30/2019	15:30	MW-37	IJ-20 @ 18	15.42	3.11	-2	5.15	7.05	24.32	7.2	
9/30/2019	16:05	MW-37	IJ-18 @ 18	15.38	3.72	5	4.97	7.98	23.42	47.4	
10/1/2019	8:55	MW-37	IJ-15 @ 15	14.40	7.20	19	5.07	7.48	20.95	43.2	
10/1/2019	10:30	MW-37	IJ-18 @ 21	14.82	7.51	26	5.05	8.12	22.24	73.1	
10/1/2019	10:45	MW-37	IJ-15 @ 18	14.81	6.82	26	4.98	7.8	23.5	71	
10/1/2019	11:20	MW-37	IJ-20 @ 21	14.80	2.76	30	4.96	7.05	25.09	182	
10/1/2019	12:15	MW-37	IJ-15 @ 21	14.72	4.32	51	5.02	7.42	23.79	108	
10/1/2019	12:40	MW-37	IJ-15 @ 24	14.74	3.80	71	5.10	7.37	23.82	37.7	
10/1/2019	16:45	MW-37	IJ-17 @ 15	15.13	3.71	104	4.93	6.67	26.96	48.6	
10/1/2019	16:55	MW-38	IJ-13 @ 15	15.31	2.73	26	4.01	6.57	25.02	7.7	
10/2/2019	8:25	MW-36	IJ-13 @ 18	15.60	2.74	17	4.95	7.78	21.28	4.1	
10/2/2019	9:10	MW-37	IJ-14 @ 18	14.99	3.21	49	5.03	8.04	21.69	24.4	
10/2/2019	9:20	MW-38	IJ-17 @ 18	15.20	2.98	36	3.75	7.84	21.95	34.7	
10/2/2019	10:20	MW-36	IJ-14 @ 21	15.20	3.12	42	3.92	7.85	21.97	38.5	
10/2/2019	11:55	MW-36	IJ-13 @ 24	15.11	3.60	18	4.27	8.11	23.26	24.1	
10/2/2019	15:50	MW-36	IJ-14 @ 24	15.17	3.88	8	4.64	6.53	23.45	31.5	
10/2/2019	15:55	MW-38	IJ-16 @ 15	15.02	3.43	50	4.10	6.45	22.75	18.3	
10/2/2019	17:00	MW-38	IJ-9 @ 15	14.99	4.19	7	4.70	6.98	22.35	43.4	
10/3/2019	8:30	MW-36	IJ-9 @ 18	15.50	5.91	389	9.24	6.24	22.31	17.7	
10/3/2019	10:00	MW-36	IJ-16 @ 18	14.95	3.21	515	10.70	6.23	25.41	51.1	
10/3/2019	10:45	MW-36	IJ-12 @ 21	14.48	4.40	495	11.30	6.76	24.45	115	
10/3/2019	11:50	MW-36	IJ-12 @ 24	14.55	2.05	515	10.90	6.29	24.56	48.2	
10/4/2019	9:30	MW-36	IJ-11 @ 15	14.80	2.73	562	10.70	6.57	20.36	391	
10/4/2019	10:30	MW-36	IJ-11 @ 18	14.40	6.30	532	11.50	6.58	20.8	97.6	
10/4/2019	10:45	MW-38	IJ-19 @ 21	14.02	3.29	465	4.50	6.84	20.86	89.0	
10/4/2019	11:40	MW-36	IJ-11 @ 21	14.45	3.52	495	10.3	6.65	22.34	226	
10/4/2019	11:45	MW-38	IJ-11 @ 24	12.95	2.42	475	4.32	7.01	21.98	64.3	
10/4/2019	13:40	MW-36	IJ-19 @ 23	14.40	3.20	487	10.2	6.23	25.64	217	
10/4/2019	13:50	MW-38	IJ-10 @ 24	14.01	3.20	455	4.30	6.54	23.95	99.3	

Table 3-2. Summary of Groundwater Quality Parameters at Monitoring Wells during DPT Injections

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Date	Time	Monitoring Well ID	Associated Injection Location (depth in ft bgs)	Depth to Water (ft btoc)	DO (mg/L)	ORP (mV)	Specific Conductivity (mS/cm)	pH (S.U.)	Temp. (°C)	Turbidity (NTU)	Notes
10/7/2019	10:45	MW-37	N/A	14.21	3.42	274	5.07	6.82	22.82	67.5	Final reading after injections completed
10/7/2019	10:55	MW-38	N/A	14.39	2.41	231	4.24	6.58	21.78	20.6	Final reading after injections completed
10/7/2019	11:00	MW-12	N/A	14.40	2.67	-135	3.83	6.91	21.17	43.6	Final reading after injections completed
10/7/2019	11:10	MW-36	N/A	14.52	2.92	317	9.81	6.35	21.02	85.3	Final reading after injections completed

Notes:

°C = degree(s) Celsius

DO = dissolved oxygen

DPT = direct-push technology

ft bgs = feet below ground surface

ft btoc = feet below top of casing

ID = identification

mg/L = milligram(s) per liter

mS/cm = microSiemen(s) per centimeter

mV = millivolt(s)

N/A = not applicable

NTU = nephelometric turbidity units

NR = not recorded

ORP = oxidation-reduction potential

S.U. = standard units

Table 4-1. Groundwater Elevation Data - 2016 through 2019

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Well ID	Date	Total Depth (ft btoc)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
MW-8	4/27/2016	35.00	3359.53	13.77	3345.76
	10/12/2016			14.21	3345.32
	1/20/2017			14.45	3345.08
	4/3/2017			14.65	3344.88
	10/1/2017			14.38	3345.15
	4/11/2018			15.18	3344.35
	10/22/2018			14.76	3344.77
	4/22/2019			14.18	3345.35
	10/28/2019			13.57	3345.96
MW-11	4/27/2016	30.00	3356.27	10.81	3345.46
	10/12/2016			10.80	3345.47
	1/20/2017			11.08	3345.19
	4/3/2017			11.20	3345.07
	10/1/2017			11.85	3344.42
	4/11/2018			11.78	3344.49
	10/22/2018			13.45	3342.82
	4/22/2019			11.78	3344.49
	10/28/2019			14.25	3342.02
MW-12	4/27/2016	25.70	3356.51	10.72	3345.79
	10/12/2016			10.61	3345.90
	1/20/2017			10.97	3345.54
	4/3/2017			11.10	3345.41
	10/1/2017			11.71	3344.80
	4/11/2018			11.67	3344.84
	10/22/2018			13.32	3343.19
	4/22/2019			11.70	3344.81
	10/28/2019			14.29	3342.22
MW-15	4/27/2016	34.00	3357.69	10.82	3346.87
	10/12/2016			10.60	3347.09
	1/20/2017			11.19	3346.50
	4/3/2017			11.17	3346.52
	10/1/2017			11.68	3346.01
	4/11/2018			11.81	3345.88
	10/22/2018			13.43	3344.26
	4/22/2019			11.99	3345.70
	10/28/2019			14.60	3343.09
MW-17C	4/27/2016	62.44	3356.55	10.75	3345.80
	10/12/2016			10.64	3345.91
	1/20/2017			11.03	3345.52
	4/3/2017			11.14	3345.41
	10/1/2017			11.83	3344.72
	4/11/2018			11.66	3344.89
	10/22/2018			13.32	3343.23
	4/22/2019			11.71	3344.84
	10/28/2019			14.30	3342.25
MW-18	4/27/2016	30.09	3356.71	11.53	3345.18
	10/12/2016			11.64	3345.07
	1/20/2017			11.72	3344.99
	4/3/2017			11.90	3344.81
	10/1/2017			12.45	3344.26
	4/11/2018			12.43	3344.28
	10/22/2018			14.25	3342.46
	4/22/2019			12.12	3344.59
	10/28/2019			14.78	3341.93

Table 4-1. Groundwater Elevation Data - 2016 through 2019

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Well ID	Date	Total Depth (ft btoc)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
MW-20	4/27/2016	28.00	3359.12	15.45	3343.67
	10/12/2016			15.73	3343.39
	1/20/2017			15.63	3343.49
	4/3/2017			15.80	3343.32
	10/1/2017			15.96	3343.16
	4/11/2018			16.51	3342.61
	10/22/2018			18.40	3340.72
	4/22/2019			16.60	3342.52
	10/28/2019			19.30	3339.82
MW-21	4/27/2016	17.41	3356.89	13.65	3343.24
	10/12/2016			13.86	3343.03
	1/20/2017			13.82	3343.07
	4/3/2017			14.04	3342.85
	10/1/2017			14.12	3342.77
	4/11/2018			14.68	3342.21
	10/22/2018			15.96	3340.93
	4/22/2019			14.12	3342.77
	10/28/2019			17.25	3339.64
MW-22	4/27/2016	15.63	3355.18	12.86	3342.32
	10/12/2016			12.78	3342.40
	1/20/2017			13.15	3342.03
	4/3/2017			13.36	3341.82
	10/1/2017			13.88	3341.30
	4/11/2018			13.81	3341.37
	10/22/2018			14.93	3340.25
	4/22/2019			14.01	3341.17
	10/28/2019			16.12	3339.06
MW-25	4/27/2016	27.30	3355.67	14.63	3341.04
	10/12/2016			14.41	3341.26
	1/20/2017			14.88	3340.79
	4/3/2017			15.07	3340.60
	10/1/2017			15.84	3339.83
	4/11/2018			15.59	3340.08
	10/22/2018			16.49	3339.18
	4/22/2019			16.06	3339.61
	10/28/2019			16.49	3339.18
MW-26	4/27/2016	27.35	3354.2	13.95	3340.25
	10/12/2016			13.58	3340.62
	1/20/2017			14.31	3339.89
	4/3/2017			14.46	3339.74
	10/1/2017			15.04	3339.16
	4/11/2018			14.75	3339.45
	10/22/2018			15.60	3338.60
	4/22/2019			15.52	3338.68
	10/28/2019			17.12	3337.08
MW-28	4/27/2016	27.94	3355.93	17.82	3338.11
	10/12/2016			17.47	3338.46
	1/20/2017			18.26	3337.67
	4/3/2017			18.66	3337.27
	10/1/2017			21.09	3334.84
	4/11/2018			19.97	3335.96
	10/22/2018			18.00	3337.93
	4/22/2019			21.49	3334.44
	10/28/2019			23.76	3332.17

Table 4-1. Groundwater Elevation Data - 2016 through 2019

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

Well ID	Date	Total Depth (ft btoc)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
MW-29	4/27/2016	20.25	3355.06	17.30	3337.76
	10/12/2016			17.16	3337.90
	1/20/2017			17.69	3337.37
	4/3/2017			17.80	3337.26
	10/1/2017			19.84	3335.22
	4/11/2018			18.65	3336.41
	10/22/2018			20.87	3334.19
	4/22/2019			20.82	3334.24
	10/28/2019			22.56	3332.50
MW-30	4/27/2016	27.89	3354.61	17.15	3337.46
	10/12/2016			17.54	3337.07
	1/20/2017			18.01	3336.60
	4/3/2017			17.82	3336.79
	10/1/2017			18.44	3336.17
	4/11/2018			18.13	3336.48
	10/22/2018			19.23	3335.38
	4/22/2019			19.35	3335.26
	10/28/2019			19.54	3335.07
MW-31	4/27/2016	30.89	3356.38	10.64	3345.74
	10/12/2016			10.78	3345.60
	1/20/2017			10.59	3345.79
	4/3/2017			10.87	3345.51
	10/1/2017			10.89	3345.49
	4/11/2018			11.39	3344.99
	10/22/2018			13.71	3342.67
	4/22/2019			10.22	3346.16
	10/28/2019			12.93	3343.45
MW-32	4/27/2016	38.85	3354.54	15.61	3338.93
	10/12/2016			15.28	3339.26
	1/20/2017			16.02	3338.52
	4/3/2017			16.11	3338.43
	10/1/2017			16.69	3337.85
	4/11/2018			16.40	3338.14
	10/22/2018			17.41	3337.13
	4/22/2019			17.51	3337.03
	10/28/2019			18.75	3335.79
MW-33	4/27/2016	35.00	3349.67	14.06	3335.61
	10/12/2016			13.46	3336.21
	1/20/2017			14.00	3335.67
	4/3/2017			14.32	3335.35
	10/1/2017			14.69	3334.98
	4/11/2018			15.91	3333.76
	10/22/2018			15.56	3334.11
	4/22/2019			16.02	3333.65
	10/28/2019			16.70	3332.97
MW-34	4/27/2016	32.00	3356.28	15.49	3340.79
	10/12/2016			15.40	3340.88
	1/20/2017			15.73	3340.55
	4/3/2017			15.95	3340.33
	10/1/2017			17.48	3338.80
	4/11/2018			16.85	3339.43
	10/22/2018			17.79	3338.49
	4/22/2019			17.49	3338.79
	10/28/2019			19.81	3336.47

Table 4-1. Groundwater Elevation Data - 2016 through 2019*2019 Annual Groundwater Monitoring Report**Former Dowell Schlumberger Facility, Artesia, New Mexico*

Well ID	Date	Total Depth (ft btoc)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
MW-35	1/20/2017	28.5	3352.91	15.82	3337.09
	4/3/2017			15.93	3336.98
	10/1/2017			17.96	3334.95
	4/11/2018			17.95	3334.96
	10/22/2018			18.71	3334.20
	4/22/2019			18.78	3334.13
	10/28/2019			20.81	3332.10
MW-36	10/28/2019	25.38	NS	14.42	NM
MW-37	10/28/2019	25.5	NS	14.28	NM
MW-38	10/28/2019	25.03	NS	14.17	NM

Notes:

ft amsl = feet above mean sea level

ft btoc = feet below top of casing

ID = identification

MW = monitoring well

NM = not measured

NS = not surveyed

Table 4-2. Groundwater Extraction and Treatment System Performance Monitoring Analytical Results - 2019

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

SAMPLE LOCATION	COMPOUND UNITS NMWQCC STANDARDS SAMPLE DATE	Manganese, dissolved mg/L 0.2	1,1-DCA mg/L 0.025	1,1-DCE mg/L 0.005	Benzene mg/L 0.01	Naphthalene mg/L 0.03	PCE mg/L 0.02
GAC INLET	4/22/2019	<0.0116	0.0026	0.00973	<0.000176	<0.000555	0.00953
	10/29/2019	0.00351	0.00321	0.00909	<0.000176	<0.000129	0.0102
MID-GAC	4/22/2019	<0.0116	0.00307	0.00805	<0.000176	<0.000199	0.000548 J
	10/29/2019	0.00325	0.00343	0.0111	<0.000176	<0.000129	0.00201
GAC OUTLET	4/22/2019	<0.0116	0.00186	0.000666 J	<0.000176	<0.000129	<0.000333
	10/29/2019	0.00364	0.00403	0.00567	<0.000176	0.000342 J	<0.000333

Notes:

Analytical methods used USEPA Method 8260 (VOCs) and USEPA Method 6020 (Metals)

Detected results are shown in bold font.

Results exceeding NMWQCC Standards (CH2M 2017b) are shown in bold font and shaded

< = chemical not detected at a concentration above the method detection limit

1,1-DCA = 1,1-dichloroethane

1,1-DCE = 1,1-dichloroethene

GAC = granular activated carbon

J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.

mg/L = milligram(s) per liter

NMWQCC = New Mexico Water Quality Control Commission

PCE = tetrachloroethene

USEPA = U.S. Environmental Protection Agency

VOC = volatile organic compound

Table 4-3. Summary of Groundwater Analytical Results— 2019

2019 Annual Groundwater Monitoring Report

Former Dowell Schlumberger Facility, Artesia, New Mexico

WELL NUMBER	COMPOUND UNITS NMWQCC STANDARDS	Manganese, dissolved mg/L 0.2	Sulfate mg/L 600	1,1-DCA mg/L 0.025	1,1-DCE mg/L 0.005	Benzene mg/L 0.01	Naphthalene mg/L 0.03	PCE mg/L 0.02
	SAMPLE DATE							
MW-11	4/22/2019	--	3150	0.00304	<0.000192	<0.000176	<0.000129	<0.000333
	10/29/2019	--	1330 J	0.00488	0.000201 J	<0.000176	0.000441 J	0.00039 J
MW-12	4/22/2019	--	2520	0.026	0.00161	0.00617	0.0466	0.00377
	10/29/2019	--	2150	0.0502	0.00252	0.00858	0.0297	0.00172
MW-15	4/23/2019	--	--	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
MW-17C	4/22/2019	--	2400	<0.000168	<0.000192	<0.000176	<0.000129	<0.000333
	10/29/2019	--	1290	0.000178 J	0.00035 J	<0.000176	0.00222	<0.000333
MW-18	4/23/2019	<0.0116	--	0.000706 J	<0.000192	<0.000176	<0.000129	<0.000333
MW-21	4/23/2019	0.0154 J	--	0.000562 J	<0.000192	<0.000176	<0.000129	<0.000333
MW-22	4/23/2019	<0.0116	--	0.000546 J	<0.000192	<0.000176	<0.000129	<0.000333
	10/29/2019	0.000683 J	--	0.000832 J	<0.000192	<0.000176	<0.000129	<0.000333
MW-25	4/23/2019	0.244	--	0.000701 J	0.000777 J	<0.000176	<0.000129	0.00118
	10/29/2019	0.138	--	0.000989 J	0.000473 J	<0.000176	<0.000129	0.000895 J
MW-26	4/22/2019	0.0527	--	0.000332 J	0.00175	<0.000176	<0.000129	0.0017
MW-28	4/23/2019	<0.0116	--	0.00465	0.0127	<0.000176	<0.000129	0.0176
	10/29/2019	0.00125	--	0.00553	0.0132	<0.000176	0.000316 J	0.0178
MW-29	4/23/2019	<0.0116	--	0.00861	0.0237	<0.000176	<0.000129	0.0306
	10/29/2019	0.000793 J	--	0.0103	0.0267	<0.000176	<0.000129	0.0365
MW-30	4/22/2019	<0.0116	--	0.00096 J	0.00271	<0.000176	<0.000129	0.0035
	10/29/2019	0.00887	--	0.00132	0.00315	<0.000176	0.000249 J	0.00498
MW-31	4/23/2019	0.0337 J	--	0.00181	0.000411 J	<0.000176	<0.000129	<0.000333
	10/29/2019	0.0817	--	0.00316	0.00215	<0.000176	<0.000129	<0.000333
MW-32	4/22/2019	<0.0116	--	<0.000168	<0.000192	<0.000176	<0.000129	0.000639 J
	10/29/2019	0.00414	--	0.000171 J	<0.000192	<0.000176	<0.000129	0.000921 J
MW-33	4/23/2019	--	--	<0.000168	<0.000192	<0.000176	<0.00064	<0.000333
MW-34	4/22/2019	<0.0116	--	0.00068 J	0.000507 J	<0.000176	<0.000129	0.000858 J
	10/29/2019	0.00108	--	0.00104	0.000784 J-	<0.000176	0.000174 J	0.00126
MW-35	4/23/2019	--	--	--	0.0205	--	--	0.0233
	10/29/2019	--	--	--	0.0234	--	--	0.0262
MW-36	8/29/2019	--	1680	0.0412 J	0.00193	0.0292 J	0.00696 J	0.00063 J
	10/29/2019	--	738	0.0337	0.000593 J	0.0129	0.0236	0.01
MW-37	8/28/2019	--	1480	0.241	0.0125	0.00569	0.00755	0.0101
	10/29/2019	--	2570	0.0475	0.00822	0.00701	0.0114	0.00688
MW-38	8/28/2019	--	2340	0.0699	0.0145	0.0098	0.0127	0.00903
	10/29/2019	--	927 J+	0.154	0.0101	0.00167	0.0221	0.0108

Notes:

Analytical methods used USEPA Method 8260 (VOCs), USEPA Method 6020 (Metals), and USEPA Method 300.0 (Anions)

Detected results are shown in bold font.

Results exceeding NMWQCC Standards (CH2M 2017b) are shown in bold font and shaded.

< = chemical not detected at a concentration above the method detection limit

-- = sample not collected for specific analyte

1,1-DCA = 1,1-dichloroethane

1,1-DCE = 1,1-dichloroethene

J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.

J- = chemical recovery was low in associated MS/MSD, result is estimated low

J+ = chemical recovery was high in associated MS/MSD, result is estimated high

mg/L = milligram(s) per liter

NMWQCC = New Mexico Water Quality Control Commission

PCE = tetrachloroethene

USEPA = U.S. Environmental Protection Agency

VOC = volatile organic compound

Figures

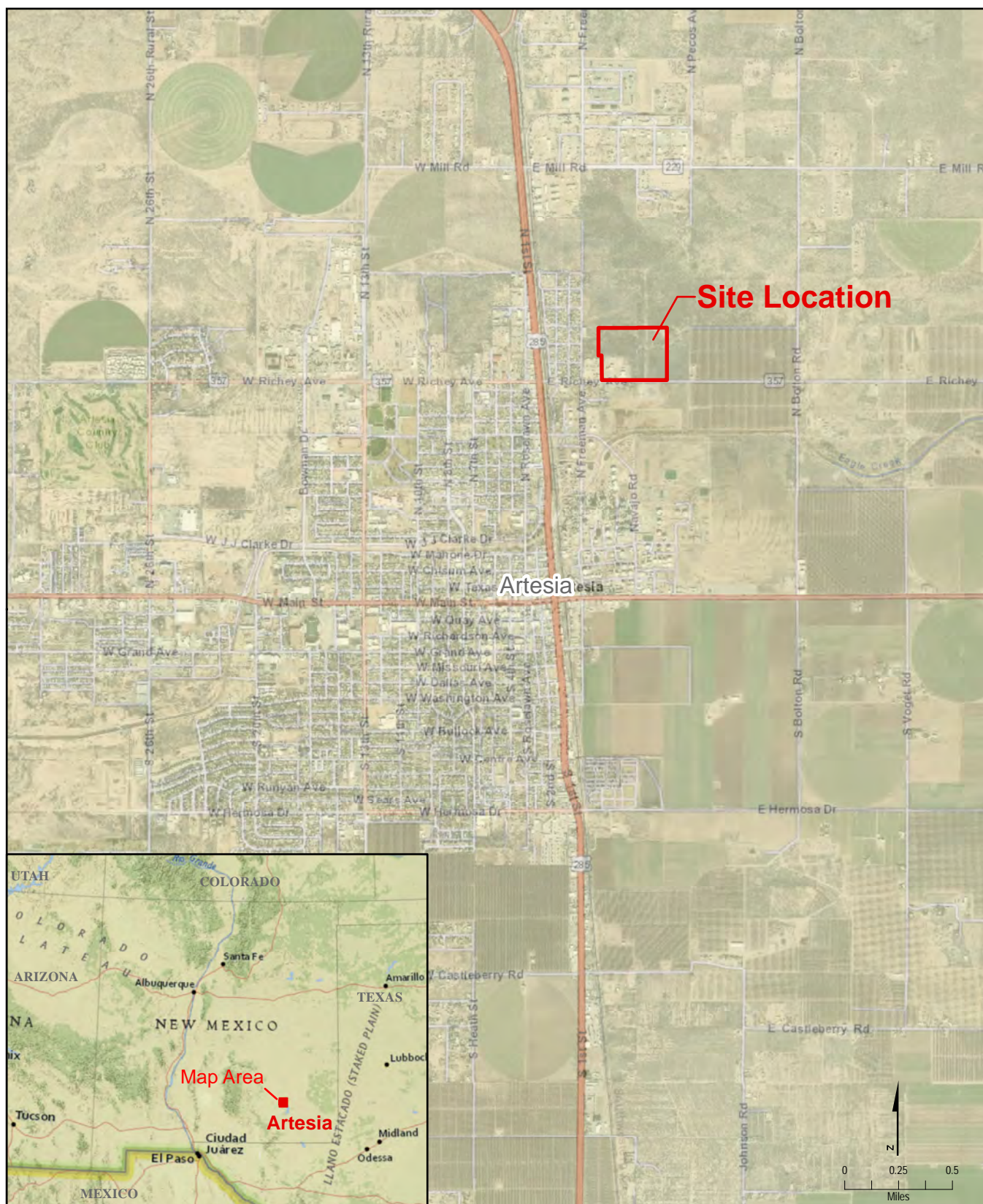
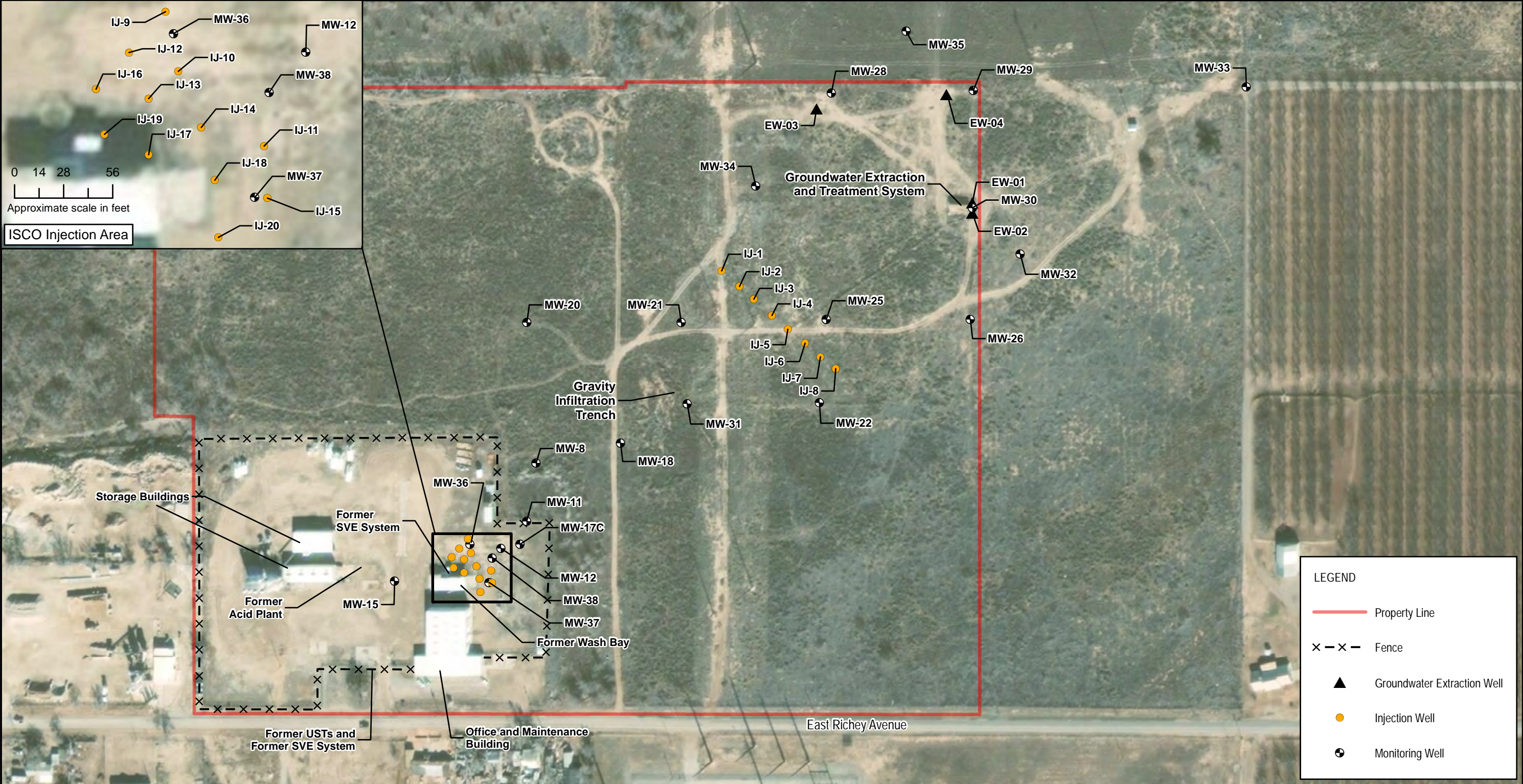


Figure 1-1.
Site Location Map
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico

Source:
Esri, DigitalGlobe, GeoEye, USGS, Intermap, National Geographic, DeLorme, HERE, NOAA



Acronyms:
SVE = soil vapor extration
UST = underground storage tank

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS. USGS,AeroGRID, IGN,and the GIS User Community

EN0223161111MKE N:\DOWELL_SCHLUMBERGER\ARTESIA_469935\MAPFILES\ANN_GW_MON_2020\FIG1-2_SITE_PLAN_AGWM2019.MXD TA 3/13/2020

Figure 1-2.
Site Plan
*2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico*



Acronyms:
DPT = direct push technology
SVE = soil vapor extration

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS, USGS,AeroGRID, IGN,and the GIS User Community

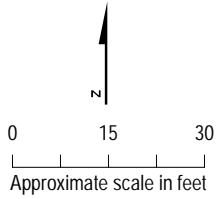
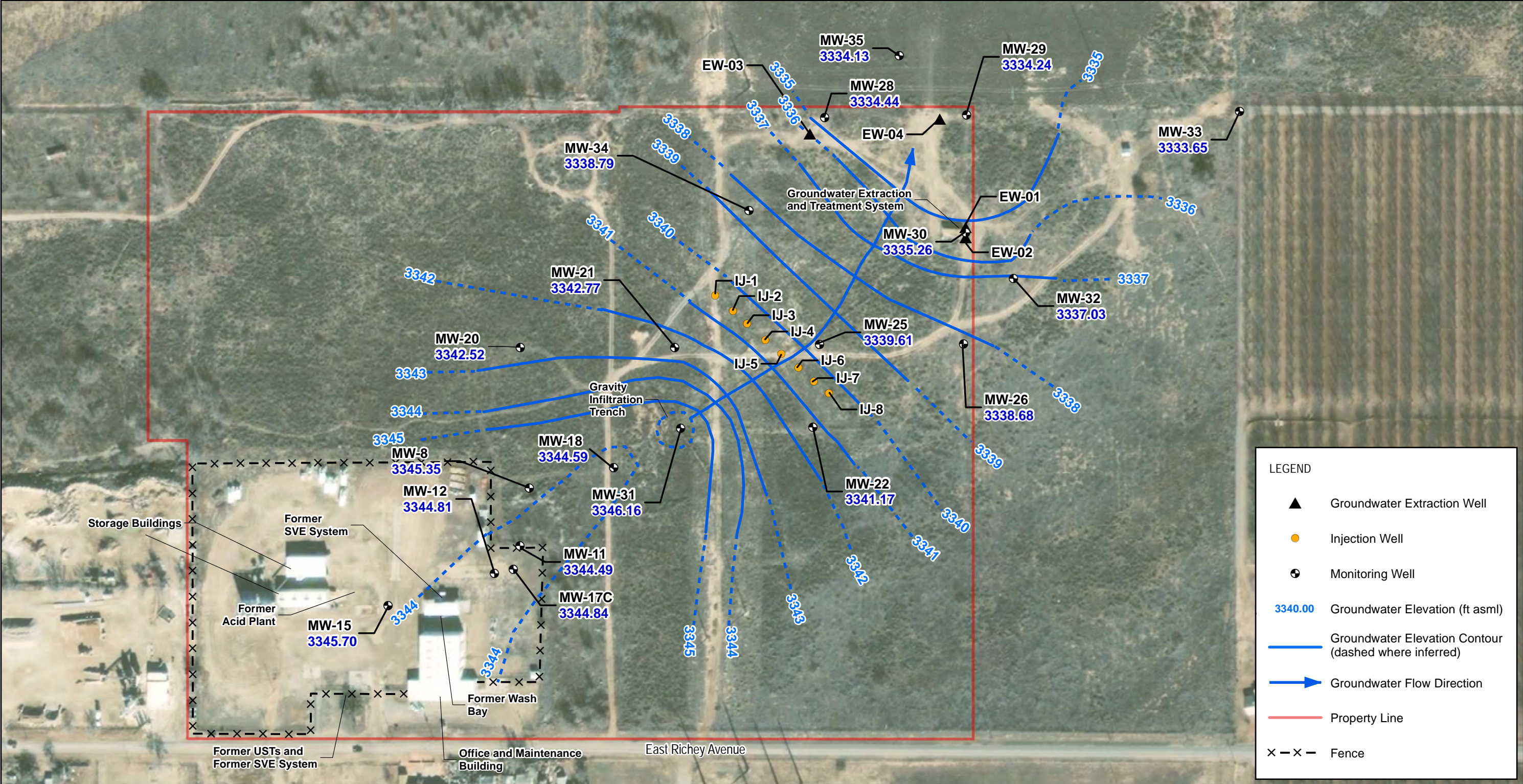


Figure 3-1.
DPT Injection Locations
*2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico*



Acronyms:
ft amsl = feet above mean sea level
SVE = soil vapor extraction
UST = underground storage tank

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS, USGS, AeroGRID, IGN, and the GIS User Community

EN0223161111MKE N:\DOWELL_SCHLUMBERGER\ARTESIA_469935\MAPFILES\ANN_GW_MON_2020\FIG4-1_POTSURF_APRIL2019_AGWMM.MXD TA 3/12/2020

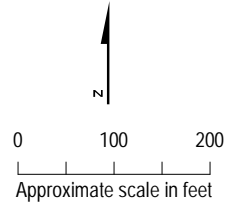
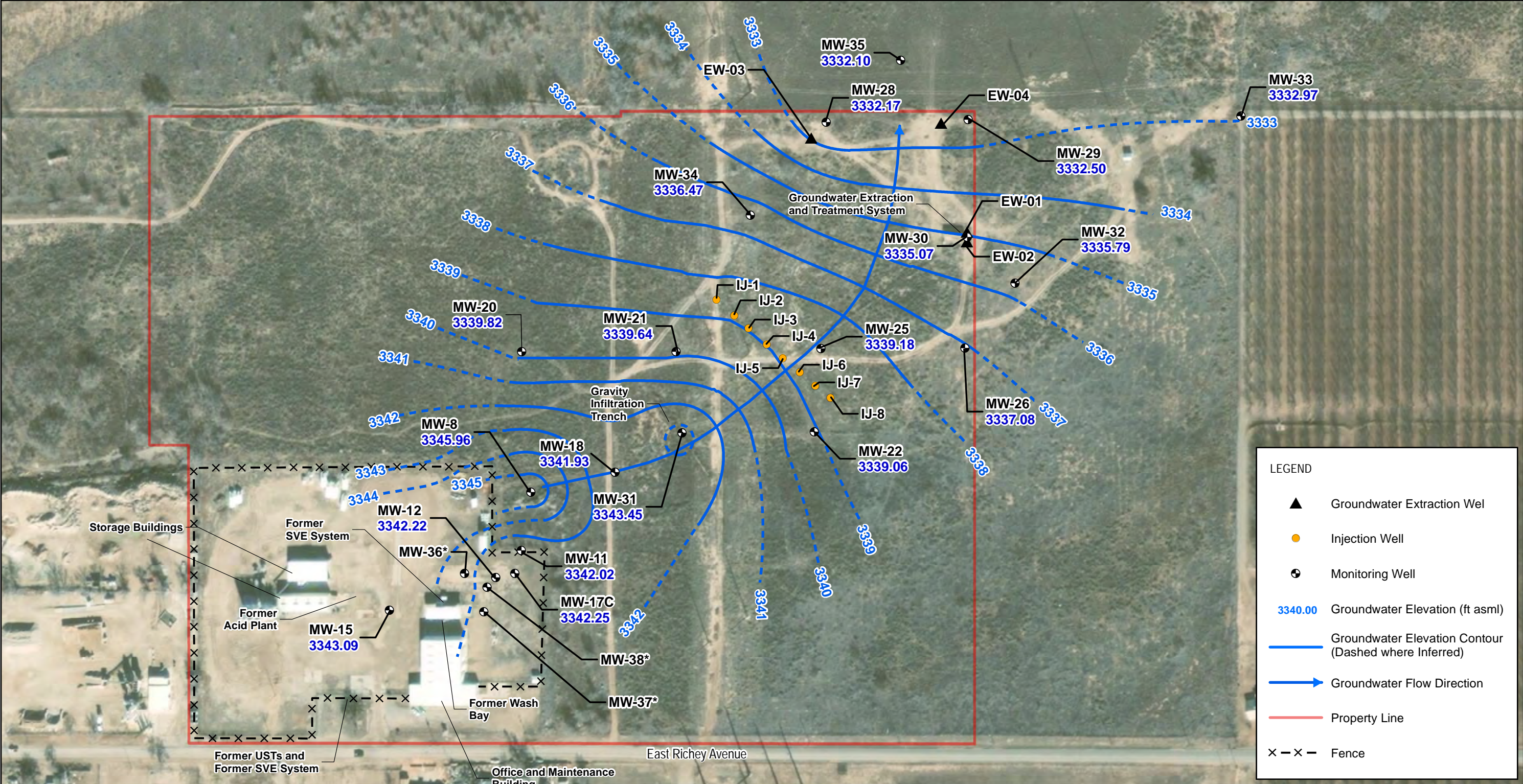


Figure 4-1.
Potentiometric Surface Map - April 2019
Former Dowell Schlumberger Facility
Artesia, New Mexico



Acronyms:
* = Top of casing elevation not surveyed
ft asml = feet above mean sea level
SVE = soil vapor extraction
UST = underground storage tank

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS, USGS, AeroGRID, IGN, and the GIS User Community

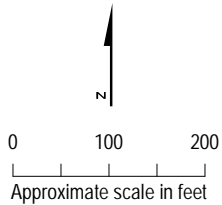


Figure 4-2.
Potentiometric Surface Map - October 2019
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico

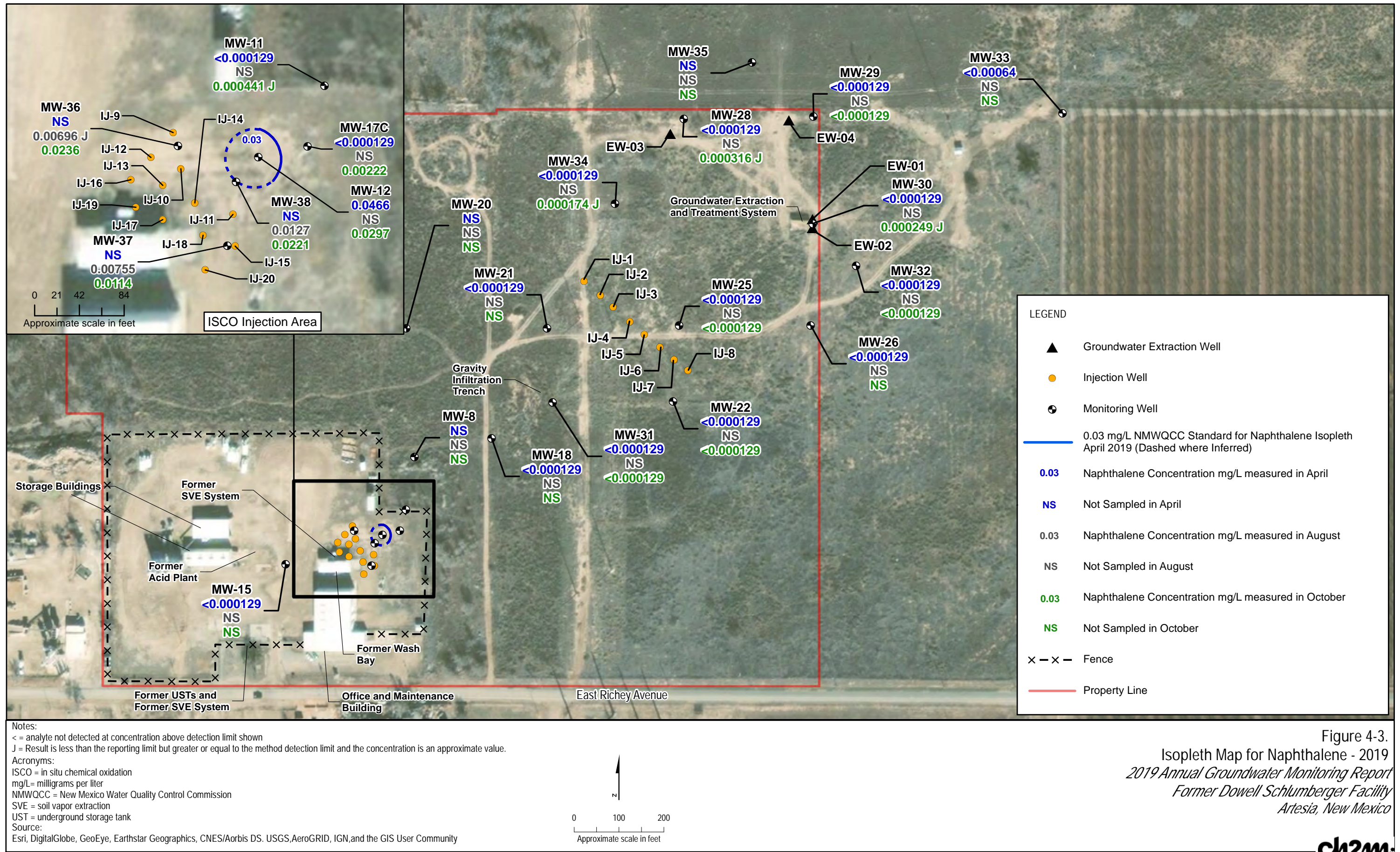
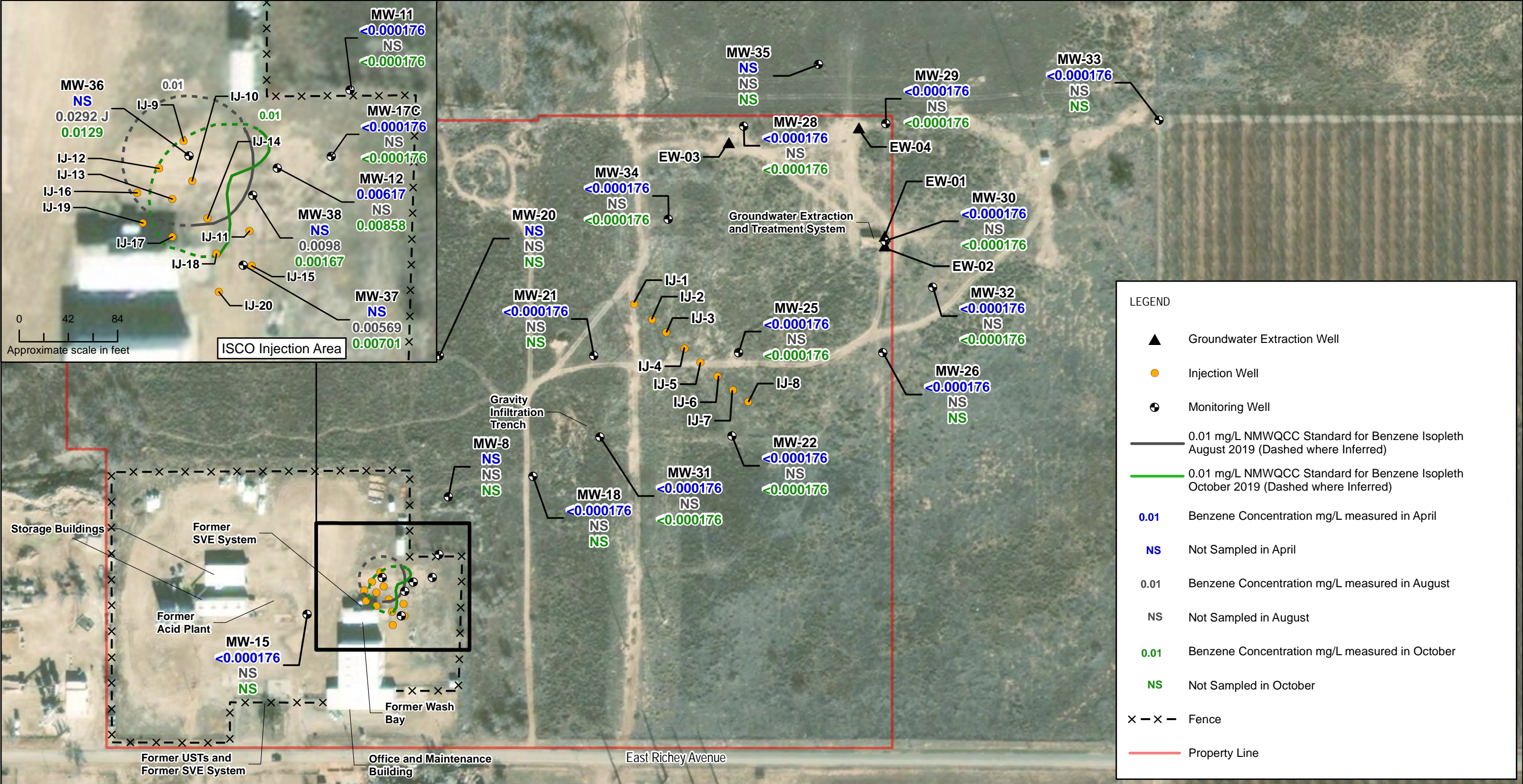


Figure 4-3.
 Isopleth Map for Naphthalene - 2019
 2019 Annual Groundwater Monitoring Report
 Former Dowell Schlumberger Facility
 Artesia, New Mexico



Notes:
< = analyte not detected at concentration above detection limit shown
J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
Acronyms:
ISCO = in situ chemical oxidation
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank
Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aerobis DS. USGS, AeroGRID, IGN, and the GIS User Community

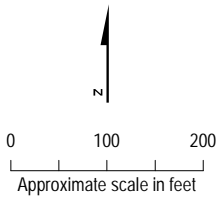
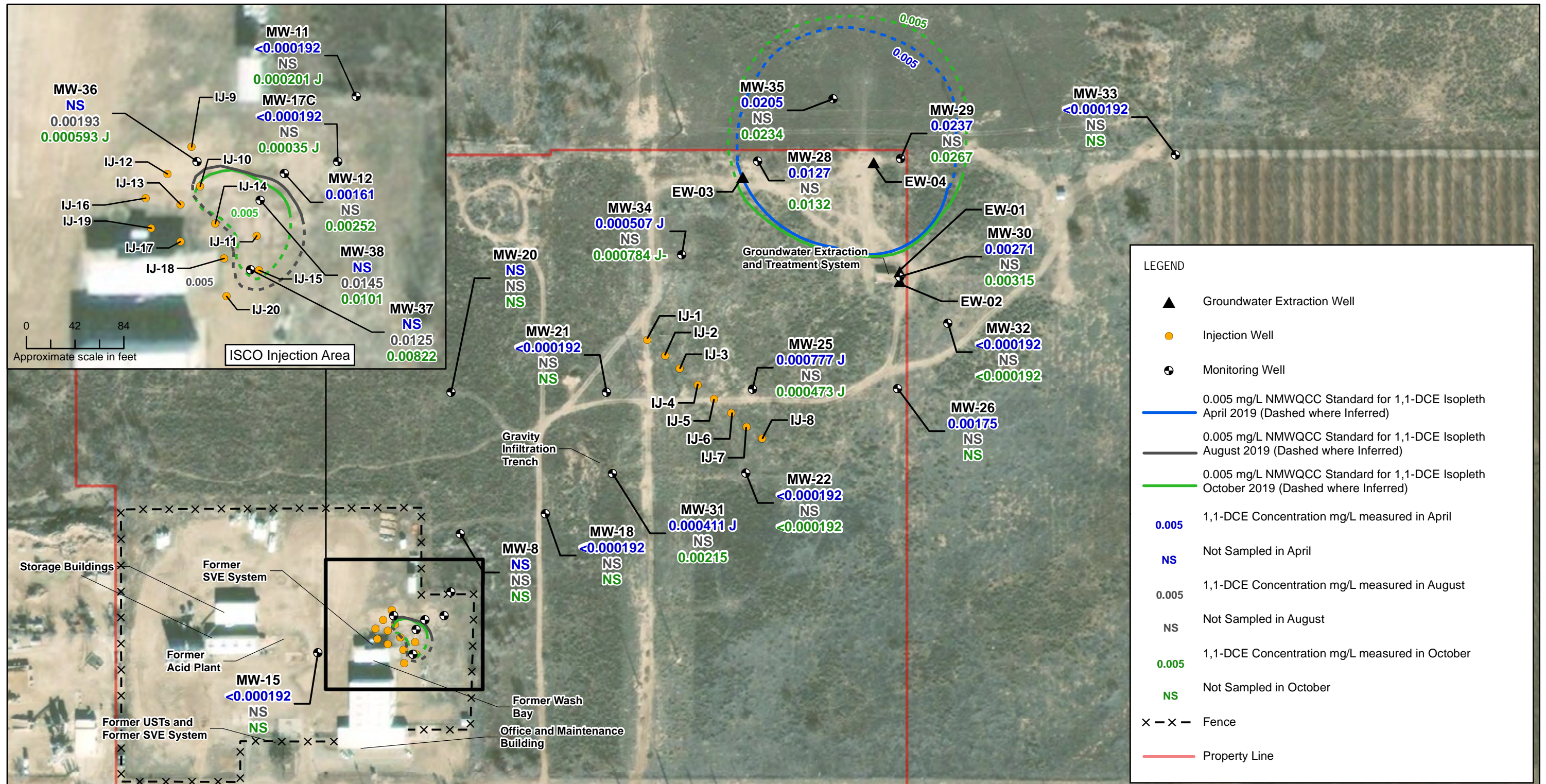


Figure 4-4.
Isopleth Map for Benzene - 2019
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



Notes:
 < = analyte not detected at concentration above detection limit shown
 J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
 J- = chemical recovery was low in associated MS/MSD, result is estimated low
 Acronyms:
 1,1-DCE = 1,1-dichloroethene
 ISCO = in situ chemical oxidation
 mg/L = milligrams per liter
 MS/MSD = matrix spike/matrix spike duplicate
 NMWQCC = New Mexico Water Quality Control Commission
 SVE = soil vapor extraction
 UST = underground storage tank

EN022316111MKE N:\DOWELL_SCHLUMBERGER\ARTESIA_469935\MAPFILES\ANN_GW_MON_2020\2018_NMWQCCSTANDARDS\FIG4-5_ISOCON_DCE_2019_AGWM.MXD TA 3/17/2020

Source:
 Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USGS, AeroGRID, IGN, and the GIS User Community

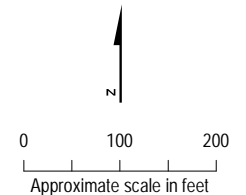
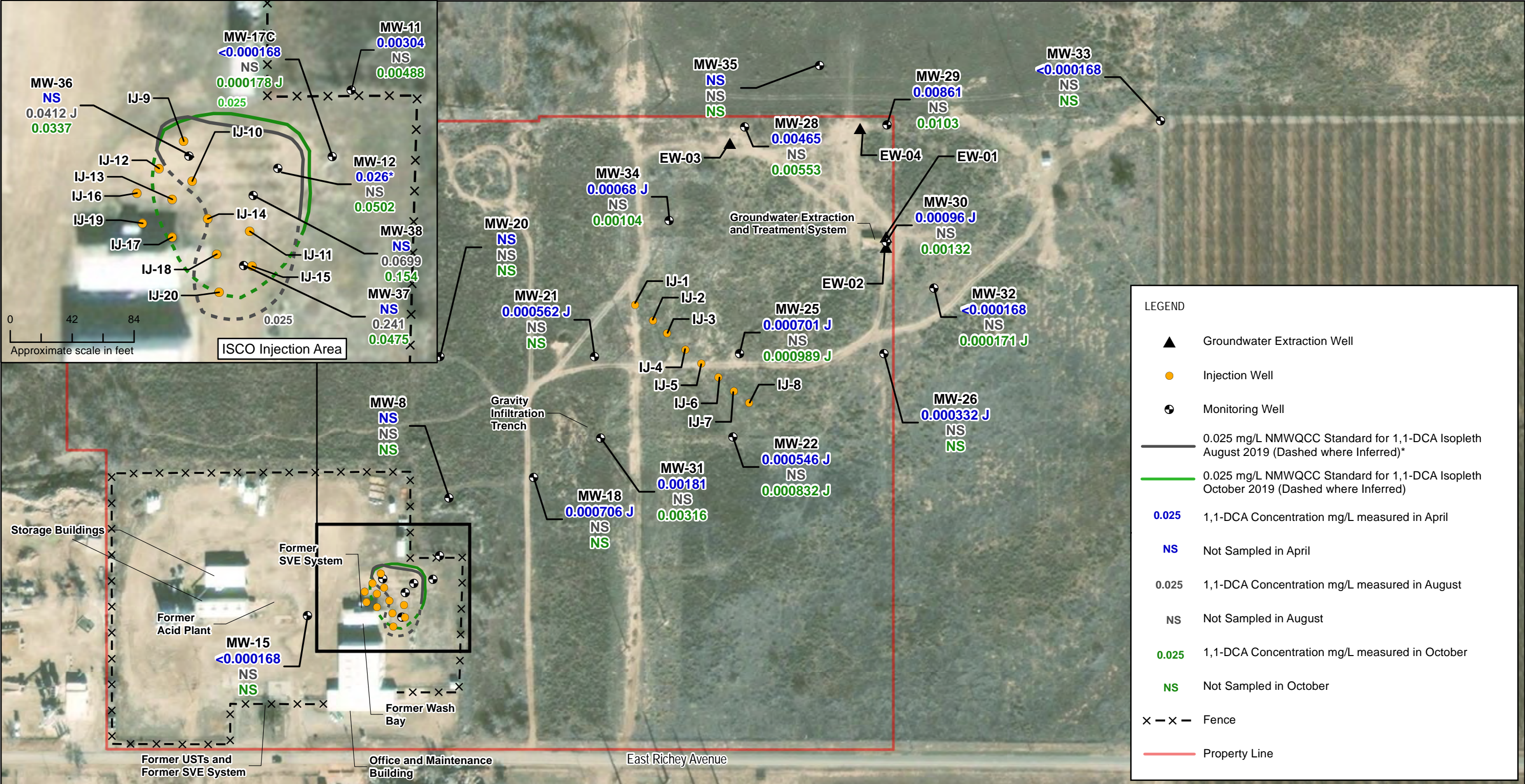


Figure 4-5.
 Isopleth Map for 1,1-DCE - 2019
 2019 Annual Groundwater Monitoring Report
 Former Dowell Schlumberger Facility
 Artesia, New Mexico



Notes:
*April 2019 MW-12 result was used in the interpretation of the August 2019 1,1-DCA isopleth
< = analyte not detected at concentration above detection limit shown
J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.

Acronyms:
1,1-DCA = 1,1-dichloroethane
ISCO = in situ chemical oxidation
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
SVE = soil vapor extraction
UST = underground storage tank

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS. USGS, AeroGRID, IGN, and the GIS User Community

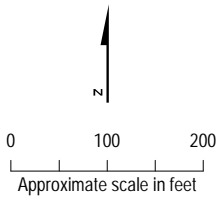


Figure 4-6.
Isopleth Map for 1,1-DCA - 2019
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico

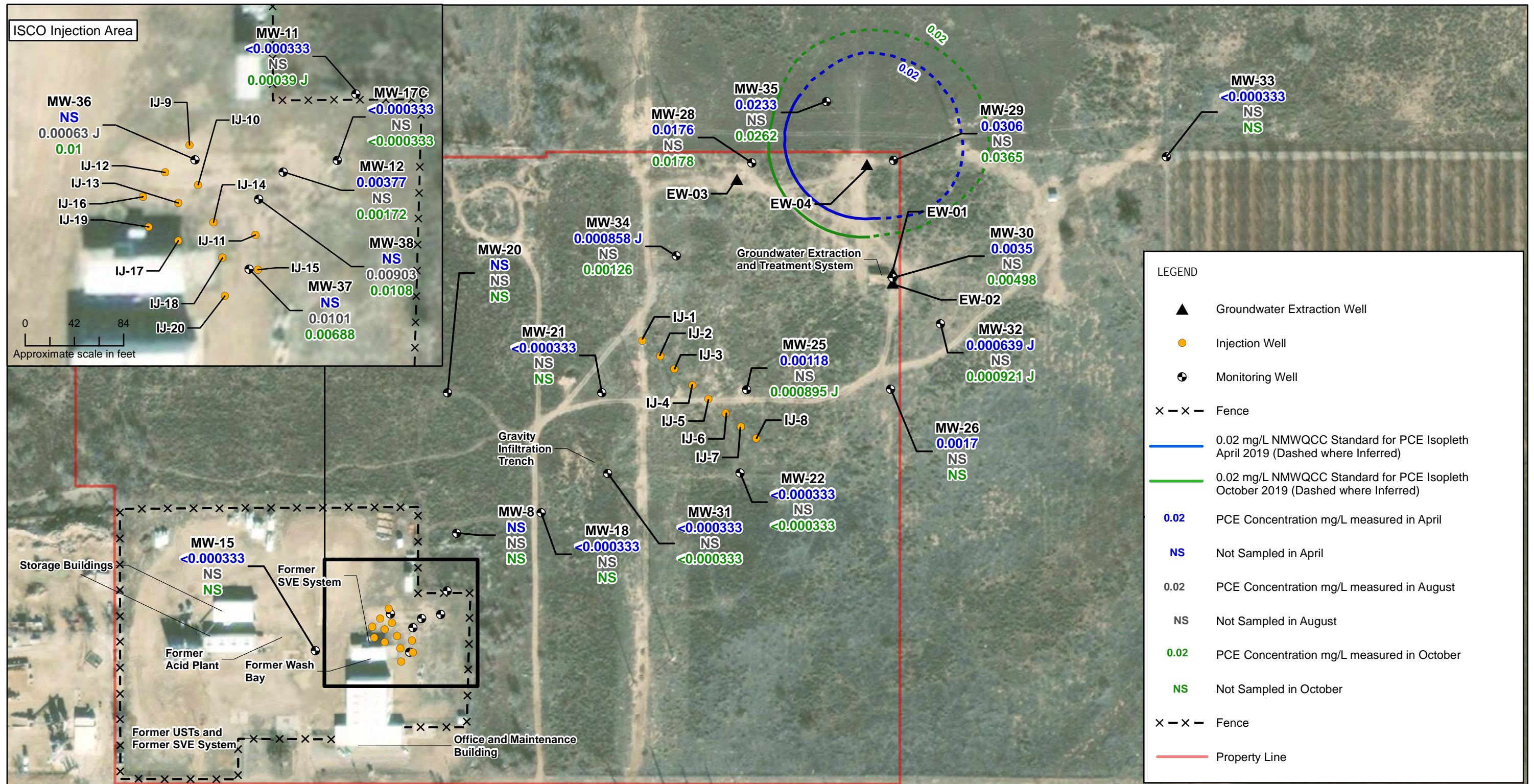
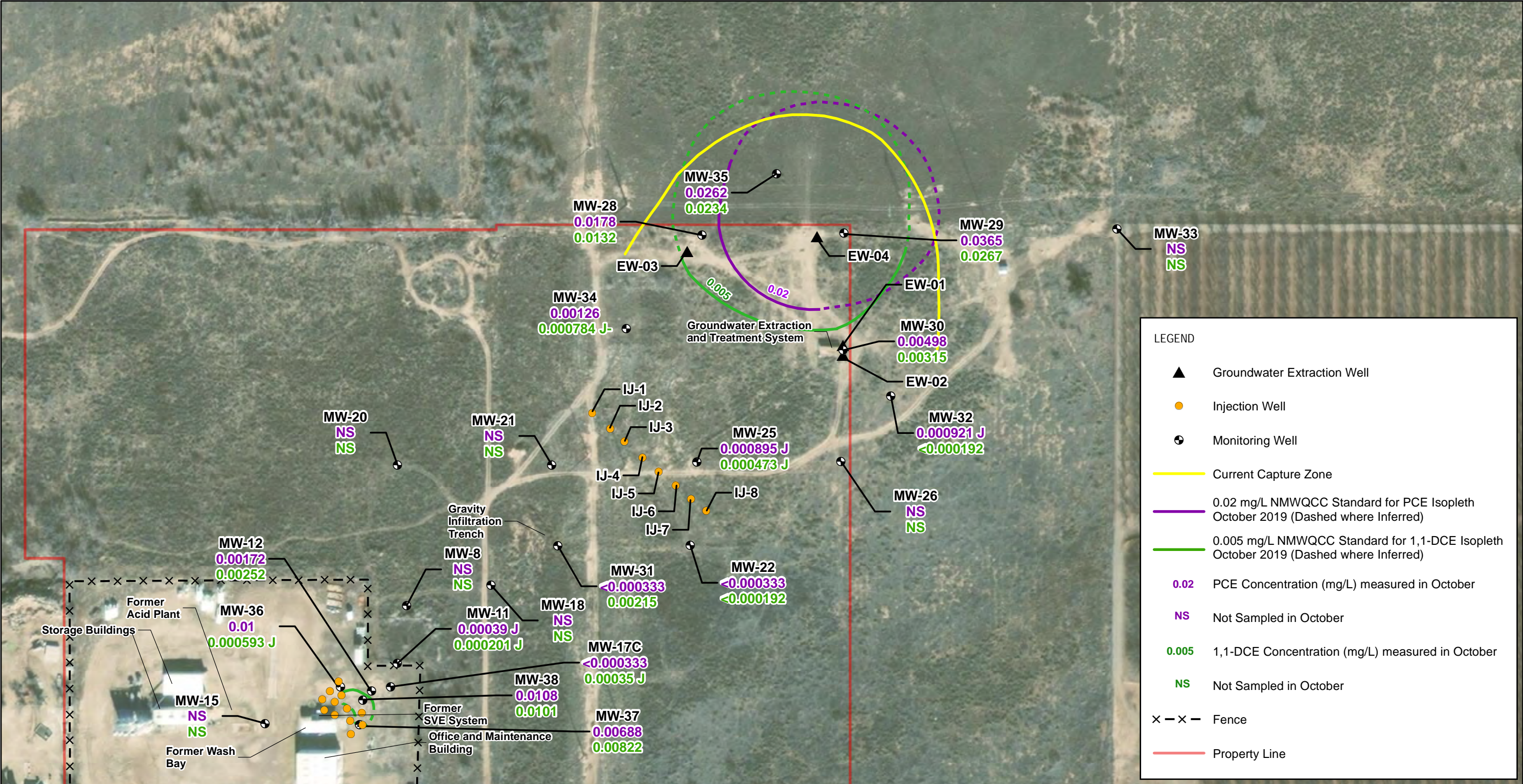


Figure 4-7.
Isopleth Map for PCE - 2019
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



Notes:
< = analyte not detected at concentration above detection limit shown
J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
J- = Concentration is estimated and potentially biased low

Acronyms:
1,1-DCE = 1,1-dichloroethene
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
PCE = tetrachloroethene
SVE = soil vapor extraction

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS. USGS, AeroGRID, IGN, and the GIS User Community

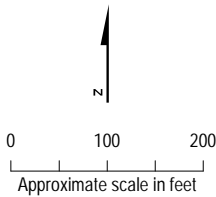
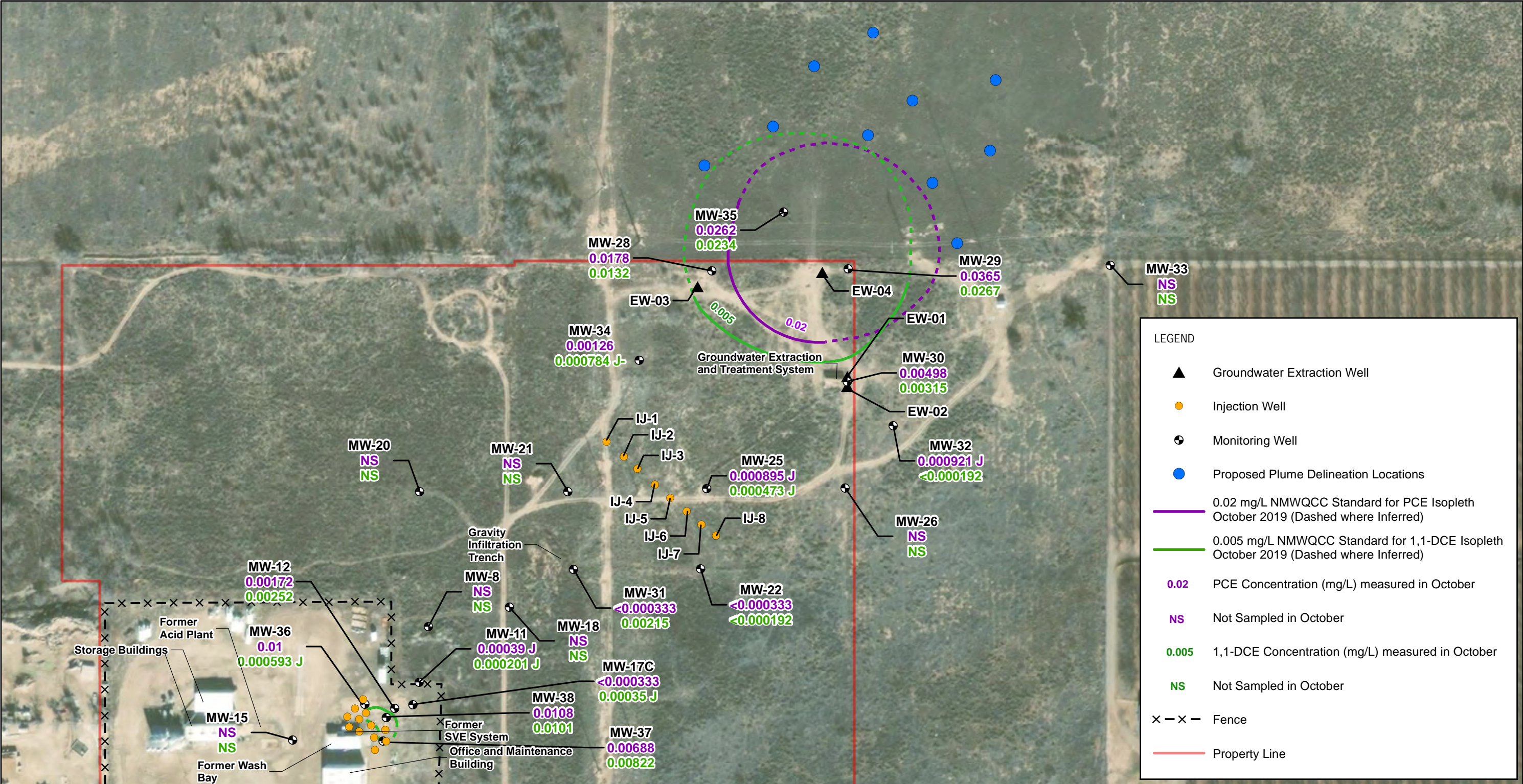


Figure 4-8.
Current Capture Zone - October 2019
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico



Notes:
< = analyte not detected at concentration above detection limit shown
J = Result is less than the reporting limit but greater or equal to the method detection limit and the concentration is an approximate value.
J- = Concentration is estimated and potentially biased low

Acronyms:
1,1-DCE = 1,1-dichloroethene
mg/L = milligrams per liter
NMWQCC = New Mexico Water Quality Control Commission
PCE = tetrachloroethene
SVE = soil vapor extraction

Source:
Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Aorbis DS. USGS, AeroGRID, IGN, and the GIS User Community

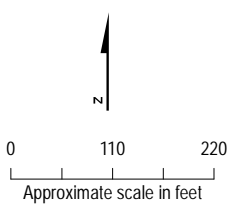


Figure 4-9.
Proposed Plume Delineation Locations
2019 Annual Groundwater Monitoring Report
Former Dowell Schlumberger Facility
Artesia, New Mexico

Appendix A

NMOCD Correspondence

Forsberg, Aleeca/ABQ

From: Hansen, Edward J., EMNRD <edwardj.hansen@state.nm.us>
Sent: Thursday, August 22, 2013 4:44 PM
To: cocianni-v@slb.com
Cc: VonGonten, Glenn, EMNRD; Strunk Jr, Jim (JStrunkJr@dow.com); Barnett, Cathy/STL; Minchak, Jeff/ABQ
Subject: Discharge Permit (GW-114) Work Plan (GW Remediation Program) Amendment Approval - Schlumberger Oilfield Services Facility - Artesia

**RE: Work Plan Amendment
for the Schlumberger Oilfield Services'
Schlumberger Oilfield Services Facility - Artesia
507 E. Richey Ave., Artesia, New Mexico
Discharge Permit (GW-114) Work Plan (GW Remediation Program) Amendment Approval**

Dear Mr. Cocianni:

The Oil Conservation Division (OCD) has received the Work Plan Amendment for the Schlumberger Oilfield Services Facility - Artesia, dated August 15, 2013. The proposed amendment, submitted for the above-referenced site, indicates that the Schlumberger Oilfield Services (Schlumberger) is substantially complying with the requirements of 20.6.2 NMAC [Water Quality Control Commission (WQCC) Regulations]. Therefore, the OCD conditionally approves the amendment to the work plan:

Schlumberger shall provide to the OCD for approval a demonstration that the WQCC standards for Manganese (0.2 mg/L) or Sulfate (600.0 mg/L) will not be exceeded in ground water at the site prior to initiation of the ISCO treatment. Also, Schlumberger must monitor for Manganese or Sulfate in ground water depending on the ISCO substrate used for the treatment.

If any other substrate other than permanganate or persulfate is proposed to be used, Schlumberger must obtain OCD approval prior to such use.

Please be advised that OCD approval of this amendment does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

From: [Billings, Bradford, EMNRD](#)
To: [Virgilio Cocianni](#)
Cc: [Strunk Jr, Jim \(J\)](#); [Schneider, Monica/PNS](#); [Urann, David/BOS](#)
Subject: [EXTERNAL] RE: Dowell Schlumberger Facility at 507 East Richey Avenue, Artesia, New Mexico APPROVALS
Date: Wednesday, August 14, 2019 8:31:01 AM

8/14/2019

Vic Cocianni – Schlumberger
Jim Strunk Jr. - Dowell

Good Morning,

Re: Dowell Schlumberger Facility in Artesia, NM – Stage I and Stage II Abatement Plan (Previous GW-114) and Addendum

The Oil Conservation Division (OCD), and I personally, thank you for your efforts and concise work on this location. It is much appreciated.

The following is approved:

The 2017 Abatement Plan and current Addendum, as relayed in July 2019 communication.

Monitor wells identified as MW's -8, -15, -18, -20, -21, -26 and -33 may be removed from future scheduled sampling events (including the next scheduled event), however, as mentioned in the Addendum, please leave in place for use as groundwater elevation markers. Please take depth to water elevations at these well locations during sampling events and incorporate data in mapping.

Please proceed with gaining access for additional work to the North from the Artesia Alfalfa Growers Association (AFGA), and as mentioned in the Addendum, I stand ready to assist in this access process if I may be of any assistance.

Once again, thank you for your skills and patience. If there are any questions or need for clarification please email concerns.

Sincerely,

Bradford Billings
EMNRD/OCD
Santa Fe

From: Virgilio Cocianni <cocianni-v@slb.com>

Sent: Tuesday, August 13, 2019 2:41 PM

To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>

Cc: Strunk Jr, Jim (J) <JStrunkjr@dow.com>; Schneider, Monica/PNS
<Monica.Schneider@jacobs.com>; Dave Urann (david.urann@jacobs.com)
<david.urann@jacobs.com>

Subject: Dowell Schlumberger Facility at 507 East Richey Avenue, Artesia, New Mexico – July 9, 2019 Meeting Summary

Good afternoon, Brad.

Thank you for your time to meet with us on July 9th. The summary and the presentation slides from our meeting have been uploaded as one combined PDF to the NMOCD ftp site. The pdf file is titled "7.9.19 Artesia NM Meeting Summary" and was uploaded to the BGBs folder on CentreStack. Would you please confirm that the pdf file uploaded correctly?

As discussed during our meeting, we are requesting to remove seven monitoring wells from the semiannual groundwater sampling program. These wells have met the 8 consecutive quarters without an exceedance of NMWQCC standards. These wells will be retained for collection of groundwater elevation data. We are requesting these changes be implemented during the October 2019 semiannual monitoring event. Tables with the historical analytical data for each of the seven wells and the proposed semiannual monitoring program moving forward are attached to the meeting summary (Tables 1 and 2).

Have a wonderful evening.

Cheers,
Vic.

Vic Cocianni
Schlumberger Remediation Manager
Phone: +1-281-285-4747

"Courage doesn't always roar. Sometimes courage is the little voice at the end of the day that says I'll try again tomorrow." Mary Ann Radmacher.
(Please continue to be patient with me, She is still making me).

Schlumberger-Private

Appendix B

Performance Monitoring Data Sheets

Initials of sampling personnel

Initials of sampling personnel~~101~~

ARTES

Wk

	PROJECT NUMBER D3151100	WELL ID MW-38	Purge Date: 8/28/19
GROUNDWATER SAMPLING FIELD DATA SHEET			

PROJECT:	Former Dowell Schlumberger Facility		LOCATION: Artesia, NM
WEATHER (wind/temp/ppt):	OTHER NOTABLE FIELD CONDITIONS:		
INITIAL ORGANIC VAPOR METER READINGS:	0.0 ppm		
INITIAL DEPTH TO WATER:	15.88	TOTAL DEPTH OF WELL:	SCREENED INTERVAL: 15-25
PURGE VOLUME CALCULATION:	Development		
METHOD OF PURGING (circle):	peristaltic pump Geo pump grundfos pump Bailor		
DISPOSITION OF DISCHARGE WATER:	into onsite tank and run through GAC treatment		
MONITORING EQUIPMENT USED:			

Well Purging Information

Date	Total volume (gals)	Water Level (ft btoe)	Temp (°C)	pH	Turbidity (NTU)	Conductivity (mS/cm)	DO (mg/L)	ORP (millivolts)	Remarks (color, odor, sheen, sediment, etc.)
Time		<= 0.33 ft	+/- 1	+/- 10%	10% or <10 NTU	+/-3%	10% or <0.5 mg/L	+/- 10%	Stabilization parameters
1350	115	NR	NR	6.62	43.2	NR	264g	264	
1405	25			6.93	516			231	
1420	35			7.06	407			261	
1440	55			7.21	149			292	
1500	75			7.4	48			260	
1520	Pause to dump development water at PtT								
1608	Resume development								
1628	115			7.20	24.1	24.1		247	
1648	130			7.22	54			189	
1718	150			7.24	9.2			227	

Sample Information

SAMPLE DATE:	8/28/19	SAMPLE TYPE:	grab	SAMPLE MATRIX:	groundwater
SAMPLING PERSONNEL:	W Kute				
SAMPLING METHOD:	low flow post development	SAMPLE TEMP/pH/EC/TURB/DO:	see last entry, above		
SAMPLE ID(s):	ARTESIA-MW38-082819		DUPLICATE/BLANK SAMPLE ID(s):		
NOTABLE OBSERVATIONS (color, odor, sand, headspace, etc.):					

Sample ID	Sample Time	Sample Containers No.	Sample Containers Volume/Type	Preservatives (ice, acids, bases, others)	Analytical Method	Laboratory
as above	1721	3	40mL UDA	HCl, 4°C	8260 LL	Test America
↓	↓	1	1 L poly	4°C	300.0 sulfate	↓

Initials of sampling personnel W Kute

$$R + FD = \text{same time} = 16.15$$

DATE
10/29/19

GROUNDWATER SAMPLING FIELD DATA SHEET

PROJECT: Former Dowell Schlumberger Facility Artesia

LOCATION: Artesia, New Mexico

WEATHER (wind/temp/ppt): mild, sunny, slight breeze

OTHER NOTABLE FIELD CONDITIONS:

INITIAL ORGANIC VAPOR METER READINGS: 0.2 02 g down well Corg

INITIAL DEPTH TO WATER: 4.3

TOTAL DEPTH OF WELL: 25.65

SCREENED INTERVAL: 5-25

PURGE VOLUME CALCULATION: $3 \times \text{casing vol} = 5.54 \text{ gal (if needed)}$

METHOD OF PURGING: Peristaltic Pump

DISPOSITION OF DISCHARGE WATER: Into P&T system

MONITORING EQUIPMENT USED: Horiba U-52, MultiRAE, Water Level Indicator

Well Purging Information

Time	Total volume (gals)	DTW (ft btoc)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	DO	ORP	Remarks (color, odor, sheen, sediment, etc.)
1153	Start pump								
1255	0.1	14.51	17.88	6.23	4.83	578	1.45	-128	No odor/color
1200	0.5	14.50	19.08	6.14	4.87	126	0.36	-212	
1205	0.781	14.52	19.34	6.12	4.88	34.8	0.31	-228	
1210	1.3	14.52	19.40	6.12	4.88	22.8	0.27	-231	
1215	1.8	14.52	19.48	6.12	4.87	13.2	0.25	-233	parameters stable DO 2.05 Turb 2.10
1220	2.3	14.51	19.44	6.12	4.86	9.7	0.24	-229	

Sample Information

SAMPLE DATE: 10/29/19

SAMPLE TYPE: grab

SAMPLE MATRIX: GW

SAMPLING PERSONNEL: A. Forsberg

SPLIT SAMPLES OBTAINED BY: N/A

SAMPLING METHOD: low-flow with parameter stabilization

SAMPLE TEMP/pH/EC/TURB/DO:

See measurements above

SAMPLE ID(s): Artesia-MW12-102919

DUPLICATE/BLANK SAMPLE ID(s):

NOTABLE OBSERVATIONS (color, odor, sand, headspace, etc.):

Sample ID	Sample Time	Sample Containers No./Volume/Type	Preservatives (ice, acids,)	Analytical Method	Laboratory	
Artesia-HW12-108919	1223	3 40 mL VOA 1 L poly	HCL, ice ice	8260B 300	TestAmerica/HOU TestAmerica/HOU	
Initials of sampling personnel						

Initials of sampling personnel

Initials of sampling personnel

ch2mPROJECT NUMBER
D3151100

WELL ID

UN36

DATE

10/29/19

GROUNDWATER SAMPLING FIELD DATA SHEET

PROJECT Former Dowell Schlumberger Facility Artesia

WEATHER (wind/temp/ppt): cool, dry, sunny

LOCATION Artesia, New Mexico

INITIAL ORGANIC VAPOR METER READINGS

2.5 ppm in casing 0.1 mBz

OTHER NOTABLE FIELD CONDITIONS

INITIAL DEPTH TO WATER

14.42

TOTAL DEPTH OF WELL

25.38

SCREENED INTERVAL 15-25

PURGE VOLUME CALCULATION 3 casing vol = 5.35 gal (if necessary)

METHOD OF PURGING Peristaltic Pump

DISPOSITION OF DISCHARGE WATER Into P&T system

MONITORING EQUIPMENT USED Horiba U-52, MultiRAE, Water Level Indicator

Well Purging Information

Time	Total volume (gals)	DTW (ft bloc)	Temp (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	DO	ORP	Remarks (color, odor, sheen, sediment, etc.)
1100 start pump									
1102	0.4 L	19.2	17.08	5.53	12.3	323	3.78	369	
1107	1.25 g	15.39	17.46	5.71	12.2	482	5.32	438	Clear, no odor
1112	1.5 g	18.7	18.33	5.72	11.5	290	4.32	455	
1117	1.75 g	19.60	18.55	5.72	10.9	202	4.03	457	DTW = 15.51
1122	2 g	19.72	18.55	5.73	9.83	122	3.95	455	Turn down flow
1127	2.25 g	19.72	18.69	5.74	9.15	125	3.99	450	
1132	2.5 g	19.75	18.80	5.74	8.51	127	4.07	446	parameters stable - sample a lot of air bubbles coming up tubing

Sample Information

SAMPLE DATE 10/29/19

SAMPLE TYPE grab

SAMPLE MATRIX GW

SAMPLING PERSONNEL A. Forstberg

SPLIT SAMPLES OBTAINED BY N/A

SAMPLING METHOD low-flow with parameter stabilization

SAMPLE TEMP/pH/EC/TURB/DO

See measurements above

SAMPLE ID(s) Artesia-MW36-102919

DUPLICATE/BLANK SAMPLE ID(s) N/A

NOTABLE OBSERVATIONS (color, odor, sand, headspace, etc.)

Sample ID	Sample Time	Sample Containers No./Volume/Type	Preservatives (ice, acids, etc.)	Analytical Method	Laboratory
Artesia-MW36-102919 1	1133	3 40 mL VOA 1 L poly	HCL, ice ice	8260B 300	TestAmerica/HOU TestAmerica/HOU

Initials of sampling personnel

9



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Appendix C

NMOSE Well Installation Permits

John R. D Antonio, Jr., P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

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

Trn Nbr: 656848
File Nbr: RA 12782

Aug. 19, 2019

SCHLUMBERGER TECHNOLOGY CORP
VIRGILIO COCIANNI
121 INDUSTRIAL BLVD
SUGAR LAND, TX 77478

Greetings:

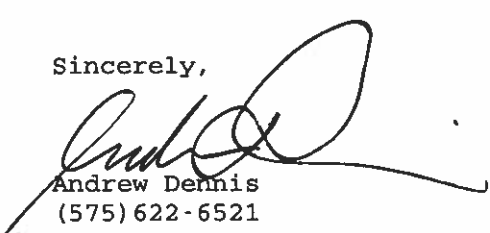
Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,


Andrew Dennis
(575) 622-6521

Enclosure

explore

File No. **RA-12782**

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(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"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input type="checkbox"/> Other(Describe):
<input checked="" type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

<input type="checkbox"/> Temporary Request - Requested Start Date:	Requested End Date:
--------------------------------------------------------------------	---------------------

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Virgilio Cocianni	Name:
Contact or Agent: check here if Agent <input type="checkbox"/>	Contact or Agent: check here if Agent <input type="checkbox"/>
Schlumberger Technology Corporation	
Mailing Address: 121 Industrial Blvd	Mailing Address:
City: Sugar Land	City:
State: TX Zip Code: 77478	State: Zip Code:
Phone: (281) 285-4747 <input type="checkbox"/> Home <input type="checkbox"/> Cell	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell
Phone (Work):	Phone (Work):
E-mail (optional): cocianni-v@slb.com	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: RA-12782	Trn. No.: 656848	Receipt No.: 2-41108
Trans Description (optional):		
Sub-Basin: RA	PCW/LOG Due Date: 8/18/20	

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

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☒ NM State Plane (NAD83) (Feet)
 ☐ UTM (NAD83) (Meters)
 ☐ Lat/Long (WGS84) (to the nearest 1/10th of second)

☐ NM West Zone
 ☐ Zone 12N

☒ NM East Zone
 ☐ Zone 13N

☐ NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
MW-36	523335.79	675954.90	NW1/4 SW1/4 S4 T17S R26E
MW-37	523390.97	675903.81	NW1/4 SW1/4 S4 T17S R26E
MW-38	523377.89	675981.06	NW1/4 SW1/4 S4 T17S R26E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
 Additional well descriptions are attached: ☐ Yes ☒ No If yes, how many _____

Other description relating well to common landmarks, streets, or other:
 Former Dowell Schlumberger Facility, 507 East Ritchey Avenue, Artesia, NM 88210

Well is on land owned by: Schlumberger Technology Corporation

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☒ No
 If yes, how many _____ 3

Approximate depth of well (feet): 25	Outside diameter of well casing (inches): 2.25
Driller Name: TalonLPE	Driller License Number: WD-1575

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

For Item 4 - The monitoring wells are required to provide data related to the remediation of groundwater that contains hydrocarbons and chlorinated solvents concentrations in exceedance of New Mexico Water Quality Control Commission standards. Monitoring events are performed semiannually and are expected to continue for up to 5 years.

2012
14 AM 9:57
STATE OF NEW MEXICO
OFFICE OF THE ATTORNEY GENERAL

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:

KA-12782

Trn No.:

656848

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:

Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted.
Monitoring: <input checked="" type="checkbox"/> Include the reason for the monitoring well, and, <input checked="" type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <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.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <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 recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Virgilio Cocianni

Print Name(s)

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

[Signature]
Applicant Signature

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 19 day of August 20 19, for the State Engineer.

John R. D'Antonio Jr., P.E.

State Engineer

Juan Hernandez

Print

By: [Signature]
Signature

Title: Water Resources Manager I

Print



FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:

RA-12782

Trn No.:

656 848

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

SPECIFIC CONDITIONS OF APPROVAL

- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.
- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

**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 RA 12782 POD1 must be completed and the Well Log filed on or before 08/18/2020.
- LOG The Point of Diversion RA 12782 POD2 must be completed and the Well Log filed on or before 08/18/2020.

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

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion RA 12782 POD3 must be completed and the Well Log filed on or before 08/18/2020.

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

ACTION OF STATE ENGINEER

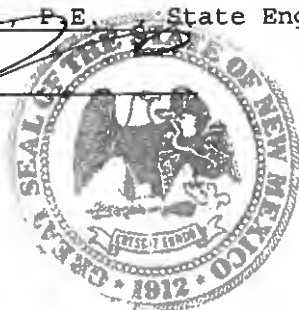
Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 08/19/2019	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

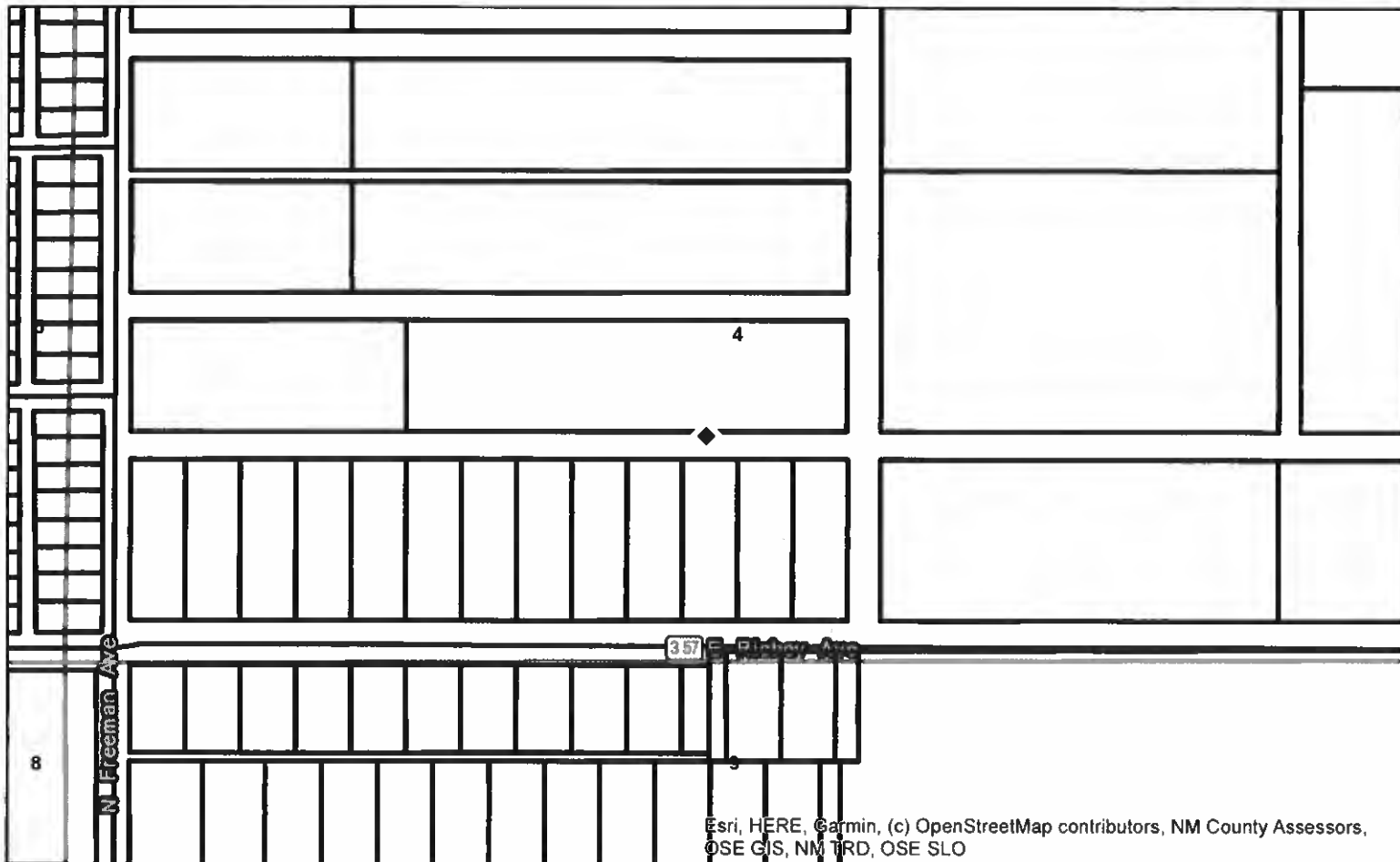
This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 19 day of Aug A.D., 2019

John R. D Antonio, Jr., P.E. State Engineer

By: JUAN HERNANDEZ





Esri, HERE, Garmin, (c) OpenStreetMap contributors, NM County Assessors, OSE GIS, NM TRD, OSE SLO

Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 556891.852

Northing 3635731.979

State Plane - NAD 83 (f) - Zone E

Easting 523335.790

Northing 675954.900

Degrees Minutes Seconds

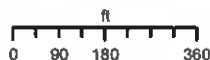
Latitude 32 : 51 : 29.572838

Longitude -104 : 23 : 31.083271

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514



N



A. Dennis

8/19/2019



Geographic information has been made by the New Mexico Office of the State Engineer (OSE) using data provided by the National Aeronautics and Space Administration (NASA) and the United States Geological Survey (USGS). The OSE is not responsible for any errors or omissions in this data. The OSE is not responsible for any errors or omissions in this data. The OSE is not responsible for any errors or omissions in this data.

Spatial Information

County: Eddy

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

NESESWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information

UPC/DocNum:

Parcel Owner:

Address:

Legal:

POD Information

Owner: Virgilio Cocianni

File Number: RA-12782-POD1

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

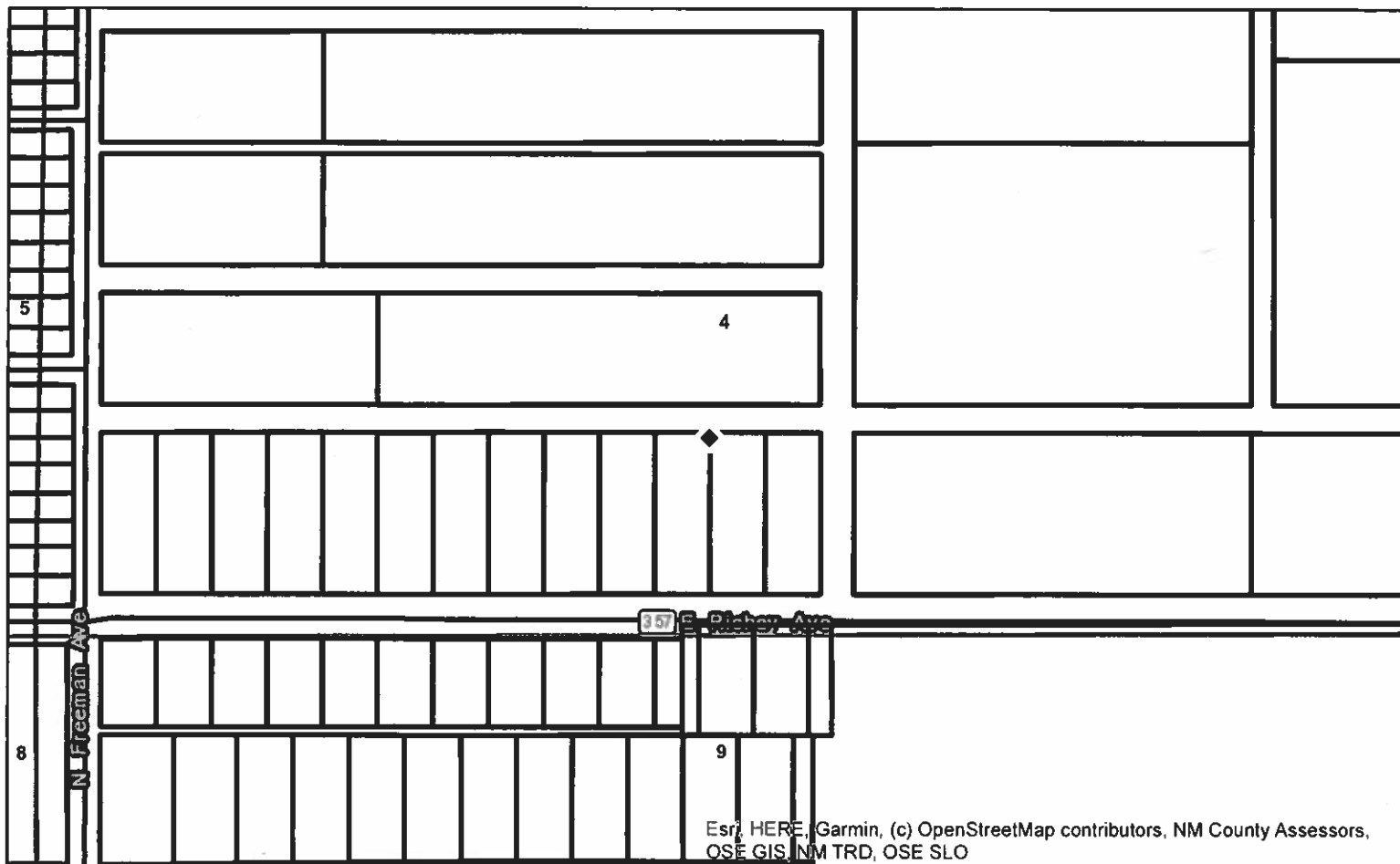
Purpose: MON

◆ Coord Search
Location

WRAB Abstract
Project Areas

□ Eddy County
Parcels 2018

□ Sections



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 556908.764

Northing 3635716.518

State Plane - NAD 83 (f) - Zone E

Easting 523390.970

Northing 675903.810

Degrees Minutes Seconds

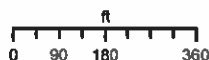
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Longitude -104 : 23 : 30.436017

Location pulled from Coordinate Search

NEW MEXICO OFFICE
OF THE
STATE ENGINEER

1:4.514



A. Dennis

8/19/2019

[illegible]

Spatial Information

County: Eddy

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

NESESWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information

UPC/DocNum: 4-153-097-107-506

Parcel Owner: DOWELL DIVISION OF DOW

Address: E OF 507 E RICHEY AVENUE

Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
Block: 2 Tract: 11 MAP# 51A-AIA2-11 CAB# 1-94-2
TR SIZE 100' X 290'

POD Information

Owner: Virgilio Cocianni

File Number: RA-12782-POD2

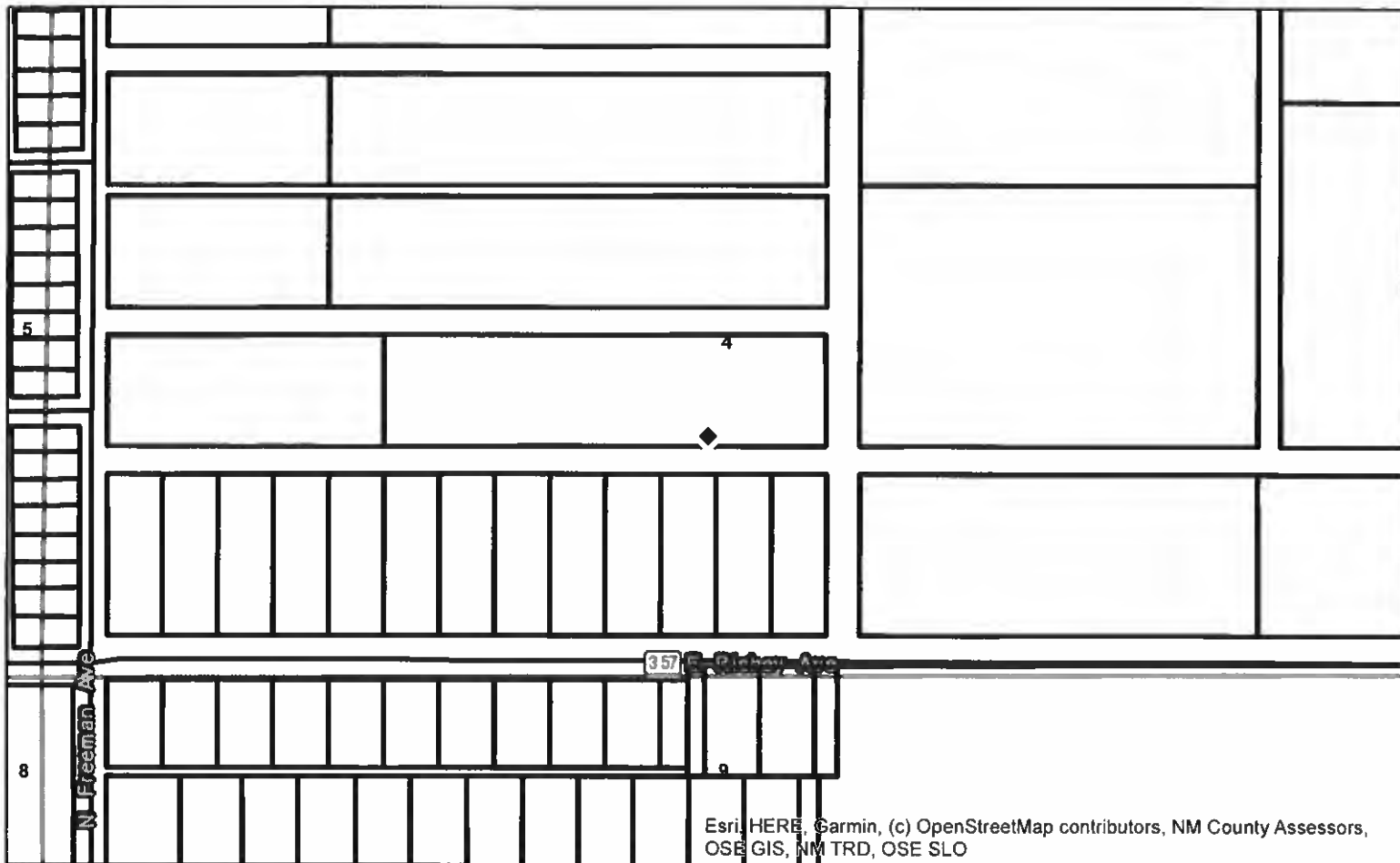
POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- ◆ Coord Search Location
- WRAB Abstract Project Areas
- Eddy County Parcels 2018
- Sections



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 556904.630
 Northing 3635740.032

State Plane - NAD 83 (f) - Zone E

Easting 523377.890
 Northing 675981.060

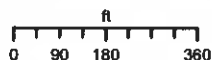
Degrees Minutes Seconds

Latitude 32 : 51 : 29.831924
 Longitude -104 : 23 : 30.589866

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514



N



A. Dennis

8/19/2019



As a condition of use, users must acknowledge the New Mexico Office of the State Engineer (OSE) as the source of the data. The OSE does not warrant the accuracy, completeness, or timeliness of the data. The OSE is not responsible for any errors or omissions in the data. The OSE is not responsible for any damages, including consequential damages, arising from the use of the data. The OSE is not responsible for any loss of data or other information resulting from the use of the data. The OSE is not responsible for any other damages, including consequential damages, arising from the use of the data. The OSE is not responsible for any other damages, including consequential damages, arising from the use of the data.

Spatial Information

County: Eddy
 Groundwater Basin: Roswell
 Abstract Area: Roswell Artesian

Land Grant:
 Not in Land Grant
 Restrictions:

NA

PLSS Description

NESESWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information
 UPC/DocNum: 4-153-097-092-477
 Parcel Owner: SCHLUMBERGER
 Address: E FREEMAN AVENUE

Legal: Subd: ARTESIA INDUSTRIES ADDITION Block: 3
 Tract: 1 TRACT 1 EAST 800' MAP#51A-AIA3-1E CAB#
 1-111-1 LOC E OF 1703 N FREEMAN AVE

POD Information

Owner: Virgilio Cocianni
 File Number: RA-12782-POD3

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- ◆ Coord Search Location
- WRAB Abstract Project Areas
- Eddy County Parcels 2018
- Sections

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: **2 - 41108** DATE: **8-14-19** FILE NO.: **new**
 TOTAL: **15.00** RECEIVED: **Fifteen** DOLLARS CHECK NO.: **5459** CASH: _____
 PAYOR: **Elaine Cotton** ADDRESS: **4835 Sun Cove Rd NE** CITY: **ALBU** STATE: **NM**
 ZIP: **87110** RECEIVED BY: **gm**

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; and **yellow** copy for Water Rights. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of your daily deposit.

A. Ground Water Filing Fees

- ___ 1. Change of Ownership of Water Right \$ 2.00
 - ___ 2. Application to Appropriate or Supplement Domestic 72-12-1 Well \$ 125.00
 - ___ 3. Application to Repair or Deepen 72-12-1 Well \$ 75.00
 - ___ 4. Application for Replacement 72-12-1 Well \$ 75.00
 - ___ 5. Application to Change Purpose of Use 72-12-1 Well \$ 75.00
 - ___ 6. Application for Stock Well/Temp. Use \$ 5.00
-
- ___ 7. Application to Appropriate Irrigation, Municipal, or Commercial Use \$ 25.00
 - ___ 8. Declaration of Water Right \$ 1.00
 - ___ 9. Application for Supplemental Non 72-12-1 Well \$ 25.00
 - ___ 10. Application to Change Place or Purpose of Use Non 72-12-1 Well \$ 25.00
 - ___ 11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water \$ 50.00
 - ___ 12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water \$ 50.00
 - ___ 13. Application to Change Point of Diversion of Non 72-12-1 Well \$ 25.00
 - ___ 14. Application to Repair or Deepen Non 72-12-1 Well \$ 5.00

B. Surface Water Filing Fees

- ___ 1. Change of Ownership of a Water Right \$ 5.00
- ___ 2. Declaration of Water Right \$ 10.00
- ___ 3. Amended Declaration \$ 25.00
- ___ 4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water \$ 200.00
- ___ 5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water \$ 200.00
- ___ 6. Application to Change Point of Diversion \$ 100.00
- ___ 7. Application to Change Place and/or Purpose of Use \$ 100.00
- ___ 8. Application to Appropriate \$ 25.00
- ___ 9. Notice of Intent to Appropriate \$ 25.00
- ___ 10. Application for Extension of Time \$ 50.00
- ___ 11. Supplemental Well to a Surface Right \$ 100.00
- ___ 12. Return Flow Credit \$ 100.00
- ___ 13. Proof of Completion of Works \$ 25.00
- ___ 14. Proof of Application of Water to Beneficial Use \$ 25.00
- ___ 15. Water Development Plan \$ 100.00
- ___ 16. Declaration of Livestock Water Impoundment \$ 10.00
- ___ 17. Application for Livestock Water Impoundment \$ 10.00

C. Well Driller Fees

- ___ 1. Application for Well Driller's License \$ 50.00
- ___ 2. Application for Renewal of Well Driller's License \$ 50.00
- ___ 3. Application to Amend Well Driller's License \$ 50.00

D. Reproduction of Documents

- ___ @ 0.25¢ \$ _____
- ___ Map(s) \$ _____

E. Certification

F. Other

G. Comments:

mail

All fees are non-refundable.

3-X

- ___ 15. Application for Test, Expl. Observ. Well \$ 5.00
- ___ 16. Application for Extension of Time \$ 25.00
- ___ 17. Proof of Application to Beneficial Use \$ 25.00
- ___ 18. Notice of Intent to Appropriate \$ 25.00

John R. D Antonio, Jr., P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

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

Trn Nbr: 659021
File Nbr: RA 12782POD4-15

Sep. 20, 2019

SCHLUMBERGER TECHNOLOGY CORP
VIRGILIO COCIANNI
121 INDUSTRIAL BLVD
SUGAR LAND, TX 77478

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,


Juan Hernandez
(575) 622-6521

Enclosure

explore



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):



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

Purpose:	<input checked="" type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input type="checkbox"/> Other(Describe):
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

<input type="checkbox"/> Temporary Request - Requested Start Date:	Requested End Date:
--------------------------------------------------------------------	---------------------

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Virgilio Cocianni	Name:
Contact or Agent: check here if Agent <input type="checkbox"/> Schlumberger Technology Corporation	Contact or Agent: check here if Agent <input type="checkbox"/>
Mailing Address: 121 Industrial Blvd	Mailing Address:
City: Sugar Land	City:
State: TX Zip Code: 77478	State: Zip Code:
Phone: (281) 285-4747 <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):
E-mail (optional): cocianni-v@slb.com	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: RA-12782	Trn. No.: 659021	Receipt No.: 241199
Trans Description (optional): POD 4-15		
Sub-Basin: RA	PCW/LOG Due Date: 9-30-20	

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

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.			
<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> NM West Zone <input checked="" type="checkbox"/> NM East Zone <input type="checkbox"/> NM Central Zone </div> <div> <input type="checkbox"/> UTM (NAD83) (Meters) <input type="checkbox"/> Zone 12N <input type="checkbox"/> Zone 13N </div> <div> <input type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10th of second) </div> </div>			
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
RA-12782-1004 IJ-9	523333.194	675964.204	NW1/4 SW1/4 S4 T17S R26E
PODS IJ-10	523339.293	675935.740	NW1/4 SW1/4 S4 T17S R26E
POD 6 IJ-11	523380.362	675899.957	NW1/4 SW1/4 S4 T17S R26E
POD 7 IJ-12	523315.708	675944.686	NW1/4 SW1/4 S4 T17S R26E
POD 8 IJ-13	523325.061	675922.728	NW1/4 SW1/4 S4 T17S R26E
NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions) Additional well descriptions are attached: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, how many 7			
Other description relating well to common landmarks, streets, or other: Former Dowell Schlumberger Facility, 507 East Ritchey Avenue, Artesia, NM 88210			
Well is on land owned by: Schlumberger Technology Corporation			
Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, how many 7			
Approximate depth of well (feet): 25		Outside diameter of well casing (inches): 1.315	
Driller Name: Earth Worx Environmental Services		Driller License Number:	

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Injection wells associated with monitoring wells approved under permit RA-12782

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: RA-12782

Trn No.: 059021

<p>Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.</p>	<p>Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <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.</p>	<p>Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.</p>	<p>Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.</p>
<p>Monitoring: <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.</p>	<p>Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.</p>		

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.

a. Is this a: <input type="checkbox"/> Move-From Point of Diversion(s) <input type="checkbox"/> Move-To Point of Diversion(s)		b. Information on Attachment(s): Number of points of diversion involved in the application: <u>7</u> Total number of pages attached to the application: <u>1</u>	
<input type="checkbox"/> Surface Point of Diversion		<input checked="" type="checkbox"/> Well	
Name of ditch, acequia, or spring:			
Stream or water course:			
Tributary of:			
c. Location (Required): 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) (feet) NM West Zone <input type="checkbox"/> NM Central Zone <input type="checkbox"/> NM East Zone <input checked="" type="checkbox"/>	UTM (NAD83) (meters) Zone 13N <input type="checkbox"/> Zone 12N <input type="checkbox"/>	<input type="checkbox"/> Lat/Long- (WGS84) 1/10 th of second	OTHER (allowable only for move-from descriptions - see application form for format) <input type="checkbox"/> PLSS (quarters, section, township, range) <input type="checkbox"/> Hydrographic Survey, Map & Tract <input type="checkbox"/> Lot, Block & Subdivision <input type="checkbox"/> Grant
POD Number: <u>RA-12782</u> IJ-14	X or Longitude 523350.272	Y or Latitude 675908.902	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 10</u> IJ-15	X or Longitude 52281.989	Y or Latitude 675875.152	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 11</u> IJ-16	X or Longitude 52329.850	Y or Latitude 675927.201	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 12</u> IJ-17	X or Longitude 523325.061	Y or Latitude 675895.890	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 13</u> IJ-18	X or Longitude 523356.778	Y or Latitude 675883.692	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 14</u> IJ-19	X or Longitude 523303.916	Y or Latitude 675905.649	Other Location Description: <u>33.4.17S.26E</u>
POD Number: <u>POD 15</u> IJ-20	X or Longitude 523358.404	Y or Latitude 675856.447	Other Location Description: <u>33.4.17S.26E</u>
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: RA-12782

Trm Number: 659021

Trans Description (optional):

POD 4-15

Pollution Control/Recovery Plan
Former Dowell Schlumberger Facility
507 East Richey Avenue, Artesia, New Mexico

The following information is provided to capture the applicable items under Section 4. Specific Requirements, of the Application for Permit to Drill a Well with No Consumptive Use of Water.

1. Description of the need for the pollution control or recovery operation.

The remediation system operation is required to remediate chlorinated hydrocarbons present in groundwater as a result of historical site operations as an oil and gas support facility. Chlorinated hydrocarbons are currently present in groundwater at concentrations that exceed New Mexico Water Quality Control Commission standards. The investigation and remediation of the site is being performed under a Stage II Abatement Plan (previous Permit GW-114), under the New Mexico Oil Conservation Division Environmental Bureau.

2. Estimated maximum period of time for completion of the operation.

Injection to be completed in a single operation expected to take 2 - 3 weeks. If necessary, this work will be completed in fall 2021. Injection is expected to be a onetime event.

3. Annual diversion amount.

None. Potable water from a nearby fire hydrant will be used to provide any water required to complete injections.

4. Annual consumptive use amount.

Zero gallons; no consumptive use will occur.

5. Maximum amount of water to be diverted and injected for the duration of the operation.

None.

6. Method and place of discharge

Vertical Injections – 12 injection wells in a grid roughly 1,000 square feet. If it is necessary to utilize injection wells, the volume of injection solution will be determined based on the concentration of chlorinated hydrocarbons in groundwater.

7. Method of measurement of water produced and discharged.

No water will be produced. Potable water discharged into the aquifer will be measured using a flow meter present on the City of Artesia hydrant meter.

8. Source of water to be injected.

City of Artesia potable water fire hydrant.

9. Method of measurement of water injected.

The combined discharge and the individual discharges to each injection well will be fitted with digital flow meters with totalizers.

10. Characteristics of the aquifer.

Observations made during prior drilling activities described the predominant lithologies to consist of light-brown to reddish-brown silt and silty clay, interbedded with clay layers and stringers of carbonate rubble. The very fine-grained sediments were deposited in an arid, alluvial overbank environment and can be expected to be more laterally continuous than coarse-grained alluvial channel deposits. The carbonate layers are believed to be the result of the evaporation of water containing elevated concentrations of dissolved solids. Prior investigations arrived at the conclusion that the stringers of carbonate rubble constitute the primary water-bearing zones. The rubble layers were observed at depths ranging from 20-26 feet below ground surface.

11. Method of determining the resulting annual consumptive use of water and depletion from any related stream system.

No water will be consumed or removed from the aquifer.

12. Proof of any permit required from the New Mexico Environment Department.

This site is regulated by the New Mexico Oil Conservation Division – Environmental Bureau under a Stage II Abatement Plan (previous Permit GW-114).

13. 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.

Not applicable since the applicant is the land owner.

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

SPECIFIC CONDITIONS OF APPROVAL

- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.
- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

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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 RA 12782 POD10 must be completed and the Well Log filed on or before 09/30/2020.
- LOG The Point of Diversion RA 12782 POD11 must be completed and the Well Log filed on or before 09/30/2020.

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

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion RA 12782 POD12 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD13 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD14 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD15 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD4 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD5 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD6 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD7 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD8 must be completed and the Well Log filed on or before 09/30/2020.

LOG The Point of Diversion RA 12782 POD9 must be completed and the Well Log filed on or before 09/30/2020.

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

SHOULD THE PERMITTEE CHANGE THE PURPOSE OF USE TO OTHER THAN MONITORING PURPOSES, AN APPLICATION SHALL BE ACQUIRED FROM THE OFFICE OF THE STATE ENGINEER.

Trn Desc: RA 12782 POD4-15

File Number: RA 12782
Trn Number: 659021

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 09/10/2019 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

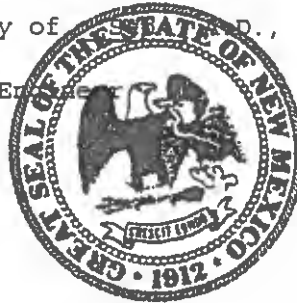
This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 20 day of September, 2019

John R. D Antonio, Jr., P.E., State Engineer

By: _____

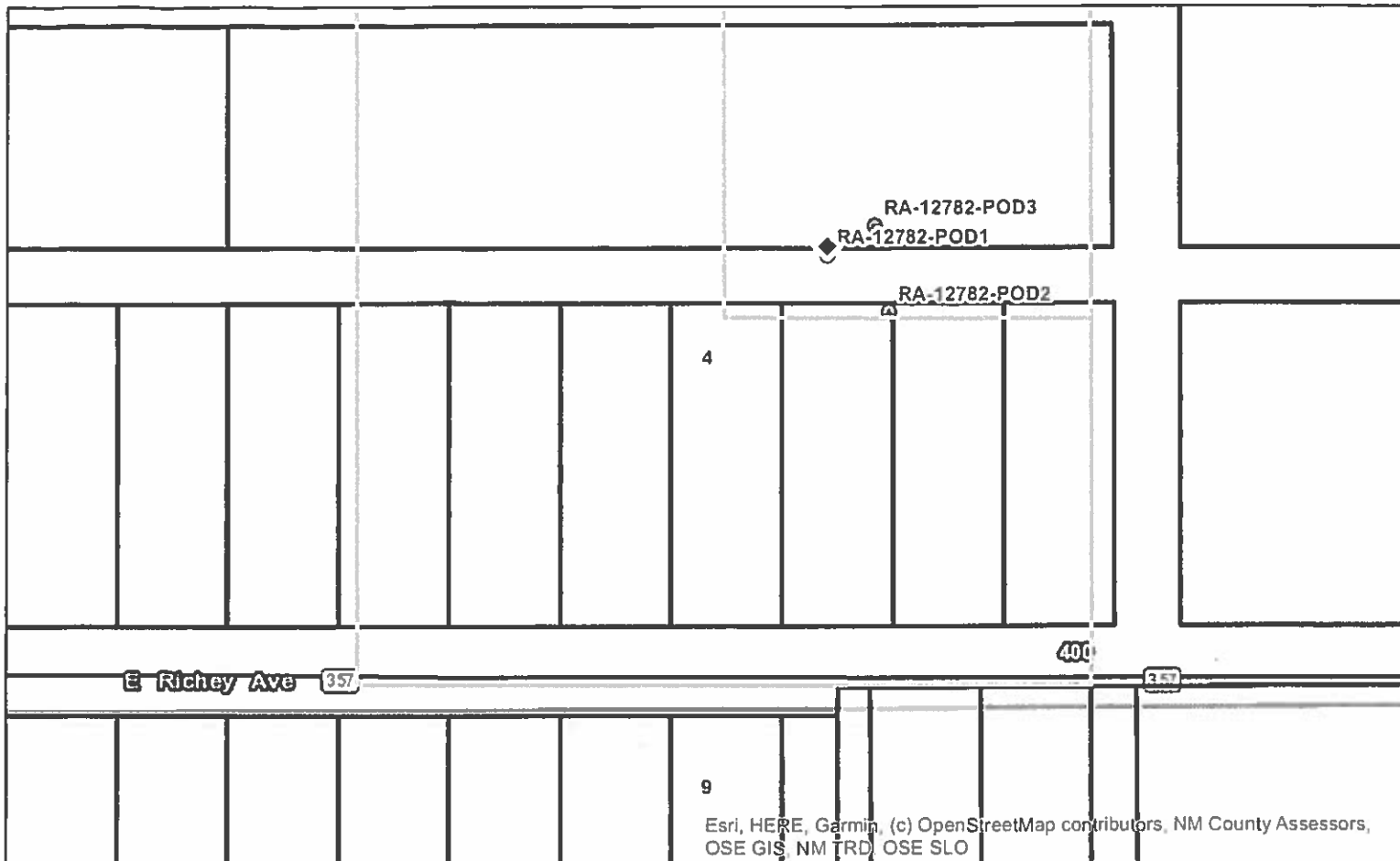
Juan Hernandez



Trn Desc: RA 12782 POD4-15

File Number: RA 12782

Trn Number: 659021



Coordinates

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Northing 3635734.810

State Plane - NAD 83 (f) - Zone E

Easting 523333.194

Northing 675964.204

Degrees Minutes Seconds

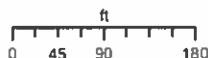
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Location pulled from Coordinate Search

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Spatial Information

County: Eddy

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

NESESWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information

UPC/DocNum: 4-153-097-092-477

Parcel Owner: SCHLUMBERGER

Address: E FREEMAN AVENUE

Legal: Subd: ARTESIA INDUSTRIES ADDITION Block: 3
Tract: 1 TRACT 1 EAST 800' MAP#51A-AIA3-1E CAB#
1-111-1 LOC E OF 1703 N FREEMAN AVE

POD Information

Owner: SCHLUMBERGER

File Number: RA-12782 POD4

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: POLLUTION CONTROL

Calculated
PLSS
Coord Search
Location
**GIS WATERS
PODs**

★ Mora County
Parcel Points
2014
★ Quay County
Parcel Points
2018
★ Union County
Parcel Points
2017
□ Bernalillo
County Parcels
2018
□ Chaves County
Parcels 2018

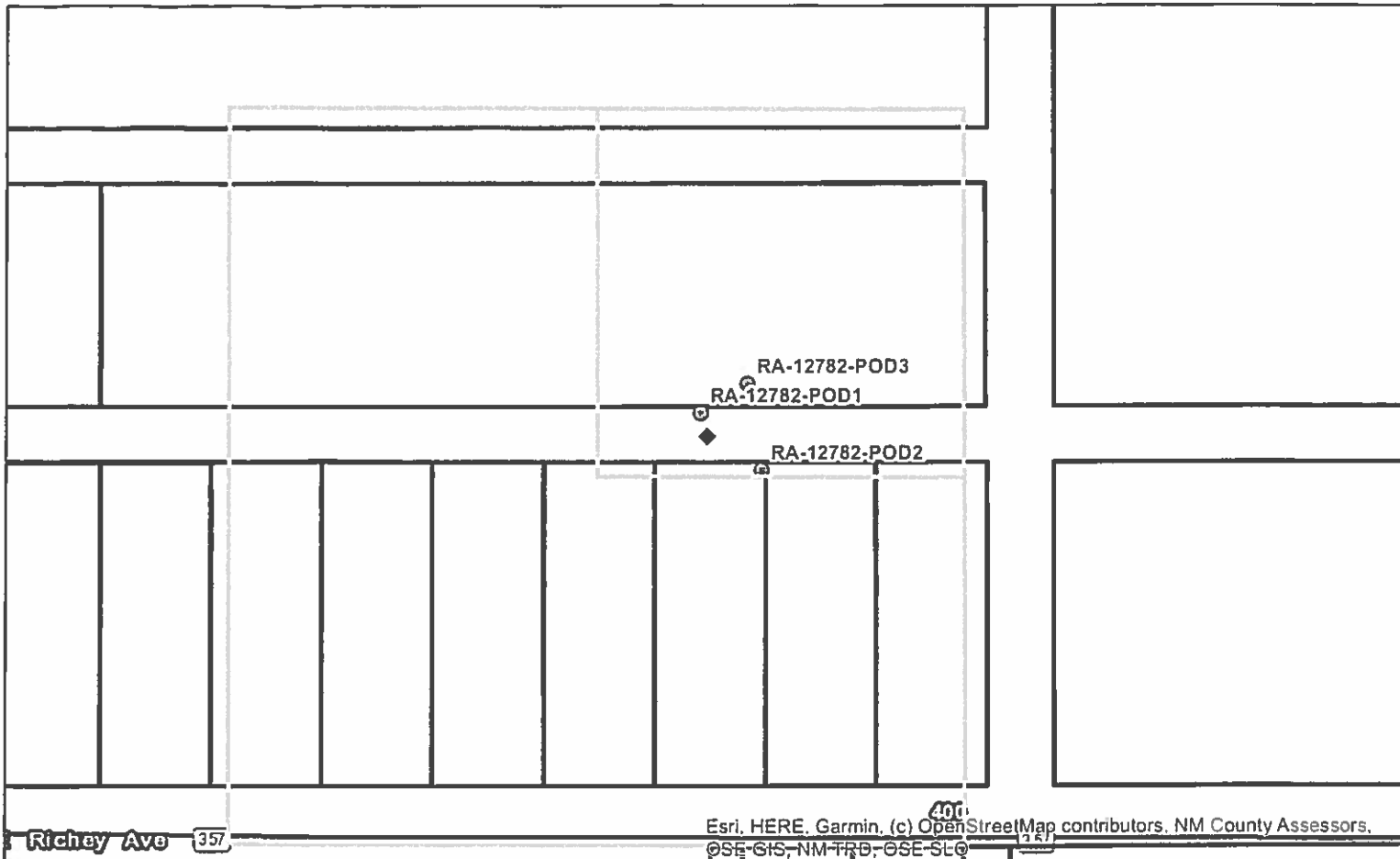
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Parcels 2018
□ Colfax County
Parcels 2018
□ Curry County
Parcels 2018
□ Doña Ana
County Parcels
2018
□ De Baca
County Parcels
2018
□ Eddy County
Parcels 2018

□ Grant County
Parcels 2017
□ Harding County
Parcels 2018
□ Hidalgo County
Parcels 2018
□ Lea County
Parcels 2018
□ Lincoln County
Parcels 2018
□ Los Alamos
County Parcels
2018

□ Luna County
Parcels 2018
□ McKinley
County Parcels
2017
□ Otero County
Parcels 2018
□ Roosevelt
County Parcels
2018
□ Río Arriba
County Parcels
2018

□ San Juan
County Parcels
2018
□ San Miguel
County Parcels
2017
□ Sandoval
County Parcels
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□ Santa Fe
County Parcels
2018
□ Sierra County
Parcels 2017

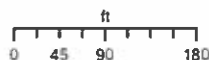
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Parcels 2018
□ Taos County
Parcels 2018
□ Torrance
County Parcels
2018
□ Valencia County
Parcels 2018
□ Sections



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 Northing 3635726.148
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 Northing 675935.740
Degrees Minutes Seconds
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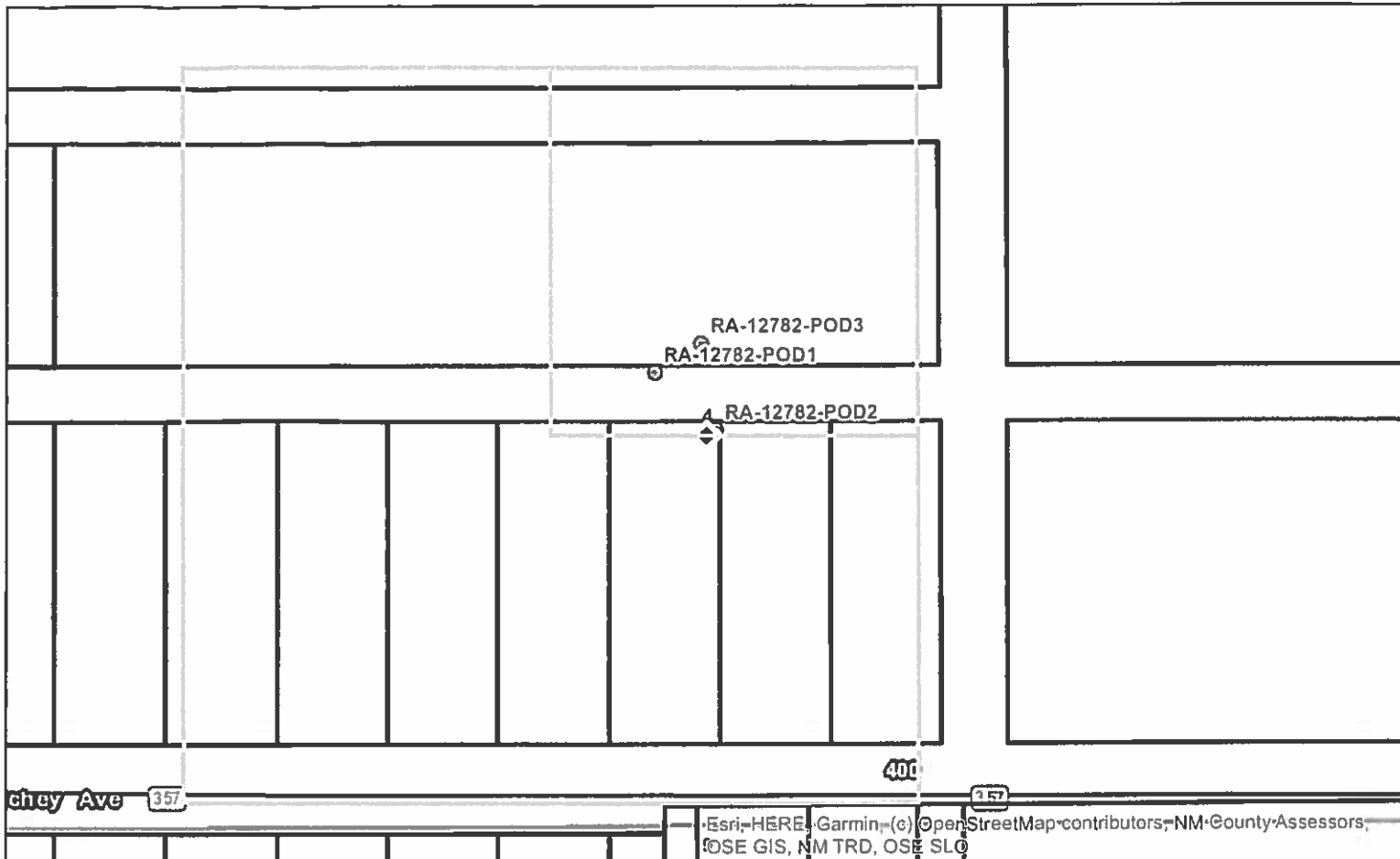
Map is not valid for use in any other way than that for which it was prepared. The State Engineer's Office is not responsible for any errors or omissions in this map. The user assumes all liability for any use of this map. The State Engineer's Office is not responsible for any errors or omissions in this map. The user assumes all liability for any use of this map.

Spatial Information
 County: Eddy
 Groundwater Basin: Roswell
 Abstract Area: Roswell Artesian
Land Grant:
 Not in Land Grant
Restrictions:
 NA
PLSS Description
 NESEWSW Qtr of Sec 04 of 017S 026E
 Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information
 UPC/DocNum: 4-153-097-092-477
 Parcel Owner: SCHLUMBERGER
 Address: E FREEMAN AVENUE
Legal: Subd: ARTESIA INDUSTRIES ADDITION Block: 3
 Tract: 1 TRACT 1 EAST 800' MAP#51A-AIA3-1E CAB#
 1-111-1 LOC E OF 1703 N FREEMAN AVE

POD Information
 Owner: SCHLUMBERGER
 File Number: RA-12782 POD5
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose: POLLUTION CONTROL

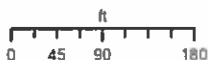
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● PEN	★ Bernalillo County Parcels 2018	<input type="checkbox"/> Doña Ana County Parcels 2018	<input type="checkbox"/> Lea County Parcels 2018	<input type="checkbox"/> Roosevelt County Parcels 2018	<input type="checkbox"/> Santa Fe County Parcels 2018	<input type="checkbox"/> Valencia County Parcels 2018
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★ Guadalupe County Parcel Points 2018	<input type="checkbox"/> Eddy County Parcels 2018	<input type="checkbox"/> Los Alamos County Parcels 2018	<input type="checkbox"/> Sierra County Parcels 2017			



Coordinates
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State Plane - NAD 83 (f) - Zone E
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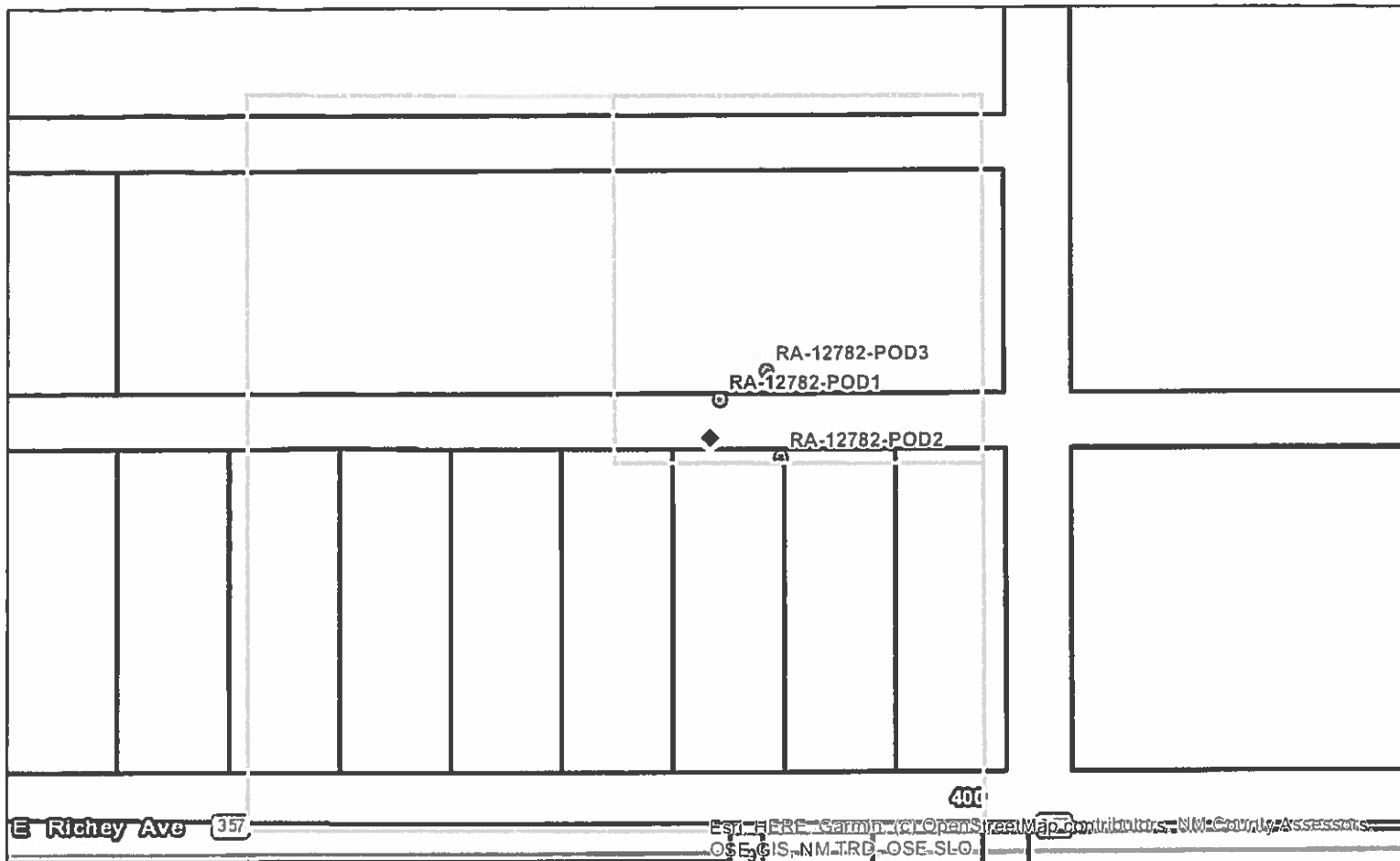
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Spatial Information
 County: Eddy
 Groundwater Basin: Roswell
 Abstract Area: Roswell Artesian
 Land Grant:
 Not in Land Grant
Restrictions:
 NA
PLSS Description
 NESESWSW Qtr of Sec 04 of 017S 026E
 Derived from CADNSDI- Qtr Sec. locations are
 calculated and are only approximations

Parcel Information
 UPC/DocNum: 4-153-097-107-506
 Parcel Owner: DOWELL DIVISION OF DOW
 Address: E OF 507 E RICHEY AVENUE
 Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
 Block: 2 Tract: 11 MAP# 51A-AIA2-11 CAB# 1-94-2
 TR SIZE 100' X 290'

POD Information
 Owner: SCHLUMBERGER
 File Number: RA-12782 POD6
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose: POLLUTION CONTROL

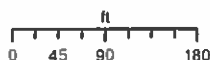
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GIS WATERS PODs	★ Union County Parcel Points 2017	<input type="checkbox"/> Curry County Parcels 2018	<input type="checkbox"/> Hidalgo County Parcels 2018	<input type="checkbox"/> Otero County Parcels 2018	<input type="checkbox"/> Sandoval County Parcels 2018	<input type="checkbox"/> Torrance County Parcels 2018
● PEN	★ Bernalillo County Parcels 2018	<input type="checkbox"/> Doña Ana County Parcels 2018	<input type="checkbox"/> Lea County Parcels 2018	<input type="checkbox"/> Roosevelt County Parcels 2018	<input type="checkbox"/> Santa Fe County Parcels 2018	<input type="checkbox"/> Valencia County Parcels 2018
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★ Guadalupe County Parcel Points 2018		<input type="checkbox"/> Eddy County Parcels 2018	<input type="checkbox"/> Los Alamos County Parcels 2018			



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State Plane - NAD 83 (f) - Zone E
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 Northing 675922.728
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1:2,257



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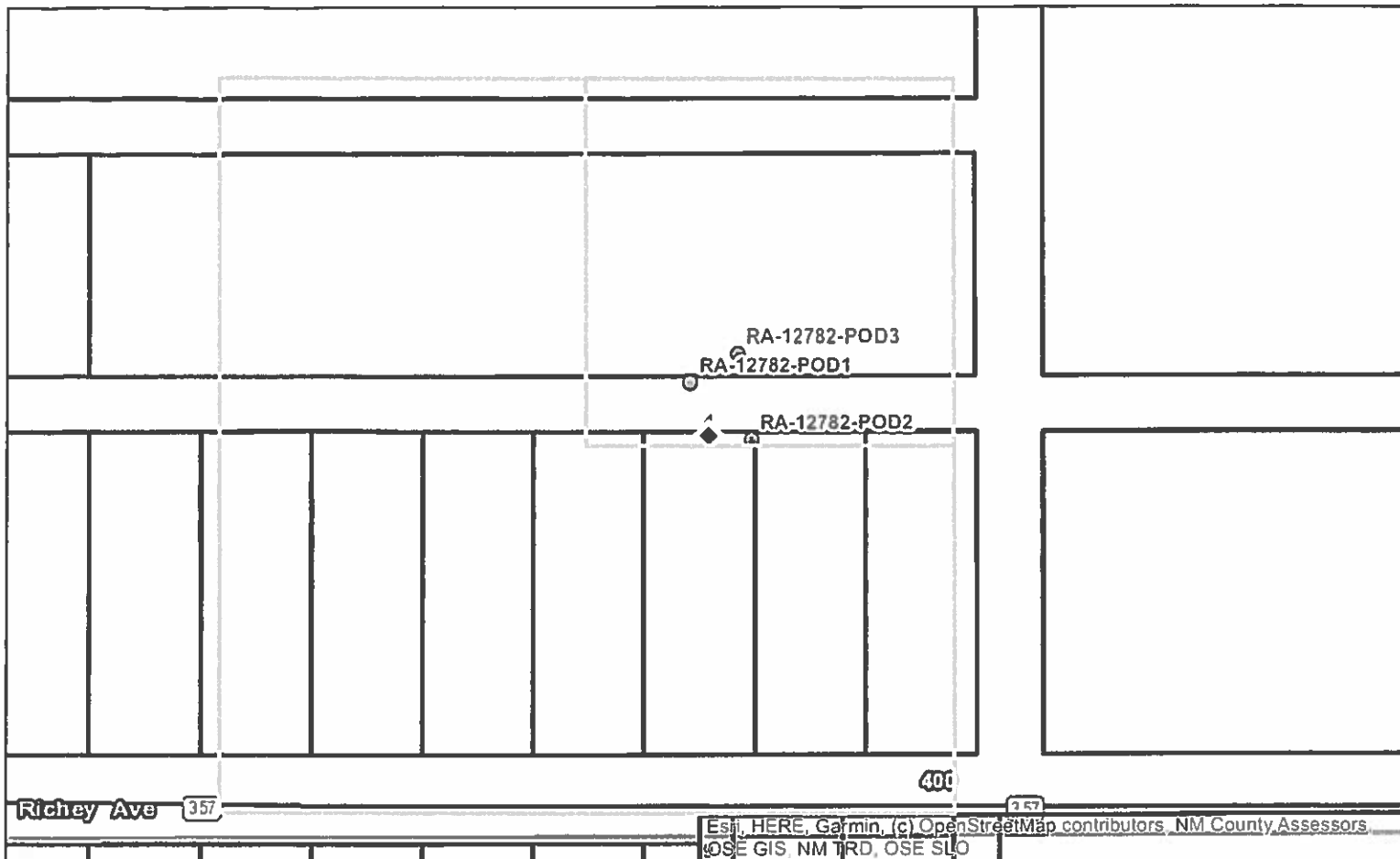
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Spatial Information
 County: Eddy
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 NA
PLSS Description
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Parcel Information
 UPC/DocNum: 4-153-097-107-506
 Parcel Owner: DOWELL DIVISION OF DOW
 Address: E OF 507 E RICHEY AVENUE
 Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
 Block: 2 Tract: 11 MAP# 51A-AIAZ-11 CAB# 1-94-2
 TR SIZE 100' X 290'

POD Information
 Owner: SCHLUMBERGER
 File Number: RA-12782 POD8
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose: POLLUTION CONTROL

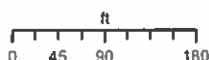
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GIS WATERS PODs	★ Union County Parcel Points 2017	□ Curry County Parcels 2018	□ Hidalgo County Parcels 2018	□ Otero County Parcels 2018	□ Sandoval County Parcels 2018	□ Torrance County Parcels 2018
○ PEN	★ Bernalillo County Parcels 2018	□ Doña Ana County Parcels 2018	□ Lea County Parcels 2018	□ Roosevelt County Parcels 2018	□ Santa Fe County Parcels 2018	□ Valencia County Parcels 2018
★ Catron County Parcel Points 2017	□ Chaves County Parcels 2018	□ De Baca County Parcels 2018	□ Lincoln County Parcels 2018	□ Rio Arriba County Parcels 2018	□ Sections	
★ Guadalupe County Parcel Points 2018		□ Eddy County Parcels 2018	□ Los Alamos County Parcels 2018		□ Sierra County Parcels 2017	



Coordinates
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 Northing 3635717.991
State Plane - NAD 83 (f) - Zone E
 Easting 523350.272
 Northing 675908.902
Degrees Minutes Seconds
 Latitude 32 : 51 : 29.117764
 Longitude -104 : 23 : 30.913187
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NEW MEXICO OFFICE
 OF THE
 STATE ENGINEER

1:2,257



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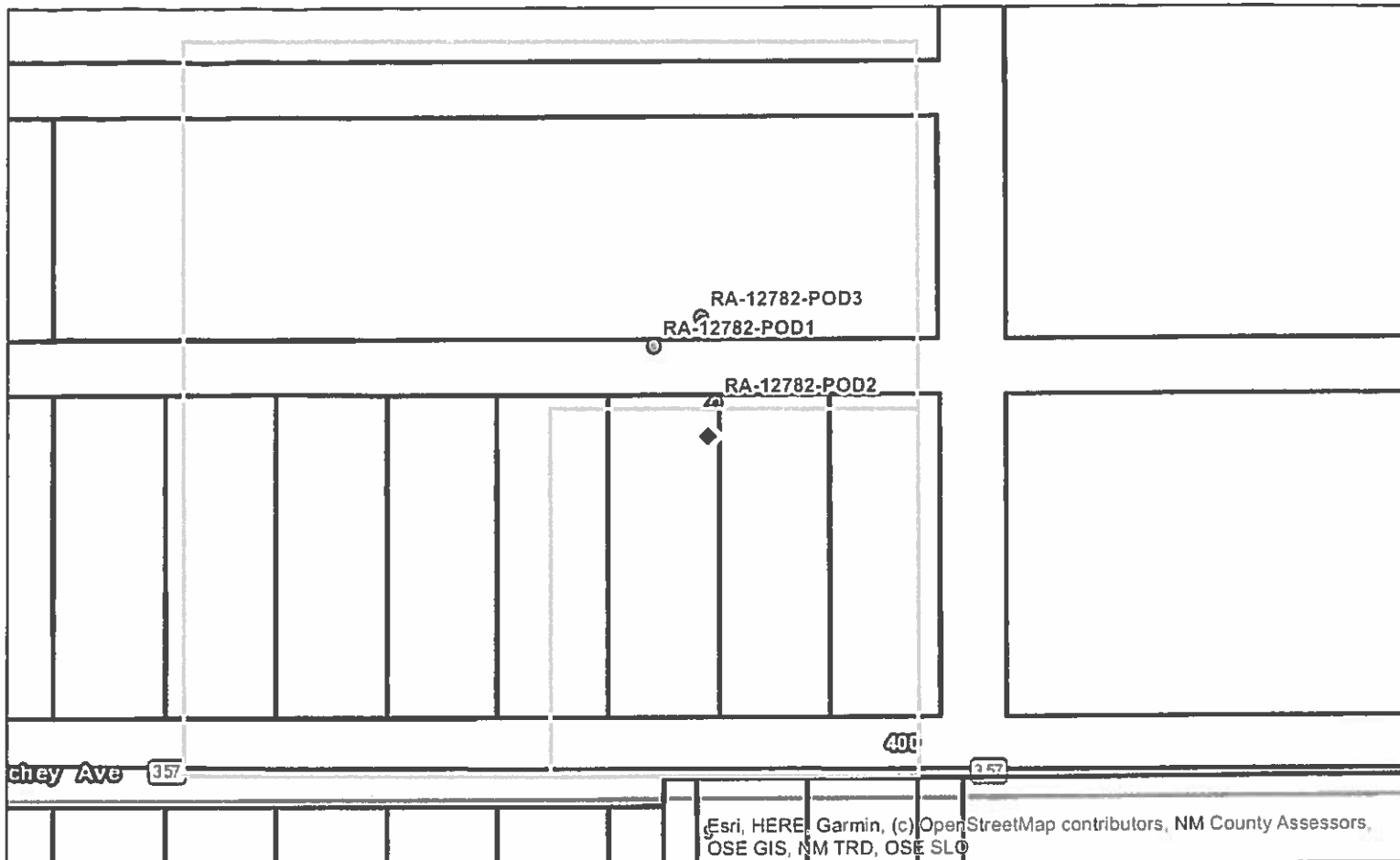
Report made by the Office of the State Engineer, New Mexico, under contract to the U.S. Army Corps of Engineers, Albuquerque District. The data and information contained herein are for informational purposes only and are not to be used for any other purpose without the express written consent of the Office of the State Engineer. The data and information contained herein are not to be used for any other purpose without the express written consent of the Office of the State Engineer.

Spatial Information
 County: Eddy
 Groundwater Basin: Roswell
 Abstract Area: Roswell Artesian
Land Grant:
 Not in Land Grant
Restrictions:
 NA
PLSS Description
 NESESWSW Qtr of Sec 04 of 017S 026E
 Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information
 UPC/DocNum: 4-153-097-107-506
 Parcel Owner: DOWELL DIVISION OF DOW
 Address: E OF 507 E RICHEY AVENUE
Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
 Block: 2 Tract: 11 MAP# 51A-A1A2-11 CAB# 1-94-2
 TR SIZE 100' X 290'

POD Information
 Owner: SCHLUMBERGER
 File Number: RA-12782 POD9
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose: POLLUTION CONTROL

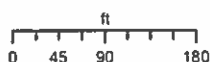
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◆ Coord Search Location	★ Quay County Parcel Points 2018	<input type="checkbox"/> Colfax County Parcels 2018	<input type="checkbox"/> Harding County Parcels 2018	<input type="checkbox"/> McKinley County Parcels 2017	<input type="checkbox"/> San Miguel County Parcels 2017	<input type="checkbox"/> Taos County Parcels 2018
GIS WATERS PODs	★ Union County Parcel Points 2017	<input type="checkbox"/> Curry County Parcels 2018	<input type="checkbox"/> Hidalgo County Parcels 2018	<input type="checkbox"/> Otero County Parcels 2018	<input type="checkbox"/> Sandoval County Parcels 2018	<input type="checkbox"/> Torrance County Parcels 2018
○ PEN	★ Bernalillo County Parcels 2018	<input type="checkbox"/> Doña Ana County Parcels 2018	<input type="checkbox"/> Lea County Parcels 2018	<input type="checkbox"/> Roosevelt County Parcels 2018	<input type="checkbox"/> Santa Fe County Parcels 2018	<input type="checkbox"/> Valencia County Parcels 2018
★ Catron County Parcel Points 2017	<input type="checkbox"/> Chaves County Parcels 2018	<input type="checkbox"/> De Baca County Parcels 2018	<input type="checkbox"/> Lincoln County Parcels 2018	<input type="checkbox"/> Rio Arriba County Parcels 2018	<input type="checkbox"/> Sections	
★ Guadalupe County Parcel Points 2018	<input type="checkbox"/> Eddy County Parcels 2018	<input type="checkbox"/> Los Alamos County Parcels 2018	<input type="checkbox"/> Sierra County Parcels 2017			



Coordinates
UTM - NAD 83 (m) - Zone 13
 Easting 556906.083
 Northing 3635707.768
State Plane - NAD 83 (f) - Zone E
 Easting 523381.989
 Northing 675875.152
Degrees Minutes Seconds
 Latitude 32 : 51 : 28.783980
 Longitude -104 : 23 : 30.541123
 Location pulled from Coordinate Search

NEW MEXICO OFFICE
 OF THE
 STATE ENGINEER

1:2,257



YMENDIOLA



Map data supplied by Esri, HERE, Garmin, (c) OpenStreetMap contributors, NM County Assessors, OSE GIS, NM TRD, OSE SLO. All rights reserved. No warranty is made by Esri for the use of the data in this map. The data is provided as a service only and is not intended for use in any other way. The data is provided as a service only and is not intended for use in any other way.

Spatial Information

County: Eddy
Groundwater Basin: Roswell
Abstract Area: Roswell Artesian

Land Grant:
Not in Land Grant
Restrictions:

NA
PLSS Description
SESEWSW Qtr of Sec 04 of 017S 026E

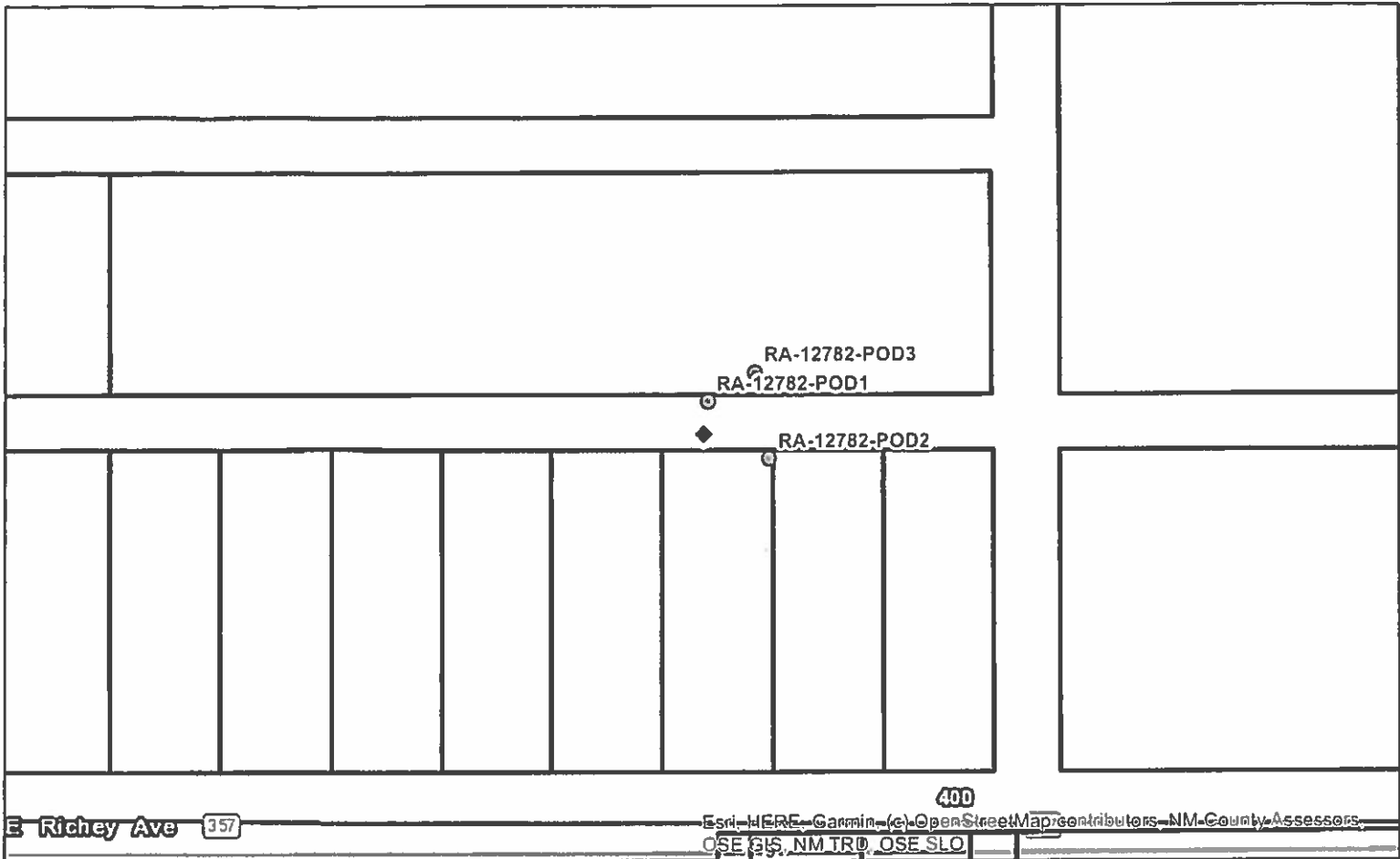
Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information
UPC/DocNum: 4-153-097-107-506
Parcel Owner: DOWELL DIVISION OF DOW
Address: E OF 507 E RICHEY AVENUE

Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
 Block: 2 Tract: 11 MAP# 51A-AIA2-11 CAB# 1-94-2
 TR SIZE 100' X 290'

POD Information
Owner: SCHLUMBERGER
File Number: RA-12782 POD10
POD Status: NoData
Permit Status: NoData
Permit Use: NoData
Purpose: POLLUTION CONTROL

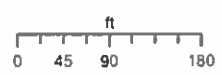
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| <p>Calculated PLSS</p> <p>Coord Search Location</p> <p>GIS WATERS PODs</p> <p>PEN</p> <p>Catron County Parcel Points 2017</p> <p>Guadalupe County Parcel Points 2018</p> | <p>Mora County Parcel Points 2014</p> <p>Quay County Parcel Points 2018</p> <p>Union County Parcel Points 2017</p> <p>Bernalillo County Parcels 2018</p> <p>Chaves County Parcels 2018</p> | <p>Cibola County Parcels 2018</p> <p>Colfax County Parcels 2018</p> <p>Curry County Parcels 2018</p> <p>Doña Ana County Parcels 2018</p> <p>De Baca County Parcels 2018</p> <p>Eddy County Parcels 2018</p> | <p>Grant County Parcels 2017</p> <p>Harding County Parcels 2018</p> <p>Hidalgo County Parcels 2018</p> <p>Lea County Parcels 2018</p> <p>Lincoln County Parcels 2018</p> <p>Los Alamos County Parcels 2018</p> | <p>Luna County Parcels 2018</p> <p>McKinley County Parcels 2017</p> <p>Otero County Parcels 2018</p> <p>Roosevelt County Parcels 2018</p> <p>Rio Arriba County Parcels 2018</p> | <p>San Juan County Parcels 2018</p> <p>San Miguel County Parcels 2017</p> <p>Sandoval County Parcels 2018</p> <p>Santa Fe County Parcels 2018</p> <p>Sierra County Parcels 2017</p> | <p>Socorro County Parcels 2018</p> <p>Taos County Parcels 2018</p> <p>Torrance County Parcels 2018</p> <p>Valencia County Parcels 2018</p> <p>Sections</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|



Coordinates
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 Easting 556890.095
 Northing 3635723.528
State Plane - NAD 83 (f) - Zone E
 Easting 523329.850
 Northing 675927.201
Degrees Minutes Seconds
 Latitude 32 : 51 : 29.298722
 Longitude -104 : 23 : 31.152730
 Location pulled from Coordinate Search

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 OF THE
 STATE ENGINEER

1:2,257



YEMENDIOLA



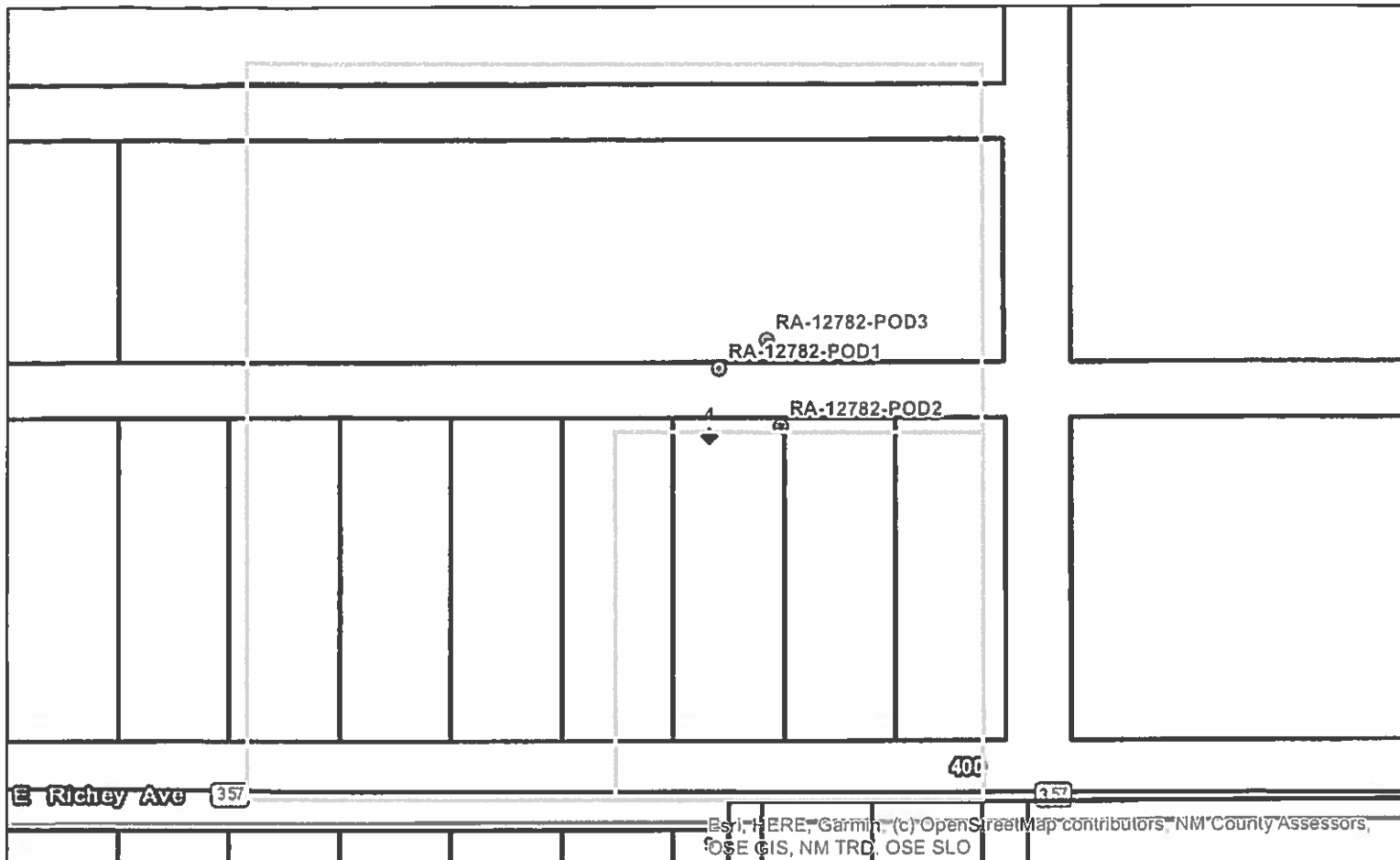
Revised 1/17 and has been approved by the New Mexico State Engineer. This map is intended to provide a general overview of the project area. It is not intended to be used for legal purposes. The map is not a substitute for a professional survey. The map is not a substitute for a professional survey. The map is not a substitute for a professional survey.

Spatial Information
 County: Eddy
 Groundwater Basin: Roswell
 Abstract Area: Roswell Artesian
Land Grant:
 Not in Land Grant
Restrictions:
 NA
PLSS Description
 NESEWSW Qtr of Sec 04 of 017S 026E
 Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information
 UPC/DocNum:
 Parcel Owner:
 Address:
 Legal:

POD Information
 Owner: SCHLUMBERGER
 File Number: RA-12782 POD11
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose: POLLUTION CONTROL

- | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Coord Search Location
GIS WATERS
PODs
<input checked="" type="checkbox"/> PEN
<input checked="" type="checkbox"/> Catron County Parcel Points 2017
<input checked="" type="checkbox"/> Guadalupe County Parcel Points 2018
<input checked="" type="checkbox"/> Mora County Parcel Points 2014 | <input checked="" type="checkbox"/> Quay County Parcel Points 2018
<input checked="" type="checkbox"/> Union County Parcel Points 2017
<input type="checkbox"/> Bernalillo County Parcels 2018
<input type="checkbox"/> Chaves County Parcels 2018
<input type="checkbox"/> Cibola County Parcels 2018
<input type="checkbox"/> Colfax County Parcels 2018 | <input type="checkbox"/> Curry County Parcels 2018
<input type="checkbox"/> Doña Ana County Parcels 2018
<input type="checkbox"/> De Baca County Parcels 2018
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<input type="checkbox"/> Grant County Parcels 2017
<input type="checkbox"/> Harding County Parcels 2018 | <input type="checkbox"/> Hidalgo County Parcels 2018
<input type="checkbox"/> Lea County Parcels 2018
<input type="checkbox"/> Lincoln County Parcels 2018
<input type="checkbox"/> Los Alamos County Parcels 2018
<input type="checkbox"/> Luna County Parcels 2018
<input type="checkbox"/> McKinley County Parcels 2017 | <input type="checkbox"/> Otero County Parcels 2018
<input type="checkbox"/> Roosevelt County Parcels 2018
<input type="checkbox"/> Rio Arriba County Parcels 2018
<input type="checkbox"/> San Juan County Parcels 2018
<input type="checkbox"/> San Miguel County Parcels 2017 | <input type="checkbox"/> Sandoval County Parcels 2018
<input type="checkbox"/> Santa Fe County Parcels 2018
<input type="checkbox"/> Sierra County Parcels 2017
<input type="checkbox"/> Socorro County Parcels 2018
<input type="checkbox"/> Taos County Parcels 2018
<input type="checkbox"/> Torrance County Parcels 2018 | <input type="checkbox"/> Valencia County Parcels 2018
<input type="checkbox"/> Sections |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 556888.696

Northing 3635713.978

State Plane - NAD 83 (f) - Zone E

Easting 523325.061

Northing 675895.890

Degrees Minutes Seconds

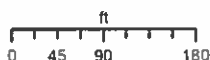
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Longitude -104 : 23 : 31.208672

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:2,257



YMENDIOLA



Map data and other information used by the New Mexico Office of the State Engineer (OSE) is derived from a variety of sources, including but not limited to, the National Aeronautics and Space Administration (NASA), the United States Geological Survey (USGS), the National Oceanic and Atmospheric Administration (NOAA), and other federal, state, and local agencies. The OSE is not responsible for the accuracy or completeness of the information provided on this map.

Spatial Information

County: Eddy

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:
Not in Land Grant
Restrictions:

NA

PLSS Description

SESESWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information

UPC/DocNum: 4-153-097-107-506

Parcel Owner: DOWELL DIVISION OF DOW

Address: E OF 507 E RICHEY AVENUE

Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
Block: 2 Tract: 11 MAP# 51A-AIA2-11 CAB# 1-94-2
TR SIZE 100' X 290'

POD Information

Owner: SCHLUMBERGER

File Number: RA-12782 POD12

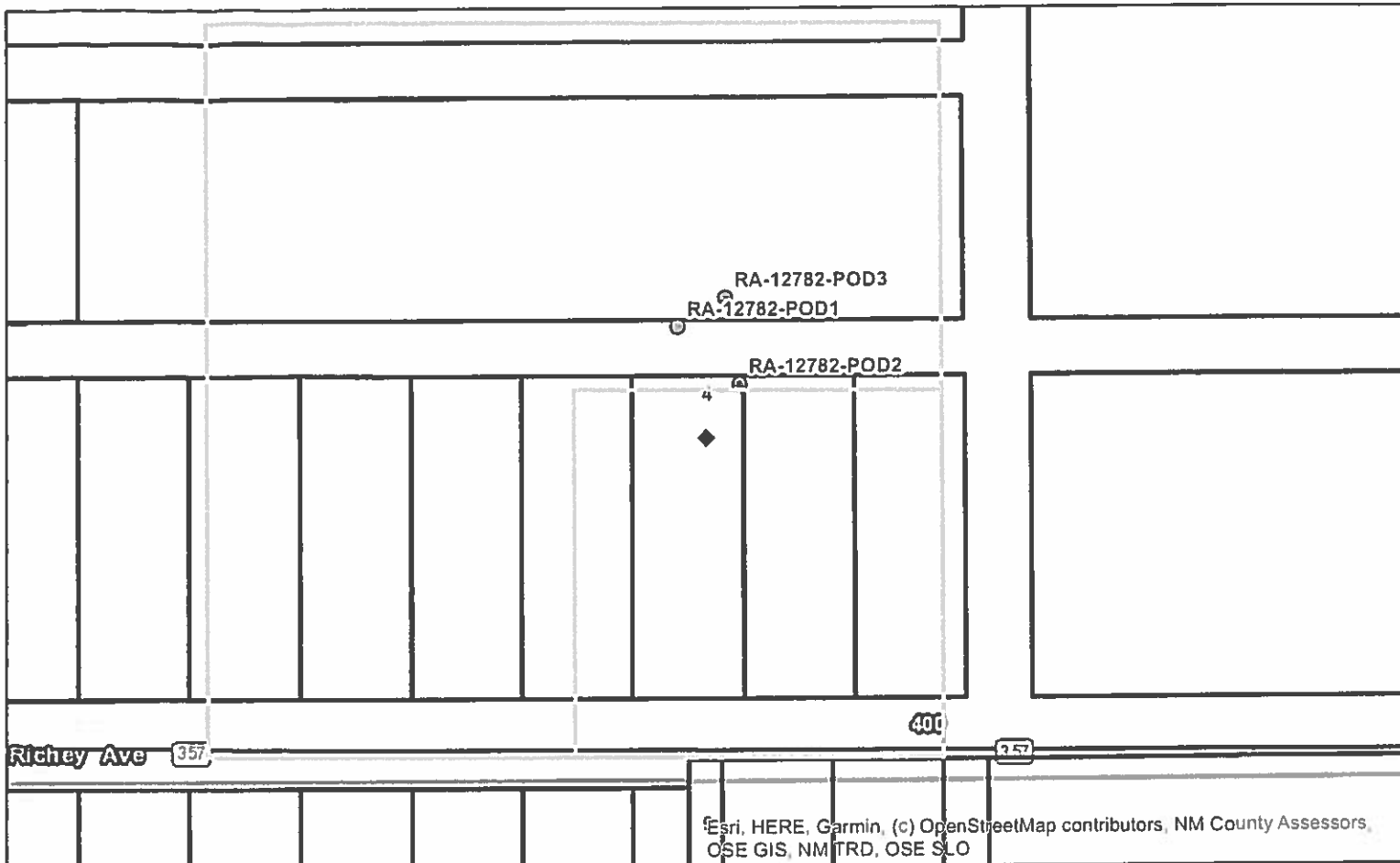
POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: POLLUTION CONTROL

Calculated PLSS	★ Mora County Parcel Points 2014	<input type="checkbox"/> Cibola County Parcels 2018	<input type="checkbox"/> Grant County Parcels 2017	<input type="checkbox"/> Luna County Parcels 2018	<input type="checkbox"/> San Juan County Parcels 2018	<input type="checkbox"/> Socorro County Parcels 2018
◆ Coord Search Location	★ Quay County Parcel Points 2018	<input type="checkbox"/> Colfax County Parcels 2018	<input type="checkbox"/> Harding County Parcels 2018	<input type="checkbox"/> McKinley County Parcels 2017	<input type="checkbox"/> San Miguel County Parcels 2017	<input type="checkbox"/> Taos County Parcels 2018
GIS WATERS PODs	★ Union County Parcel Points 2017	<input type="checkbox"/> Curry County Parcels 2018	<input type="checkbox"/> Hidalgo County Parcels 2018	<input type="checkbox"/> Otero County Parcels 2018	<input type="checkbox"/> Sandoval County Parcels 2018	<input type="checkbox"/> Torrance County Parcels 2018
● PEN	<input type="checkbox"/> Bernalillo County Parcels 2018	<input type="checkbox"/> Doña Ana County Parcels 2018	<input type="checkbox"/> Lea County Parcels 2018	<input type="checkbox"/> Roosevelt County Parcels 2018	<input type="checkbox"/> Santa Fe County Parcels 2018	<input type="checkbox"/> Valencia County Parcels 2018
★ Catron County Parcel Points 2017	<input type="checkbox"/> Chaves County Parcels 2018	<input type="checkbox"/> De Baca County Parcels 2018	<input type="checkbox"/> Lincoln County Parcels 2018	<input type="checkbox"/> Rio Arriba County Parcels 2018	<input type="checkbox"/> Sections	
★ Guadalupe County Parcel Points 2018		<input type="checkbox"/> Eddy County Parcels 2018	<input type="checkbox"/> Los Alamos County Parcels 2018			



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 556898.932

Northing 3635702.023

State Plane - NAD 83 (f) - Zone E

Easting 523358.404

Northing 675856.447

Degrees Minutes Seconds

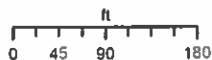
Latitude 32 : 51 : 28.598763

Longitude -104 : 23 : 30.817508

Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:2,257



YMENDIOLA



The official seal of the Office of the State Engineer, New Mexico Office of the State Engineer (OSE) is hereby established. The seal shall be a circular emblem containing the words "OFFICE OF THE STATE ENGINEER" and "NEW MEXICO". The seal shall also contain the words "INTERSTATE STREAM COMMISSION". The seal shall be the official emblem of the Office of the State Engineer, New Mexico Office of the State Engineer (OSE).

Spatial Information

County: Eddy

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:

Not in Land Grant

Restrictions:

NA

PLSS Description

SESEWSW Qtr of Sec 04 of 017S 026E

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

Parcel Information

UPC/DocNum: 4-153-097-107-506

Parcel Owner: DOWELL DIVISION OF DOW

Address: E OF 507 E RICHEY AVENUE

Legal: Subd: ARTESIA INDUSTRIAL ADDITION (AMEND)
Block: 2 Tract: 11 MAP# 51A-AIA2-11 CAB# 1-94-2
TR SIZE 100' X 290'

POD Information

Owner: SCHLUMBERGER

File Number: RA-12782 POD15

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: POLLUTION CONTROL

- Calculated PLSS
- Coord Search Location
- GIS WATERS PODs**
- PEN
- Catron County Parcel Points 2017
- Guadalupe County Parcel Points 2018

- Mora County Parcel Points 2014
- Quay County Parcel Points 2018
- Union County Parcel Points 2017
- Bernalillo County Parcels 2018
- Chaves County Parcels 2018

- Cibola County Parcels 2018
- Colfax County Parcels 2018
- Curry County Parcels 2018
- Doña Ana County Parcels 2018
- De Baca County Parcels 2018
- Eddy County Parcels 2018

- Grant County Parcels 2017
- Harding County Parcels 2018
- Hidalgo County Parcels 2018
- Lea County Parcels 2018
- Lincoln County Parcels 2018
- Los Alamos County Parcels 2018

- Luna County Parcels 2018
- McKinley County Parcels 2017
- Otero County Parcels 2018
- Roosevelt County Parcels 2018
- Rio Arriba County Parcels 2018

- San Juan County Parcels 2018
- San Miguel County Parcels 2017
- Sandoval County Parcels 2018
- Santa Fe County Parcels 2018
- Sierra County Parcels 2017

- Socorro County Parcels 2018
- Taos County Parcels 2018
- Torrance County Parcels 2018
- Valencia County Parcels 2018
- Sections

TRANSMITTAL



To: New Mexico Office of the State Engineer
Roswell District 2

From: Aleeca Forsberg

Attn: Andrew Dennis

Date: September 9, 2019

Re: New Well Permit Applications, Former Dowell Schlumberger Facility,
Artesia, NM

We Are Sending You:

Method of shipment: FedEx

☒ Attached

☐ Under separate cover via

☐ Documents

☐ Copies

☐ Drawings

☐ Specifications

☐ Other:

Quantity	Description
3	Application for Permit to Drill a Well with No Consumptive Use of Water – 12 Injection Wells
3	Attachment 1 Point of Diversion Description
3	Pollution Control/Recovery Plan
1	Check # 882 for \$60 for 12 wells (12 x \$5 = \$60)

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: 2 - 41199 DATE: 09-10-19 FILE NO.: _____
 TOTAL: 100.00 RECEIVED: Sixty DOLLARS CHECK NO.: 882 CASH: _____
 PAYOR: Alecia A. Forsberg ADDRESS: 1612 Pablo CT NE CITY: Alb STATE: NM
 ZIP: 87112 RECEIVED BY: HEX

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; and **yellow** copy for Water Rights. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of your daily deposit.

A. Ground Water Filing Fees

- ___ 1. Change of Ownership of Water Right \$ 2.00
 - ___ 2. Application to Appropriate or Supplement Domestic 72-12-1 Well \$ 125.00
 - ___ 3. Application to Repair or Deepen 72-12-1 Well \$ 75.00
 - ___ 4. Application for Replacement 72-12-1 Well \$ 75.00
 - ___ 5. Application to Change Purpose of Use 72-12-1 Well \$ 75.00
 - ___ 6. Application for Stock Well/Temp. Use \$ 5.00
-
- ___ 7. Application to Appropriate Irrigation, Municipal, or Commercial Use \$ 25.00
 - ___ 8. Declaration of Water Right \$ 1.00
 - ___ 9. Application for Supplemental Non 72-12-1 Well \$ 25.00
 - ___ 10. Application to Change Place or Purpose of Use Non 72-12-1 Well \$ 25.00
 - ___ 11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water \$ 50.00
 - ___ 12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water \$ 50.00
 - ___ 13. Application to Change Point of Diversion of Non 72-12-1 Well \$ 25.00
 - ___ 14. Application to Repair or Deepen Non 72-12-1 Well \$ 5.00
-
- 12 15. Application for Test, Expl. Observ. Well \$ 5.00
- ___ 16. Application for Extension of Time \$ 25.00
 - ___ 17. Proof of Application to Beneficial Use \$ 25.00
 - ___ 18. Notice of Intent to Appropriate \$ 25.00

B. Surface Water Filing Fees

- ___ 1. Change of Ownership of a Water Right \$ 5.00
- ___ 2. Declaration of Water Right \$ 10.00
- ___ 3. Amended Declaration \$ 25.00
- ___ 4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water \$ 200.00
- ___ 5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water \$ 200.00
- ___ 6. Application to Change Point of Diversion \$ 100.00
- ___ 7. Application to Change Place and/or Purpose of Use \$ 100.00
- ___ 8. Application to Appropriate \$ 25.00
- ___ 9. Notice of Intent to Appropriate \$ 25.00
- ___ 10. Application for Extension of Time \$ 50.00
- ___ 11. Supplemental Well to a Surface Right \$ 100.00
- ___ 12. Return Flow Credit \$ 100.00
- ___ 13. Proof of Completion of Works \$ 25.00
- ___ 14. Proof of Application of Water to Beneficial Use \$ 25.00
- ___ 15. Water Development Plan \$ 100.00
- ___ 16. Declaration of Livestock Water Impoundment \$ 10.00
- ___ 17. Application for Livestock Water Impoundment \$ 10.00

C. Well Driller Fees

- ___ 1. Application for Well Driller's License \$ 50.00
- ___ 2. Application for Renewal of Well Driller's License \$ 50.00
- ___ 3. Application to Amend Well Driller's License \$ 50.00

D. Reproduction of Documents

- ___ @ 0.25¢ \$ _____
- ___ Map(s) \$ _____

E. Certification

F. Other


G. Comments:

Fed Ex

APPLICANT
★
COPY

All fees are non-refundable.

Appendix D
Soil Boring Logs and
Well Completion Diagrams


		PROJECT NUMBER D3151100 A.CS.EV.AR.19-04-02		BORING NUMBER MW-36		SHEET # 1 of 1	
		SOIL BORING LOG					
PROJECT : Former Dowell Schlumberger Facility, Artesia, NM		Date: 8/27/2019				COORDINATES:	TOTAL DEPTH OF BORING: 25.6'
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DESCRIPTION			COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)	
1	0.5	SW	<u>Well graded sand with gravel</u> (SW), light brown, dry, non-plastic, dense, stiff, few fine to medium gravel			VOCs = 0.0 ppm.	
2							
3							
4							
5	1.0	SM	<u>Silty sand</u> (SM), brown, dry, non-plastic, dense, stiff			VOCs = 0.0 ppm.	
6							
7							
8							
9	1.0	SM	<u>Silty sand</u> (SM), light brown, dry, slightly plastic, medium dense, medium stiff			VOCs = 0.0 ppm.	
10							
11							
12							
13	1.5	SM	<u>Silty sand</u> (SM), dark gray, dry, slightly plastic, medium dense, medium stiff			VOCs = 6.7 ppm.	
14							
15							
16							
17	1.5	ML	<u>Silt with sand</u> (ML), dark brown, moist, slightly plastic, medium dense, medium stiff, fine grained sand			VOCs = 320.5 ppm.	
18							
19							
20							
21	1.5	SM	<u>Silty sand</u> (SM), light brown with gray/green, moist, slightly plastic, fine grained sand, soft, medium dense			VOCs = 468.8 ppm.	
22							
23							
24							
25	1.5	ML	<u>Silt</u> (ML), light brown, dry, non-plastic, dense, stiff			PID = 0.0 ppm.	
26							
27							
28							
29	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			*Water encountered at approximately 19' bgs.	
30							
31							
32							
33	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
34							
35							
36							
37	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
38							
39							
40							
41	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
42							
43							
44							
45	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
46							
47							
48							
49	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
50							
51							
52							
53	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
54							
55							
56							
57	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
58							
59							
60							
61	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
62							
63							
64							
65	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
66							
67							
68							
69	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
70							
71							
72							
73	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
74							
75							
76							
77	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
78							
79							
80							
81	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
82							
83							
84							
85	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
86							
87							
88							
89	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
90							
91							
92							
93	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
94							
95							
96							
97	1.5	SM	<u>Silty sand</u> (SM), brown, moist, slightly plastic, fine grained sand, medium dense, soft,			VOCs = 0.0 ppm.	
98							
99							
100							


Sampler Signature:

W. Kite

Date:

8/27/2019

		PROJECT NUMBER D3151100 A.CS.EV.AR.19-04-02		BORING NUMBER MW-37		SHEET # 1 of 1	
		SOIL BORING LOG				LOGGER: Will Kite/DEN	
PROJECT : Former Dowell Schlumberger Facility, Artesia, NM		Date: 8/27/2019		COORDINATES:		TOTAL DEPTH OF BORING: 25.6'	
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DESCRIPTION		COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)		
1	0.5	SW	Well graded sand with sand (SW), light brown, dry, non-plastic, with some fine to medium gravel, very loose, very soft, fine to coarse grained sand		VOCs = 0.0 ppm.		
2							
3							
4							
5							
6	1.0	ML	Silt with few sand (ML) light brown, dry, slightly plastic, medium dense, medium stiff, fine grained sand		VOCs = 0.0 ppm.		
7		ML	Silt with trace sand (ML), light brownish gray, dry, non-plastic, dense, stiff		VOCs = 0.0 ppm.		
8							
9							
10							
11	1.0	ML	Silt with sand (ML), light brown, dry, non-plastic, loose, soft		VOCs = 0.0 ppm.		
12		ML	Silt with sand (ML), brown, dry, non-plastic, dense, stiff		VOCs = 0.0 ppm.		
13							
14							
15							
16	1.0	ML	Silt with clay (ML), dark gray with brown and black, moist, slightly plastic, medium dense, medium stiff		VOCs = 538.8 ppm. Strong petroleum odor		
17		ML	Silt with clay (ML), dark brown with gray and black, moist, slightly plastic, medium dense, medium stiff		VOCs = 253.1 ppm petroleum odor		
18							
19							
20							
21	1.0	ML	Silt (ML), brown, moist to wet, slightly plastic, medium dense, medium stiff		VOCs = 0.0 ppm.		
22							
23							
24							
25							
Sampler Signature: _____ W. Kite _____ Date: 8/27/2019							

		PROJECT NUMBER D3151100 A.CS.EV.AR.19-04-02		BORING NUMBER MW-38		SHEET # 1 of 1	
		SOIL BORING LOG					
PROJECT : Former Dowell Schlumberger Facility, Artesia, NM		Date: 8/26/2019				COORDINATES:	TOTAL DEPTH OF BORING: 25.6'
DEPTH BELOW SURFACE (FT)	RECOVERY (FT)	USCS CODE	SOIL DESCRIPTION			COMMENTS/NOTES, PID RESULTS, SAMPLE COLLECTION (Date, Time, Sample ID)	
1	0.5	SM	<u>Silty sand with gravel</u> (SM), dry, non-plastic, very loose, very soft, fine to medium gravel			VOCs = 0.0 ppm.	
2							
3							
4							
5	1.0	ML	<u>Silt with sand</u> (ML), light grayish brown, dry, slightly plastic, loose, medium stiff			VOCs = 0.0 ppm.	
6							
7							
8							
9	1.0	ML	<u>Silt</u> (ML), brown, moist, slightly plastic, loose, medium stiff			VOCs = 0.0 ppm.	
10							
11							
12							
13	1.5	ML	<u>Silt with clay</u> (ML), light grayish brown, moist, slightly plastic, medium dense, medium stiff			VOCs = 384.1 ppm.	
14							
15		SM	<u>Silty sand</u> (SM), very dark gray, moist, plastic, loose, soft			VOCs = 470.4 ppm.	
16							
17	2.0	ML				*Water encountered at approximately 17' bgs.	
18							
19							
20							
21	2.0	ML	<u>Silt with clay</u> (ML), brown, moist, slightly plastic, dense, very stiff			VOCs = 0.0 ppm.	
22							
23							
24							
25	2.0	SM	<u>Silty sand</u> (SM), light brown, wet, slightly plastic, loose, medium stiff				
26							
27							
28							

Sampler Signature: _____ W. Kite _____
 Date: 8/26/2019



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
MW-36

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : TalonLPE

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : Hollow Stem Auger

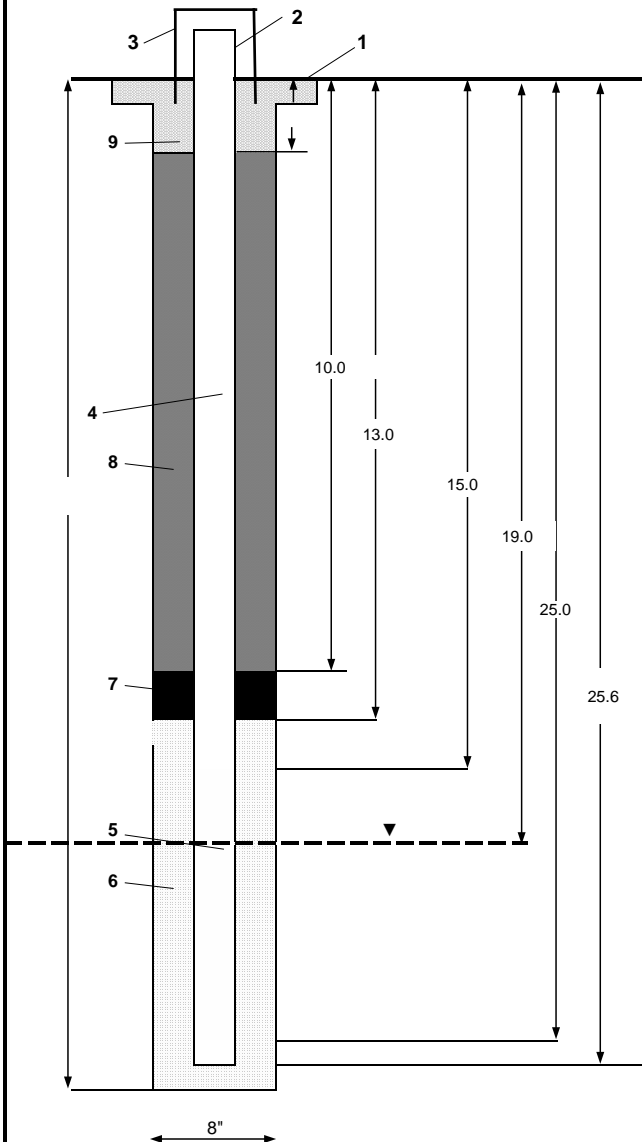
DRILLER: Ronnie Rodriguez

WATER LEVEL : 15.89' BTOC

START : 8/27/2019 1020

END : 8/27/2019 1130

LOGGER : Will Kite/DEN



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	
3- Wellhead protection cover type	Surface vault
a) weep hole?	No
b) concrete pad dimensions	2' x 2'
4- Dia./type of well casing	2" PVC
5- Type/slot size of screen	0.010" mil-slot screen
6- Type screen filter	12/20 Pioneer sands
a) calculated volume	NM
b) actual volume installed	7 bags
c) placement	pour
7- Type of seal	3/8" Halliburton hole plug
a) calculated volume	NM
b) actual volume installed	1 bag
c) placement	pour
8- Type of seal	Benseal and Quickrete Portland Cement
a) calculated volume	NM
b) actual volume installed	1 bag
c) placement	pour
9- Cement	Quickrete high strength concrete
a) cement mix used	NM
b) calculated volume	1 bag
c) actual volume installed	pour
d) placement	
Development method	surge and purge
Estimated purge volume	165 gallon
Development time	3 hour 20 min

Comments:

Not to scale



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
MW-38

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : TalonLPE

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : Hollow Stem Auger

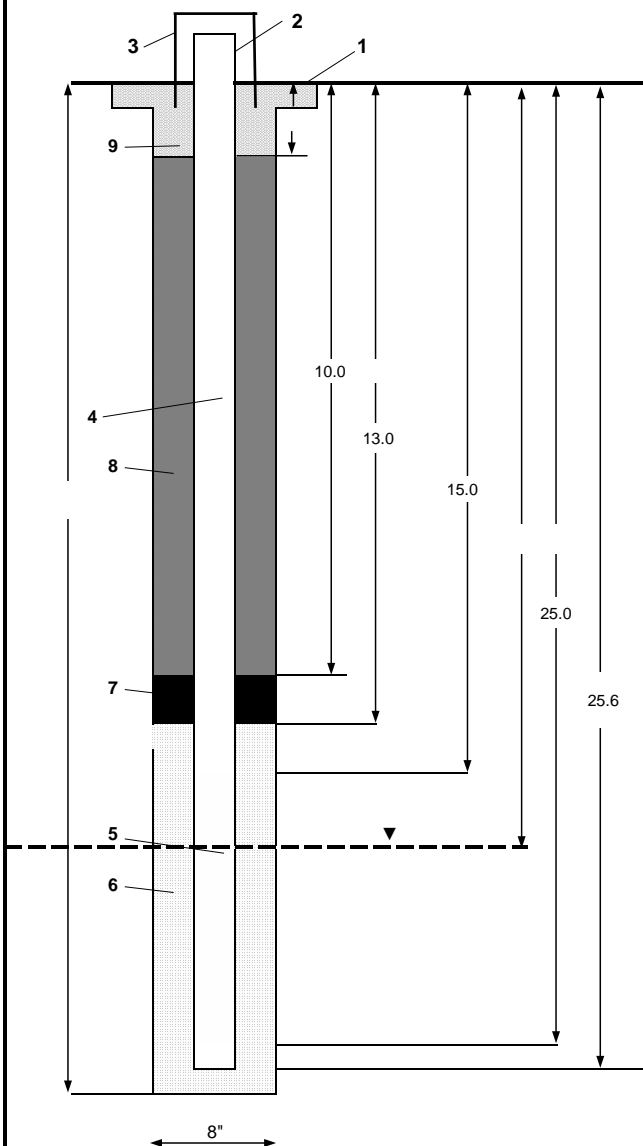
DRILLER: Ronnie Rodriguez

WATER LEVEL : 15.56' BTOC

START : 8/26/2019 1740

END : 8/26/2019 1850

LOGGER : Will Kite/DEN



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	
3- Wellhead protection cover type	Surface vault
a) weep hole?	No
b) concrete pad dimensions	2' x 2'
4- Dia./type of well casing	2" PVC
5- Type/slot size of screen	0.010" mil-slot screen
6- Type screen filter	12/20 Pioneer Sands
a) calculated volume	NM
b) actual volume installed	7 bags
c) placement	pour
7- Type of seal	3/8" Halliburton hole plug
a) calculated volume	NM
b) actual volume installed	1 bag
c) placement	pour
8- Type of seal	Benseal and Quickrete Portland Cement
a) calculated volume	NM
b) actual volume installed	8 bags
c) placement	pour
9- Cement	Quickrete high strength concrete
a) cement mix used	NM
b) calculated volume	1 bag
c) actual volume installed	pour
d) placement	
Development method	surge and purge
Estimated purge volume	85 gallon
Development time	2 hour 53 min

Comments:



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-9

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

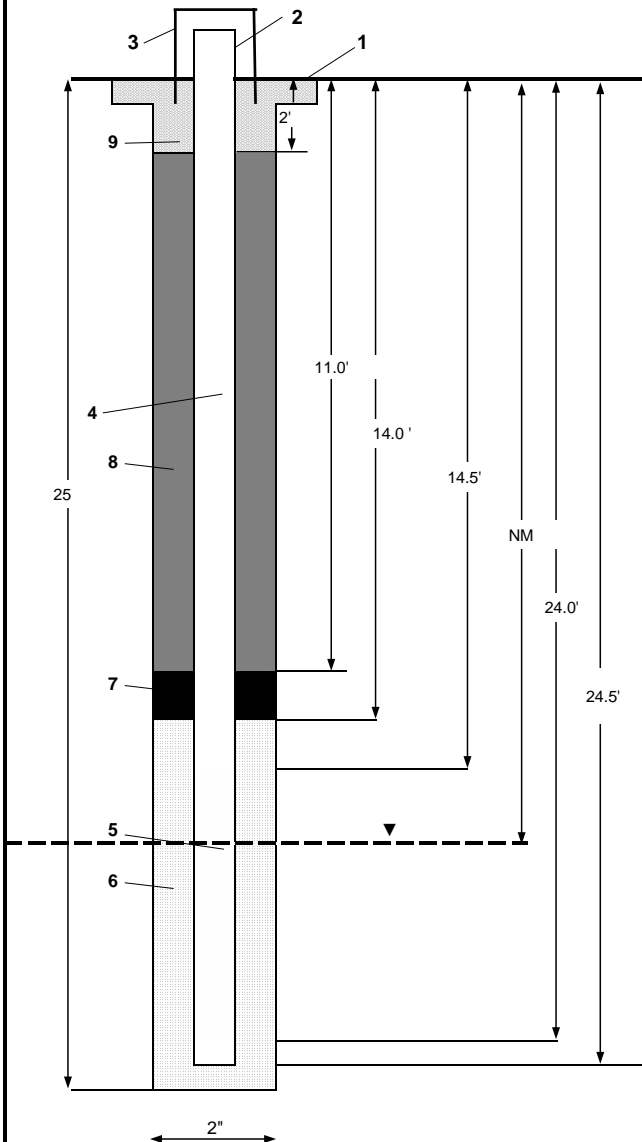
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/2/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-10

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

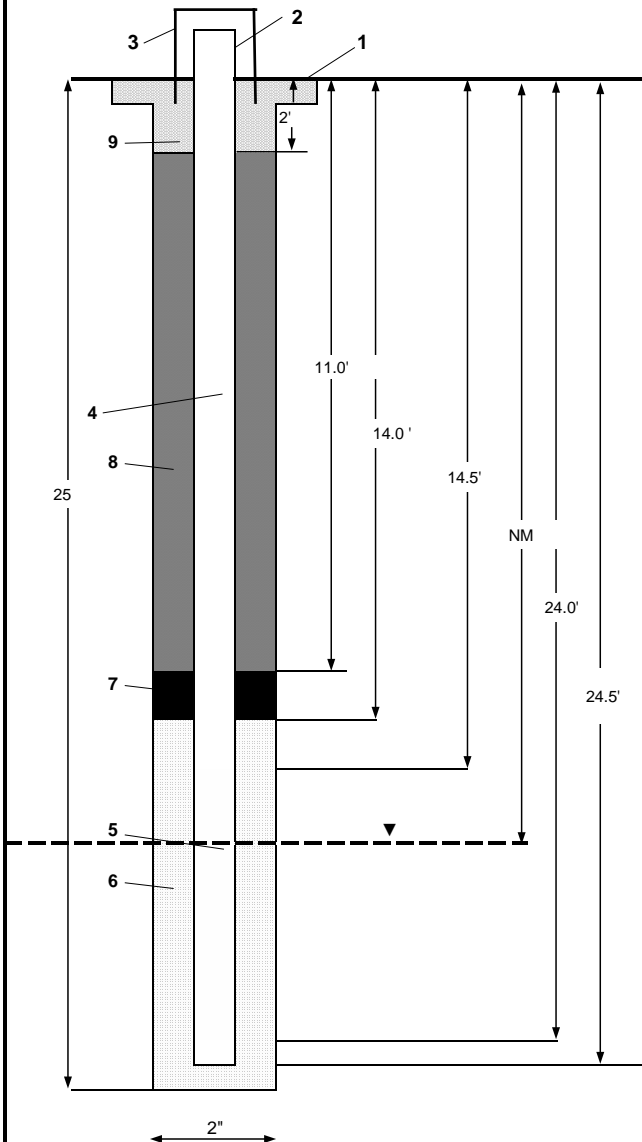
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/4/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-11

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

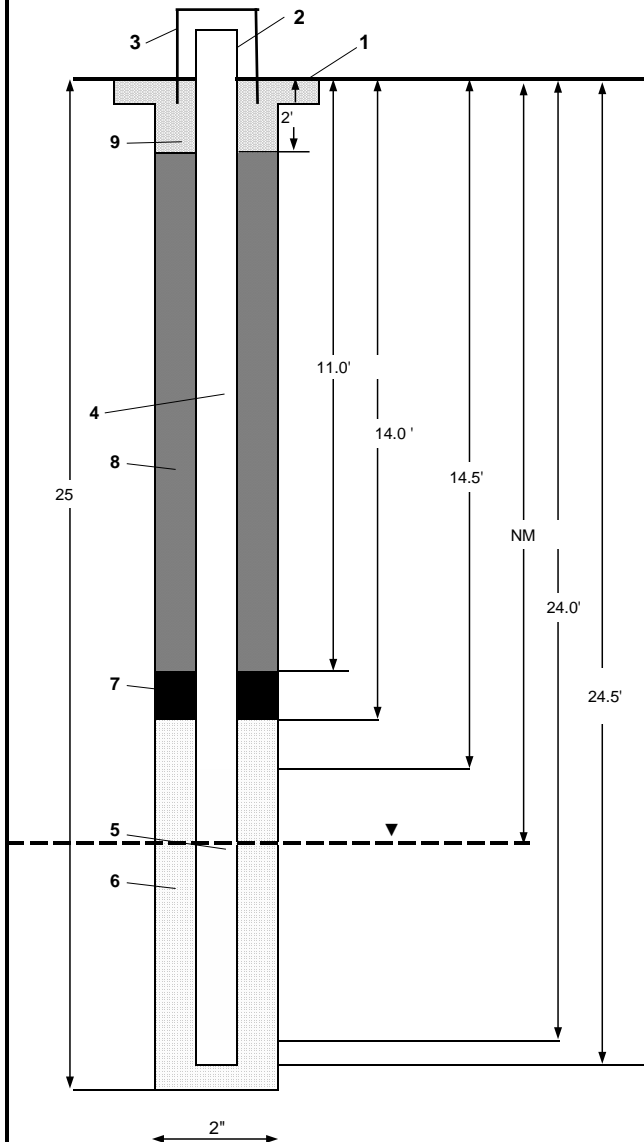
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/4/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-12

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

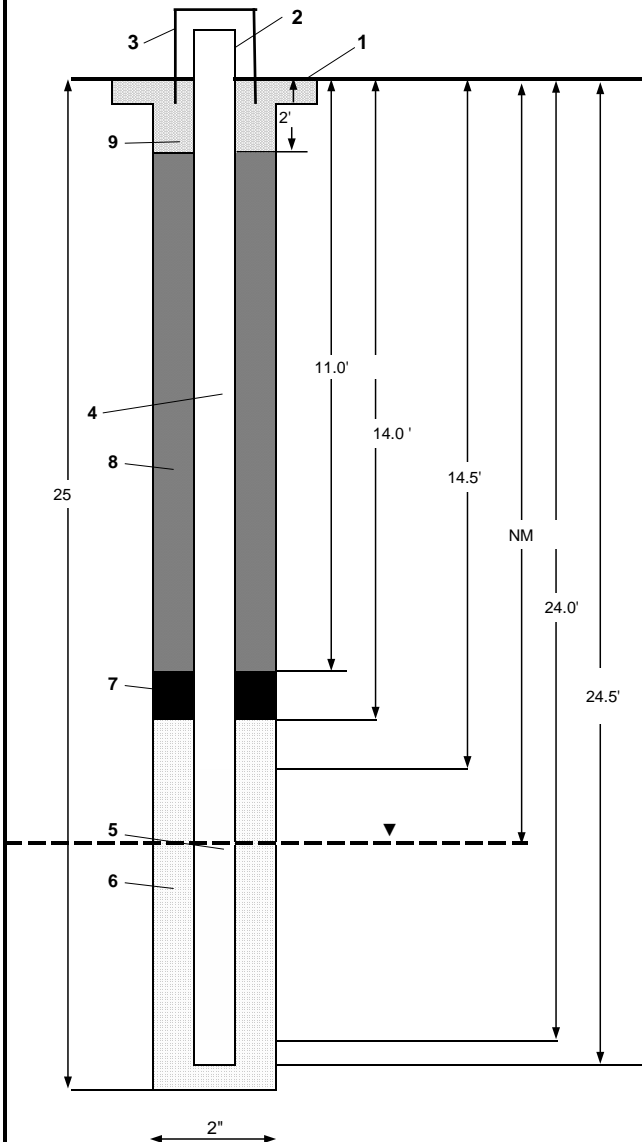
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/3/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-13

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

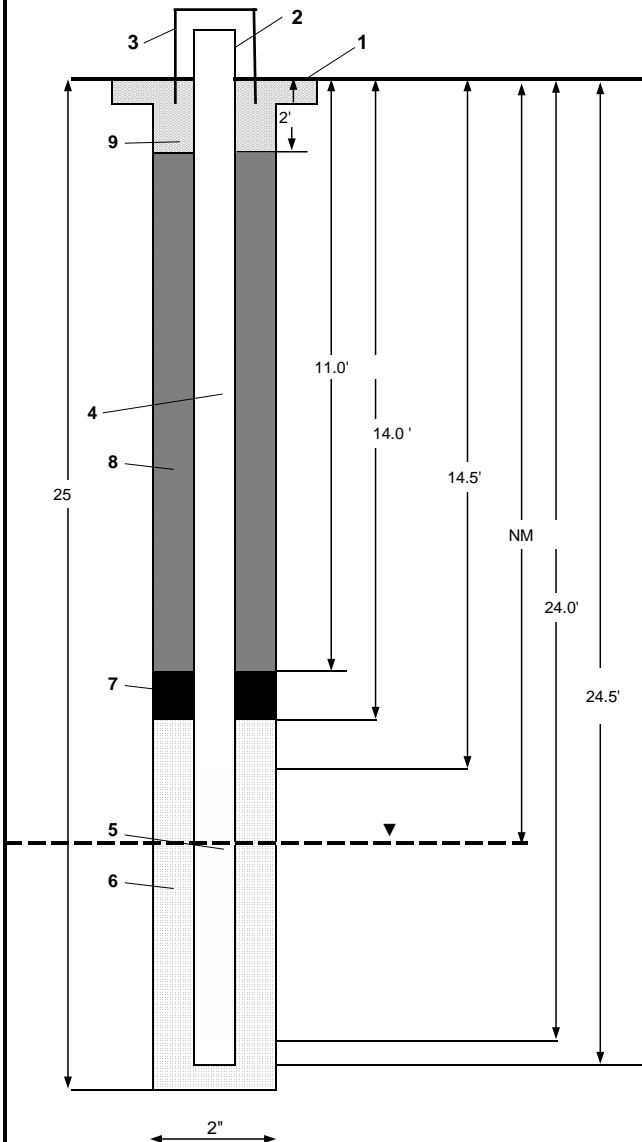
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/2/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-14

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

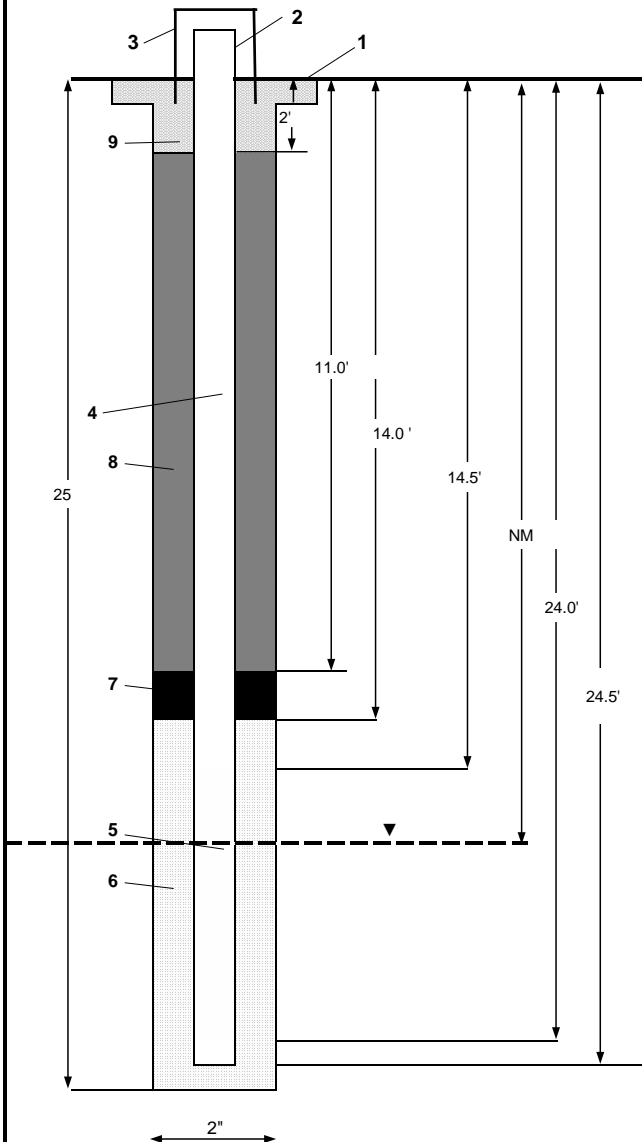
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/2/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-15

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

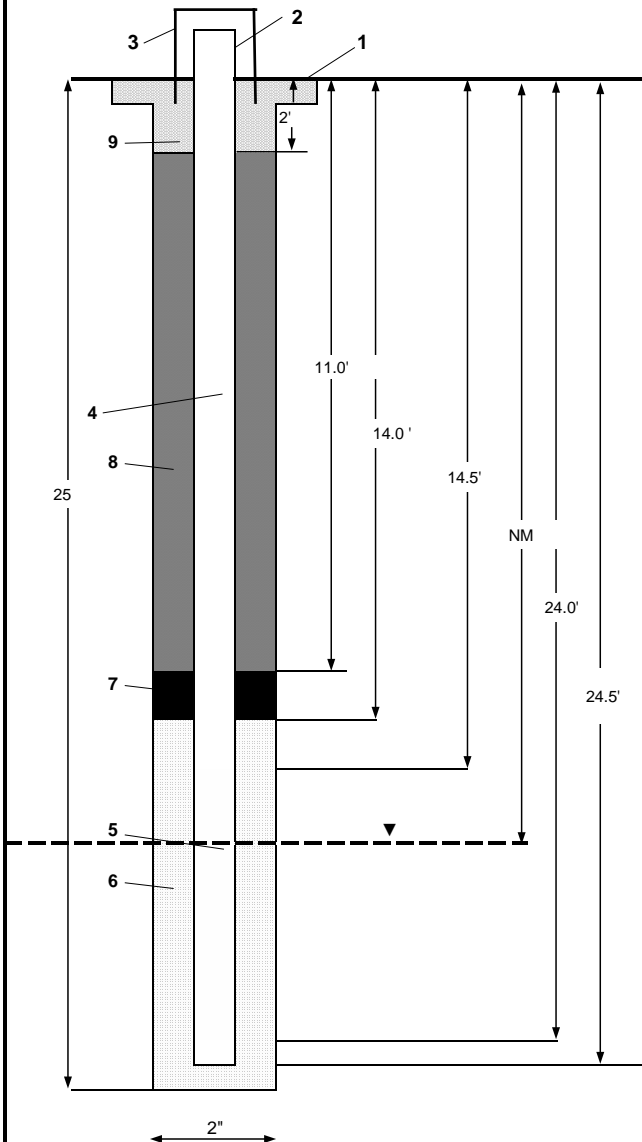
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/1/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-16

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM

DRILLING CONTRACTOR : EarthWorx Environmental

COORDINATES :

DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig

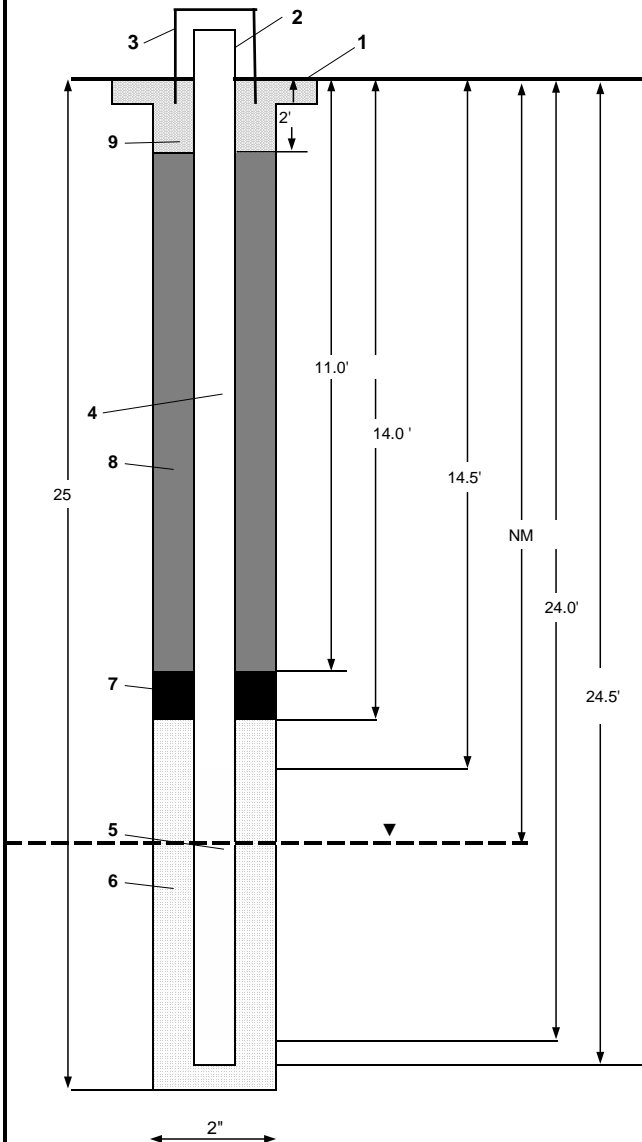
DRILLER: Louis Trujillo

WATER LEVEL : NM

START : 10/2/2019

END : 10/5/2019

LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.

Not to scale



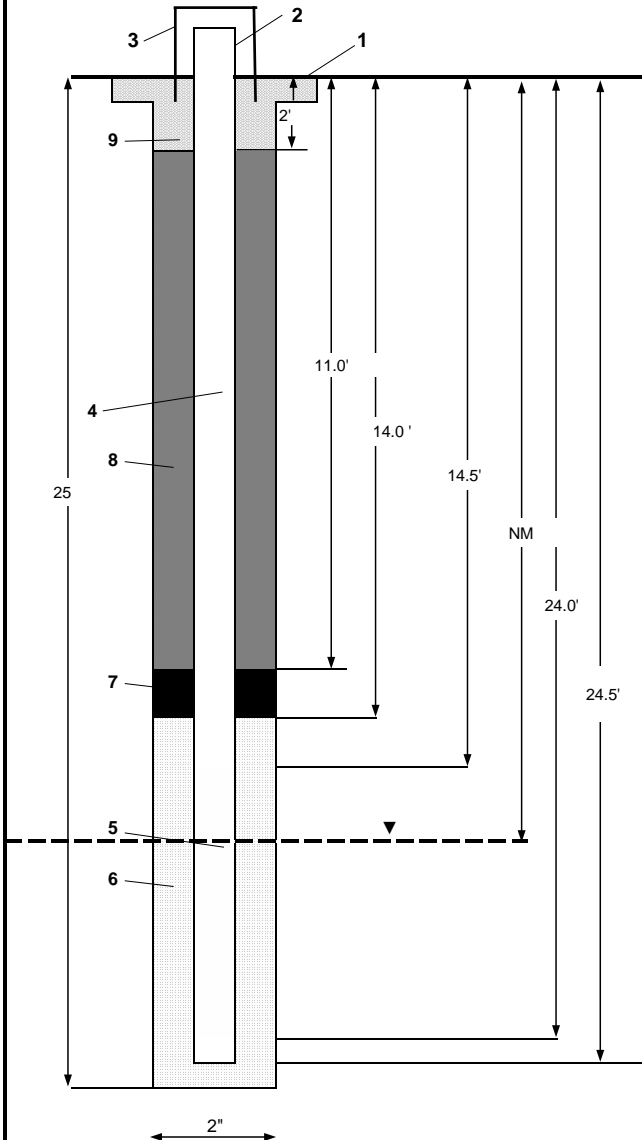
PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-18

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM
DRILLING CONTRACTOR : EarthWorx Environmental COORDINATES :
DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig DRILLER: Louis Trujillo
WATER LEVEL : NM START : 9/30/2019 END : 10/5/2019 LOGGER: Tyler Hall



1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot 1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.



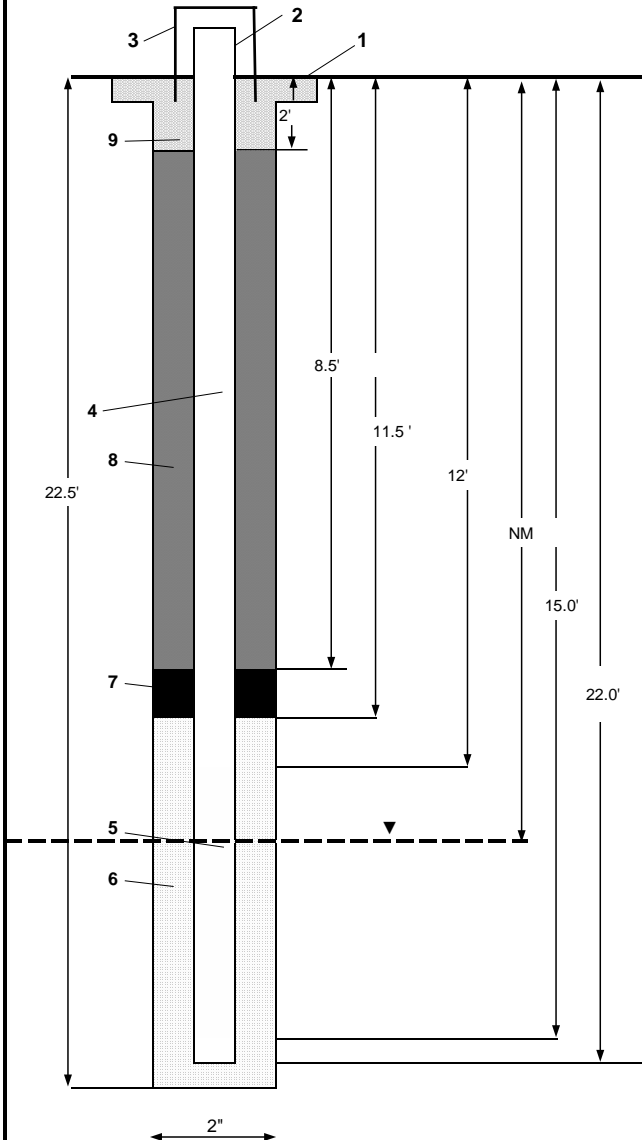
PROJECT NUMBER
D3151100 A.CS.EV.AR.19-04-02

WELL NUMBER
IJ-19

SHEET 1 OF 1

WELL COMPLETION DIAGRAM

PROJECT : Former Dowell Schlumberger Facility, Artesia, NM LOCATION : Artesia, NM
DRILLING CONTRACTOR : EarthWorx Environmental COORDINATES :
DRILLING METHOD AND EQUIPMENT USED : GeoProbe 6620 DT DPT Drill Rig DRILLER: Louis Trujillo
WATER LEVEL : NM START : 10/3/2019 END : 10/5/2019 LOGGER: Tyler Hall



Not to scale

1- Ground elevation at well	NM
2- Top of PVC casing elevation	NM
a) protective cover elevation	NM
3- Wellhead protection cover type	Flush Mount
a) weep hole?	No
b) concrete pad dimensions	2-ft x 2-ft
4- Dia./type of well casing	1-in PVC
5- Type/slot size of screen	0.010-in mil-slot
	1-in PVC
6- Type screen filter	20/40 silica sand
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
7- Type of seal	coated bentonite pellets
a) calculated volume	N/A
b) actual volume installed	NR
c) placement	pour
8- Type of seal	N/A
a) calculated volume	N/A
b) actual volume installed	N/A
c) placement	N/A
9- Cement	
a) cement mix used	bentonite grout
b) calculated volume	N/A
c) actual volume installed	NR
d) placement	pour
Development method	None
Estimated purge volume	
Development time	

Comments: Wells not developed. Will be injection wells.

Not to scale

Appendix E

Laboratory Analytical Reports

Data Usability Review: Data Package				
Client Name:	Dowell Artesia	Project Number:	D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:	1H2019 Groundwater	Project Manager:	Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:	600-184109-1	
Reviewer:	John Ynfante/HOU	Date Reviewed:		
Level of Review / Validation:	Level 3			
ITEM	YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample collection included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample receipt temperature $\leq 6^{\circ}$ C?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.2 deg C
Signed COCs included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Field ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Laboratory ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of analysis included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample preparation included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detection levels included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Method reference included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample matrix included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample results included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Case narrative included, where required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.				
COMMENTS				
VOCs: U (MB)				
Dissolved Manganese: No DV flags applied				
Sulfate: No DV flags applied				

Data Usability Review: VOCs (GC/MS), SW-846 8260B					
Client Name:		Dowell Artesia		Project Number: D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:		1H2019 Groundwater		Project Manager: Jeff Minchak/ABQ	
Laboratory:		TestAmerica-Houston		Lab SDG # / Job #: 600-184109-1	
Reviewer:		John Ynfante/HOU			
Level of Review / Validation:		Level 3			
ITEM	YES	NO	N/A	COMMENTS	
Preparatory/analytical holding time met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Surrogate data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
R5 Method blank data included in Lab Package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
QC check samples/LCS data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
%R criteria met? (specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Matrix spike data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
%R criteria met? (laboratory specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RPD criteria met? (< 20% water, <50% soil)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Initial calibration documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Calibration verification data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
%D criteria met for CCC? (20% Max, Qualify >25%D)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Instrument Tune documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Instrument Tune Criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Internal standard data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Area within limits? (within -50% to +100% of last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
RRT within limits? (<30 sec. Difference from last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Surrogates	Control Limits		Lab Limits?		
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%				
Dibromofluoromethane	water 86-118%, soil 80-120%				
Toluene-d8	water 88-110%, soil 81-117%				
4-Bromofluorobenzene	water 86-115%, soil 74-121%				
Notes:					
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).					
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P					
COMMENTS					
FD: Precision between samples ARTESIA-MW30-04222019 and ARTESIA-MW11-04222019 and their associated field duplicates ARTESIA-MD30-04222019 and ARTESIA-MD11-04222019 was within acceptance criteria.					
TB: No VOCs were detected in trip blank ARTESIA-TB01-04222019.					
MB: Naphthalene was detected in the method blank for analytical batch 600-263890 at 0.0001830 J mg/L. Associated detections <5x the blank concentration were flagged U (MB).					

Data Usability Review: Dissolved Manganese, SW-846 6020

[illegible]

Data Usability Review: Sulfate, EPA 300

[illegible]

Data Usability Review: Data Package				
Client Name:	Dowell Artesia	Project Number:	D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:	1H2019 Groundwater	Project Manager:	Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:	600-184182-1	
Reviewer:	John Ynfante/HOU	Date Reviewed:		
Level of Review / Validation:	Level 3			
ITEM	YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample collection included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample receipt temperature $\leq 6^{\circ}$ C?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.1 deg C
Signed COCs included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Field ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Laboratory ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of analysis included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample preparation included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detection levels included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Method reference included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample matrix included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample results included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Case narrative included, where required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.				
COMMENTS				
VOCs: U (TB)				
Dissolved Manganese: No DV flags applied				

Data Usability Review: VOCs (GC/MS), SW-846 8260B					
Client Name:		Dowell Artesia		Project Number: D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:		1H2019 Groundwater		Project Manager: Jeff Minchak/ABQ	
Laboratory:		TestAmerica-Houston		Lab SDG # / Job #: 600-184182-1	
Reviewer:		John Ynfante/HOU			
Level of Review / Validation:		Level 3			
ITEM		YES	NO	N/A	COMMENTS
	Preparatory/analytical holding time met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surrogate data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	R5 Method blank data included in Lab Package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	QC check samples/LCS data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Matrix spike data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (laboratory specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RPD criteria met? (< 20% water, <50% soil)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Initial calibration documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Calibration verification data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%D criteria met for CCC? (20% Max, Qualify >25%D)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Instrument Tune documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Instrument Tune Criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Internal standard data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Area within limits? (within -50% to +100% of last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RRT within limits? (<30 sec. Difference from last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surrogates	Control Limits		Lab Limits?	
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%			
	Dibromofluoromethane	water 86-118%, soil 80-120%			
	Toluene-d8	water 88-110%, soil 81-117%			
	4-Bromofluorobenzene	water 86-115%, soil 74-121%			
Notes:					
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).					
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P					
COMMENTS					
FD: Precision between sample ARTESIA-MW18-04232019 and its field duplicate ARTESIA-MD18-04232019 was within acceptance criteria.					
TB: Naphthalene was detected in trip blank ARTESIA-TB02-04232019 at 0.000725 J. Associated detection <5x trip blank concentration were flagged U.					

Data Usability Review: Dissolved Manganese, SW-846 6020

[illegible]

Data Usability Review: Data Package				
Client Name:	Dowell Artesia	Project Number:	D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:	1H2019 Groundwater	Project Manager:	Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:	600-191341-1	
Reviewer:	John Ynfante/HOU	Date Reviewed:		
Level of Review / Validation:	Level 3			
ITEM	YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample collection included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample receipt temperature $\leq 6^{\circ}$ C?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.3 deg C
Signed COCs included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Field ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Laboratory ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of analysis included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample preparation included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detection levels included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Method reference included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample matrix included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample results included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Case narrative included, where required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.				
COMMENTS				
VOCs: J (FD)				
Sulfate: No DV flags applied				

Data Usability Review: VOCs (GC/MS), SW-846 8260B					
Client Name:		Dowell Artesia		Project Number: D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:		1H2019 Groundwater		Project Manager: Jeff Minchak/ABQ	
Laboratory:		TestAmerica-Houston		Lab SDG # / Job #: 600-191341-1	
Reviewer:		John Ynfante/HOU			
Level of Review / Validation:		Level 3			
ITEM		YES	NO	N/A	COMMENTS
	Preparatory/analytical holding time met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surrogate data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	R5 Method blank data included in Lab Package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Criteria met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	QC check samples/LCS data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Matrix spike data included in lab package?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (laboratory specified limits)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	RPD criteria met? (< 20% water, <50% soil)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LCS/LCSD
	Initial calibration documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Calibration verification data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%D criteria met for CCC? (20% Max, Qualify >25%D)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Instrument Tune documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Instrument Tune Criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Internal standard data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Area within limits? (within -50% to +100% of last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RRT within limits? (<30 sec. Difference from last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surrogates	Control Limits		Lab Limits?	
	1,2-Dichloroethane-d4	water 80-120%, soil 80-120%			
	Dibromofluoromethane	water 86-118%, soil 80-120%			
	Toluene-d8	water 88-110%, soil 81-117%			
	4-Bromofluorobenzene	water 86-115%, soil 74-121%			
Notes:					
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).					
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P					
COMMENTS					
FD: RPDs between sample Artesia - MW36 - 082819 and field duplicate Artesia - MW36 - 082819 FD outside criteria for 1,1-Dichloroethane, benzene, naphthalene. Associated results in the samples were flagged J (FD).					
DL: Samples Artesia - MW38 - 082819 (600-191341-1) and Artesia - MW37 - 082819 (600-191341-2) were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.					
TB: No target analytes detected in trip blank Artesia - TB01 - 082819					

Data Usability Review: Sulfate, EPA 300

[illegible]

Data Usability Review: Data Package				
Client Name:	Dowell Artesia	Project Number:	D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:	1H2019 Groundwater	Project Manager:	Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:	600-194999-1	
Reviewer:	John Ynfante/HOU	Date Reviewed:		
Level of Review / Validation:	Level 3			
ITEM	YES	NO	N/A	COMMENTS
Laboratory Data Package Signature Page included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample collection included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample receipt temperature $\leq 6^{\circ}$ C?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.3 and 0.8 deg C
Signed COCs included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Field ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Laboratory ID included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of analysis included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Date of sample preparation included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detection levels included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Method reference included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample matrix included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample results included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Case narrative included, where required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative Percent Difference; RRT - Relative Retention Time; RSD - Relative Standard Deviation.				
COMMENTS				
VOCs: J- (MS)				
Dissolved Manganese: No DV flags applied				
Sulfate: J (FD), J+ (MS)				
OT: Sample ID's on the second page of the chain of custody were changed to include "102919" to indicate the data of collection.				

Data Usability Review: VOCs (GC/MS), SW-846 8260B				
Client Name:	Dowell Artesia	Project Number:	D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:	1H2019 Groundwater	Project Manager:	Jeff Minchak/ABQ	
Laboratory:	TestAmerica-Houston	Lab SDG # / Job #:	600-194999-1	
Reviewer:	John Ynfante/HOU			
Level of Review / Validation:	Level 3			
ITEM	YES	NO	N/A	COMMENTS
Preparatory/analytical holding time met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Surrogate data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
%R criteria met? (use limits listed below or specify lab limits). Reject %R <10%.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R5 Method blank data included in Lab Package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
QC check samples/LCS data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
%R criteria met? (specified limits)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Matrix spike data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
%R criteria met? (laboratory specified limits)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RPD criteria met? (< 20% water, <50% soil)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Initial calibration documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
%RSD criteria met for CCC? (<30% RSD for CCC, >15% RSD must have fit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Calibration verification data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RF criteria met for SPCC? RRF <0.05 rejected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
%D criteria met for CCC? (20% Max, Qualify >25%D)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instrument Tune documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instrument Tune Criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Internal standard data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Area within limits? (within -50% to +100% of last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RRT within limits? (<30 sec. Difference from last calibration check?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Surrogates	Control Limits		Lab Limits?	
1,2-Dichloroethane-d4	water 80-120%, soil 80-120%			
Dibromofluoromethane	water 86-118%, soil 80-120%			
Toluene-d8	water 88-110%, soil 81-117%			
4-Bromofluorobenzene	water 86-115%, soil 74-121%			
Notes:				
* SPCC: chloromethane (0.1); 1,1-dichloroethane (0.1); bromoform (0.1); chlorobenzene (0.3); and 1,1,2,2-tetrachloroethane (0.3).				
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P				
COMMENTS				
FD: RPDs between sample Artesia-MW11-102919 and its field duplicate Artesia-MD11-102919 were within acceptance criteria.				
MS: 1,1-Dichloroethene was recovered low in 600-194999-12MSD but passed in the MS, LCS and RPD so no flags were applied. 1,1-dichloroethene was recovered low in 600-194999-15 MS/MSD so the associated result in the parent sample was flagged J-. All LCS recovered were within control.				
OT: Samples MW-22 and MW-32 were not listed on the chain of custody, but were collected and intended for analysis. Laboratory analyzed for VOCs (nap, bz, PCE, 11DCE, and 11DCA) and dissolved Mn per containers received and client instruction.				
OT,TB: An extra trip blank was inadvertently submitted to the lab that was not listed on the chain of custody - the extra trip blank was unnecessary and not analyzed.				

TB: No VOCs detected in trip blank Artesia-TB01-102919. Trip blank was not initially listed on the chain of custody but was analyzed per client instruction.

FD: RPDs between sample Artesia-MW30-102919 and its field duplicate Artesia-MD30-102919 were within acceptance criteria.

DL: Samples Artesia-MW12-102919 (600-194999-6) and Artesia-MW38-102919 (600-194999-17) were diluted to bring the concentration of target analytes within the calibration range. Elevated reporting limits (RLs) are provided.

Data Usability Review: Dissolved Manganese, SW-846 6020

[illegible]

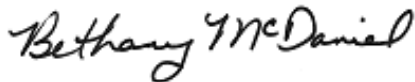
Data Usability Review: Sulfate, EPA 300					
Client Name:		Dowell Artesia		Project Number: D3151100.A.CS.EV.AR.20-05-03	
Project / Affected Property:		1H2019 Groundwater		Project Manager: Jeff Minchak/ABQ	
Laboratory:		TestAmerica-Houston		Lab SDG # / Job #: 600-194999-1	
Reviewer:		John Ynfante/HOU			
Level of Review / Validation:		Level 3			
ITEM		YES	NO	N/A	COMMENTS
	Preparatory/analytical holding time met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Method blank data included in Lab Package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Criteria met? (<MQL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	QC check samples/LCS data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Matrix spike data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (AA/ICP 75-125%, Hg 85-115%)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Sample duplicate data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RPD criteria met? (RPD < 20%)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Initial calibration documentation included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Calibration verification data included in lab package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	%R criteria met? (Initial 90-110%)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Notes:					
Definitions: AA - Atomic Absorption; %D - Percent Difference, ICP - Inductively Coupled Plasma; IDL - Instrument Detection Limit; MDL - Method Detection Limit; MQL - Method Quantitation Limit; %R - Percent Recovery; RF - Response Factor; RPD - Relative P					
COMMENTS					
FD: RPD between sample Artesia-MW11-102919 and its field duplicate Artesia-MD11-102919 was > 30% for sulfate. Associated results flagged J (FD).					
MS: Sulfate was recovered high in the MS/MSD spiked on sample 600-194999-17 for analytical batch 600-280102. The associated result in the parent sample was flagged J+					
CB: Sulfate was detected in a CCB for analytical batch 600-280102 at 0.1872 mg/L which is > MDL < RL. Detections in normal samples were >> 5x CCB concentration so no flags applied.					

ANALYTICAL REPORT

Job Number: 600-184109-1

Job Description: Dowell - Artesia 04/23/19

For:
CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, NM 87109
Attention: Aleeca Forsberg



Approved for release.
Bethany A. McDaniel
Senior Project Manager
5/8/2019 12:05 PM

Bethany A McDaniel, Senior Project Manager
6310 Rothway Street, Houston, TX, 77040
(713)358-2005
bethany.mcdaniel@testamericainc.com
05/08/2019

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Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
600-184109-1

Comments

No additional comments.

Receipt

The samples were received on 4/23/2019 8:59 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

GC/MS VOA

Method(s) 8260B: The method blank for analytical batch 600-263890 contained Naphthalene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-TB01-04222019

Lab Sample ID: 600-184109-1

No Detections.

Client Sample ID: ARTESIA-INLET-04222019

Lab Sample ID: 600-184109-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00260		0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.00973		0.00100	0.000192	mg/L	1			8260B	Total/NA
Naphthalene	0.000555	J B	0.00200	0.000129	mg/L	1			8260B	Total/NA
Tetrachloroethene	0.00953		0.00100	0.000333	mg/L	1			8260B	Total/NA

Client Sample ID: ARTESIA-MID-04222019

Lab Sample ID: 600-184109-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00307		0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.00805		0.00100	0.000192	mg/L	1			8260B	Total/NA
Naphthalene	0.000199	J B	0.00200	0.000129	mg/L	1			8260B	Total/NA
Tetrachloroethene	0.000548	J	0.00100	0.000333	mg/L	1			8260B	Total/NA

Client Sample ID: ARTESIA-OUTLET-04222019

Lab Sample ID: 600-184109-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00186		0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.000666	J	0.00100	0.000192	mg/L	1			8260B	Total/NA

Client Sample ID: ARTESIA-MW12-04222019

Lab Sample ID: 600-184109-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0260		0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.00161		0.00100	0.000192	mg/L	1			8260B	Total/NA
Benzene	0.00617		0.00100	0.000176	mg/L	1			8260B	Total/NA
Naphthalene	0.0466	B	0.00200	0.000129	mg/L	1			8260B	Total/NA
Tetrachloroethene	0.00377		0.00100	0.000333	mg/L	1			8260B	Total/NA
Sulfate	2520		50.0	9.57	mg/L	100			300.0	Total/NA

Client Sample ID: ARTESIA-MW30-04222019

Lab Sample ID: 600-184109-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000960	J	0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.00271		0.00100	0.000192	mg/L	1			8260B	Total/NA
Tetrachloroethene	0.00350		0.00100	0.000333	mg/L	1			8260B	Total/NA

Client Sample ID: ARTESIA-MD30-04222019

Lab Sample ID: 600-184109-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000931	J	0.00100	0.000168	mg/L	1			8260B	Total/NA
1,1-Dichloroethene	0.00273		0.00100	0.000192	mg/L	1			8260B	Total/NA
Tetrachloroethene	0.00363		0.00100	0.000333	mg/L	1			8260B	Total/NA

Client Sample ID: ARTESIA-MW32-04222019

Lab Sample ID: 600-184109-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Tetrachloroethene	0.000639	J	0.00100	0.000333	mg/L	1			8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MW17C-04222019

Lab Sample ID: 600-184109-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2400		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: ARTESIA-MW11-04222019

Lab Sample ID: 600-184109-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00304		0.00100	0.000168	mg/L	1		8260B	Total/NA
Sulfate	3150		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: ARTESIA-MW26-04222019

Lab Sample ID: 600-184109-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000332	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00175		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00170		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0527		0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW34-04222019

Lab Sample ID: 600-184109-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000680	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000507	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000858	J	0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MD11-04222019

Lab Sample ID: 600-184109-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00302		0.00100	0.000168	mg/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-TB01-04222019

Lab Sample ID: 600-184109-1

Date Collected: 04/22/19 13:10

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			04/29/19 15:29	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 15:29	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 15:29	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 15:29	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		50 - 134		04/29/19 15:29	1
4-Bromofluorobenzene	91		67 - 139		04/29/19 15:29	1
Dibromofluoromethane	93		62 - 130		04/29/19 15:29	1
Toluene-d8 (Surr)	82		70 - 130		04/29/19 15:29	1

Client Sample ID: ARTESIA-INLET-04222019

Lab Sample ID: 600-184109-2

Date Collected: 04/22/19 13:40

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00260		0.00100	0.000168	mg/L			04/29/19 19:41	1
1,1-Dichloroethene	0.00973		0.00100	0.000192	mg/L			04/29/19 19:41	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 19:41	1
Naphthalene	0.000555	J B	0.00200	0.000129	mg/L			04/29/19 19:41	1
Tetrachloroethene	0.00953		0.00100	0.000333	mg/L			04/29/19 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		04/29/19 19:41	1
4-Bromofluorobenzene	91		67 - 139		04/29/19 19:41	1
Dibromofluoromethane	89		62 - 130		04/29/19 19:41	1
Toluene-d8 (Surr)	81		70 - 130		04/29/19 19:41	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:38	1

Client Sample ID: ARTESIA-MID-04222019

Lab Sample ID: 600-184109-3

Date Collected: 04/22/19 13:45

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00307		0.00100	0.000168	mg/L			04/29/19 20:08	1
1,1-Dichloroethene	0.00805		0.00100	0.000192	mg/L			04/29/19 20:08	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 20:08	1
Naphthalene	0.000199	J B	0.00200	0.000129	mg/L			04/29/19 20:08	1
Tetrachloroethene	0.000548	J	0.00100	0.000333	mg/L			04/29/19 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		04/29/19 20:08	1
4-Bromofluorobenzene	89		67 - 139		04/29/19 20:08	1
Dibromofluoromethane	86		62 - 130		04/29/19 20:08	1
Toluene-d8 (Surr)	80		70 - 130		04/29/19 20:08	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MID-04222019

Lab Sample ID: 600-184109-3

Date Collected: 04/22/19 13:45

Matrix: Water

Date Received: 04/23/19 08:59

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:43	1

Client Sample ID: ARTESIA-OUTLET-04222019

Lab Sample ID: 600-184109-4

Date Collected: 04/22/19 13:53

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00186		0.00100	0.000168	mg/L			04/29/19 20:36	1
1,1-Dichloroethene	0.000666	J	0.00100	0.000192	mg/L			04/29/19 20:36	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 20:36	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 20:36	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		04/29/19 20:36	1
4-Bromofluorobenzene	84		67 - 139		04/29/19 20:36	1
Dibromofluoromethane	83		62 - 130		04/29/19 20:36	1
Toluene-d8 (Surr)	76		70 - 130		04/29/19 20:36	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:48	1

Client Sample ID: ARTESIA-MW12-04222019

Lab Sample ID: 600-184109-5

Date Collected: 04/22/19 13:50

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0260		0.00100	0.000168	mg/L			04/30/19 00:19	1
1,1-Dichloroethene	0.00161		0.00100	0.000192	mg/L			04/30/19 00:19	1
Benzene	0.00617		0.00100	0.000176	mg/L			04/30/19 00:19	1
Naphthalene	0.0466	B	0.00200	0.000129	mg/L			04/30/19 00:19	1
Tetrachloroethene	0.00377		0.00100	0.000333	mg/L			04/30/19 00:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		04/30/19 00:19	1
4-Bromofluorobenzene	101		67 - 139		04/30/19 00:19	1
Dibromofluoromethane	89		62 - 130		04/30/19 00:19	1
Toluene-d8 (Surr)	83		70 - 130		04/30/19 00:19	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2520		50.0	9.57	mg/L			05/06/19 23:34	100

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MW30-04222019

Lab Sample ID: 600-184109-6

Date Collected: 04/22/19 14:05

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000960	J	0.00100	0.000168	mg/L			04/29/19 21:04	1
1,1-Dichloroethene	0.00271		0.00100	0.000192	mg/L			04/29/19 21:04	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 21:04	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 21:04	1
Tetrachloroethene	0.00350		0.00100	0.000333	mg/L			04/29/19 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		50 - 134		04/29/19 21:04	1
4-Bromofluorobenzene	90		67 - 139		04/29/19 21:04	1
Dibromofluoromethane	90		62 - 130		04/29/19 21:04	1
Toluene-d8 (Surr)	82		70 - 130		04/29/19 21:04	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:53	1

Client Sample ID: ARTESIA-MD30-04222019

Lab Sample ID: 600-184109-7

Date Collected: 04/22/19 14:10

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000931	J	0.00100	0.000168	mg/L			04/29/19 21:32	1
1,1-Dichloroethene	0.00273		0.00100	0.000192	mg/L			04/29/19 21:32	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 21:32	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 21:32	1
Tetrachloroethene	0.00363		0.00100	0.000333	mg/L			04/29/19 21:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		04/29/19 21:32	1
4-Bromofluorobenzene	86		67 - 139		04/29/19 21:32	1
Dibromofluoromethane	87		62 - 130		04/29/19 21:32	1
Toluene-d8 (Surr)	78		70 - 130		04/29/19 21:32	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 18:22	1

Client Sample ID: ARTESIA-MW32-04222019

Lab Sample ID: 600-184109-8

Date Collected: 04/22/19 14:50

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			04/29/19 22:00	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 22:00	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 22:00	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 22:00	1
Tetrachloroethene	0.000639	J	0.00100	0.000333	mg/L			04/29/19 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		04/29/19 22:00	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MW32-04222019

Lab Sample ID: 600-184109-8

Date Collected: 04/22/19 14:50

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 139		04/29/19 22:00	1
Dibromofluoromethane	91		62 - 130		04/29/19 22:00	1
Toluene-d8 (Surr)	84		70 - 130		04/29/19 22:00	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 18:27	1

Client Sample ID: ARTESIA-MW17C-04222019

Lab Sample ID: 600-184109-9

Date Collected: 04/22/19 14:30

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			04/29/19 22:28	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 22:28	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 22:28	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 22:28	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		04/29/19 22:28	1
4-Bromofluorobenzene	82		67 - 139		04/29/19 22:28	1
Dibromofluoromethane	83		62 - 130		04/29/19 22:28	1
Toluene-d8 (Surr)	77		70 - 130		04/29/19 22:28	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2400		50.0	9.57	mg/L			05/06/19 23:54	100

Client Sample ID: ARTESIA-MW11-04222019

Lab Sample ID: 600-184109-10

Date Collected: 04/22/19 15:25

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00304		0.00100	0.000168	mg/L			04/29/19 22:56	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 22:56	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 22:56	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 22:56	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		50 - 134		04/29/19 22:56	1
4-Bromofluorobenzene	90		67 - 139		04/29/19 22:56	1
Dibromofluoromethane	91		62 - 130		04/29/19 22:56	1
Toluene-d8 (Surr)	81		70 - 130		04/29/19 22:56	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3150		50.0	9.57	mg/L			05/07/19 00:14	100

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MW26-04222019

Lab Sample ID: 600-184109-11

Date Collected: 04/22/19 15:05

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000332	J	0.00100	0.000168	mg/L			04/29/19 23:24	1
1,1-Dichloroethene	0.00175		0.00100	0.000192	mg/L			04/29/19 23:24	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 23:24	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 23:24	1
Tetrachloroethene	0.00170		0.00100	0.000333	mg/L			04/29/19 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		04/29/19 23:24	1
4-Bromofluorobenzene	87		67 - 139		04/29/19 23:24	1
Dibromofluoromethane	88		62 - 130		04/29/19 23:24	1
Toluene-d8 (Surr)	77		70 - 130		04/29/19 23:24	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0527		0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 18:32	1

Client Sample ID: ARTESIA-MW34-04222019

Lab Sample ID: 600-184109-12

Date Collected: 04/22/19 15:30

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000680	J	0.00100	0.000168	mg/L			04/29/19 15:57	1
1,1-Dichloroethene	0.000507	J	0.00100	0.000192	mg/L			04/29/19 15:57	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 15:57	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 15:57	1
Tetrachloroethene	0.000858	J	0.00100	0.000333	mg/L			04/29/19 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		50 - 134		04/29/19 15:57	1
4-Bromofluorobenzene	78		67 - 139		04/29/19 15:57	1
Dibromofluoromethane	86		62 - 130		04/29/19 15:57	1
Toluene-d8 (Surr)	79		70 - 130		04/29/19 15:57	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:12	1

Client Sample ID: ARTESIA-MD11-04222019

Lab Sample ID: 600-184109-13

Date Collected: 04/22/19 15:35

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00302		0.00100	0.000168	mg/L			04/29/19 23:51	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 23:51	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 23:51	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			04/29/19 23:51	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 23:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		50 - 134		04/29/19 23:51	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MD11-04222019

Lab Sample ID: 600-184109-13

Date Collected: 04/22/19 15:35

Matrix: Water

Date Received: 04/23/19 08:59

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	90		67 - 139		04/29/19 23:51	1
Dibromofluoromethane	90		62 - 130		04/29/19 23:51	1
Toluene-d8 (Surr)	81		70 - 130		04/29/19 23:51	1

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units
1,1-Dichloroethane	0.00100	0.000168	mg/L
1,1-Dichloroethene	0.00100	0.000192	mg/L
Benzene	0.00100	0.000176	mg/L
Naphthalene	0.00200	0.000129	mg/L
Tetrachloroethene	0.00100	0.000333	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL	MDL	Units
Sulfate	0.500	0.0957	mg/L

Method: 6020 - Metals (ICP/MS) - Dissolved

Prep: 3010A

Analyte	RL	MDL	Units
Manganese, Dissolved	0.0500	0.0116	mg/L

Surrogate Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-184109-1	ARTESIA-TB01-04222019	110	91	93	82
600-184109-2	ARTESIA-INLET-04222019	99	91	89	81
600-184109-3	ARTESIA-MID-04222019	96	89	86	80
600-184109-4	ARTESIA-OUTLET-04222019	92	84	83	76
600-184109-5	ARTESIA-MW12-04222019	107	101	89	83
600-184109-6	ARTESIA-MW30-04222019	101	90	90	82
600-184109-7	ARTESIA-MD30-04222019	99	86	87	78
600-184109-8	ARTESIA-MW32-04222019	105	91	91	84
600-184109-9	ARTESIA-MW17C-04222019	95	82	83	77
600-184109-10	ARTESIA-MW11-04222019	109	90	91	81
600-184109-11	ARTESIA-MW26-04222019	107	87	88	77
600-184109-12	ARTESIA-MW34-04222019	103	78	86	79
600-184109-12 MS	ARTESIA-MW34-04222019	105	86	88	76
600-184109-12 MSD	ARTESIA-MW34-04222019	107	87	89	78
600-184109-13	ARTESIA-MD11-04222019	108	90	90	81
LCS 600-263890/5	Lab Control Sample	108	87	89	78
MB 600-263890/7	Method Blank	102	83	86	76

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-263890/7

Matrix: Water

Analysis Batch: 263890

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			04/29/19 15:01	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			04/29/19 15:01	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			04/29/19 15:01	1
Naphthalene	0.0001830	J	0.00200	0.000129	mg/L			04/29/19 15:01	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			04/29/19 15:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		04/29/19 15:01	1
4-Bromofluorobenzene	83		67 - 139		04/29/19 15:01	1
Dibromofluoromethane	86		62 - 130		04/29/19 15:01	1
Toluene-d8 (Surr)	76		70 - 130		04/29/19 15:01	1

Lab Sample ID: LCS 600-263890/5

Matrix: Water

Analysis Batch: 263890

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.008688		mg/L		87	70 - 140
1,1-Dichloroethene	0.0100	0.008541		mg/L		85	58 - 148
Benzene	0.0100	0.009315		mg/L		93	70 - 130
Naphthalene	0.0100	0.009229		mg/L		92	10 - 150
Tetrachloroethene	0.0100	0.008520		mg/L		85	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		50 - 134
4-Bromofluorobenzene	87		67 - 139
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	78		70 - 130

Lab Sample ID: 600-184109-12 MS

Matrix: Water

Analysis Batch: 263890

Client Sample ID: ARTESIA-MW34-04222019

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.000680	J	0.0100	0.009095		mg/L		84	70 - 140
1,1-Dichloroethene	0.000507	J	0.0100	0.01066		mg/L		101	58 - 148
Benzene	0.000176	U	0.0100	0.01084		mg/L		108	70 - 130
Naphthalene	0.000129	U	0.0100	0.007887		mg/L		79	10 - 150
Tetrachloroethene	0.000858	J	0.0100	0.009796		mg/L		89	47 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		50 - 134
4-Bromofluorobenzene	86		67 - 139
Dibromofluoromethane	88		62 - 130
Toluene-d8 (Surr)	76		70 - 130

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-184109-12 MSD

Matrix: Water

Analysis Batch: 263890

Client Sample ID: ARTESIA-MW34-04222019

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.000680	J	0.0100	0.008085		mg/L		74	70 - 140	12	30
1,1-Dichloroethene	0.000507	J	0.0100	0.008820		mg/L		83	58 - 148	19	30
Benzene	0.000176	U	0.0100	0.009949		mg/L		99	70 - 130	9	30
Naphthalene	0.000129	U	0.0100	0.008757		mg/L		88	10 - 150	10	30
Tetrachloroethene	0.000858	J	0.0100	0.008890		mg/L		80	47 - 150	10	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		50 - 134
4-Bromofluorobenzene	87		67 - 139
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	78		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-264422/11

Matrix: Water

Analysis Batch: 264422

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.0957	U	0.500	0.0957	mg/L			05/06/19 16:54	1

Lab Sample ID: LCS 600-264422/12

Matrix: Water

Analysis Batch: 264422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.37		mg/L		97	90 - 110

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 560-161862/1-A

Matrix: Water

Analysis Batch: 161978

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 161862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/25/19 12:30	04/29/19 17:08	1

Lab Sample ID: LCS 560-161862/2-A

Matrix: Water

Analysis Batch: 161978

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 161862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	2.50	2.316		mg/L		93	80 - 120

Lab Sample ID: 600-184109-12 MS

Matrix: Water

Analysis Batch: 161978

Client Sample ID: ARTESIA-MW34-04222019

Prep Type: Dissolved

Prep Batch: 161862

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	0.0116	U	2.50	2.294		mg/L		92	80 - 120

Eurofins TestAmerica, Houston

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: 600-184109-12 MSD
Matrix: Water
Analysis Batch: 161978

Client Sample ID: ARTESIA-MW34-04222019
Prep Type: Dissolved
Prep Batch: 161862

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	0.0116	U	2.50	2.224		mg/L		89	80 - 120	3	20

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

GC/MS VOA

Analysis Batch: 263890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184109-1	ARTESIA-TB01-04222019	Total/NA	Water	8260B	
600-184109-2	ARTESIA-INLET-04222019	Total/NA	Water	8260B	
600-184109-3	ARTESIA-MID-04222019	Total/NA	Water	8260B	
600-184109-4	ARTESIA-OUTLET-04222019	Total/NA	Water	8260B	
600-184109-5	ARTESIA-MW12-04222019	Total/NA	Water	8260B	
600-184109-6	ARTESIA-MW30-04222019	Total/NA	Water	8260B	
600-184109-7	ARTESIA-MD30-04222019	Total/NA	Water	8260B	
600-184109-8	ARTESIA-MW32-04222019	Total/NA	Water	8260B	
600-184109-9	ARTESIA-MW17C-04222019	Total/NA	Water	8260B	
600-184109-10	ARTESIA-MW11-04222019	Total/NA	Water	8260B	
600-184109-11	ARTESIA-MW26-04222019	Total/NA	Water	8260B	
600-184109-12	ARTESIA-MW34-04222019	Total/NA	Water	8260B	
600-184109-13	ARTESIA-MD11-04222019	Total/NA	Water	8260B	
MB 600-263890/7	Method Blank	Total/NA	Water	8260B	
LCS 600-263890/5	Lab Control Sample	Total/NA	Water	8260B	
600-184109-12 MS	ARTESIA-MW34-04222019	Total/NA	Water	8260B	
600-184109-12 MSD	ARTESIA-MW34-04222019	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 264422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184109-5	ARTESIA-MW12-04222019	Total/NA	Water	300.0	
600-184109-9	ARTESIA-MW17C-04222019	Total/NA	Water	300.0	
600-184109-10	ARTESIA-MW11-04222019	Total/NA	Water	300.0	
MB 600-264422/11	Method Blank	Total/NA	Water	300.0	
LCS 600-264422/12	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 161862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184109-2	ARTESIA-INLET-04222019	Dissolved	Water	3010A	
600-184109-3	ARTESIA-MID-04222019	Dissolved	Water	3010A	
600-184109-4	ARTESIA-OUTLET-04222019	Dissolved	Water	3010A	
600-184109-6	ARTESIA-MW30-04222019	Dissolved	Water	3010A	
600-184109-7	ARTESIA-MD30-04222019	Dissolved	Water	3010A	
600-184109-8	ARTESIA-MW32-04222019	Dissolved	Water	3010A	
600-184109-11	ARTESIA-MW26-04222019	Dissolved	Water	3010A	
600-184109-12	ARTESIA-MW34-04222019	Dissolved	Water	3010A	
MB 560-161862/1-A	Method Blank	Total/NA	Water	3010A	
LCS 560-161862/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-184109-12 MS	ARTESIA-MW34-04222019	Dissolved	Water	3010A	
600-184109-12 MSD	ARTESIA-MW34-04222019	Dissolved	Water	3010A	

Analysis Batch: 161978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184109-2	ARTESIA-INLET-04222019	Dissolved	Water	6020	161862
600-184109-3	ARTESIA-MID-04222019	Dissolved	Water	6020	161862
600-184109-4	ARTESIA-OUTLET-04222019	Dissolved	Water	6020	161862
600-184109-6	ARTESIA-MW30-04222019	Dissolved	Water	6020	161862
600-184109-7	ARTESIA-MD30-04222019	Dissolved	Water	6020	161862

Eurofins TestAmerica, Houston

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Metals (Continued)

Analysis Batch: 161978 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184109-8	ARTESIA-MW32-04222019	Dissolved	Water	6020	161862
600-184109-11	ARTESIA-MW26-04222019	Dissolved	Water	6020	161862
600-184109-12	ARTESIA-MW34-04222019	Dissolved	Water	6020	161862
MB 560-161862/1-A	Method Blank	Total/NA	Water	6020	161862
LCS 560-161862/2-A	Lab Control Sample	Total/NA	Water	6020	161862
600-184109-12 MS	ARTESIA-MW34-04222019	Dissolved	Water	6020	161862
600-184109-12 MSD	ARTESIA-MW34-04222019	Dissolved	Water	6020	161862

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-TB01-04222019

Lab Sample ID: 600-184109-1

Date Collected: 04/22/19 13:10

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 15:29	KLV	TAL HOU

Client Sample ID: ARTESIA-INLET-04222019

Lab Sample ID: 600-184109-2

Date Collected: 04/22/19 13:40

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 19:41	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 17:38	JEM	TAL CC

Client Sample ID: ARTESIA-MID-04222019

Lab Sample ID: 600-184109-3

Date Collected: 04/22/19 13:45

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 20:08	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 17:43	JEM	TAL CC

Client Sample ID: ARTESIA-OUTLET-04222019

Lab Sample ID: 600-184109-4

Date Collected: 04/22/19 13:53

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 20:36	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 17:48	JEM	TAL CC

Client Sample ID: ARTESIA-MW12-04222019

Lab Sample ID: 600-184109-5

Date Collected: 04/22/19 13:50

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/30/19 00:19	KLV	TAL HOU
Total/NA	Analysis	300.0		100	264422	05/06/19 23:34	SKR	TAL HOU

Client Sample ID: ARTESIA-MW30-04222019

Lab Sample ID: 600-184109-6

Date Collected: 04/22/19 14:05

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 21:04	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 17:53	JEM	TAL CC

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MD30-04222019

Lab Sample ID: 600-184109-7

Date Collected: 04/22/19 14:10

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 21:32	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 18:22	JEM	TAL CC

Client Sample ID: ARTESIA-MW32-04222019

Lab Sample ID: 600-184109-8

Date Collected: 04/22/19 14:50

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 22:00	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 18:27	JEM	TAL CC

Client Sample ID: ARTESIA-MW17C-04222019

Lab Sample ID: 600-184109-9

Date Collected: 04/22/19 14:30

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 22:28	KLV	TAL HOU
Total/NA	Analysis	300.0		100	264422	05/06/19 23:54	SKR	TAL HOU

Client Sample ID: ARTESIA-MW11-04222019

Lab Sample ID: 600-184109-10

Date Collected: 04/22/19 15:25

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 22:56	KLV	TAL HOU
Total/NA	Analysis	300.0		100	264422	05/07/19 00:14	SKR	TAL HOU

Client Sample ID: ARTESIA-MW26-04222019

Lab Sample ID: 600-184109-11

Date Collected: 04/22/19 15:05

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 23:24	KLV	TAL HOU
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 18:32	JEM	TAL CC

Client Sample ID: ARTESIA-MW34-04222019

Lab Sample ID: 600-184109-12

Date Collected: 04/22/19 15:30

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 15:57	KLV	TAL HOU

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Client Sample ID: ARTESIA-MW34-04222019

Lab Sample ID: 600-184109-12

Date Collected: 04/22/19 15:30

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			161862	04/25/19 12:30	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 17:12	JEM	TAL CC

Client Sample ID: ARTESIA-MD11-04222019

Lab Sample ID: 600-184109-13

Date Collected: 04/22/19 15:35

Matrix: Water

Date Received: 04/23/19 08:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	263890	04/29/19 23:51	KLV	TAL HOU

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	18-061-0	08-04-19
Louisiana	NELAP	6	01967	06-30-19
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

Laboratory: Eurofins TestAmerica, Corpus Christi

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Oklahoma	State Program	6	2018-070	08-31-19
Texas	NELAP	6	T104704210-19-23	03-31-20
USDA	Federal		P330-18-00314	10-31-21

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6020	Metals (ICP/MS)	SW846	TAL CC
3010A	Preparation, Total Metals	SW846	TAL CC
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184109-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-184109-1	ARTESIA-TB01-04222019	Water	04/22/19 13:10	04/23/19 08:59
600-184109-2	ARTESIA-INLET-04222019	Water	04/22/19 13:40	04/23/19 08:59
600-184109-3	ARTESIA-MID-04222019	Water	04/22/19 13:45	04/23/19 08:59
600-184109-4	ARTESIA-OUTLET-04222019	Water	04/22/19 13:53	04/23/19 08:59
600-184109-5	ARTESIA-MW12-04222019	Water	04/22/19 13:50	04/23/19 08:59
600-184109-6	ARTESIA-MW30-04222019	Water	04/22/19 14:05	04/23/19 08:59
600-184109-7	ARTESIA-MD30-04222019	Water	04/22/19 14:10	04/23/19 08:59
600-184109-8	ARTESIA-MW32-04222019	Water	04/22/19 14:50	04/23/19 08:59
600-184109-9	ARTESIA-MW17C-04222019	Water	04/22/19 14:30	04/23/19 08:59
600-184109-10	ARTESIA-MW11-04222019	Water	04/22/19 15:25	04/23/19 08:59
600-184109-11	ARTESIA-MW26-04222019	Water	04/22/19 15:05	04/23/19 08:59
600-184109-12	ARTESIA-MW34-04222019	Water	04/22/19 15:30	04/23/19 08:59
600-184109-13	ARTESIA-MD11-04222019	Water	04/22/19 15:35	04/23/19 08:59

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/3 Client Sample ID: _____Date Analyzed: 04/20/19 11:53 Lab File ID: J11001.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl ether	5.67	Baseline	velak	04/20/19 14:31
Acrylonitrile	5.99	Baseline	velak	04/20/19 14:31
Iodomethane	6.01	Baseline	velak	04/20/19 14:32
Carbon disulfide	6.31	Baseline	velak	04/20/19 14:32
trans-1,2-Dichloroethene	6.62	Baseline	velak	04/20/19 14:32
Methyl tert-butyl ether	6.69	Baseline	velak	04/20/19 14:32
1,1-Dichloroethane	6.82	Baseline	velak	04/20/19 14:32
Vinyl acetate	6.88	Baseline	velak	04/20/19 14:32
Isopropyl ether	7.12	Baseline	velak	04/20/19 14:32
1,2-Dichloroethane-d4 (Surr)	7.86	Baseline	velak	04/20/19 14:32
1,2-Dichloroethane	7.92	Baseline	velak	04/20/19 14:32
1,1-Dichloropropene	8.14	Baseline	velak	04/20/19 14:32
Cyclohexane	8.23	Baseline	velak	04/20/19 14:32
Carbon tetrachloride	8.28	Baseline	velak	04/20/19 14:32
Methyl methacrylate	8.88	Baseline	velak	04/20/19 14:33
2-Chloroethyl vinyl ether	9.11	Baseline	velak	04/20/19 14:33
cis-1,3-Dichloropropene	9.32	Baseline	velak	04/20/19 14:33
4-Methyl-2-pentanone (MIBK)	9.38	Baseline	velak	04/20/19 14:33
1,1,2-Trichloroethane	9.85	Baseline	velak	04/20/19 14:33
1,1-Dichloroethene		Invalid Compound ID	velak	04/20/19 14:31
2-Nitropropane		Invalid Compound ID	velak	04/20/19 14:32
Acrolein		Invalid Compound ID	velak	04/20/19 14:31
Butadiene		Invalid Compound ID	velak	04/20/19 14:31
Dibromochloromethane		Invalid Compound ID	velak	04/20/19 14:33
Trichlorofluoromethane		Invalid Compound ID	velak	04/20/19 14:31
Ethyl methacrylate	10.00	Baseline	velak	04/20/19 14:33
Toluene	10.02	Baseline	velak	04/20/19 15:14
2-Hexanone	10.42	Baseline	velak	04/20/19 14:33
1,2-Dibromoethane	10.61	Baseline	velak	04/20/19 14:33
1-Chlorohexane	11.31	Baseline	velak	04/20/19 14:33

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/3 Client Sample ID: _____Date Analyzed: 04/20/19 11:53 Lab File ID: J11001.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1,2-Tetrachloroethane	11.36	Baseline	velak	04/20/19 14:33
Chlorobenzene	11.46	Baseline	velak	04/20/19 14:33
o-Xylene	12.27	Baseline	velak	04/20/19 14:34
1,1,2,2-Tetrachloroethane	12.28	Baseline	velak	04/20/19 14:34
N-Propylbenzene	13.12	Baseline	velak	04/20/19 14:34
tert-Butylbenzene	13.69	Baseline	velak	04/20/19 14:34
1,2,3-Trimethylbenzene	14.21	Baseline	velak	04/20/19 14:34
n-Butylbenzene	14.47	Baseline	velak	04/20/19 14:34
1,2,4-Trichlorobenzene	16.31	Baseline	velak	04/20/19 14:34

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/4 Client Sample ID: _____Date Analyzed: 04/20/19 12:21 Lab File ID: J11002.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.91	Peak assignment corrected	velak	04/20/19 14:35
Chloromethane	4.17	Baseline	velak	04/20/19 14:35
Vinyl chloride	4.35	Baseline	velak	04/20/19 14:35
Butadiene	4.48	Baseline	velak	04/20/19 14:35
Chloroethane	4.96	Baseline	velak	04/20/19 14:35
Dichlorofluoromethane	5.00	Baseline	velak	04/20/19 14:35
Acetonitrile	5.48	Baseline	velak	04/20/19 14:35
Trichlorofluoromethane	5.49	Baseline	velak	04/20/19 14:35
Isopropyl alcohol	5.52	Baseline	velak	04/20/19 14:35
Acetone	5.58	Baseline	velak	04/20/19 14:36
1,1-Dichloroethene	5.97	Baseline	velak	04/20/19 14:36
t-Butanol	5.97	Baseline	velak	04/20/19 14:36
Iodomethane	6.02	Baseline	velak	04/20/19 14:36
Methyl acetate	6.09	Baseline	velak	04/20/19 14:36
1,1,2-Trichloro-1,2,2-trifluoroethane	6.10	Baseline	velak	04/20/19 14:36
3-Chloro-1-propene	6.15	Baseline	velak	04/20/19 14:36
Carbon disulfide	6.32	Baseline	velak	04/20/19 14:36
trans-1,2-Dichloroethene	6.62	Baseline	velak	04/20/19 14:36
Methyl tert-butyl ether	6.69	Baseline	velak	04/20/19 14:36
Propionitrile	6.81	Baseline	velak	04/20/19 14:36
Vinyl acetate	6.88	Baseline	velak	04/20/19 14:36
Ethyl acetate	7.36	Baseline	velak	04/20/19 14:37
Isobutyl alcohol	7.46	Baseline	velak	04/20/19 14:37
2,2-Dichloropropane	7.50	Baseline	velak	04/20/19 14:37
Dibromofluoromethane	7.51	Baseline	velak	04/20/19 14:37
Tetrahydrofuran	7.67	Baseline	velak	04/20/19 14:37
1,2-Dichloroethane	7.92	Baseline	velak	04/20/19 14:37
1,1,1-Trichloroethane	8.00	Baseline	velak	04/20/19 14:37
n-Butanol	8.00	Baseline	velak	04/20/19 14:37

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/4 Client Sample ID: _____Date Analyzed: 04/20/19 12:21 Lab File ID: J11002.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloropropene	8.13	Baseline	velak	04/20/19 14:37
Cyclohexane	8.23	Baseline	velak	04/20/19 14:37
Benzene	8.31	Baseline	velak	04/20/19 14:37
Ethyl acrylate	8.64	Baseline	velak	04/20/19 14:38
2-Nitropropane	8.77	Baseline	velak	04/20/19 14:38
Methyl methacrylate	8.87	Baseline	velak	04/20/19 14:38
1,4-Dioxane	8.89	Baseline	velak	04/20/19 14:38
cis-1,3-Dichloropropene	9.32	Baseline	velak	04/20/19 14:38
2-Hexanone	10.43	Baseline	velak	04/20/19 14:38
1-Chlorohexane	11.32	Baseline	velak	04/20/19 14:38
Chlorobenzene-d5	11.42	Baseline	velak	04/20/19 14:38
Chlorobenzene	11.46	Baseline	velak	04/20/19 14:38
1,1,2,2-Tetrachloroethane	12.28	Baseline	velak	04/20/19 14:38
trans-1,4-Dichloro-2-butene	12.42	Baseline	velak	04/20/19 14:39
1,2-Dibromo-3-Chloropropane	14.88	Baseline	velak	04/20/19 14:39
Hexachlorobutadiene	16.65	Baseline	velak	04/20/19 14:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/5 Client Sample ID: _____Date Analyzed: 04/20/19 12:49 Lab File ID: J11003.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.91	Baseline	velak	04/20/19 14:40
Chloromethane	4.17	Baseline	velak	04/20/19 14:40
Vinyl chloride	4.39	Baseline	velak	04/20/19 14:40
Butadiene	4.48	Baseline	velak	04/20/19 14:40
Bromomethane	4.83	Baseline	velak	04/20/19 14:40
Chloroethane	4.96	Baseline	velak	04/20/19 14:40
Dichlorofluoromethane	5.01	Baseline	velak	04/20/19 14:40
Acrolein	5.47	Baseline	velak	04/20/19 14:40
Trichlorofluoromethane	5.49	Baseline	velak	04/20/19 14:40
Isopropyl alcohol	5.50	Baseline	velak	04/20/19 14:40
Acetone	5.58	Baseline	velak	04/20/19 14:41
t-Butanol	5.95	Baseline	velak	04/20/19 14:41
Iodomethane	6.01	Baseline	velak	04/20/19 14:41
Methyl acetate	6.10	Baseline	velak	04/20/19 14:41
1,1,2-Trichloro-1,2,2-trifluoroethane	6.11	Baseline	velak	04/20/19 14:41
Carbon disulfide	6.32	Baseline	velak	04/20/19 14:41
Propionitrile	6.82	Baseline	velak	04/20/19 14:41
2-Butanone (MEK)	7.12	Baseline	velak	04/20/19 14:41
Ethyl acetate	7.35	Baseline	velak	04/20/19 14:41
Isobutyl alcohol	7.44	Baseline	velak	04/20/19 14:42
1,2-Dichloroethane-d4 (Surr)	7.86	Baseline	velak	04/20/19 14:42
1,2-Dichloroethane	7.92	Baseline	velak	04/20/19 14:42
n-Butanol	8.01	Baseline	velak	04/20/19 14:42
Benzene	8.31	Baseline	velak	04/20/19 14:42
2-Nitropropane	8.77	Baseline	velak	04/20/19 14:42
1,4-Dioxane	8.90	Baseline	velak	04/20/19 14:42
2-Chloroethyl vinyl ether	9.12	Baseline	velak	04/20/19 14:42
trans-1,3-Dichloropropene	9.68	Baseline	velak	04/20/19 14:42
1,3-Dichloropropane	10.07	Baseline	velak	04/20/19 14:42

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/5 Client Sample ID: _____Date Analyzed: 04/20/19 12:49 Lab File ID: J11003.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Hexanone	10.42	Baseline	velak	04/20/19 14:43
Bromoform	12.02	Baseline	velak	04/20/19 14:43
1,2,3-Trichloropropane	12.44	Baseline	velak	04/20/19 14:43
1,3,5-Trimethylbenzene	13.39	Baseline	velak	04/20/19 14:43
1,2,4-Trichlorobenzene	16.31	Baseline	velak	04/20/19 14:43
1,2,3-Trichlorobenzene	16.84	Baseline	velak	04/20/19 14:43

Lab Sample ID: IC 600-263293/6 Client Sample ID: _____Date Analyzed: 04/20/19 13:17 Lab File ID: J11004.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.90	Baseline	velak	04/20/19 14:44
Chloromethane	4.18	Baseline	velak	04/20/19 14:44
Vinyl chloride	4.37	Baseline	velak	04/20/19 14:44
Bromomethane	4.83	Baseline	velak	04/20/19 14:44
Chloroethane	4.96	Baseline	velak	04/20/19 14:44
Dichlorofluoromethane	5.00	Baseline	velak	04/20/19 14:44
Acetonitrile	5.47	Baseline	velak	04/20/19 14:45
Acrolein	5.47	Baseline	velak	04/20/19 14:44
Trichlorofluoromethane	5.49	Baseline	velak	04/20/19 14:45
Acetone	5.58	Baseline	velak	04/20/19 14:45
Iodomethane	6.01	Baseline	velak	04/20/19 14:45
1,1,2-Trichloro-1,2,2-trifluoroethane	6.11	Baseline	velak	04/20/19 14:45
3-Chloro-1-propene	6.16	Baseline	velak	04/20/19 14:45
Isobutyl alcohol	7.44	Baseline	velak	04/20/19 14:46
Toluene	10.02	Baseline	velak	04/20/19 15:14
2-Hexanone	10.42	Baseline	velak	04/20/19 14:46

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: ICIS 600-263293/7 Client Sample ID: _____Date Analyzed: 04/20/19 13:45 Lab File ID: J11005.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.91	Baseline	velak	04/20/19 14:27
Chloromethane	4.18	Baseline	velak	04/20/19 14:27
Butadiene	4.49	Baseline	velak	04/20/19 14:28
Bromomethane	4.82	Baseline	velak	04/20/19 14:28
Chloroethane	4.98	Baseline	velak	04/20/19 14:28
Acrolein	5.47	Baseline	velak	04/20/19 14:28
Trichlorofluoromethane	5.49	Baseline	velak	04/20/19 14:28
Acetone	5.58	Baseline	velak	04/20/19 14:28
1,1,2-Trichloro-1,2,2-trifluoroethane	6.11	Baseline	velak	04/20/19 14:28
Isobutyl alcohol	7.45	Baseline	velak	04/20/19 14:29
1,2-Dichloroethane-d4 (Surr)	7.86	Baseline	velak	04/20/19 14:29
1,4-Dioxane	8.89	Baseline	velak	04/20/19 14:29
trans-1,4-Dichloro-2-butene	12.42	Baseline	velak	04/20/19 14:29
Hexachlorobutadiene	16.65	Baseline	velak	04/20/19 14:29
1,2,3-Trichlorobenzene	16.85	Baseline	velak	04/20/19 14:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/8 Client Sample ID: _____Date Analyzed: 04/20/19 14:13 Lab File ID: J11006.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.90	Baseline	velak	04/20/19 14:47
Chloromethane	4.18	Baseline	velak	04/20/19 14:47
Butadiene	4.49	Baseline	velak	04/20/19 14:47
Bromomethane	4.82	Baseline	velak	04/20/19 14:47
Chloroethane	4.98	Baseline	velak	04/20/19 14:47
Dichlorofluoromethane	4.99	Baseline	velak	04/20/19 14:47
Trichlorofluoromethane	5.49	Baseline	velak	04/20/19 14:47
Acetone	5.57	Baseline	velak	04/20/19 14:48
Propionitrile	6.81	Baseline	velak	04/20/19 14:48
Isobutyl alcohol	7.45	Baseline	velak	04/20/19 14:48
1,4-Dioxane	8.89	Baseline	velak	04/20/19 14:48
Toluene	10.02	Baseline	velak	04/20/19 15:15
m-Xylene & p-Xylene	11.83	Baseline	velak	04/20/19 14:48
1,2-Dibromo-3-Chloropropane	14.88	Baseline	velak	04/20/19 14:48
1,2,3-Trichlorobenzene	16.85	Baseline	velak	04/20/19 14:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: IC 600-263293/9 Client Sample ID: _____Date Analyzed: 04/20/19 14:40 Lab File ID: J11007.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	4.37	Peak assignment corrected	velak	04/20/19 15:04
Bromomethane	4.83	Peak assignment corrected	velak	04/20/19 15:04
1,1-Dichloroethene	5.96	Baseline	velak	04/20/19 15:08
Acrylonitrile	5.99	Baseline	velak	04/20/19 15:09
Methylene Chloride	6.08	Baseline	velak	04/20/19 15:09
1,1,2-Trichloro-1,2,2-trifluoroethane	6.11	Baseline	velak	04/20/19 15:09
Hexane	7.11	Baseline	velak	04/20/19 15:10
Isopropyl ether	7.12	Baseline	velak	04/20/19 15:10
Methacrylonitrile	7.21	Baseline	velak	04/20/19 15:10
Isobutyl alcohol	7.45	Peak assignment corrected	velak	04/20/19 15:04
1,2-Dichloropropane	8.76	Baseline	velak	04/20/19 15:12
1,4-Dioxane	8.90	Baseline	velak	04/20/19 15:04
Methylcyclohexane	9.21	Baseline	velak	04/20/19 15:13
Toluene	10.02	Baseline	velak	04/20/19 15:13
Tetrachloroethene	10.75	Baseline	velak	04/20/19 15:16
Ethylbenzene	11.63	Baseline	velak	04/20/19 15:16
o-Xylene	12.27	Baseline	velak	04/20/19 15:16
1,2,3-Trichloropropane	12.43	Baseline	velak	04/20/19 15:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263293Lab Sample ID: ICV 600-263293/1012 Client Sample ID: _____Date Analyzed: 04/20/19 16:04 Lab File ID: J11010-ICV.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.90	Baseline	velak	04/22/19 11:17
Chloromethane	4.17	Baseline	velak	04/22/19 11:17
Vinyl chloride	4.37	Baseline	velak	04/22/19 11:18
Bromomethane	4.83	Baseline	velak	04/22/19 11:18
Chloroethane	4.96	Baseline	velak	04/22/19 11:18
Dichlorofluoromethane	4.99	Baseline	velak	04/22/19 11:18
Acrolein	5.47	Baseline	velak	04/22/19 11:18
Acetone	5.58	Baseline	velak	04/22/19 11:18
1,1,2-Trichloro-1,2,2-trifluoroethane	6.11	Baseline	velak	04/22/19 11:19
1,1-Dichloroethane	6.82	Baseline	velak	04/22/19 11:19
Isobutyl alcohol	7.44	Baseline	velak	04/22/19 11:19
1,4-Dioxane	8.89	Baseline	velak	04/22/19 11:19

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263890Lab Sample ID: CCVIS 600-263890/3 Client Sample ID: _____Date Analyzed: 04/29/19 12:49 Lab File ID: J11901.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	3.90	Baseline	velak	04/29/19 13:11
Chloromethane	4.18	Baseline	velak	04/29/19 13:11
Vinyl chloride	4.38	Baseline	velak	04/29/19 13:11
Butadiene	4.47	Baseline	velak	04/29/19 13:12
Chloroethane	4.95	Baseline	velak	04/29/19 13:12
Dichlorofluoromethane	4.98	Baseline	velak	04/29/19 13:12
Acetonitrile	5.49	Baseline	velak	04/29/19 13:12
Trichlorofluoromethane	5.49	Baseline	velak	04/29/19 13:12
Acetone	5.58	Baseline	velak	04/29/19 13:13
Propionitrile	6.80	Baseline	velak	04/29/19 13:13
Isobutyl alcohol	7.44	Baseline	velak	04/29/19 13:13
2-Hexanone	10.42	Baseline	velak	04/29/19 13:13
m-Xylene & p-Xylene	11.82	Baseline	velak	04/29/19 13:13
Hexachlorobutadiene	16.65	Baseline	velak	04/29/19 13:14

Lab Sample ID: 600-184109-12 MS Client Sample ID: ARTESIA-MW34-04222019 MSDate Analyzed: 04/29/19 16:25 Lab File ID: J11908.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibromofluoromethane	7.52	Baseline	velak	04/29/19 16:53

Lab Sample ID: 600-184109-2 Client Sample ID: ARTESIA-INLET-04222019Date Analyzed: 04/29/19 19:41 Lab File ID: J11915.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	8.31	Peak assignment corrected	velak	04/30/19 11:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263890Lab Sample ID: 600-184109-3 Client Sample ID: ARTESIA-MID-04222019Date Analyzed: 04/29/19 20:08 Lab File ID: J11916.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	8.31	Peak assignment corrected	velak	04/30/19 11:05

Lab Sample ID: 600-184109-4 Client Sample ID: ARTESIA-OUTLET-04222019Date Analyzed: 04/29/19 20:36 Lab File ID: J11917.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	5.97	Peak assignment corrected	velak	04/30/19 11:05

Lab Sample ID: 600-184109-6 Client Sample ID: ARTESIA-MW30-04222019Date Analyzed: 04/29/19 21:04 Lab File ID: J11918.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	8.31	Peak assignment corrected	velak	04/30/19 11:05

Lab Sample ID: 600-184109-7 Client Sample ID: ARTESIA-MD30-04222019Date Analyzed: 04/29/19 21:32 Lab File ID: J11919.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	8.31	Peak assignment corrected	velak	04/30/19 11:06

Lab Sample ID: 600-184109-8 Client Sample ID: ARTESIA-MW32-04222019Date Analyzed: 04/29/19 22:00 Lab File ID: J11920.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	6.82	Peak assignment corrected	velak	04/30/19 11:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Instrument ID: CHVOAMS06 Analysis Batch Number: 263890Lab Sample ID: 600-184109-11 Client Sample ID: ARTESIA-MW26-04222019Date Analyzed: 04/29/19 23:24 Lab File ID: J11923.D GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	6.82	Peak assignment corrected	velak	04/30/19 11:06
Benzene	8.32	Peak assignment corrected	velak	04/30/19 11:06
Tetrachloroethene	10.75	Peak assignment corrected	velak	04/30/19 11:06

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
BFB_00280							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Trihalomethanes, Total	
							Xylenes, Total	
					VOASBFB_00014	25 uL	BFB	25 ug/mL
.VOASBFB_00014	07/31/21		Restek, Lot A0120567		(Purchased Reagent)		BFB	2000 ug/mL
BFB_00281							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Trihalomethanes, Total	
							Xylenes, Total	
					VOASBFB_00014	50 uL	BFB	25 ug/mL
.VOASBFB_00014	07/31/21		Restek, Lot A0120567		(Purchased Reagent)		BFB	2000 ug/mL
CCV_00103	10/05/19	04/26/19	DI WATER, Lot NONE	500 mL	WETSICCSO4_00015	10 mL	Sulfate	20 mg/L
.WETSICCSO4_00015	06/21/20		INORGANIC-VENTURE, Lot k2-sox01111		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD1_00042	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCCL_00024	0 mL	Chloride	0 mg/L
.WETSICCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Chloride	1000 mg/L
ICCALSTD2_00049	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	20 uL	Bromide	0.2 mg/L
					WETSICCCL_00024	40 uL	Chloride	0.4 mg/L
					WETSICCFL_00013	20 uL	Fluoride	0.2 mg/L
					WETSICCSO4_00016	40 uL	Sulfate	0.4 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00012	05/02/19		INORGANIC VENTURES, Lot n2-br665239		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Sulfate	1000 mg/L
.WETSICCSO4_00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD3_00042	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	50 uL	Bromide	0.5 mg/L
					WETSICCCL_00024	100 uL	Chloride	1 mg/L
					WETSICCFL_00013	50 uL	Fluoride	0.5 mg/L
					WETSICCSO4_00016	100 uL	Sulfate	1 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00012	05/02/19		INORGANIC VENTURES, Lot n2-br665239		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Sulfate	1000 mg/L
.WETSICCSO4_00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD4_00041	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	100 uL	Bromide	1 mg/L
					WETSICCCL_00024	200 uL	Chloride	2 mg/L
					WETSICCFL_00013	100 uL	Fluoride	1 mg/L
					WETSICCSO4_00016	200 uL	Sulfate	2 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00012	05/02/19		INORGANIC VENTURES, Lot n2-br665239		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Sulfate	1000 mg/L
.WETSICCSO4_00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICCALSTD5_00042	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	200 uL	Bromide	2 mg/L
					WETSICCCL_00024	500 uL	Chloride	5 mg/L
					WETSICCFL_00013	200 uL	Fluoride	2 mg/L
					WETSICCSO4_00016	500 uL	Sulfate	5 mg/L
.WETSICCBRO_00012	05/02/19	INORGANIC VENTURES, Lot n2-br665239			(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD6_00038	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	500 uL	Bromide	5 mg/L
					WETSICCCL_00024	1 mL	Chloride	10 mg/L
					WETSICCFL_00013	500 uL	Fluoride	5 mg/L
					WETSICCSO4_00016	1 mL	Sulfate	10 mg/L
.WETSICCBRO_00012	05/02/19	INORGANIC VENTURES, Lot n2-br665239			(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD7_00040	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	750 uL	Bromide	7.5 mg/L
					WETSICCCL_00024	2 mL	Chloride	20 mg/L
					WETSICCFL_00013	750 uL	Fluoride	7.5 mg/L
					WETSICCSO4_00016	2 mL	Sulfate	20 mg/L
.WETSICCBRO_00012	05/02/19	INORGANIC VENTURES, Lot n2-br665239			(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD8_00029	05/02/19	03/07/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00012	1 mL	Bromide	10 mg/L
					WETSICCCL_00024	4 mL	Chloride	40 mg/L
					WETSICCFL_00013	1 mL	Fluoride	10 mg/L
					WETSICCSO4_00016	4 mL	Sulfate	40 mg/L
.WETSICCBRO_00012	05/02/19	INORGANIC VENTURES, Lot n2-br665239			(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICV/LCS_00103	09/30/19	05/03/19	DI WATER, Lot NONE	500 mL	WETSICISO4_00012	10 mL	Sulfate	20 mg/L
.WETSICISO4_00012	09/29/20	ACCUSTANDARD, Lot 218085152			(Purchased Reagent)		Sulfate	1000 mg/L
VOAIS250PPM_00124	04/24/19	04/10/19	Methanol, Lot V032119A	1 mL	VOA3IS_00031	100 uL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							1,4-Dichlorobenzene-d4	2500 ug/mL
.VOA3IS_00031	06/30/23	Restek, Lot A0138856			(Purchased Reagent)		Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOAIS250PPM_00125	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOA3IS_00031	100 uL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
							1,4-Dichlorobenzene-d4	2500 ug/mL
.VOA3IS_00031	06/30/23	Restek, Lot A0138856			(Purchased Reagent)		Chlorobenzene-d5	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorobenzene	2500 ug/mL
VOALCSPT2T_00058	04/24/19	04/10/19	Methanol, Lot V032119A	1 mL	VOALMegMi2017_00003	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00003	06/30/19		Restek, Lot A0123775		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOALCSPT2T_00059	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOALMegMi2017_00003	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00003	06/30/19		Restek, Lot A0123775		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOASS250PPM_00101	04/24/19	04/10/19	Methanol, Lot V032119A	1 mL	VOARSS_00012	100 uL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene	250 ug/mL
							Dibromofluoromethane	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASS250PPM_00102	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOARSS_00012	100 uL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene	250 ug/mL
							Dibromofluoromethane	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASTDGASPT_00322	04/24/19	04/17/19	Methanol, Lot V032119A	1 mL	VOARGAS_00014	20 uL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VOARGAS_00014	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Bromomethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VOASTDst_00107	04/24/19	04/10/19	Methanol, Lot V032119A	1 mL	VOAMegMix2017_00005	20 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VOAR2CEVE_00014	40 uL	2-Chloroethyl vinyl ether	100 ug/mL
					VOARAcroleinS_00004	12.5 uL	Acrolein	250 ug/mL
					VOARADD4COM_00006	20 uL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VOARADDCOM_00013	20 uL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Isopropyl alcohol	500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VOARKETONDup_00002	8 uL	2-Butanone (MEK)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							Acetonitrile	500 ug/mL
					VOARPOLADD_00013	20 uL	Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
					VOARVASTD_00003	20 uL	Vinyl acetate	100 ug/mL
.VOAMegMix2017_00005	06/30/19		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOAR2CEVE_00014	12/31/20		Restek, Lot A0133302		(Purchased Reagent)	2-Chloroethyl vinyl ether	2500 ug/mL	
.VOARAcroleinS_00004	05/31/19		Restek, Lot A0143013		(Purchased Reagent)	Acrolein	20000 ug/mL	
.VOARADD4COM_00006	08/31/19		Restek, Lot A0135442		(Purchased Reagent)	Ethyl acetate	5000 ug/mL	
.VOARADD4COM_00013	05/31/19		Restek, Lot A0132816		(Purchased Reagent)	Ethyl acrylate	2500 ug/mL	
						Methyl methacrylate	5000 ug/mL	
						n-Butyl acetate	2500 ug/mL	
						1,2,3-Trimethylbenzene	2500 ug/mL	
						1,3,5-Trichlorobenzene	2500 ug/mL	
						1-Chlorohexane	2500 ug/mL	
						2-Chloro-1,3-butadiene	2500 ug/mL	
						2-Nitropropane	5000 ug/mL	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.VOARKETONDup_00002	01/31/20		RESTEK, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.VOARPOLADD_00013	07/31/20		Restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
.VOARVASTD_00003	04/30/19		Restek, Lot A0142609		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VOASTDSt_00108	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOAMegMix2017_00005	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOAMegMix2017_00005	06/30/19		Restek, Lot A0123711		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Corpus Christ Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ESI-spkA_00021	07/09/20	Elemental Scientific, Lot 10075162-1			(Purchased Reagent)		Al	2500 mg/L
							As	25 mg/L
							B	25 mg/L
							Ba	25 mg/L
							Be	25 mg/L
							Ca	2500 mg/L
							Cd	25 mg/L
							Co	25 mg/L
							Cr	25 mg/L
							Cu	25 mg/L
							Fe	2500 mg/L
							K	2500 mg/L
							Li	25 mg/L
							Manganese, Dissolved	250 mg/L
							Mg	2500 mg/L
							Mo	25 mg/L
							Na	2500 mg/L
							Ni	25 mg/L
							P	250 mg/L
							Pb	25 mg/L
							Sb	25 mg/L
							Se	25 mg/L
							Sn	25 mg/L
							Sr	25 mg/L
							Ti	25 mg/L
							Tl	10 mg/L
							U	25 mg/L
							V	25 mg/L
							Zn	25 mg/L
ESI-spkB_00019	07/09/20	Elemental Scientific, Lot 10065177-3			(Purchased Reagent)		Ag	25 mg/L
ICV_ESI_00083	07/09/20	01/24/19	5%/3% HCl/HNO3, Lot icap acid	100 mL	ESI-spkA_00021	1 mL	Manganese, Dissolved	2.5 mg/L
.ESI-spkA_00021	07/09/20	Elemental Scientific, Lot 10075162-1			(Purchased Reagent)		Manganese, Dissolved	250 mg/L
INT-A_00133	05/31/20	04/03/19	DI+HNO3,HCl, Lot icap acid_0105	100 mL	171009INT-A_00002	5 mL	Al	250000 ug/L
							Ca	250000 ug/L
							Fe	100000 ug/L
							Mg	250000 ug/L
.171009INT-A_00002	05/31/20	CPI, Lot 171614-3			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
INT-AB_00139	05/31/20	04/03/19	5%/3% HCl/HNO3, Lot icap acid_00104	200 mL	171009INT-A_00002	5 mL	Al	125000 ug/L
							Ca	125000 ug/L
							Fe	50000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Corpus Christ Job No.: 600-184109-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					171009INTB_00002	1 mL	Mg	125000 ug/L
							Ag	500 ug/L
							Ba	250 ug/L
							Be	250 ug/L
							Cd	500 ug/L
							Co	250 ug/L
							Cr	250 ug/L
							Cu	250 ug/L
							Manganese, Dissolved	250 ug/L
							Ni	500 ug/L
							Pb	500 ug/L
							V	250 ug/L
Zn	500 ug/L							
.171009INT-A_00002	05/31/20	CPI, Lot 171614-3			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
.171009INTB_00002	05/31/20	CPI, Lot 10063227-10			(Purchased Reagent)		Ag	100 ug/mL
							Ba	50 ug/mL
							Be	50 ug/mL
							Cd	100 ug/mL
							Co	50 ug/mL
							Cr	50 ug/mL
							Cu	50 ug/mL
							Manganese, Dissolved	50 ug/mL
							Ni	100 ug/mL
							Pb	100 ug/mL
							V	50 ug/mL
							Zn	100 ug/mL
TS_MS250_00051	06/01/19	11/23/18	5%/3% HCl/HNO3, Lot icap acid	50 mL	TS_MS500_00038	25 mL	Manganese, Dissolved	2.5 mg/L
.TS_MS500_00038	06/01/19	11/23/18	5%/3% HCl/HNO3, Lot icap acid	200 mL	MT-STD-3_00014	1 mL	Manganese, Dissolved	5 mg/L
..MT-STD-3_00014	05/12/20	IV, Lot N2-MEB673370			(Purchased Reagent)		Manganese, Dissolved	1000 mg/L

Method 8260B Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA-TB01-04222 019	600-184109-1	93	110	82	91
ARTESIA-INLET-0422 2019	600-184109-2	89	99	81	91
ARTESIA-MID-042220 19	600-184109-3	86	96	80	89
ARTESIA-OUTLET-042 22019	600-184109-4	83	92	76	84
ARTESIA-MW12-04222 019	600-184109-5	89	107	83	101
ARTESIA-MW30-04222 019	600-184109-6	90	101	82	90
ARTESIA-MD30-04222 019	600-184109-7	87	99	78	86
ARTESIA-MW32-04222 019	600-184109-8	91	105	84	91
ARTESIA-MW17C-0422 2019	600-184109-9	83	95	77	82
ARTESIA-MW11-04222 019	600-184109-10	91	109	81	90
ARTESIA-MW26-04222 019	600-184109-11	88	107	77	87
ARTESIA-MW34-04222 019	600-184109-12	86	103	79	78
ARTESIA-MD11-04222 019	600-184109-13	90	108	81	90
	MB 600-263890/7	86	102	76	83
	LCS 600-263890/5	89	108	78	87
ARTESIA-MW34-04222 019 MS	600-184109-12 MS	88	105	76	86
ARTESIA-MW34-04222 019 MSD	600-184109-12 MSD	89	107	78	87

DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

QC LIMITS
62-130
50-134
70-130
67-139

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: J11903.D
Lab ID: LCS 600-263890/5 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.008688	87	70-140	
1,1-Dichloroethene	0.0100	0.008541	85	58-148	
Benzene	0.0100	0.009315	93	70-130	
Naphthalene	0.0100	0.009229	92	10-150	
Tetrachloroethene	0.0100	0.008520	85	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: J11908.D
Lab ID: 600-184109-12 MS Client ID: ARTESIA-MW34-04222019 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.000680 J	0.009095	84	70-140	
1,1-Dichloroethene	0.0100	0.000507 J	0.01066	101	58-148	
Benzene	0.0100	0.000176 U	0.01084	108	70-130	
Naphthalene	0.0100	0.000129 U	0.007887	79	10-150	
Tetrachloroethene	0.0100	0.000858 J	0.009796	89	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: J11909.D
 Lab ID: 600-184109-12 MSD Client ID: ARTESIA-MW34-04222019 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.008085	74	12	30	70-140	
1,1-Dichloroethene	0.0100	0.008820	83	19	30	58-148	
Benzene	0.0100	0.009949	99	9	30	70-130	
Naphthalene	0.0100	0.008757	88	10	30	10-150	
Tetrachloroethene	0.0100	0.008890	80	10	30	47-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab File ID: J11905.D Lab Sample ID: MB 600-263890/7
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHVOAMS06 Date Analyzed: 04/29/2019 15:01
 GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-263890/5	J11903.D	04/29/2019 14:05
ARTESIA-TB01-04222019	600-184109-1	J11906.D	04/29/2019 15:29
ARTESIA-MW34-04222019	600-184109-12	J11907.D	04/29/2019 15:57
ARTESIA-MW34-04222019 MS	600-184109-12 MS	J11908.D	04/29/2019 16:25
ARTESIA-MW34-04222019 MSD	600-184109-12 MSD	J11909.D	04/29/2019 16:53
ARTESIA-INLET-04222019	600-184109-2	J11915.D	04/29/2019 19:41
ARTESIA-MID-04222019	600-184109-3	J11916.D	04/29/2019 20:08
ARTESIA-OUTLET-04222019	600-184109-4	J11917.D	04/29/2019 20:36
ARTESIA-MW30-04222019	600-184109-6	J11918.D	04/29/2019 21:04
ARTESIA-MD30-04222019	600-184109-7	J11919.D	04/29/2019 21:32
ARTESIA-MW32-04222019	600-184109-8	J11920.D	04/29/2019 22:00
ARTESIA-MW17C-04222019	600-184109-9	J11921.D	04/29/2019 22:28
ARTESIA-MW11-04222019	600-184109-10	J11922.D	04/29/2019 22:56
ARTESIA-MW26-04222019	600-184109-11	J11923.D	04/29/2019 23:24
ARTESIA-MD11-04222019	600-184109-13	J11924.D	04/29/2019 23:51
ARTESIA-MW12-04222019	600-184109-5	J11925.D	04/30/2019 00:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab File ID: J11000A.D BFB Injection Date: 04/20/2019
Instrument ID: CHVOAMS06 BFB Injection Time: 11:19
Analysis Batch No.: 263293

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	29.4	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.5	(6.7) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-263293/3	J11001.D	04/20/2019	11:53
	IC 600-263293/4	J11002.D	04/20/2019	12:21
	IC 600-263293/5	J11003.D	04/20/2019	12:49
	IC 600-263293/6	J11004.D	04/20/2019	13:17
	ICIS 600-263293/7	J11005.D	04/20/2019	13:45
	IC 600-263293/8	J11006.D	04/20/2019	14:13
	IC 600-263293/9	J11007.D	04/20/2019	14:40
	ICV 600-263293/1012	J11010-ICV.d	04/20/2019	16:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab File ID: J11900A.D BFB Injection Date: 04/29/2019
Instrument ID: CHVOAMS06 BFB Injection Time: 12:25
Analysis Batch No.: 263890

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.8
75	30.0 - 60.0 % of mass 95	55.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.7
173	Less than 2.0 % of mass 174	0.2 (0.3) 1
174	50.0 - 120.00 % of mass 95	84.6
175	5.0 - 9.0 % of mass 174	7.1 (8.4) 1
176	95.0 - 101.0 % of mass 174	82.5 (97.5) 1
177	5.0 - 9.0 % of mass 176	5.4 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-263890/3	J11901.D	04/29/2019	12:49
	LCS 600-263890/5	J11903.D	04/29/2019	14:05
	MB 600-263890/7	J11905.D	04/29/2019	15:01
ARTESIA-TB01-04222019	600-184109-1	J11906.D	04/29/2019	15:29
ARTESIA-MW34-04222019	600-184109-12	J11907.D	04/29/2019	15:57
ARTESIA-MW34-04222019 MS	600-184109-12 MS	J11908.D	04/29/2019	16:25
ARTESIA-MW34-04222019 MSD	600-184109-12 MSD	J11909.D	04/29/2019	16:53
ARTESIA-INLET-04222019	600-184109-2	J11915.D	04/29/2019	19:41
ARTESIA-MID-04222019	600-184109-3	J11916.D	04/29/2019	20:08
ARTESIA-OUTLET-04222019	600-184109-4	J11917.D	04/29/2019	20:36
ARTESIA-MW30-04222019	600-184109-6	J11918.D	04/29/2019	21:04
ARTESIA-MD30-04222019	600-184109-7	J11919.D	04/29/2019	21:32
ARTESIA-MW32-04222019	600-184109-8	J11920.D	04/29/2019	22:00
ARTESIA-MW17C-04222019	600-184109-9	J11921.D	04/29/2019	22:28
ARTESIA-MW11-04222019	600-184109-10	J11922.D	04/29/2019	22:56
ARTESIA-MW26-04222019	600-184109-11	J11923.D	04/29/2019	23:24
ARTESIA-MD11-04222019	600-184109-13	J11924.D	04/29/2019	23:51
ARTESIA-MW12-04222019	600-184109-5	J11925.D	04/30/2019	00:19

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Sample No.: ICIS 600-263293/7 Date Analyzed: 04/20/2019 13:45
 Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): J11005.D Heated Purge: (Y/N) N
 Calibration ID: 15670

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		170948	8.45	85712	11.42	90860	14.03
UPPER LIMIT		341896	8.95	171424	11.92	181720	14.53
LOWER LIMIT		85474	7.95	42856	10.92	45430	13.53
LAB SAMPLE ID		CLIENT SAMPLE ID					
ICV 600-263293/1012		168813	8.45	82599	11.42	90663	14.03
CCVIS 600-263890/3		105783	8.46	62353	11.42	64112	14.03

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Sample No.: CCVIS 600-263890/3 Date Analyzed: 04/29/2019 12:49
 Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): J11901.D Heated Purge: (Y/N) N
 Calibration ID: 15670

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		105783	8.46	62353	11.42	64112	14.03
UPPER LIMIT		211566	8.96	124706	11.92	128224	14.53
LOWER LIMIT		52892	7.96	31177	10.92	32056	13.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-263890/5		99320	8.45	58829	11.42	61528	14.03
MB 600-263890/7		109144	8.45	64585	11.42	66630	14.03
600-184109-1	ARTESIA-TB01-04222019	102556	8.45	59883	11.42	63072	14.03
600-184109-12	ARTESIA-MW34-04222019	102777	8.45	58974	11.42	61119	14.03
600-184109-12 MS	ARTESIA-MW34-04222019 MS	98941	8.45	58665	11.42	60203	14.03
600-184109-12 MSD	ARTESIA-MW34-04222019 MSD	100245	8.45	59825	11.42	61866	14.03
600-184109-2	ARTESIA-INLET-04222019	124572	8.45	73331	11.42	73065	14.03
600-184109-3	ARTESIA-MID-04222019	121487	8.45	69403	11.42	71342	14.03
600-184109-4	ARTESIA-OUTLET-04222019	124217	8.46	71576	11.42	72087	14.03
600-184109-6	ARTESIA-MW30-04222019	118774	8.46	68902	11.42	70548	14.03
600-184109-7	ARTESIA-MD30-04222019	114686	8.45	66865	11.42	69474	14.03
600-184109-8	ARTESIA-MW32-04222019	109410	8.45	63250	11.42	65199	14.03
600-184109-9	ARTESIA-MW17C-04222019	110662	8.45	63623	11.42	65604	14.03
600-184109-10	ARTESIA-MW11-04222019	99350	8.45	58551	11.42	59254	14.03
600-184109-11	ARTESIA-MW26-04222019	95142	8.45	56485	11.42	57006	14.03
600-184109-13	ARTESIA-MD11-04222019	90070	8.45	52879	11.42	53606	14.03
600-184109-5	ARTESIA-MW12-04222019	88408	8.46	49755	11.42	42408	14.04

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-TB01-04222019 Lab Sample ID: 600-184109-1
 Matrix: Water Lab File ID: J11906.D
 Analysis Method: 8260B Date Collected: 04/22/2019 13:10
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 15:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	82		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-INLET-04222019 Lab Sample ID: 600-184109-2
 Matrix: Water Lab File ID: J11915.D
 Analysis Method: 8260B Date Collected: 04/22/2019 13:40
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 19:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00260		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00973		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000555	J B	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00953		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	81		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MID-04222019 Lab Sample ID: 600-184109-3
 Matrix: Water Lab File ID: J11916.D
 Analysis Method: 8260B Date Collected: 04/22/2019 13:45
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 20:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00307		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00805		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000199	J B	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000548	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
460-00-4	4-Bromofluorobenzene	89		67-139
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	80		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-OUTLET-04222019 Lab Sample ID: 600-184109-4
 Matrix: Water Lab File ID: J11917.D
 Analysis Method: 8260B Date Collected: 04/22/2019 13:53
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 20:36
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00186		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000666	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		50-134
460-00-4	4-Bromofluorobenzene	84		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	76		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW12-04222019 Lab Sample ID: 600-184109-5
 Matrix: Water Lab File ID: J11925.D
 Analysis Method: 8260B Date Collected: 04/22/2019 13:50
 Sample wt/vol: 20 (mL) Date Analyzed: 04/30/2019 00:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0260		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00161		0.00100	0.000192
71-43-2	Benzene	0.00617		0.00100	0.000176
91-20-3	Naphthalene	0.0466	B	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00377		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	101		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	83		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW30-04222019 Lab Sample ID: 600-184109-6
 Matrix: Water Lab File ID: J11918.D
 Analysis Method: 8260B Date Collected: 04/22/2019 14:05
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 21:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000960	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00271		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00350		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134
460-00-4	4-Bromofluorobenzene	90		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	82		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MD30-04222019 Lab Sample ID: 600-184109-7
 Matrix: Water Lab File ID: J11919.D
 Analysis Method: 8260B Date Collected: 04/22/2019 14:10
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 21:32
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000931	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00273		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00363		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	86		67-139
1868-53-7	Dibromofluoromethane	87		62-130
2037-26-5	Toluene-d8 (Surr)	78		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW32-04222019 Lab Sample ID: 600-184109-8
 Matrix: Water Lab File ID: J11920.D
 Analysis Method: 8260B Date Collected: 04/22/2019 14:50
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 22:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000639	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	91		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW17C-04222019 Lab Sample ID: 600-184109-9
 Matrix: Water Lab File ID: J11921.D
 Analysis Method: 8260B Date Collected: 04/22/2019 14:30
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 22:28
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		50-134
460-00-4	4-Bromofluorobenzene	82		67-139
1868-53-7	Dibromofluoromethane	83		62-130
2037-26-5	Toluene-d8 (Surr)	77		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW11-04222019 Lab Sample ID: 600-184109-10
 Matrix: Water Lab File ID: J11922.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:25
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 22:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00304		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		50-134
460-00-4	4-Bromofluorobenzene	90		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	81		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW26-04222019 Lab Sample ID: 600-184109-11
 Matrix: Water Lab File ID: J11923.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:05
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 23:24
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000332	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00175		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00170		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	87		67-139
1868-53-7	Dibromofluoromethane	88		62-130
2037-26-5	Toluene-d8 (Surr)	77		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW34-04222019 Lab Sample ID: 600-184109-12
 Matrix: Water Lab File ID: J11907.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:30
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 15:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000680	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000507	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000858	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		50-134
460-00-4	4-Bromofluorobenzene	78		67-139
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	79		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MD11-04222019 Lab Sample ID: 600-184109-13
 Matrix: Water Lab File ID: J11924.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:35
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 23:51
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00302		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	90		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	81		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-263293/3	J11001.D
Level 2	IC 600-263293/4	J11002.D
Level 3	IC 600-263293/5	J11003.D
Level 4	IC 600-263293/6	J11004.D
Level 5	ICIS 600-263293/7	J11005.D
Level 6	IC 600-263293/8	J11006.D
Level 7	IC 600-263293/9	J11007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Dichlorodifluoromethane	+++++ 0.2677	0.1538 0.2826	0.2309	0.3218	0.3103	Lin1	-0.085	0.2878							0.9950		0.9900
Chloromethane	+++++ 0.3020	0.2473 0.3005	0.2803	0.3049	0.3014	Ave		0.2894			0.1000	7.8		15.0			
Vinyl chloride	+++++ 0.2023	0.1692 0.1961	0.1775	0.2240	0.2303	Ave		0.1999				12.2		15.0			
Butadiene	+++++ 0.2864	0.2864 0.2906	0.3336	0.2612	0.2798	Ave		0.2897				8.3		15.0			
Bromomethane	+++++ 0.1819	0.0653 0.1772	0.1425	0.1913	0.1835	Lin2	-0.122	0.1949							0.9930		0.9900
Chloroethane	+++++ 0.1420	0.0633 0.1401	0.0715	0.1381	0.1499	Lin1	-0.089	0.1451							0.9970		0.9900
Dichlorofluoromethane	+++++ 0.5317	0.2823 0.5070	0.4130	0.4604	0.4295	Lin2	-0.218	0.5053							0.9950		0.9900
Acrolein	+++++ 0.0300	0.0304 0.0302	0.0262	0.0291	0.0310	Ave		0.0295				5.8		15.0			
Acetonitrile	+++++ 0.0221	0.0120 0.0191	0.0180	0.0204	0.0209	Lin2	-0.089	0.0215							0.9950		0.9900
Trichlorofluoromethane	+++++ 0.6213	0.4564 0.5996	0.4251	0.6082	0.6625	Lin1	-0.182	0.6190							0.9970		0.9900
Isopropyl alcohol	+++++ 0.0137	0.0060 +++++	0.0077	0.0108	0.0139	Lin1	-0.102	0.0142							0.9950		0.9900
Acetone	+++++ 0.0862	0.0925 0.0665	0.1035	0.0816	0.0864	Ave		0.0861				14.2		15.0			
Ethyl ether	0.2856 0.3199	0.3395 0.2941	0.4043	0.3390	0.3195	Ave		0.3288				11.9		15.0			
t-Butanol	+++++ 0.0344	0.0246 0.0359	0.0280	0.0287	0.0350	Ave		0.0311				14.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293
SDG No.: _____
Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloroethene	++++ 0.3387	0.4118 0.2962	0.3614	0.4189	0.3323	Ave		0.3599				13.3		15.0			
Acrylonitrile	0.0523 0.0811	0.0845 0.0717	0.0853	0.0876	0.0855	Lin1	0.0349	0.0764							0.9920		0.9900
Iodomethane	0.5668 0.8394	0.9438 0.7359	0.9324	0.9241	0.8163	Lin1	0.0798	0.7785							0.9920		0.9900
Methylene Chloride	0.5142 0.4062	0.5562 0.3602	0.5382	0.4900	0.4008	Lin1	0.1624	0.3768							0.9910		0.9900
Methyl acetate	++++ 0.2424	0.2659 0.2122	0.2632	0.2508	0.2303	Ave		0.2441				8.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	++++ 0.2235	0.1827 0.2435	0.2413	0.3148	0.2776	Lin	0.0916	0.2399							0.9960		0.9900
3-Chloro-1-propene	++++ 0.2054	0.2413 0.1617	0.2242	0.2237	0.2129	Ave		0.2115				12.9		15.0			
Carbon disulfide	1.3901 1.1190	1.7080 1.0091	1.4808	1.3732	1.0990	Lin1	0.4769	1.0477							0.9910		0.9900
trans-1,2-Dichloroethene	0.4061 0.4321	0.4862 0.3736	0.4889	0.4870	0.4291	Ave		0.4433				10.3		15.0			
Methyl tert-butyl ether	1.0167 0.9785	1.0819 0.8542	1.0965	1.0452	0.9269	Ave		1.0000				8.7		15.0			
Propionitrile	++++ 0.0361	0.0291 0.0286	0.0386	0.0323	0.0360	Ave		0.0335				12.2		15.0			
1,1-Dichloroethane	0.9519 0.7870	0.9751 0.6780	0.9672	0.9316	0.7842	Ave		0.8679			0.1000	13.5		15.0			
Vinyl acetate	0.7512 0.8032	0.8903 0.7019	0.8805	0.8698	0.8001	Ave		0.8139				8.7		15.0			
2-Chloro-1,3-butadiene	1.1773 1.0461	1.2397 0.8935	1.2084	1.1968	1.0143	Ave		1.1109				11.5		15.0			
Hexane	0.7948 0.5378	0.8636 0.4152	0.7771	0.7649	0.5888	Qua	0.3528	0.6044	-0.003931						0.9990		0.9900
Isopropyl ether	1.8911 1.6287	2.1435 1.3336	2.0377	2.0086	1.6694	Qua	0.4371	1.7854	-0.009212						1.0000		0.9900
2-Butanone (MEK)	++++ 0.0268	0.0277 0.0218	0.0301	0.0289	0.0294	Ave		0.0274				11.0		15.0			
Methacrylonitrile	0.0336 0.0259	0.0346 0.0223	0.0347	0.0318	0.0282	Qua	0.1062	0.0280	-0.000012						1.0000		0.9900
cis-1,2-Dichloroethene	0.5668 0.4844	0.5938 0.4003	0.6019	0.5554	0.4854	Ave		0.5269				13.9		15.0			
Ethyl acetate	0.3349 0.3493	0.3848 0.3147	0.3783	0.3687	0.3552	Ave		0.3551				7.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293
SDG No.: _____
Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobromomethane	++++ 0.2124	0.2073 0.1822	0.2491	0.2508	0.2262	Ave		0.2213				11.9		15.0			
Chloroform	0.8910 0.7869	0.9921 0.6651	0.9280	0.9141	0.7774	Ave		0.8507				13.2		15.0			
Tert-butyl ethyl ether	1.5066 1.5100	1.8887 1.2313	1.7616	1.6820	1.5116	Ave		1.5845				13.5		15.0			
Isobutyl alcohol	++++ 0.0247	0.0284 0.0228	0.0243	0.0283	0.0270	Ave		0.0259				9.0		15.0			
2,2-Dichloropropane	0.6088 0.4726	0.5919 0.4116	0.6364	0.5640	0.4903	Lin1	0.1863	0.4364							0.9900		0.9900
Tetrahydrofuran	++++ 0.0899	0.1163 0.0783	0.1056	0.0919	0.0932	Ave		0.0959				13.8		15.0			
1,2-Dichloroethane	0.6827 0.6352	0.7410 0.5892	0.6703	0.6786	0.6014	Ave		0.6569				8.0		15.0			
n-Butanol	++++ 0.0092	0.0072 0.0071	0.0086	0.0086	0.0086	Ave		0.0082				10.8		15.0			
1,1,1-Trichloroethane	0.6704 0.7144	0.8951 0.6322	0.8413	0.7663	0.7057	Ave		0.7465				12.6		15.0			
1,1-Dichloropropene	0.6434 0.5378	0.6422 0.4644	0.6045	0.6333	0.5413	Ave		0.5810				11.7		15.0			
Cyclohexane	0.5568 0.4059	0.5326 0.3205	0.5437	0.5327	0.4467	Qua	0.1661	0.4590	-0.002841						0.9990		0.9900
Carbon tetrachloride	0.7600 0.6994	0.8431 0.6227	0.8161	0.7794	0.7013	Ave		0.7460				10.2		15.0			
Benzene	++++ 1.4427	1.8267 ++++	1.7380	1.6715	1.4681	Ave		1.6294				10.3		15.0			
Tert-amyl methyl ether	1.1239 0.9897	1.2197 0.8303	1.0968	1.1000	0.9617	Ave		1.0460				12.3		15.0			
Isooctane	++++ 0.8618	1.2720 0.6168	1.2834	1.2089	0.9664	Qua	0.6596	0.9894	-0.007724						0.9990		0.9900
Ethyl acrylate	0.7679 0.6125	0.8562 0.5614	0.6629	0.6679	0.6339	Ave		0.6804				14.7		15.0			
n-Heptane	++++ 0.5584	0.7967 0.4994	0.8152	0.7329	0.6370	Qua	0.5021	0.5826	-0.001875						0.9990		0.9900
Dibromomethane	++++ 0.2380	0.2606 0.1932	0.2405	0.2518	0.2245	Ave		0.2348				10.1		15.0			
1,2-Dichloropropane	++++ 0.4034	0.5449 ++++	0.5205	0.4717	0.4291	Ave		0.4739				12.6		15.0			
2-Nitropropane	++++ 0.1677	0.1627 0.1563	0.1534	0.1495	0.1577	Ave		0.1579				4.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293
SDG No.: _____
Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.5502 0.5314	0.6550 0.4221	0.6289	0.6028	0.5195	Ave		0.5586				14.1		15.0			
Bromodichloromethane	0.6548 0.6600	0.7514 0.5922	0.7286	0.7089	0.6447	Ave		0.6772				8.1		15.0			
Methyl methacrylate	0.3891 0.3905	0.3753 0.3543	0.4170	0.3990	0.3717	Ave		0.3853				5.3		15.0			
1,4-Dioxane	++++ 0.0014	0.0006 0.0015	0.0009	0.0010	0.0016	Lin1	-0.022	0.0015							0.9940		0.9900
2-Chloroethyl vinyl ether	0.3887 0.3617	0.4088 0.2959	0.4045	0.4059	0.3861	Ave		0.3788				10.6		15.0			
Methylcyclohexane	++++ 0.5358	0.7930 0.4472	0.7702	0.7089	0.5766	Qua	0.4230	0.5695	-0.002618						1.0000		0.9900
cis-1,3-Dichloropropene	1.3694 1.2058	1.3136 1.0287	1.3500	1.3728	1.2139	Ave		1.2649				9.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.4329 0.4404	0.4790 0.3886	0.4840	0.4314	0.4304	Ave		0.4410				7.4		15.0			
trans-1,3-Dichloropropene	1.1123 1.0842	1.2699 0.9629	1.0903	1.2214	1.0949	Ave		1.1194				9.0		15.0			
n-Butyl acetate	++++ 0.1592	0.1597 0.1508	0.1926	0.1732	0.1536	Ave		0.1649				9.5		15.0			
1,1,2-Trichloroethane	0.7331 0.6163	0.8378 0.5462	0.7117	0.7193	0.6232	Ave		0.6839				14.0		15.0			
Ethyl methacrylate	0.7895 0.6914	0.7610 0.6155	0.6963	0.7739	0.7191	Ave		0.7209				8.3		15.0			
Toluene	++++ 1.8425	2.2177 ++++	2.5108	2.3330	1.9802	Ave		2.1769				12.3		15.0			
1,3-Dichloropropane	0.8815 0.8976	1.1282 0.7842	1.0232	1.0361	0.9162	Ave		0.9524				12.2		15.0			
Dibromochloromethane	++++ 0.9566	0.8647 0.8698	0.9901	1.1072	0.9369	Ave		0.9542				9.4		15.0			
2-Hexanone	0.8864 0.7088	0.8840 0.6580	0.8460	0.8100	0.7274	Ave		0.7886				11.5		15.0			
1,2-Dibromoethane	0.6817 0.7187	0.8190 0.6493	0.7893	0.8337	0.7244	Ave		0.7452				9.4		15.0			
Tetrachloroethene	++++ 0.7426	0.8099 0.6188	0.9119	0.8739	0.7483	Ave		0.7842				13.4		15.0			
1-Chlorohexane	1.3255 1.1273	1.3585 0.9056	1.3250	1.3265	1.1820	Ave		1.2215				13.4		15.0			
1,1,1,2-Tetrachloroethane	1.9439 1.0821	1.2241 0.9554	1.2065	1.2895	1.1033	Ave		1.1150				12.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293
SDG No.: _____
Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	3.1709 2.7214	3.2438 2.2064	3.0638	3.1752	2.7963	Ave		2.9111			0.3000	12.7		15.0			
Ethylbenzene	1.6471 1.4135	1.7617 1.1169	1.7493	1.6740	1.4790	Ave		1.5488				14.9		15.0			
m-Xylene & p-Xylene	3.5279 3.1096	3.6413 2.5059	3.4939	3.7653	3.1836	Ave		3.3182				12.9		15.0			
Bromoform	++++ 0.4703	0.4127 0.5664	0.4600	0.4703	0.5192	Ave		0.4832			0.1000	11.0		15.0			
Styrene	2.7345 2.4754	3.2104 2.0195	2.8810	3.0301	2.5813	Ave		2.7046				14.6		15.0			
o-Xylene	++++ 1.6702	2.0970 ++++	2.0493	2.1359	1.7627	Ave		1.9430				10.9		15.0			
1,1,2,2-Tetrachloroethane	0.6694 0.6037	0.7023 0.5894	0.8250	0.6896	0.6570	Ave		0.6766			0.3000	11.5		15.0			
trans-1,4-Dichloro-2-butene	++++ 0.3092	0.3409 0.3567	0.2608	0.2971	0.3005	Ave		0.3109				11.0		15.0			
1,2,3-Trichloropropane	++++ 0.1984	0.1877 0.2203	0.2368	0.2328	0.2126	Ave		0.2148				8.9		15.0			
Isopropylbenzene	4.0076 3.6197	4.5156 3.2886	4.3300	4.3118	3.8329	Ave		3.9866				11.0		15.0			
Bromobenzene	1.1546 1.0807	1.2149 1.0692	1.2645	1.1293	1.1055	Ave		1.1455				6.3		15.0			
N-Propylbenzene	1.2393 1.0852	1.4137 0.9427	1.2945	1.2262	1.1817	Ave		1.1976				12.6		15.0			
2-Chlorotoluene	1.2822 1.0059	1.2973 0.9227	1.1769	1.1365	1.0756	Ave		1.1282				12.3		15.0			
4-Chlorotoluene	2.9419 2.6997	3.3255 2.4988	3.1644	3.0412	2.8640	Ave		2.9336				9.5		15.0			
1,3,5-Trimethylbenzene	3.5850 3.1144	3.7238 2.6703	3.6735	3.7065	3.4205	Ave		3.4134				11.5		15.0			
tert-Butylbenzene	3.0314 2.6897	3.3911 2.2176	3.2964	3.2365	2.9245	Ave		2.9696				13.8		15.0			
1,2,4-Trimethylbenzene	3.6619 3.2600	4.1677 2.7833	3.8733	3.8990	3.5745	Ave		3.6028				12.8		15.0			
sec-Butylbenzene	4.2347 3.5302	4.4960 2.8585	4.3797	4.2599	3.9054	Ave		3.9520				14.7		15.0			
Benzyl chloride	1.4055 1.2890	1.4968 1.2062	1.3927	1.4047	1.3270	Ave		1.3603				7.0		15.0			
1,3-Dichlorobenzene	2.6029 1.9381	2.3744 1.7012	2.4546	2.2506	2.0901	Ave		2.2017				14.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293
SDG No.: _____
Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	2.1560 1.8430	2.5271 1.6231	2.3780	2.2806	2.0564	Ave		2.1234				14.7		15.0			
4-Isopropyltoluene	++++ 3.0271	4.1316 ++++	4.2629	3.9747	3.5638	Ave		3.7920				13.2		15.0			
1,2,3-Trimethylbenzene	3.8456 3.3357	4.0310 2.7480	3.9615	3.9568	3.6326	Ave		3.6445				12.7		15.0			
1,2-Dichlorobenzene	2.1670 1.7561	2.0424 1.5662	2.0244	1.9608	1.9500	Ave		1.9238				10.4		15.0			
n-Butylbenzene	++++ 2.5491	3.0086 ++++	3.1294	3.0765	2.8087	Ave		2.9145				8.2		15.0			
1,2-Dibromo-3-Chloropropane	++++ 0.1246	0.1190 0.1344	0.1258	0.1275	0.1395	Ave		0.1285				5.7		15.0			
1,3,5-Trichlorobenzene	++++ 1.0767	1.3225 ++++	1.1861	1.2419	1.1885	Ave		1.2032				7.5		15.0			
1,2,4-Trichlorobenzene	++++ 0.8448	0.8889 ++++	0.9170	0.9285	0.9033	Ave		0.8965				3.6		15.0			
Naphthalene	1.3839 1.4635	1.5305 1.0776	1.6210	1.5893	1.5902	Ave		1.4651				13.0		15.0			
Hexachlorobutadiene	++++ 0.1446	0.1319 ++++	0.1750	0.1369	0.1728	Ave		0.1522				13.3		15.0			
1,2,3-Trichlorobenzene	++++ 0.5393	0.5637 ++++	0.6269	0.6168	0.5840	Ave		0.5861				6.2		15.0			
Dibromofluoromethane	0.5295 0.4945	0.6392 0.4242	0.5074	0.5418	0.4759	Ave		0.5161				12.9		15.0			
1,2-Dichloroethane-d4 (Surr)	0.5588 0.4471	0.5990 0.4062	0.4725	0.4710	0.4221	Ave		0.4824				14.7		15.0			
Toluene-d8 (Surr)	3.6978 2.8064	3.5079 2.4184	3.3762	3.4232	2.9222	Ave		3.1646				14.5		15.0			
4-Bromofluorobenzene	1.8311 1.1591	1.4580 1.1936	1.3612	1.2439	1.2028	Lin2	0.3248	1.1704							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-263293/3	J11001.D
Level 2	IC 600-263293/4	J11002.D
Level 3	IC 600-263293/5	J11003.D
Level 4	IC 600-263293/6	J11004.D
Level 5	ICIS 600-263293/7	J11005.D
Level 6	IC 600-263293/8	J11006.D
Level 7	IC 600-263293/9	J11007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	++++ 69245	1976 192502	5943	20651	42434	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	++++ 78125	3178 204660	7214	19568	41219	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	++++ 52327	2174 133559	4569	14376	31501	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Ave	++++ 74081	3680 197955	8588	16764	38259	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Lin2	++++ 47046	839 120711	3669	12276	25096	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Lin1	++++ 36740	814 95390	1840	8865	20500	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Lin2	++++ 137517	3628 345292	10631	29545	58738	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	++++ 38735	1950 102939	3377	9325	21172	++++ 100	5.00 250	10.0	25.0	50.0
Acetonitrile	FB	Lin2	++++ 57051	1546 130279	4636	13083	28586	++++ 200	10.0 500	20.0	50.0	100
Trichlorofluoromethane	FB	Lin1	++++ 160697	5865 408358	10941	39029	90609	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl alcohol	FB	Lin1	++++ 35502	772 ++++	1991	6908	19018	++++ 200	10.0 ++++	20.0	50.0	100
Acetone	FB	Ave	++++ 44592	2377 90558	5328	10472	23625	++++ 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	1873 82743	4362 200325	10407	21752	43689	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	++++ 88870	3155 244432	7195	18425	47919	++++ 200	10.0 500	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	++++ 87600	5292 201730	9302	26881	45450	++++ 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Lin1	3431 209672	10854 488481	21958	56197	116927	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin1	3718 217113	12127 501218	23999	59299	111633	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	3373 105055	7147 245338	13854	31441	54810	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	++++ 125393	6834 289022	13551	32189	62979	++++ 40.0	2.00 100	4.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin	++++ 57808	2347 165860	6211	20203	37965	++++ 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	++++ 53139	3100 110133	5771	14354	29116	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Lin1	9118 289428	21947 687308	38115	88121	150295	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	2664 111757	6247 254450	12585	31249	58689	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	6669 253098	13902 581784	28223	67070	126764	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	++++ 93353	3739 194968	9945	20747	49273	++++ 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	6244 203571	12530 461774	24897	59785	107249	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	9854 415518	22881 956124	45326	111635	218831	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	7722 270576	15930 608516	31105	76803	138718	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Qua	5213 139095	11097 282789	20003	49082	80522	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Qua	12404 421276	27543 908264	52451	128894	228305	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	++++ 13862	711 29653	1550	3703	8049	++++ 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Qua	2201 66968	4451 151762	8919	20401	38502	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	3718 125300	7630 272670	15492	35642	66380	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	4393 180671	9890 428698	19475	47320	97144	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	++++ 54939	2664 124100	6413	16093	30934	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	5844 203538	12748 452994	23888	58659	106312	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	9882 390561	24269 838610	45344	107939	206722	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Ave	++++ 159540	9138 388397	15666	45457	92365	++++ 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Lin1	3993 122248	7605 280339	16382	36192	67058	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	++++ 46494	2990 106706	5435	11795	25503	++++ 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	4478 164294	9522 401265	17254	43548	82249	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Ave	++++ 59768	2303 120350	5555	13828	29292	++++ 500	25.0 1250	50.0	125	250
1,1,1-Trichloroethane	FB	Ave	4397 184775	11502 430606	21654	49172	96512	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	4220 139090	8252 316329	15560	40639	74031	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Qua	3652 104998	6844 218273	13995	34185	61094	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	4985 180892	10834 424080	21006	50013	95906	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	++++ 373158	23472 ++++	44736	107262	200773	++++ 20.0	1.00 ++++	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	7372 255995	15672 565473	28232	70588	131514	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Qua	++++ 222909	16344 420065	33034	77575	132169	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	5037 158428	11002 382370	17062	42857	86686	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Qua	++++ 144433	10237 340135	20983	47034	87114	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	++++ 61559	3349 131574	6190	16156	30702	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	++++ 104335	7002 ++++	13397	30268	58687	++++ 20.0	1.00 ++++	2.00	5.00	10.0
2-Nitropropane	FB	Ave	++++ 86737	4182 212959	7897	19185	43122	++++ 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	3609 137444	8417 287488	16188	38685	71048	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	4295 170712	9655 403352	18755	45488	88171	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl methacrylate	FB	Ave	5105 202014	9645 482636	21467	51205	101655	1.00 40.0	2.00 100	4.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	FB	Lin1	++++ 7040	147 20734	488	1308	4257	++++ 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Ave	2567 97666	5563 208292	10689	25264	52947	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Qua	++++ 138587	10190 304587	19824	45488	78851	++++ 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	4522 162802	8938 362096	17835	42725	83235	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	5679 227811	12311 529360	24916	55361	117721	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	3673 146390	8641 338938	14404	38013	75076	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Ave	++++ 21497	1087 53073	2545	5389	10531	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Ave	2421 83210	5701 192270	9402	22385	42730	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	2607 93347	5178 216643	9199	24085	49311	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	++++ 248778	15090 ++++	33172	72608	135783	++++ 20.0	1.00 ++++	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	2911 121200	7677 276021	13518	32245	62826	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromochloromethane	CBNZ d5	Ave	++++ 129163	5884 306164	13081	34458	64240	++++ 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Ave	5854 191397	12030 463218	22353	50419	99752	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dibromoethane	CBNZ d5	Ave	2251 97033	5573 228541	10428	25947	49675	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	++++ 100267	5511 217811	12047	27198	51314	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	4377 152209	9244 318768	17505	41282	81050	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	3117 146104	8329 336296	15940	40132	75651	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	10471 367451	22072 776634	40477	98818	191740	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	5439 190846	11987 393115	23111	52098	101414	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11650 419862	24777 882033	46160	117181	218299	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCBd 4	Ave	++++ 68396	3114 172908	6702	16920	37742	++++ 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBNZ d5	Ave	9030 334237	21845 710820	38063	94302	176996	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBNZ d5	Ave	++++ 225514	14269 ++++	27075	66473	120868	++++ 20.0	1.00 ++++	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	2417 87784	5299 179918	12019	24811	47753	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	++++ 44962	2572 108891	3799	10690	21845	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Ave	++++ 28857	1416 67257	3450	8375	15454	++++ 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	14471 526376	34072 1003919	63085	155135	278609	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	4169 157158	9167 326401	18422	40632	80359	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	4475 157805	10667 287789	18860	44118	85899	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	4630 146283	9789 281668	17147	40891	78180	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	10623 392586	25092 762813	46103	109421	208182	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	12945 452898	28098 815167	53519	133356	248626	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	10946 391139	25587 676985	48026	116447	212575	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	13223 474070	31447 849687	56430	140282	259820	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	15291 513359	33924 872644	63808	153269	283876	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	5075 187447	11294 368224	20291	50541	96456	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	9399 281841	17916 519326	35761	80973	151922	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	7785 268009	19068 495481	34645	82053	149475	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	++++ 440204	31175 ++++	62107	143008	259043	++++ 20.0	1.00 ++++	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	13886 485073	30416 838911	57716	142364	264050	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	7825 255375	15411 478129	29493	70548	141740	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	++++ 370695	22701 ++++	45593	110689	204156	++++ 20.0	1.00 ++++	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 263293

SDG No.: _____

Instrument ID: CHVOAMS06 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2019 11:53 Calibration End Date: 04/20/2019 14:40 Calibration ID: 15670

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	++++ 18118	898 41022	1833	4586	10141	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	++++ 156577	9979 ++++	17280	44683	86393	++++ 20.0	1.00 ++++	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	++++ 122852	6707 ++++	13360	33407	65662	++++ 20.0	1.00 ++++	2.00	5.00	10.0
Naphthalene	DCBd 4	Ave	4997 212819	11548 328971	23616	57180	115588	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	++++ 21025	995 ++++	2549	4927	12563	++++ 20.0	1.00 ++++	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	++++ 78424	4253 ++++	9133	22192	42447	++++ 20.0	1.00 ++++	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	3473 127898	8214 288940	13061	34765	65087	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	3665 115633	7697 276684	12163	30222	57719	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	12211 378917	23869 851249	44605	106536	200377	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Lin2	6612 168561	11001 364369	19831	44755	87430	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Lab Sample ID: ICV 600-263293/1012 Calibration Date: 04/20/2019 16:04

Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53

GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40

Lab File ID: J11010-ICV.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.3147		11.2	10.0	12.3	50.0
Chloromethane	Ave	0.2894	0.2926	0.1000	10.1	10.0	1.1	30.0
Vinyl chloride	Ave	0.1999	0.2243		11.2	10.0	12.2	30.0
Butadiene	Ave	0.2897	0.3089		10.7	10.0	6.6	50.0
Bromomethane	Lin2		0.1890		10.3	10.0	3.2	30.0
Chloroethane	Lin1		0.1448		10.6	10.0	5.9	30.0
Dichlorofluoromethane	Lin2		0.4855		10.0	10.0	0.4	30.0
Acrolein	Ave	0.0295	0.0297		50.4	50.0	0.8	50.0
Acetonitrile	Lin2		0.0269		129	100	29.1	30.0
Trichlorofluoromethane	Lin1		0.5715		9.53	10.0	-4.7	30.0
Isopropyl alcohol	Lin1		0.0136		103	100	3.2	50.0
Acetone	Ave	0.0861	0.0822		19.1	20.0	-4.5	50.0
Ethyl ether	Ave	0.3288	0.3107		9.45	10.0	-5.5	50.0
t-Butanol	Ave	0.0311	0.0346		111	100	11.4	30.0
1,1-Dichloroethene	Ave	0.3599	0.3862		10.7	10.0	7.3	30.0
Acrylonitrile	Lin1		0.0725		94.5	100	-5.5	50.0
Iodomethane	Lin1		0.8393		10.7	10.0	6.8	30.0
Methylene Chloride	Lin1		0.4078		10.4	10.0	3.9	50.0
Methyl acetate	Ave	0.2441	0.2222		18.2	20.0	-9.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin		0.3172		12.8	10.0	28.4	30.0
3-Chloro-1-propene	Ave	0.2115	0.2199		10.4	10.0	3.9	30.0
Carbon disulfide	Lin1		1.236		11.4	10.0	13.5	30.0
trans-1,2-Dichloroethene	Ave	0.4433	0.4594		10.4	10.0	3.6	30.0
Methyl tert-butyl ether	Ave	1.000	0.8727		8.73	10.0	-12.7	30.0
Propionitrile	Ave	0.0335	0.0294		87.9	100	-12.1	30.0
1,1-Dichloroethane	Ave	0.8679	0.8255	0.1000	9.51	10.0	-4.9	30.0
Vinyl acetate	Ave	0.8139	0.8168		20.1	20.0	0.4	50.0
2-Chloro-1,3-butadiene	Ave	1.111	1.142		10.3	10.0	2.8	30.0
Hexane	Qua		0.6964		11.9	10.0	18.5	30.0
Isopropyl ether	Qua		1.688		9.70	10.0	-3.0	30.0
2-Butanone (MEK)	Ave	0.0274	0.0274		20.0	20.0	-0.1	50.0
Methacrylonitrile	Qua		0.0279		99.9	100	-0.0	30.0
cis-1,2-Dichloroethene	Ave	0.5269	0.4866		9.24	10.0	-7.6	30.0
Ethyl acetate	Ave	0.3551	0.3237		18.2	20.0	-8.8	30.0
Chlorobromomethane	Ave	0.2213	0.2191		9.90	10.0	-1.0	30.0
Chloroform	Ave	0.8507	0.8352		9.82	10.0	-1.8	30.0
Tert-butyl ethyl ether	Ave	1.585	1.492		9.42	10.0	-5.8	30.0
Isobutyl alcohol	Ave	0.0259	0.0262		252	250	0.9	50.0
2,2-Dichloropropane	Lin1		0.5482		12.1	10.0	21.4	30.0
Tetrahydrofuran	Ave	0.0959	0.0881		18.4	20.0	-8.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab Sample ID: ICV 600-263293/1012 Calibration Date: 04/20/2019 16:04
 Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40
 Lab File ID: J11010-ICV.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.6569	0.6125		9.32	10.0	-6.8	30.0
1,1,1-Trichloroethane	Ave	0.7465	0.8084		10.8	10.0	8.3	30.0
1,1-Dichloropropene	Ave	0.5810	0.5828		10.0	10.0	0.3	30.0
Cyclohexane	Qua		0.4865		11.0	10.0	9.9	50.0
Carbon tetrachloride	Ave	0.7460	0.7804		10.5	10.0	4.6	30.0
Benzene	Ave	1.629	1.528		9.38	10.0	-6.2	30.0
Tert-amyl methyl ether	Ave	1.046	0.9350		8.94	10.0	-10.6	30.0
Isooctane	Qua		1.022		10.5	10.0	5.3	30.0
Ethyl acrylate	Ave	0.6804	0.6115		8.99	10.0	-10.1	30.0
n-Heptane	Qua		0.7062		11.7	10.0	17.0	30.0
Dibromomethane	Ave	0.2348	0.2400		10.2	10.0	2.2	30.0
1,2-Dichloropropane	Ave	0.4739	0.4069		8.59	10.0	-14.1	30.0
2-Nitropropane	Ave	0.1579	0.1597		20.2	20.0	1.2	30.0
Trichloroethene	Ave	0.5586	0.5486		9.82	10.0	-1.8	30.0
Bromodichloromethane	Ave	0.6772	0.6306		9.31	10.0	-6.9	30.0
Methyl methacrylate	Ave	0.3853	0.3664		19.0	20.0	-4.9	50.0
1,4-Dioxane	Lin1		0.0014		193	200	-3.3	50.0
2-Chloroethyl vinyl ether	Ave	0.3788	0.3619		19.1	20.0	-4.4	30.0
Methylcyclohexane	Qua		0.6631		11.5	10.0	15.1	30.0
cis-1,3-Dichloropropene	Ave	1.265	1.281		10.1	10.0	1.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4410	0.3840		17.4	20.0	-12.9	50.0
trans-1,3-Dichloropropene	Ave	1.119	1.098		9.81	10.0	-1.9	30.0
n-Butyl acetate	Ave	0.1649	0.1533		9.30	10.0	-7.0	30.0
1,1,2-Trichloroethane	Ave	0.6839	0.6566		9.60	10.0	-4.0	30.0
Ethyl methacrylate	Ave	0.7209	0.7204		9.99	10.0	-0.0	50.0
Toluene	Ave	2.177	2.198		10.1	10.0	1.0	30.0
1,3-Dichloropropane	Ave	0.9524	0.9329		9.79	10.0	-2.1	30.0
Dibromochloromethane	Ave	0.9542	0.9535		9.99	10.0	-0.0	30.0
2-Hexanone	Ave	0.7886	0.7031		17.8	20.0	-10.9	50.0
1,2-Dibromoethane	Ave	0.7452	0.6746		9.05	10.0	-9.5	30.0
Tetrachloroethene	Ave	0.7842	0.8975		11.4	10.0	14.4	30.0
1-Chlorohexane	Ave	1.221	1.331		10.9	10.0	8.9	30.0
1,1,1,2-Tetrachloroethane	Ave	1.115	1.161		10.4	10.0	4.1	30.0
Chlorobenzene	Ave	2.911	2.798	0.3000	9.61	10.0	-3.9	30.0
Ethylbenzene	Ave	1.549	1.541		9.95	10.0	-0.5	30.0
m-Xylene & p-Xylene	Ave	3.318	3.426		10.3	10.0	3.3	30.0
Bromoform	Ave	0.4832	0.4942	0.1000	10.2	10.0	2.3	30.0
Styrene	Ave	2.705	2.954		10.9	10.0	9.2	30.0
o-Xylene	Ave	1.943	1.890		9.73	10.0	-2.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6766	0.6272	0.3000	9.27	10.0	-7.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3109	0.3013		9.69	10.0	-3.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab Sample ID: ICV 600-263293/1012 Calibration Date: 04/20/2019 16:04
 Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40
 Lab File ID: J11010-ICV.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.2148	0.1907		8.88	10.0	-11.2	30.0
Isopropylbenzene	Ave	3.987	4.429		11.1	10.0	11.1	30.0
Bromobenzene	Ave	1.146	1.095		9.56	10.0	-4.4	30.0
N-Propylbenzene	Ave	1.198	1.246		10.4	10.0	4.0	30.0
2-Chlorotoluene	Ave	1.128	1.105		9.80	10.0	-2.0	30.0
4-Chlorotoluene	Ave	2.934	2.989		10.2	10.0	1.9	30.0
1,3,5-Trimethylbenzene	Ave	3.413	3.863		11.3	10.0	13.2	30.0
tert-Butylbenzene	Ave	2.970	3.135		10.6	10.0	5.6	30.0
1,2,4-Trimethylbenzene	Ave	3.603	3.958		11.0	10.0	9.8	30.0
sec-Butylbenzene	Ave	3.952	4.541		11.5	10.0	14.9	30.0
Benzyl chloride	Ave	1.360	1.327		9.76	10.0	-2.4	30.0
1,3-Dichlorobenzene	Ave	2.202	2.159		9.80	10.0	-2.0	30.0
1,4-Dichlorobenzene	Ave	2.123	2.080		9.80	10.0	-2.0	30.0
4-Isopropyltoluene	Ave	3.792	3.756		9.91	10.0	-1.0	30.0
1,2,3-Trimethylbenzene	Ave	3.644	4.019		11.0	10.0	10.3	30.0
1,2-Dichlorobenzene	Ave	1.924	1.938		10.1	10.0	0.7	30.0
n-Butylbenzene	Ave	2.914	3.045		10.5	10.0	4.5	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.1285	0.1147		8.93	10.0	-10.7	30.0
1,3,5-Trichlorobenzene	Ave	1.203	1.265		10.5	10.0	5.1	30.0
1,2,4-Trichlorobenzene	Ave	0.8965	0.8951		9.99	10.0	-0.2	30.0
Naphthalene	Ave	1.465	1.425		9.73	10.0	-2.7	30.0
Hexachlorobutadiene	Ave	0.1522	0.2209		14.5	10.0	45.1*	30.0
1,2,3-Trichlorobenzene	Ave	0.5861	0.5923		10.1	10.0	1.1	30.0
Dibromofluoromethane	Ave	0.5161	0.4004		9.70	12.5	-22.4	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4824	0.3672		9.51	12.5	-23.9	30.0
Toluene-d8 (Surr)	Ave	3.165	2.636		10.4	12.5	-16.7	30.0
4-Bromofluorobenzene	Lin2		1.045		10.9	12.5	-12.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Lab Sample ID: CCVIS 600-263890/3 Calibration Date: 04/29/2019 12:49

Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53

GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40

Lab File ID: J11901.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2836		10.2	10.0	1.5	35.0
Chloromethane	Ave	0.2894	0.1426	0.1000	4.93	10.0	-50.7*	35.0
Vinyl chloride	Ave	0.1999	0.1872		9.37	10.0	-6.3	20.0
Butadiene	Ave	0.2897	0.1565		5.40	10.0	-46.0*	35.0
Bromomethane	Lin2		0.1759		9.65	10.0	-3.5	35.0
Chloroethane	Lin1		0.1030		7.71	10.0	-22.9	35.0
Dichlorofluoromethane	Lin2		0.4274		8.89	10.0	-11.1	50.0
Acrolein	Ave	0.0295	0.0079		13.5	50.0	-73.1*	50.0
Acetonitrile	Lin2		0.0091		46.4	100	-53.6*	50.0
Trichlorofluoromethane	Lin1		0.6060		10.1	10.0	0.8	35.0
Isopropyl alcohol	Lin1		0.0053		44.3	100	-55.7*	50.0
Acetone	Ave	0.0861	0.0489		11.4	20.0	-43.2	50.0
Ethyl ether	Ave	0.3288	0.1746		5.31	10.0	-46.9*	35.0
t-Butanol	Ave	0.0311	0.0207		66.6	100	-33.4	35.0
1,1-Dichloroethene	Ave	0.3599	0.3428		9.53	10.0	-4.8	20.0
Acrylonitrile	Lin1		0.0324		42.0	100	-58.0*	50.0
Iodomethane	Lin1		0.6174		7.83	10.0	-21.7	35.0
Methylene Chloride	Lin1		0.4309		11.0	10.0	10.1	50.0
Methyl acetate	Ave	0.2441	0.0939		7.69	20.0	-61.6*	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin		0.2753		11.1	10.0	10.9	35.0
3-Chloro-1-propene	Ave	0.2115	0.1880		8.89	10.0	-11.1	35.0
Carbon disulfide	Lin1		1.237		11.4	10.0	13.5	35.0
trans-1,2-Dichloroethene	Ave	0.4433	0.4132		9.32	10.0	-6.8	35.0
Methyl tert-butyl ether	Ave	1.000	1.077		10.8	10.0	7.7	35.0
Propionitrile	Ave	0.0335	0.0142		42.3	100	-57.7*	35.0
1,1-Dichloroethane	Ave	0.8679	0.7597	0.1000	8.75	10.0	-12.5	35.0
Vinyl acetate	Ave	0.8139	0.3428		8.42	20.0	-57.9*	50.0
2-Chloro-1,3-butadiene	Ave	1.111	0.6475		5.83	10.0	-41.7*	35.0
Hexane	Qua		0.3756		5.86	10.0	-41.5*	35.0
2-Butanone (MEK)	Ave	0.0274	0.0380		27.7	20.0	38.5	50.0
Isopropyl ether	Qua		0.7284		3.91	10.0	-60.9*	35.0
Methacrylonitrile	Qua		0.0247		87.7	100	-12.3	35.0
cis-1,2-Dichloroethene	Ave	0.5269	0.4577		8.69	10.0	-13.1	35.0
Ethyl acetate	Ave	0.3551	0.1406		7.92	20.0	-60.4*	35.0
Chlorobromomethane	Ave	0.2213	0.1988		8.98	10.0	-10.2	35.0
Chloroform	Ave	0.8507	0.997		11.7	10.0	17.2	20.0
Tert-butyl ethyl ether	Ave	1.585	0.9605		6.06	10.0	-39.4*	35.0
Isobutyl alcohol	Ave	0.0259	0.0113		109	250	-56.5*	50.0
2,2-Dichloropropane	Lin1		0.7386		16.5	10.0	65.0*	35.0
Tetrahydrofuran	Ave	0.0959	0.0333		6.95	20.0	-65.2*	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-263890/3 Calibration Date: 04/29/2019 12:49
 Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40
 Lab File ID: J11901.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.6569	0.6288		9.57	10.0	-4.3	35.0
1,1,1-Trichloroethane	Ave	0.7465	0.9847		13.2	10.0	31.9	35.0
1,1-Dichloropropene	Ave	0.5810	0.6769		11.7	10.0	16.5	35.0
Cyclohexane	Qua		0.4447		9.94	10.0	-0.6	35.0
Carbon tetrachloride	Ave	0.7460	0.9133		12.2	10.0	22.4	35.0
Benzene	Ave	1.629	1.609		9.88	10.0	-1.2	35.0
Tert-amyl methyl ether	Ave	1.046	1.038		9.93	10.0	-0.7	35.0
Isooctane	Qua		0.5161		4.72	10.0	-52.8*	35.0
Ethyl acrylate	Ave	0.6804	0.3205		4.71	10.0	-52.9*	35.0
n-Heptane	Qua		0.3051		4.44	10.0	-55.6*	35.0
Dibromomethane	Ave	0.2348	0.2437		10.4	10.0	3.8	35.0
1,2-Dichloropropane	Ave	0.4739	0.4087		8.62	10.0	-13.8	20.0
2-Nitropropane	Ave	0.1579	0.0924		11.7	20.0	-41.5*	35.0
Trichloroethene	Ave	0.5586	0.4996		8.94	10.0	-10.6	35.0
Bromodichloromethane	Ave	0.6772	0.7570		11.2	10.0	11.8	35.0
Methyl methacrylate	Ave	0.3853	0.1744		9.05	20.0	-54.7*	50.0
1,4-Dioxane	Lin1		0.0005		82.7	200	-58.6*	50.0
2-Chloroethyl vinyl ether	Ave	0.3788	0.0837		4.42	20.0	-77.9*	35.0
Methylcyclohexane	Qua		0.5971		10.2	10.0	2.2	35.0
cis-1,3-Dichloropropene	Ave	1.265	1.117		8.83	10.0	-11.7	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4410	0.2557		11.6	20.0	-42.0	50.0
trans-1,3-Dichloropropene	Ave	1.119	1.069		9.55	10.0	-4.5	35.0
n-Butyl acetate	Ave	0.1649	0.0509		3.09	10.0	-69.1*	35.0
1,1,2-Trichloroethane	Ave	0.6839	0.4898		7.16	10.0	-28.4	35.0
Ethyl methacrylate	Ave	0.7209	0.6176		8.57	10.0	-14.3	50.0
Toluene	Ave	2.177	2.471		11.4	10.0	13.5	20.0
1,3-Dichloropropane	Ave	0.9524	0.8178		8.59	10.0	-14.1	35.0
Dibromochloromethane	Ave	0.9542	0.8221		8.62	10.0	-13.9	35.0
2-Hexanone	Ave	0.7886	0.2361		5.99	20.0	-70.1*	50.0
1,2-Dibromoethane	Ave	0.7452	0.5186		6.96	10.0	-30.4	35.0
Tetrachloroethene	Ave	0.7842	0.7096		9.05	10.0	-9.5	35.0
1-Chlorohexane	Ave	1.221	0.6128		5.02	10.0	-49.8*	35.0
1,1,1,2-Tetrachloroethane	Ave	1.115	0.8950		8.03	10.0	-19.7	35.0
Chlorobenzene	Ave	2.911	2.106	0.3000	7.24	10.0	-27.6	35.0
Ethylbenzene	Ave	1.549	1.308		8.45	10.0	-15.5	20.0
m-Xylene & p-Xylene	Ave	3.318	3.132		9.44	10.0	-5.6	35.0
Bromoform	Ave	0.4832	0.4638	0.1000	9.60	10.0	-4.0	35.0
Styrene	Ave	2.705	2.218		8.20	10.0	-18.0	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6766	0.5007	0.3000	7.40	10.0	-26.0	35.0
o-Xylene	Ave	1.943	1.376		7.08	10.0	-29.2	35.0
trans-1,4-Dichloro-2-butene	Ave	0.3109	0.0901		2.90	10.0	-71.0*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-263890/3 Calibration Date: 04/29/2019 12:49
 Instrument ID: CHVOAMS06 Calib Start Date: 04/20/2019 11:53
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 04/20/2019 14:40
 Lab File ID: J11901.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.2148	0.1729		8.05	10.0	-19.5	35.0
Isopropylbenzene	Ave	3.987	3.765		9.44	10.0	-5.6	35.0
Bromobenzene	Ave	1.146	0.9303		8.12	10.0	-18.8	35.0
N-Propylbenzene	Ave	1.198	0.9570		7.99	10.0	-20.1	35.0
2-Chlorotoluene	Ave	1.128	0.8857		7.85	10.0	-21.5	35.0
4-Chlorotoluene	Ave	2.934	2.876		9.80	10.0	-2.0	35.0
1,3,5-Trimethylbenzene	Ave	3.413	3.247		9.51	10.0	-4.9	35.0
tert-Butylbenzene	Ave	2.970	2.702		9.10	10.0	-9.0	35.0
1,2,4-Trimethylbenzene	Ave	3.603	3.334		9.25	10.0	-7.5	35.0
sec-Butylbenzene	Ave	3.952	3.758		9.51	10.0	-4.9	35.0
Benzyl chloride	Ave	1.360	1.320		9.70	10.0	-3.0	35.0
1,3-Dichlorobenzene	Ave	2.202	1.681		7.64	10.0	-23.7	35.0
1,4-Dichlorobenzene	Ave	2.123	1.693		7.97	10.0	-20.3	35.0
4-Isopropyltoluene	Ave	3.792	3.375		8.90	10.0	-11.0	35.0
1,2,3-Trimethylbenzene	Ave	3.644	3.266		8.96	10.0	-10.4	35.0
1,2-Dichlorobenzene	Ave	1.924	1.443		7.50	10.0	-25.0	35.0
n-Butylbenzene	Ave	2.914	2.876		9.87	10.0	-1.3	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.1285	0.1126		8.77	10.0	-12.3	35.0
1,3,5-Trichlorobenzene	Ave	1.203	1.139		9.47	10.0	-5.3	35.0
1,2,4-Trichlorobenzene	Ave	0.8965	0.8165		9.11	10.0	-8.9	35.0
Naphthalene	Ave	1.465	1.086		7.41	10.0	-25.9	35.0
Hexachlorobutadiene	Ave	0.1522	0.2255		14.8	10.0	48.1*	35.0
1,2,3-Trichlorobenzene	Ave	0.5861	0.4917		8.39	10.0	-16.1	35.0
Dibromofluoromethane	Ave	0.5161	0.4803		9.31	10.0	-6.9	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.4824	0.5201		10.8	10.0	7.8	35.0
Toluene-d8 (Surr)	Ave	3.165	2.589		8.18	10.0	-18.2	35.0
4-Bromofluorobenzene	Lin2		1.074		8.90	10.0	-11.0	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-263890/7
 Matrix: Water Lab File ID: J11905.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 15:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.0001830	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	83		67-139
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	76		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-263890/5
 Matrix: Water Lab File ID: J11903.D
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 14:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.008688		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.008541		0.00100	0.000192
71-43-2	Benzene	0.009315		0.00100	0.000176
91-20-3	Naphthalene	0.009229		0.00200	0.000129
127-18-4	Tetrachloroethene	0.008520		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	87		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	78		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW34-04222019 MS Lab Sample ID: 600-184109-12 MS
 Matrix: Water Lab File ID: J11908.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:30
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 16:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009095		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01066		0.00100	0.000192
71-43-2	Benzene	0.01084		0.00100	0.000176
91-20-3	Naphthalene	0.007887		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009796		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	86		67-139
1868-53-7	Dibromofluoromethane	88		62-130
2037-26-5	Toluene-d8 (Surr)	76		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW34-04222019 MSD Lab Sample ID: 600-184109-12 MSD
 Matrix: Water Lab File ID: J11909.D
 Analysis Method: 8260B Date Collected: 04/22/2019 15:30
 Sample wt/vol: 20 (mL) Date Analyzed: 04/29/2019 16:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 263890 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.008085		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.008820		0.00100	0.000192
71-43-2	Benzene	0.009949		0.00100	0.000176
91-20-3	Naphthalene	0.008757		0.00200	0.000129
127-18-4	Tetrachloroethene	0.008890		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	87		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	78		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184109-1

SDG No.:

Instrument ID: CHVOAMS06

Start Date: 04/20/2019 11:19

Analysis Batch Number: 263293

End Date: 04/21/2019 00:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-263293/2		04/20/2019 11:19	1	J11000A.D	DB-VRX 60 0.25 (mm)
IC 600-263293/3		04/20/2019 11:53	1	J11001.D	DB-VRX 60 0.25 (mm)
IC 600-263293/4		04/20/2019 12:21	1	J11002.D	DB-VRX 60 0.25 (mm)
IC 600-263293/5		04/20/2019 12:49	1	J11003.D	DB-VRX 60 0.25 (mm)
IC 600-263293/6		04/20/2019 13:17	1	J11004.D	DB-VRX 60 0.25 (mm)
ICIS 600-263293/7		04/20/2019 13:45	1	J11005.D	DB-VRX 60 0.25 (mm)
IC 600-263293/8		04/20/2019 14:13	1	J11006.D	DB-VRX 60 0.25 (mm)
IC 600-263293/9		04/20/2019 14:40	1	J11007.D	DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 16:04	1		DB-VRX 60 0.25 (mm)
ICV 600-263293/1012		04/20/2019 16:04	1	J11010-ICV.d	DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 16:32	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 17:29	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 17:56	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 18:25	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 18:53	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 19:21	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 19:49	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 20:17	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 20:45	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 21:13	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 21:41	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 22:08	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 22:36	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 23:04	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/20/2019 23:32	20		DB-VRX 60 0.25 (mm)
ZZZZZ		04/21/2019 00:00	20		DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184109-1

SDG No.:

Instrument ID: CHVOAMS06

Start Date: 04/29/2019 12:25

Analysis Batch Number: 263890

End Date: 04/30/2019 00:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-263890/2		04/29/2019 12:25	1	J11900A.D	DB-VRX 60 0.25 (mm)
CCVIS 600-263890/3		04/29/2019 12:49	1	J11901.D	DB-VRX 60 0.25 (mm)
LCS 600-263890/5		04/29/2019 14:05	1	J11903.D	DB-VRX 60 0.25 (mm)
MB 600-263890/7		04/29/2019 15:01	1	J11905.D	DB-VRX 60 0.25 (mm)
600-184109-1		04/29/2019 15:29	1	J11906.D	DB-VRX 60 0.25 (mm)
600-184109-12		04/29/2019 15:57	1	J11907.D	DB-VRX 60 0.25 (mm)
600-184109-12 MS		04/29/2019 16:25	1	J11908.D	DB-VRX 60 0.25 (mm)
600-184109-12 MSD		04/29/2019 16:53	1	J11909.D	DB-VRX 60 0.25 (mm)
ZZZZZ		04/29/2019 17:21	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/29/2019 17:49	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/29/2019 18:17	1		DB-VRX 60 0.25 (mm)
ZZZZZ		04/29/2019 18:44	20		DB-VRX 60 0.25 (mm)
ZZZZZ		04/29/2019 19:13	500		DB-VRX 60 0.25 (mm)
600-184109-2		04/29/2019 19:41	1	J11915.D	DB-VRX 60 0.25 (mm)
600-184109-3		04/29/2019 20:08	1	J11916.D	DB-VRX 60 0.25 (mm)
600-184109-4		04/29/2019 20:36	1	J11917.D	DB-VRX 60 0.25 (mm)
600-184109-6		04/29/2019 21:04	1	J11918.D	DB-VRX 60 0.25 (mm)
600-184109-7		04/29/2019 21:32	1	J11919.D	DB-VRX 60 0.25 (mm)
600-184109-8		04/29/2019 22:00	1	J11920.D	DB-VRX 60 0.25 (mm)
600-184109-9		04/29/2019 22:28	1	J11921.D	DB-VRX 60 0.25 (mm)
600-184109-10		04/29/2019 22:56	1	J11922.D	DB-VRX 60 0.25 (mm)
600-184109-11		04/29/2019 23:24	1	J11923.D	DB-VRX 60 0.25 (mm)
600-184109-13		04/29/2019 23:51	1	J11924.D	DB-VRX 60 0.25 (mm)
600-184109-5		04/30/2019 00:19	1	J11925.D	DB-VRX 60 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Batch Number: 263293 Batch Start Date: 04/20/19 11:19 Batch Analyst: Vela, Kenneth LBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BFB 00280	VOAIS250PPM 00124	VOALCSGASPT 00322	VOALCSPT2T 00058
BFB 600-263293/2		8260B		20 mL	20 mL	2 uL			
IC 600-263293/3		8260B		20 mL	20 mL		1 uL		
IC 600-263293/4		8260B		20 mL	20 mL		1 uL		
IC 600-263293/5		8260B		20 mL	20 mL		1 uL		
IC 600-263293/6		8260B		20 mL	20 mL		1 uL		
ICIS 600-263293/7		8260B		20 mL	20 mL		1 uL		
IC 600-263293/8		8260B		20 mL	20 mL		1 uL		
IC 600-263293/9		8260B		20 mL	20 mL		1 uL		
ICV 600-263293/1012		8260B		20 mL	20 mL		1 uL	4 uL	4 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOASS250PPM 00101	VOASTDGASPT 00322	VOASTDSt 00107			
BFB 600-263293/2		8260B							
IC 600-263293/3		8260B			0.2 uL	0.2 uL			
IC 600-263293/4		8260B			0.4 uL	0.4 uL			
IC 600-263293/5		8260B			0.8 uL	0.8 uL			
IC 600-263293/6		8260B			2 uL	2 uL			
ICIS 600-263293/7		8260B			4 uL	4 uL			
IC 600-263293/8		8260B			8 uL	8 uL			
IC 600-263293/9		8260B			20 uL	20 uL			
ICV 600-263293/1012		8260B		1 uL					

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.:

Batch Number: 263890

Batch Start Date: 04/29/19 12:25

Batch Analyst: Vela, Kenneth L

Batch Method: 8260B

Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00281	VOAIS250PPM 00125	VOALCSGASPT 00323
BFB 600-263890/2		8260B		20 mL	20 mL		2 uL		
CCVIS 600-263890/3		8260B		20 mL	20 mL			1 uL	
LCS 600-263890/5		8260B		20 mL	20 mL			1 uL	4 uL
MB 600-263890/7		8260B		20 mL	20 mL			1 uL	
600-184109-B-1	ARTESIA-TB01-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-12	ARTESIA-MW34-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-12 MS	ARTESIA-MW34-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	4 uL
600-184109-C-12 MSD	ARTESIA-MW34-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	4 uL
600-184109-C-2	ARTESIA-INLET-04 222019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-3	ARTESIA-MID-0422 2019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-4	ARTESIA-OUTLET-0 4222019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-6	ARTESIA-MW30-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-7	ARTESIA-MD30-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-8	ARTESIA-MW32-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-9	ARTESIA-MW17C-04 222019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-10	ARTESIA-MW11-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-C-11	ARTESIA-MW26-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-B-13	ARTESIA-MD11-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	
600-184109-D-5	ARTESIA-MW12-042 22019	8260B	T	20 mL	20 mL	2 SU		1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOALCSPT2T 00059	VOASS250PPM 00102	VOASTDGASPT 00323	VOASTDst 00108		
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The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Batch Number: 263890 Batch Start Date: 04/29/19 12:25 Batch Analyst: Vela, Kenneth LBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOALCSPT2T 00059	VOASS250PPM 00102	VOASTDGASPT 00323	VOASTDst 00108		
BFB 600-263890/2		8260B							
CCVIS 600-263890/3		8260B				4 uL	4 uL		
LCS 600-263890/5		8260B		4 uL	1 uL				
MB 600-263890/7		8260B			1 uL				
600-184109-B-1	ARTESIA-TB01-042 22019	8260B	T		1 uL				
600-184109-C-12	ARTESIA-MW34-042 22019	8260B	T		1 uL				
600-184109-C-12 MS	ARTESIA-MW34-042 22019	8260B	T	4 uL	1 uL				
600-184109-C-12 MSD	ARTESIA-MW34-042 22019	8260B	T	4 uL	1 uL				
600-184109-C-2	ARTESIA-INLET-04 222019	8260B	T		1 uL				
600-184109-C-3	ARTESIA-MID-0422 2019	8260B	T		1 uL				
600-184109-C-4	ARTESIA-OUTLET-0 4222019	8260B	T		1 uL				
600-184109-C-6	ARTESIA-MW30-042 22019	8260B	T		1 uL				
600-184109-C-7	ARTESIA-MD30-042 22019	8260B	T		1 uL				
600-184109-C-8	ARTESIA-MW32-042 22019	8260B	T		1 uL				
600-184109-C-9	ARTESIA-MW17C-04 222019	8260B	T		1 uL				
600-184109-C-10	ARTESIA-MW11-042 22019	8260B	T		1 uL				
600-184109-C-11	ARTESIA-MW26-042 22019	8260B	T		1 uL				
600-184109-B-13	ARTESIA-MD11-042 22019	8260B	T		1 uL				
600-184109-D-5	ARTESIA-MW12-042 22019	8260B	T		1 uL				

Batch Notes	
pH Indicator ID	HC746949

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Batch Number: 263890 Batch Start Date: 04/29/19 12:25 Batch Analyst: Vela, Kenneth LBatch Method: 8260B Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 300.0

Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: 050619-12.d

Lab ID: LCS 600-264422/12 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Sulfate	20.0	19.37	97	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
 SDG No.: _____
 Lab File ID: 050619-11.d Lab Sample ID: MB 600-264422/11
 Matrix: Water Date Extracted: _____
 Instrument ID: CHWC11 Date Analyzed: 05/06/2019 16:54
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 600-264422/10	050619-10.d	05/06/2019 16:34
	LCS 600-264422/12	050619-12.d	05/06/2019 17:14
	CCB 600-264422/26	050619-26.d	05/06/2019 21:54
ARTESIA-MW12-04222019	600-184109-5	050619-31.d	05/06/2019 23:34
ARTESIA-MW17C-04222019	600-184109-9	050619-32.d	05/06/2019 23:54
ARTESIA-MW11-04222019	600-184109-10	050619-33.d	05/07/2019 00:14
	CCB 600-264422/37	050619-37.d	05/07/2019 01:34

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: ARTESIA-MW12-04222019 Lab Sample ID: 600-184109-5
Matrix: Water Lab File ID: 050619-31.d
Analysis Method: 300.0 Date Collected: 04/22/2019 13:50
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 23:34
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2520		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: ARTESIA-MW17C-04222019 Lab Sample ID: 600-184109-9
Matrix: Water Lab File ID: 050619-32.d
Analysis Method: 300.0 Date Collected: 04/22/2019 14:30
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 23:54
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2400		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: ARTESIA-MW11-04222019 Lab Sample ID: 600-184109-10
Matrix: Water Lab File ID: 050619-33.d
Analysis Method: 300.0 Date Collected: 04/22/2019 15:25
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/07/2019 00:14
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	3150		50.0	9.57

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 264203

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2019 18:32 Calibration End Date: 05/02/2019 20:52 Calibration ID: 15736

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-264203/2	CAL050219-2.d
Level 2	IC 600-264203/3	CAL050219-3.d
Level 3	IC 600-264203/4	CAL050219-4.d
Level 4	IC 600-264203/5	CAL050219-5.d
Level 5	IC 600-264203/6	CAL050219-6.d
Level 6	IC 600-264203/7	CAL050219-7.d
Level 7	IC 600-264203/8	CAL050219-8.d
Level 8	IC 600-264203/9	CAL050219-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride		3.142	3.150	3.150	3.158	3.167	3.167	3.175			2.900 - 3.400	3.158
Chloride	+++++	4.750	4.750	4.758	4.750	4.758	4.750	4.750			4.508 - 5.008	4.752
Bromide		8.300	8.292	8.292	8.292	8.283	8.275	8.258			8.042 - 8.542	8.285
Sulfate		9.083	9.083	9.075	9.067	9.058	9.042	8.992			8.825 - 9.325	9.057

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 264203

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2019 18:32 Calibration End Date: 05/02/2019 20:52 Calibration ID: 15736

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-264203/2	CAL050219-2.d
Level 2	IC 600-264203/3	CAL050219-3.d
Level 3	IC 600-264203/4	CAL050219-4.d
Level 4	IC 600-264203/5	CAL050219-5.d
Level 5	IC 600-264203/6	CAL050219-6.d
Level 6	IC 600-264203/7	CAL050219-7.d
Level 7	IC 600-264203/8	CAL050219-8.d
Level 8	IC 600-264203/9	CAL050219-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	17525526	19544125 16015278	17925622 14767818	16397740 16037930	Lin	1350157.18	15499376.2							0.9970		0.9900
Chloride	++++ 8424473	7433953 8991254	7966478 8683906	8996587 8628528	Lin	322145.914	8641994.57							1.0000		0.9900
Bromide	3102217	2132165 3235079	2332572 3329842	2496754 3627629	Lin	-929346.42	3596367.59							0.9970		0.9900
Sulfate	5851385	4509283 6447367	5118099 6373347	5812601 6398417	Lin	-1243871.1	6433524.49							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1 Analy Batch No.: 264203

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2019 18:32 Calibration End Date: 05/02/2019 20:52 Calibration ID: 15736

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-264203/2	CAL050219-2.d
Level 2	IC 600-264203/3	CAL050219-3.d
Level 3	IC 600-264203/4	CAL050219-4.d
Level 4	IC 600-264203/5	CAL050219-5.d
Level 5	IC 600-264203/6	CAL050219-6.d
Level 6	IC 600-264203/7	CAL050219-7.d
Level 7	IC 600-264203/8	CAL050219-8.d
Level 8	IC 600-264203/9	CAL050219-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Fluoride	Lin	80076390	3908825 110758638	8962811 160379300	16397740	35051052	5.00	0.200 7.50	0.500 10.0	1.00	2.00
Chloride	Lin	+++++ 89912538	2973581 173678125	7966478 345141136	17993173	42122365	+++++ 10.0	0.400 20.0	1.00 40.0	2.00	5.00
Bromide	Lin	16175395	426433 24973816	1166286 36276289	2496754	6204433	5.00	0.200 7.50	0.500 10.0	1.00	2.00
Sulfate	Lin	64473667	1803713 127466945	5118099 255936671	11625201	29256926	10.0	0.400 20.0	1.00 40.0	2.00	5.00

Curve Type Legend:

Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/9 Calibration Date: 05/06/2019 16:14
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-9.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		15481555		7.40	7.50	-1.3	10.0
Chloride	Lin		8413033		19.4	20.0	-2.8	10.0
Bromide	Lin		3293439		7.13	7.50	-5.0	10.0
Sulfate	Lin		6536473		20.5	20.0	2.6	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/9 Calibration Date: 05/06/2019 16:14
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-9.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.17	2.90	3.40
Chloride	4.75	4.51	5.01
Bromide	8.27	8.04	8.54
Sulfate	9.03	8.83	9.33

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/25 Calibration Date: 05/06/2019 21:34
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-25.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		14964608		7.15	7.50	-4.6	10.0
Chloride	Lin		8332096		19.3	20.0	-3.8	10.0
Bromide	Lin		3229979		6.99	7.50	-6.7	10.0
Sulfate	Lin		6080159		19.1	20.0	-4.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/25 Calibration Date: 05/06/2019 21:34
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-25.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.17	2.90	3.40
Chloride	4.75	4.51	5.01
Bromide	8.27	8.04	8.54
Sulfate	9.03	8.83	9.33

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/36 Calibration Date: 05/07/2019 01:14
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-36.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		14860530		7.10	7.50	-5.3	10.0
Chloride	Lin		8238023		19.0	20.0	-4.9	10.0
Bromide	Lin		3175730		6.88	7.50	-8.3	10.0
Sulfate	Lin		6090785		19.1	20.0	-4.4	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Lab Sample ID: CCV 600-264422/36 Calibration Date: 05/07/2019 01:14
Instrument ID: CHWC11 Calib Start Date: 05/02/2019 18:32
GC Column: AS-18 ID: _____ Calib End Date: 05/02/2019 20:52
Lab File ID: 050619-36.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.17	2.90	3.40
Chloride	4.75	4.51	5.01
Bromide	8.27	8.04	8.54
Sulfate	9.03	8.83	9.33

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 600-264422/11
Matrix: Water Lab File ID: 050619-11.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 16:54
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-264422/10
Matrix: Water Lab File ID: 050619-10.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 16:34
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-264422/26
Matrix: Water Lab File ID: 050619-26.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 21:54
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-264422/37
Matrix: Water Lab File ID: 050619-37.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/07/2019 01:34
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: LCS 600-264422/12
Matrix: Water Lab File ID: 050619-12.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 05/06/2019 17:14
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 264422 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	19.37		0.500	0.0957

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, HoustonJob No.: 600-184109-1

SDG No.: _____

Instrument ID: CHWC11Start Date: 05/02/2019 18:32Analysis Batch Number: 264203End Date: 05/03/2019 23:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 600-264203/2		05/02/2019 18:32	1	CAL050219-2.d	AS-18
IC 600-264203/3		05/02/2019 18:52	1	CAL050219-3.d	AS-18
IC 600-264203/4		05/02/2019 19:12	1	CAL050219-4.d	AS-18
IC 600-264203/5		05/02/2019 19:32	1	CAL050219-5.d	AS-18
IC 600-264203/6		05/02/2019 19:52	1	CAL050219-6.d	AS-18
IC 600-264203/7		05/02/2019 20:12	1	CAL050219-7.d	AS-18
IC 600-264203/8		05/02/2019 20:32	1	CAL050219-8.d	AS-18
IC 600-264203/9		05/02/2019 20:52	1	CAL050219-9.d	AS-18
ICV 600-264203/11		05/02/2019 21:32	1		AS-18
ICB 600-264203/12		05/02/2019 21:52	1		AS-18
ZZZZZ		05/02/2019 22:12	1		AS-18
ZZZZZ		05/02/2019 22:32	1		AS-18
ZZZZZ		05/02/2019 22:52	1		AS-18
ZZZZZ		05/02/2019 23:12	1		AS-18
ZZZZZ		05/02/2019 23:32	1		AS-18
CCV 600-264203/18		05/02/2019 23:52	1		AS-18
CCB 600-264203/19		05/03/2019 00:12	1		AS-18
ZZZZZ		05/03/2019 00:32	1		AS-18
ZZZZZ		05/03/2019 00:52	1		AS-18
ZZZZZ		05/03/2019 01:12	1		AS-18
ZZZZZ		05/03/2019 01:32	1		AS-18
ZZZZZ		05/03/2019 01:52	1		AS-18
ZZZZZ		05/03/2019 02:12	1		AS-18
ZZZZZ		05/03/2019 02:32	1		AS-18
ZZZZZ		05/03/2019 02:52	10		AS-18
ZZZZZ		05/03/2019 03:12	25		AS-18
ZZZZZ		05/03/2019 03:32	25		AS-18
CCV 600-264203/30		05/03/2019 03:52	1		AS-18
CCB 600-264203/31		05/03/2019 04:12	1		AS-18
ZZZZZ		05/03/2019 04:32	10		AS-18
ZZZZZ		05/03/2019 04:52	5		AS-18
ZZZZZ		05/03/2019 05:13	1		AS-18
ZZZZZ		05/03/2019 05:33	5		AS-18
ZZZZZ		05/03/2019 05:53	50		AS-18
ZZZZZ		05/03/2019 06:13	50		AS-18
ZZZZZ		05/03/2019 06:33	50		AS-18
ZZZZZ		05/03/2019 06:53	5		AS-18
ZZZZZ		05/03/2019 07:13	5		AS-18
ZZZZZ		05/03/2019 07:33	2		AS-18
CCV 600-264203/42		05/03/2019 07:53	1		AS-18
CCB 600-264203/43		05/03/2019 08:13	1		AS-18
ZZZZZ		05/03/2019 08:33	5		AS-18
ZZZZZ		05/03/2019 08:53	100		AS-18
ZZZZZ		05/03/2019 09:13	5		AS-18
ZZZZZ		05/03/2019 09:33	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184109-1

SDG No.:

Instrument ID: CHWC11

Start Date: 05/02/2019 18:32

Analysis Batch Number: 264203

End Date: 05/03/2019 23:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/03/2019 09:53	5		AS-18
ZZZZZ		05/03/2019 10:13	5		AS-18
ZZZZZ		05/03/2019 10:53	1		AS-18
ZZZZZ		05/03/2019 11:13	1		AS-18
CCV 600-264203/54		05/03/2019 11:53	1		AS-18
CCB 600-264203/55		05/03/2019 12:13	1		AS-18
ZZZZZ		05/03/2019 12:59	20		AS-18
ZZZZZ		05/03/2019 13:19	20		AS-18
ZZZZZ		05/03/2019 13:39	20		AS-18
ZZZZZ		05/03/2019 15:39	1		AS-18
ZZZZZ		05/03/2019 15:59	1		AS-18
CCV 600-264203/66		05/03/2019 16:19	1		AS-18
CCB 600-264203/67		05/03/2019 16:39	1		AS-18
ZZZZZ		05/03/2019 17:39	100		AS-18
ZZZZZ		05/03/2019 17:59	5		AS-18
ZZZZZ		05/03/2019 18:19	5		AS-18
ZZZZZ		05/03/2019 18:39	1		AS-18
ZZZZZ		05/03/2019 18:59	1		AS-18
ZZZZZ		05/03/2019 19:19	1		AS-18
ZZZZZ		05/03/2019 19:39	1		AS-18
ZZZZZ		05/03/2019 19:59	1		AS-18
CCV 600-264203/78		05/03/2019 20:19	1		AS-18
CCB 600-264203/79		05/03/2019 20:39	1		AS-18
ZZZZZ		05/03/2019 20:59	1		AS-18
ZZZZZ		05/03/2019 21:19	1		AS-18
ZZZZZ		05/03/2019 21:39	1		AS-18
ZZZZZ		05/03/2019 21:59	1		AS-18
ZZZZZ		05/03/2019 22:19	1		AS-18
ZZZZZ		05/03/2019 22:39	1		AS-18
ZZZZZ		05/03/2019 22:59	1		AS-18
CCB 600-264203/88		05/03/2019 23:39	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184109-1

SDG No.:

Instrument ID: CHWC11

Start Date: 05/06/2019 13:25

Analysis Batch Number: 264422

End Date: 05/07/2019 01:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 600-264422/2		05/06/2019 13:25	1		AS-18
CCB 600-264422/3		05/06/2019 14:14	1		AS-18
ZZZZZ		05/06/2019 14:34	1		AS-18
ZZZZZ		05/06/2019 14:54	1		AS-18
ZZZZZ		05/06/2019 15:14	1		AS-18
ZZZZZ		05/06/2019 15:34	1		AS-18
ZZZZZ		05/06/2019 15:54	1		AS-18
CCV 600-264422/9		05/06/2019 16:14	1	050619-9.d	AS-18
CCB 600-264422/10		05/06/2019 16:34	1	050619-10.d	AS-18
MB 600-264422/11		05/06/2019 16:54	1	050619-11.d	AS-18
LCS 600-264422/12		05/06/2019 17:14	1	050619-12.d	AS-18
ZZZZZ		05/06/2019 17:34	1		AS-18
ZZZZZ		05/06/2019 17:54	1		AS-18
ZZZZZ		05/06/2019 18:14	1		AS-18
ZZZZZ		05/06/2019 18:34	20		AS-18
ZZZZZ		05/06/2019 18:54	20		AS-18
ZZZZZ		05/06/2019 19:34	2		AS-18
ZZZZZ		05/06/2019 19:54	10		AS-18
ZZZZZ		05/06/2019 20:14	10		AS-18
ZZZZZ		05/06/2019 20:34	10		AS-18
ZZZZZ		05/06/2019 20:54	20		AS-18
ZZZZZ		05/06/2019 21:14	20		AS-18
CCV 600-264422/25		05/06/2019 21:34	1	050619-25.d	AS-18
CCB 600-264422/26		05/06/2019 21:54	1	050619-26.d	AS-18
ZZZZZ		05/06/2019 22:14	20		AS-18
ZZZZZ		05/06/2019 22:34	5		AS-18
ZZZZZ		05/06/2019 22:54	20		AS-18
ZZZZZ		05/06/2019 23:14	2		AS-18
600-184109-5		05/06/2019 23:34	100	050619-31.d	AS-18
600-184109-9		05/06/2019 23:54	100	050619-32.d	AS-18
600-184109-10		05/07/2019 00:14	100	050619-33.d	AS-18
ZZZZZ		05/07/2019 00:34	1		AS-18
ZZZZZ		05/07/2019 00:54	100		AS-18
CCV 600-264422/36		05/07/2019 01:14	1	050619-36.d	AS-18
CCB 600-264422/37		05/07/2019 01:34	1	050619-37.d	AS-18

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184109-1

SDG No.: _____

Batch Number: 264422 Batch Start Date: 05/06/19 13:25 Batch Analyst: Reach, Shrey KBatch Method: 300.0 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 00103	ICV/LCS 00103			
CCV 600-264422/9		300.0		5 mL	5 mL				
CCB 600-264422/10		300.0		5 mL					
MB 600-264422/11		300.0		5 mL					
LCS 600-264422/12		300.0		5 mL		5 mL			
CCV 600-264422/25		300.0		5 mL	5 mL				
CCB 600-264422/26		300.0		5 mL					
600-184109-A-5	ARTESIA-MW12-042 22019	300.0	T	5 mL					
600-184109-A-9	ARTESIA-MW17C-04 222019	300.0	T	5 mL					
600-184109-A-10	ARTESIA-MW11-042 22019	300.0	T	5 mL					
CCV 600-264422/36		300.0		5 mL	5 mL				
CCB 600-264422/37		300.0		5 mL					

Batch Notes	
Eluent 1 ID	180982621012
Filter ID	16848867 / 16934512

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

300.0

Page 1 of 1

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job Number: 600-184109-1

SDG No.: _____

Project: Dowell - Artesia 04/23/19

Client Sample ID	Lab Sample ID
ARTESIA-INLET-04222019	600-184109-2
ARTESIA-MID-04222019	600-184109-3
ARTESIA-OUTLET-04222019	600-184109-4
ARTESIA-MW30-04222019	600-184109-6
ARTESIA-MD30-04222019	600-184109-7
ARTESIA-MW32-04222019	600-184109-8
ARTESIA-MW26-04222019	600-184109-11
ARTESIA-MW34-04222019	600-184109-12

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-INLET-04222019

Lab Sample ID: 600-184109-2

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 13:40

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: <u>ARTESIA-MID-04222019</u>	Lab Sample ID: <u>600-184109-3</u>
Lab Name: <u>Eurofins TestAmerica, Corpus Christi</u>	Job No.: <u>600-184109-1</u>
SDG ID.: _____	
Matrix: <u>Water</u>	Date Sampled: <u>04/22/2019 13:45</u>
Reporting Basis: <u>WET</u>	Date Received: <u>04/23/2019 08:59</u>

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-OUTLET-04222019

Lab Sample ID: 600-184109-4

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 13:53

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW30-04222019

Lab Sample ID: 600-184109-6

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 14:05

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MD30-04222019

Lab Sample ID: 600-184109-7

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 14:10

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW32-04222019

Lab Sample ID: 600-184109-8

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 14:50

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW26-04222019

Lab Sample ID: 600-184109-11

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 15:05

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0527	0.0500	0.0116	mg/L			1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW34-04222019

Lab Sample ID: 600-184109-12

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184109-1

SDG ID.:

Matrix: Water

Date Sampled: 04/22/2019 15:30

Reporting Basis: WET

Date Received: 04/23/2019 08:59

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Corpus Chris Job No.: 600-184109-1

SDG No.: _____

ICV Source: ICV_ESI_00083 Concentration Units: ug/L

CCV Source: TS_MS250_00051

Analyte	ICV 560-161978/10 04/29/2019 13:52				CCV 560-161978/25 04/29/2019 15:38				CCV 560-161978/38 04/29/2019 16:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2507		2500	100	2543		2500	102	2514		2500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Corpus Chris Job No.: 600-184109-1

SDG No.: _____

ICV Source: ICV_ESI_00083 Concentration Units: ug/L

CCV Source: TS_MS250_00051

Analyte	CCV 560-161978/50 04/29/2019 18:08				CCV 560-161978/62 04/29/2019 19:23							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2516		2500	101	2538		2500	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184109-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 560-161978/14 04/29/2019 14:32		CCB 560-161978/27 04/29/2019 15:48		CCB 560-161978/40 04/29/2019 17:03		CCB 560-161978/52 04/29/2019 18:17	
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U	11.6	U	11.6	U	11.6	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184109-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	CCB 560-161978/64 04/29/2019 19:33							
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job No.: 600-184109-1

SDG No.: _____

Concentration Units: mg/L Lab Sample ID: MB 560-161862/1-A

Instrument Code: Micpms Batch No.: 161978

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.0116	U		6020

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Corpus Ch Job No.: 600-184109-1
 SDG No.: _____
 Lab Sample ID: ICSA 560-161978/11 Instrument ID: Micpms
 Lab File ID: 013SMPL.D ICS Source: INT-A_00133
 Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese, Dissolved		2.60	
<i>Aluminum</i>	<i>250000</i>	<i>217800</i>	<i>87</i>
<i>Antimony</i>		<i>0.599</i>	
<i>Arsenic</i>		<i>2.41</i>	
<i>Barium</i>		<i>1.69</i>	
<i>Beryllium</i>		<i>0.0496</i>	
<i>Boron</i>		<i>-2.74</i>	
<i>Cadmium</i>		<i>0.481</i>	
<i>Calcium</i>	<i>250000</i>	<i>234100</i>	<i>94</i>
<i>Cobalt</i>		<i>0.561</i>	
<i>Copper</i>		<i>0.442</i>	
<i>Iron</i>	<i>100000</i>	<i>95200</i>	<i>95</i>
<i>Lead</i>		<i>0.562</i>	
<i>Lithium</i>		<i>-1.97</i>	
<i>Magnesium</i>	<i>250000</i>	<i>243200</i>	<i>97</i>
<i>Molybdenum</i>		<i>0.334</i>	
<i>Nickel</i>		<i>-0.707</i>	
<i>Phosphorus</i>		<i>-50.9</i>	
<i>Potassium</i>		<i>35.7</i>	
<i>Selenium</i>		<i>0.694</i>	
<i>Silicon</i>		<i>0.0000</i>	
<i>Silver</i>		<i>0.420</i>	
<i>Sodium</i>		<i>150</i>	
<i>Strontium</i>		<i>4.18</i>	
<i>Thallium</i>		<i>-0.0546</i>	
<i>Tin</i>		<i>-38.7</i>	
<i>Titanium</i>		<i>0.407</i>	
<i>Uranium</i>		<i>0.117</i>	
<i>Zinc</i>		<i>3.29</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Corpus Ch

Job No.: 600-184109-1

SDG No.: _____

Lab Sample ID: ICSAB 560-161978/12

Instrument ID: Micpms

Lab File ID: 014SMPL.D

ICS Source: INT-AB_00139

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Manganese, Dissolved	250	267	107
<i>Aluminum</i>	<i>125000</i>	<i>105100</i>	<i>84</i>
<i>Antimony</i>		<i>0.431</i>	
<i>Arsenic</i>		<i>2.90</i>	
<i>Barium</i>	<i>250</i>	<i>236</i>	<i>94</i>
<i>Beryllium</i>	<i>250</i>	<i>226</i>	<i>91</i>
<i>Boron</i>		<i>-9.46</i>	
<i>Cadmium</i>	<i>500</i>	<i>467</i>	<i>93</i>
<i>Calcium</i>	<i>125000</i>	<i>111100</i>	<i>89</i>
<i>Chromium</i>	<i>250</i>	<i>243</i>	<i>97</i>
<i>Cobalt</i>	<i>250</i>	<i>235</i>	<i>94</i>
<i>Copper</i>	<i>250</i>	<i>233</i>	<i>93</i>
<i>Iron</i>	<i>50000</i>	<i>46390</i>	<i>93</i>
<i>Lead</i>	<i>500</i>	<i>475</i>	<i>95</i>
<i>Lithium</i>		<i>-3.53</i>	
<i>Magnesium</i>	<i>125000</i>	<i>117300</i>	<i>94</i>
<i>Molybdenum</i>		<i>-0.798</i>	
<i>Nickel</i>	<i>500</i>	<i>457</i>	<i>91</i>
<i>Phosphorus</i>		<i>-73.3</i>	
<i>Potassium</i>		<i>7.53</i>	
<i>Selenium</i>		<i>-0.315</i>	
<i>Silicon</i>		<i>0.0000</i>	
<i>Silver</i>	<i>500</i>	<i>477</i>	<i>95</i>
<i>Sodium</i>		<i>66.8</i>	
<i>Strontium</i>		<i>2.21</i>	
<i>Thallium</i>		<i>-0.241</i>	
<i>Tin</i>		<i>-31.9</i>	
<i>Titanium</i>		<i>0.106</i>	
<i>Uranium</i>		<i>0.0267</i>	
<i>Vanadium</i>	<i>250</i>	<i>249</i>	<i>100</i>
<i>Zinc</i>	<i>500</i>	<i>457</i>	<i>91</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW34-04222019 MS Lab ID: 600-184109-12 MS
 Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184109-1
 SDG No.: _____
 Matrix: Water Concentration Units: mg/L
 % Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	2.294	0.0116	U 2.50	92	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: ARTESIA-MW34-04222019 MSD

Lab ID: 600-184109-12 MSD

Lab Name: Eurofins TestAmerica, Corpus Chri

Job No.: 600-184109-1

SDG No.: _____

Matrix: Water

Concentration Units: mg/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	2.224	2.50	89	80-120	3	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 560-161862/2-A

Lab Name: Eurofins TestAmerica, Corpus Chri

Job No.: 600-184109-1

Sample Matrix: Water

LCS Source: ESI-spkA_00021

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	2.50	2.316		93	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 600-184109-12

SDG No: _____

Lab Name: Eurofins TestAmerica, Corpus Chr

Job No: 600-184109-1

Matrix: Water

Concentration Units: mg/L

Analyte	Initial Sample		Serial		% Difference	Q	Method
	Result (I)	C	Dilution	Result (S)			
Manganese, Dissolved	0.0116	U		0.07425	J	NC	6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Corpus Ch

Job Number: 600-184109-1

SDG Number: _____

Matrix: Water

Instrument ID: Micpms

Method: 6020

MDL Date: 05/02/2011 10:33

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Manganese, Dissolved	55	50	11.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Corpus Ch Job Number: 600-184109-1
SDG Number: _____
Matrix: Water Instrument ID: Micpms
Method: 6020 XMDL Date: 05/02/2011 10:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Manganese, Dissolved	55	50	11.6

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Corpus C

Job No: 600-184109-1

SDG No.: _____

Instrument ID: Micpms

Date: 05/12/2011 15:16

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Manganese, Dissolved	0.15	50000	6020

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job No.: 600-184109-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 560-161862/1-A	04/25/2019 12:30	161862		50	50
LCS 560-161862/2-A	04/25/2019 12:30	161862		50	50
600-184109-12	04/25/2019 12:30	161862		50	50
600-184109-12 MS	04/25/2019 12:30	161862		50	50
600-184109-12 MSD	04/25/2019 12:30	161862		50	50
600-184109-2	04/25/2019 12:30	161862		50	50
600-184109-3	04/25/2019 12:30	161862		50	50
600-184109-4	04/25/2019 12:30	161862		50	50
600-184109-6	04/25/2019 12:30	161862		50	50
600-184109-7	04/25/2019 12:30	161862		50	50
600-184109-8	04/25/2019 12:30	161862		50	50
600-184109-11	04/25/2019 12:30	161862		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184109-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																	
				M n																	
CALIBSTD 560-161978/1 IC	1		13:07	X																	
IC 560-161978/2	1		13:12	X																	
IC 560-161978/3	1		13:17	X																	
IC 560-161978/4	1		13:22	X																	
IC 560-161978/5	1		13:26	X																	
IC 560-161978/6	1		13:32	X																	
CALIBSTD 560-161978/7 IC	1		13:38	X																	
ICV 560-161978/8			13:42																		
ZZZZZZ			13:47																		
ICV 560-161978/10	1		13:52	X																	
ICSA 560-161978/11	1		13:57	X																	
ICSAB 560-161978/12	1		14:02	X																	
ZZZZZZ			14:27																		
ICB 560-161978/14	1		14:32	X																	
ZZZZZZ			14:37																		
ZZZZZZ			14:42																		
ZZZZZZ			14:47																		
ZZZZZZ			14:52																		
ZZZZZZ			14:57																		
ZZZZZZ			15:02																		
ZZZZZZ			15:08																		
ZZZZZZ			15:13																		
ZZZZZZ			15:17																		
ZZZZZZ			15:23																		
CCV 560-161978/25	1		15:38	X																	
ZZZZZZ			15:43																		
CCB 560-161978/27	1		15:48	X																	
ZZZZZZ			15:53																		
ZZZZZZ			15:58																		
ZZZZZZ			16:03																		
ZZZZZZ			16:08																		
ZZZZZZ			16:13																		
ZZZZZZ			16:18																		
ZZZZZZ			16:23																		
ZZZZZZ			16:28																		
ZZZZZZ			16:32																		
LCS 560-161862/2-A	1	T	16:37	X																	
CCV 560-161978/38	1		16:53	X																	
ZZZZZZ			16:58																		
CCB 560-161978/40	1		17:03	X																	
MB 560-161862/1-A	1	T	17:08	X																	
600-184109-12	1	D	17:12	X																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184109-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																	
				M n																	
600-184109-12 MS	1	D	17:22	X																	
600-184109-12 MSD	1	D	17:28	X																	
600-184109-12 SD	5	D	17:33	X																	
600-184109-2	1	D	17:38	X																	
600-184109-3	1	D	17:43	X																	
600-184109-4	1	D	17:48	X																	
600-184109-6	1	D	17:53	X																	
CCV 560-161978/50	1		18:08	X																	
ZZZZZZ			18:12																		
CCB 560-161978/52	1		18:17	X																	
600-184109-7	1	D	18:22	X																	
600-184109-8	1	D	18:27	X																	
600-184109-11	1	D	18:32	X																	
ZZZZZZ			18:42																		
ZZZZZZ			18:47																		
ZZZZZZ			18:52																		
ZZZZZZ			18:57																		
ZZZZZZ			19:02																		
ZZZZZZ			19:07																		
CCV 560-161978/62	1		19:23	X																	
ZZZZZZ			19:28																		
CCB 560-161978/64	1		19:33	X																	
ZZZZZZ			19:38																		
ZZZZZZ			19:42																		
ZZZZZZ			19:47																		
ZZZZZZ			19:52																		
ZZZZZZ			19:57																		
ZZZZZZ			20:02																		
ZZZZZZ			20:07																		
ZZZZZZ			20:12																		
ZZZZZZ			20:17																		
ZZZZZZ			20:22																		
CCV 560-161978/75			20:37																		
ZZZZZZ			20:41																		
CCB 560-161978/77			20:46																		
ZZZZZZ			20:51																		
ZZZZZZ			20:56																		
ZZZZZZ			21:01																		
ZZZZZZ			21:06																		
ZZZZZZ			21:11																		
CCV 560-161978/83			21:31																		
ZZZZZZ			21:36																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184109-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
CCB 560-161978/85			21:41																										

Prep Types: _____
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184109-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100			
IC 560-161978/2	13:12	100		105		100		100			
IC 560-161978/3	13:17	100		109		100		99			
IC 560-161978/4	13:22	101		108		103		101			
IC 560-161978/5	13:26	94		110		103		99			
IC 560-161978/6	13:32	91		124		102		98			
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100			
ICV 560-161978/10	13:52	95		93		103		94			
ICSA 560-161978/11	13:57	93		89		95		91		119	
ICSAB 560-161978/12	14:02	91		91		100		91			
ICB 560-161978/14	14:32	95		93		106		94			
CCV 560-161978/25	15:38	93		99		97		92			
CCB 560-161978/27	15:48	92		98		103		93			
LCS 560-161862/2-A	16:37	90		98		92		92			
CCV 560-161978/38	16:53	88		98		92		90			
CCB 560-161978/40	17:03	95		98		91		91			
MB 560-161862/1-A	17:08	88		97		94		92			
600-184109-12	17:12	80		95		93		86			
600-184109-12 MS	17:22	79		96		92		85			
600-184109-12 MSD	17:28	75		100		94		85			
600-184109-12 SD	17:33	78		107		97		85			
600-184109-2	17:38	71		93		94		82			
600-184109-3	17:43	67		94		95		82			
600-184109-4	17:48	63		93		92		78			
600-184109-6	17:53	58		92		93		75			
CCV 560-161978/50	18:08	74		93		90		83			
CCB 560-161978/52	18:17	78		96		91		85			
600-184109-7	18:22	66		96		89		81			
600-184109-8	18:27	58		94		93		74			
600-184109-11	18:32	53		93		95		74			
CCV 560-161978/62	19:23	74		93		80		84			
CCB 560-161978/64	19:33	75		94		82		82			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184109-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/1	Q	Element Ge/2	Q	Element Ge/3	Q	Element Y-89/1	Q	Element Y-89/2	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100		100	
IC 560-161978/2	13:12	103		102		100		101		99	
IC 560-161978/3	13:17	108		102		102		102		101	
IC 560-161978/4	13:22	114		108		105		104		104	
IC 560-161978/5	13:26	120		113		108		104		106	
IC 560-161978/6	13:32	140		116		109		109		104	
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100		100	
ICV 560-161978/10	13:52	109		113		106		99		102	
ICSA 560-161978/11	13:57					115		95		95	
ICSAB 560-161978/12	14:02	108		110		109		97		101	
ICB 560-161978/14	14:32	99		107		100		100		107	
CCV 560-161978/25	15:38	115		106		106		102		101	
CCB 560-161978/27	15:48	106		106		100		103		107	
LCS 560-161862/2-A	16:37	106		98		105		97		97	
CCV 560-161978/38	16:53	115		102		110		100		96	
CCB 560-161978/40	17:03	105		96		101		99		97	
MB 560-161862/1-A	17:08	107		101		104		100		99	
600-184109-12	17:12	105		97		102		94		98	
600-184109-12 MS	17:22	108		98		104		93		96	
600-184109-12 MSD	17:28	112		100		105		91		99	
600-184109-12 SD	17:33	124		104		109		97		101	
600-184109-2	17:38	100		96		101		90		96	
600-184109-3	17:43	98		96		95		90		98	
600-184109-4	17:48	101		94		95		89		95	
600-184109-6	17:53	99		95		93		87		96	
CCV 560-161978/50	18:08	108		99		106		91		94	
CCB 560-161978/52	18:17	100		95		96		94		96	
600-184109-7	18:22	103		92		99		91		92	
600-184109-8	18:27	103		94		96		89		96	
600-184109-11	18:32	100		96		94		85		98	
CCV 560-161978/62	19:23	106		89		104		85		87	
CCB 560-161978/64	19:33	101		87		94		88		88	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184109-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y-89/3	Q	Element In/1	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100		100	
IC 560-161978/2	13:12	99		95		98		98		99	
IC 560-161978/3	13:17	99		94		99		98		100	
IC 560-161978/4	13:22	101		95		104		101		103	
IC 560-161978/5	13:26	98		96		104		98		101	
IC 560-161978/6	13:32	97		89		104		95		100	
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100		100	
ICV 560-161978/10	13:52	95		109		101		94		95	
ICSA 560-161978/11	13:57	93		102		94		90		94	
ICSAB 560-161978/12	14:02	93		103		98		91		95	
ICB 560-161978/14	14:32	97		109		107		96		97	
CCV 560-161978/25	15:38	92		110		100		92		94	
CCB 560-161978/27	15:48	95		113		107		94		96	
LCS 560-161862/2-A	16:37	93		102		94		92		93	
CCV 560-161978/38	16:53	95		107		96		92		93	
CCB 560-161978/40	17:03	93		106		96		94		93	
MB 560-161862/1-A	17:08	95		105		99		96		97	
600-184109-12	17:12	89		92		92		87		92	
600-184109-12 MS	17:22	90		92		89		88		92	
600-184109-12 MSD	17:28	89		79		92		84		88	
600-184109-12 SD	17:33	91		91		99		90		90	
600-184109-2	17:38	90		87		92		88		91	
600-184109-3	17:43	90		86		92		87		92	
600-184109-4	17:48	89		88		92		86		92	
600-184109-6	17:53	84		84		91		82		85	
CCV 560-161978/50	18:08	89		95		92		89		89	
CCB 560-161978/52	18:17	91		100		95		92		91	
600-184109-7	18:22	87		88		87		86		90	
600-184109-8	18:27	85		86		92		83		87	
600-184109-11	18:32	83		83		94		83		88	
CCV 560-161978/62	19:23	89		88		86		88		89	
CCB 560-161978/64	19:33	88		90		90		88		89	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184109-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
CALIBSTD	13:07	100		100							
560-161978/1 IC											
IC 560-161978/2	13:12	99		99							
IC 560-161978/3	13:17	99		99							
IC 560-161978/4	13:22	103		102							
IC 560-161978/5	13:26	101		100							
IC 560-161978/6	13:32	100		93							
CALIBSTD	13:38	100		100							
560-161978/7 IC											
ICV 560-161978/10	13:52	95		94							
ICSA 560-161978/11	13:57	94		90							
ICSAB 560-161978/12	14:02	95		92							
ICB 560-161978/14	14:32	96		96							
CCV 560-161978/25	15:38	92		92							
CCB 560-161978/27	15:48	96		95							
LCS 560-161862/2-A	16:37	93		90							
CCV 560-161978/38	16:53	95		92							
CCB 560-161978/40	17:03	94		94							
MB 560-161862/1-A	17:08	96		95							
600-184109-12	17:12	93		86							
600-184109-12 MS	17:22	94		87							
600-184109-12 MSD	17:28	90		80							
600-184109-12 SD	17:33	90		85							
600-184109-2	17:38	92		85							
600-184109-3	17:43	94		86							
600-184109-4	17:48	92		87							
600-184109-6	17:53	87		80							
CCV 560-161978/50	18:08	90		85							
CCB 560-161978/52	18:17	92		91							
600-184109-7	18:22	91		82							
600-184109-8	18:27	88		83							
600-184109-11	18:32	88		82							
CCV 560-161978/62	19:23	89		87							
CCB 560-161978/64	19:33	89		88							

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Corpus C Job No.: 600-184109-1

SDG No.: _____

Batch Number: 161862 Batch Start Date: 04/25/19 12:30 Batch Analyst: Martinez, Andrea KBatch Method: 3010A Batch End Date: 04/25/19 15:06

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ESI-spkA 00021	ESI-spkB 00019	
MB 560-161862/1		3010A, 6020		<2 SU	50 mL	50 mL			
LCS 560-161862/2		3010A, 6020		<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
600-184109-A-12	ARTESIA-MW34-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-12 MS	ARTESIA-MW34-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
600-184109-A-12 MSD	ARTESIA-MW34-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
600-184109-A-2	ARTESIA-INLET-04 222019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-3	ARTESIA-MID-0422 2019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-4	ARTESIA-OUTLET-0 4222019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-6	ARTESIA-MW30-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-7	ARTESIA-MD30-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-8	ARTESIA-MW32-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL			
600-184109-A-11	ARTESIA-MW26-042 22019	3010A, 6020	D	<2 SU	50 mL	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Corpus C Job No.: 600-184109-1

SDG No.: _____

Batch Number: 161862 Batch Start Date: 04/25/19 12:30 Batch Analyst: Martinez, Andrea KBatch Method: 3010A Batch End Date: 04/25/19 15:06

Batch Notes	
Balance ID	B-11
Temperature - Corrected - End	95.6 Degrees C
Temperature - Corrected - Start	95.6 Degrees C
Digestion End Time	04/25/2019 15:06
Digestion Start Time	04/25/2019 12:30
Digestion Unit ID	2
Hydrochloric Acid ID	0000201226
Nitric Acid ID	0000188956
pH Indicator ID	HC730269
Pipette/Syringe/Dispenser ID	172
Thermometer ID	250
Digestion Tube/Cup ID	18012117
Temperature - Uncorrected - End	95.0 Degrees C
Temperature - Uncorrected - Start	95.0 Degrees C

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Chain of Custody Record



Client Information		Lab PM: McDaniel, Bethany A		Carrier Tracking No(s): 90154		COC No: 600-67988-18594.5							
Client Contact: Alecia Forsberg		E-Mail: bethany.mcdaniel@testamericainc.com		Page: 1 of 2		Page: 1 of 2							
Company: CH2M Hill, Inc.		Address: 3721 Rutledge Rd, NE Suite B-1		City: Albuquerque		State: NM, 87109							
Phone: 505-855-5239(Tel)		PO #: D3151100 B.CS.TPE.AR.19-05-02		WO #: 684703.18.05.02		Project #: 60004334							
Email: alecia.forsberg@jacobs.com		Site: Dowell - Artesia Groundwater		SSOW#:									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, or Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - LL - NAP, Benzene, 1,1-DCE, 1,1-DCA, and PCE	6020 - Manganese, Dissolved	300.0 - Arions, IC (Sulfate)	8260B - LL - 1,1-DCE and PCE only	Analysis Requested	Preservation Codes:	Special Instructions/Note:
ARTESIA - TPO1-04222019	4/22/19	1310	G	W	Y	Y	X	X	X	X		A - HCL M - Hexane N - None O - AsNaO2 P - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
ARTESIA - IN VET-04222019		1340	G	W	Y	Y	X	X	X	X			
ARTESIA - MID-04222019		1345	G	W	Y	Y	X	X	X	X			
ARTESIA - OUTLET-04222019		1353	G	W	Y	Y	X	X	X	X			
ARTESIA - MW12-04222019		1350	G	W	Y	Y	X	X	X	X			
ARTESIA - MW30-04222019		1405	G	W	Y	Y	X	X	X	X			
ARTESIA - MD30-04222019		1410	G	W	Y	Y	X	X	X	X			
ARTESIA - MW32-04222019		1450	G	W	Y	Y	X	X	X	X			
ARTESIA - HW17C-04222019		1430	G	W	Y	Y	X	X	X	X			
ARTESIA - MW11-04222019		1525	G	W	Y	Y	X	X	X	X			
ARTESIA - MW26-04222019		1505	G	W	Y	Y	X	X	X	X			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) Level 3													
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Mont													
Special Instructions/OC Requirements:													
Empty Kit Relinquished by:													
Relinquished by:													
Relinquished by:													
Relinquished by:													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No													
Custody Seal No.:													
Date: 4/22/19 1716													
Company: Jacobs													
Received by: [Signature]													
Date/Time: 4-23-19/0859													
Company: T.A. Houston													
Received by:													
Date/Time:													
Cooler Temperature(s) °C and Other Remarks:													

600-184109 Chain of Custody

Ver. 01/16/2019

Sa Loc: 600 pt Checklist
184109

Date/Time Received:

19 APR 23 8:59

JOB NUMBER:

CLIENT:

CH2m Hill

UNPACKED BY:

CARRIER/DRIVER:

Fedex

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	<input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	1.4	IR676	-0.2	1.2
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N	J.S.	4-23-19		
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				
	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> Y / <input type="checkbox"/> N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are >pH 12:

☐ YES☐ NO

Acid preserved are <pH 2:

☐ YES☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

YES

NO

COMMENTS:

J.S. 4-23-19



600-184109 Wayl

FedEx
TXN# 0221 4931 8201 6640
TUE - 23 APR 10:30A
PRIORITY OVERNIGHT
AB LKSA
77040
TX-US IAH
*3732293 04/22 565J1/D7E5/29AD

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No: 600-39016.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: bethany.mcdaniel@testamericainc.com		State of Origin: Oklahoma		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		Address: 1733 N. Padre Island Drive,		City: Corpus Christi		State, Zip: TX, 78408		Job #: 600-184109-1	
Phone: 361-289-2673(Tel) 361-289-2471(Fax)		PO #:		Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email: Dowell - Artesia		WO #:		Sample Type (C=Comp, G=grab)		Field Filtered Sample (Yes or No)		Total Number of Containers	
Project Name: Dowell - Artesia		Project #: 60004334		Sample Time		Perform MS/MSD (Yes or No)		Special Instructions/Note:	
Site:		SSOW#:		Sample Date		6020/FIELD, FLTRD 6020, FF - Metals, Diss Mn			
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Preservation Code:			
ARTESIA-INLET-04222019 (600-184109-2)		4/22/19		13:40 Central		Water		1	
ARTESIA-MID-04222019 (600-184109-3)		4/22/19		13:45 Central		Water		1	
ARTESIA-OUTLET-04222019 (600-184109-4)		4/22/19		13:53 Central		Water		1	
ARTESIA-MW30-04222019 (600-184109-6)		4/22/19		14:05 Central		Water		1	
ARTESIA-MD30-04222019 (600-184109-7)		4/22/19		14:10 Central		Water		1	
ARTESIA-MW32-04222019 (600-184109-8)		4/22/19		14:50 Central		Water		1	
ARTESIA-MW26-04222019 (600-184109-11)		4/22/19		15:05 Central		Water		1	
ARTESIA-MW34-04222019 (600-184109-12)		4/22/19		15:30 Central		Water		1	
ARTESIA-MW34-04222019 (600-184109-12MS)		4/22/19		15:30 Central		Water		1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2	
Empty Kit Relinquished by:		Date:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact:		Custody Seal No.:	
Δ Yes Δ No		P-10 4.3/4.4 CP	

Method of Shipment: **FAIR**
Date/Time: **4-25-19 1013**
Company: **FAIR**
Date/Time: **4-25-19 1013**
Company: **FAIR**
Date/Time: **4-25-19 1013**
Company: **FAIR**
Cooler Temperature(s) °C and Other Remarks: **P-10 4.3/4.4 CP**

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Phone:		McDaniel, Bethany A				600-39016.2	
Company: TestAmerica Laboratories, Inc.		E-Mail:		bethany.mcdaniel@testamericainc.com		State of Origin:		Page:	
Address: 1733 N. Padre Island Drive,		PO #:		600-184109-1		Oklahoma		Page 2 of 2	
City: Corpus Christi		WO #:		600-184109-1		Job #:		600-184109-1	
State, Zip: TX, 78408		Project #:		60004334		Preservation Codes:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 361-289-2673(Tel) 361-289-2471(Fax)		SSOW #:				Analysis Requested		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Email:		Sample Date		Sample Time		Sample Type		Matrix	
		4/22/19		15:30 Central		MSD Water		(W=water, S=solid, O=waste/oil, BT=titus, A=Al)	
Project Name: Dowell - Artesia		Sample Date		Sample Time		Sample Type		Matrix	
Site:		4/22/19		15:30 Central		MSD Water		(W=water, S=solid, O=waste/oil, BT=titus, A=Al)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type		Matrix	
ARTESIA-MW34-04222019 (600-184109-12MSD)		4/22/19		15:30 Central		MSD Water		(W=water, S=solid, O=waste/oil, BT=titus, A=Al)	
Total Number of Containers		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		6020/FIELD_FLTRD 6020_FF - Metals, Diss Mn		Special Instructions/Note:	
1		X		X		X		1	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Primary Deliverable Rank: 2</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months</p>									
<p>Empty Kit Relinquished by:</p> <p>Relinquished by: [Signature]</p> <p>Date: 4-25-19 1800</p> <p>Relinquished by: [Signature]</p> <p>Date: 4-25-19 10:13</p> <p>Relinquished by: [Signature]</p> <p>Date: 4-25-19 10:13</p> <p>Relinquished by: [Signature]</p> <p>Date: 4-25-19 10:13</p> <p>Custody Seal No.: 12-10 4.3/4.4 GP</p>									

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-184109-1

Login Number: 184109
List Number: 1
Creator: Snow, Tiffany B

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-184109-1

Login Number: 184109
List Number: 2
Creator: Viveros, Ashley D

List Source: Eurofins TestAmerica, Corpus Christi
List Creation: 04/25/19 11:11 AM

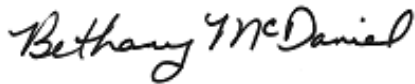
Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ANALYTICAL REPORT

Job Number: 600-184182-1

Job Description: Dowell - Artesia 04/23/19

For:
CH2M Hill, Inc.
3721 Rutledge Rd. NE
Suite B-1
Albuquerque, NM 87109
Attention: Aleeca Forsberg



Approved for release.
Bethany A. McDaniel
Senior Project Manager
5/8/2019 12:06 PM

Bethany A McDaniel, Senior Project Manager
6310 Rothway Street, Houston, TX, 77040
(713)358-2005
bethany.mcdaniel@testamericainc.com
05/08/2019

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Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
600-184182-1

Comments

No additional comments.

Receipt

The samples were received on 4/24/2019 10:21 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-TB02-04232019

Lab Sample ID: 600-184182-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.000725	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW33-04232019

Lab Sample ID: 600-184182-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.000640	J	0.00200	0.000129	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW29-04232019

Lab Sample ID: 600-184182-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00861		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0237		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0306		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW35-04232019

Lab Sample ID: 600-184182-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0205		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0233		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW28-04232019

Lab Sample ID: 600-184182-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00465		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0127		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0176		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW21-04232019

Lab Sample ID: 600-184182-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000562	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0154	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW22-04232019

Lab Sample ID: 600-184182-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000546	J	0.00100	0.000168	mg/L	1		8260B	Total/NA

Client Sample ID: ARTESIA-MW31-04232019

Lab Sample ID: 600-184182-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00181		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000411	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.0337	J	0.0500	0.0116	mg/L	1		6020	Dissolved

Client Sample ID: ARTESIA-MW25-04232019

Lab Sample ID: 600-184182-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000701	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000777	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00118		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.244		0.0500	0.0116	mg/L	1		6020	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW18-04232019

Lab Sample ID: 600-184182-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000706	J	0.00100	0.000168	mg/L			1	8260B	Total/NA

Client Sample ID: ARTESIA-MD18-04232019

Lab Sample ID: 600-184182-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000736	J	0.00100	0.000168	mg/L			1	8260B	Total/NA
Manganese, Dissolved	0.0276	J	0.0500	0.0116	mg/L			1	6020	Dissolved

Client Sample ID: ARTESIA-MW15-04232019

Lab Sample ID: 600-184182-12

No Detections.

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-TB02-04232019

Lab Sample ID: 600-184182-1

Date Collected: 04/23/19 07:45

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/01/19 16:41	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 16:41	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 16:41	1
Naphthalene	0.000725	J	0.00200	0.000129	mg/L			05/01/19 16:41	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		50 - 134		05/01/19 16:41	1
4-Bromofluorobenzene	117		67 - 139		05/01/19 16:41	1
Dibromofluoromethane	101		62 - 130		05/01/19 16:41	1
Toluene-d8 (Surr)	101		70 - 130		05/01/19 16:41	1

Client Sample ID: ARTESIA-MW33-04232019

Lab Sample ID: 600-184182-2

Date Collected: 04/23/19 08:05

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/01/19 17:06	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 17:06	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 17:06	1
Naphthalene	0.000640	J	0.00200	0.000129	mg/L			05/01/19 17:06	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		50 - 134		05/01/19 17:06	1
4-Bromofluorobenzene	117		67 - 139		05/01/19 17:06	1
Dibromofluoromethane	101		62 - 130		05/01/19 17:06	1
Toluene-d8 (Surr)	104		70 - 130		05/01/19 17:06	1

Client Sample ID: ARTESIA-MW29-04232019

Lab Sample ID: 600-184182-3

Date Collected: 04/23/19 08:20

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00861		0.00100	0.000168	mg/L			05/01/19 17:31	1
1,1-Dichloroethene	0.0237		0.00100	0.000192	mg/L			05/01/19 17:31	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 17:31	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 17:31	1
Tetrachloroethene	0.0306		0.00100	0.000333	mg/L			05/01/19 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134		05/01/19 17:31	1
4-Bromofluorobenzene	113		67 - 139		05/01/19 17:31	1
Dibromofluoromethane	102		62 - 130		05/01/19 17:31	1
Toluene-d8 (Surr)	104		70 - 130		05/01/19 17:31	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 15:13	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW35-04232019

Lab Sample ID: 600-184182-4

Date Collected: 04/23/19 08:35

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0205		0.00100	0.000192	mg/L			05/01/19 17:56	1
Tetrachloroethene	0.0233		0.00100	0.000333	mg/L			05/01/19 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					05/01/19 17:56	1
Dibromofluoromethane	103		62 - 130					05/01/19 17:56	1
Toluene-d8 (Surr)	103		70 - 130					05/01/19 17:56	1
4-Bromofluorobenzene	122		67 - 139					05/01/19 17:56	1

Client Sample ID: ARTESIA-MW28-04232019

Lab Sample ID: 600-184182-5

Date Collected: 04/23/19 08:50

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00465		0.00100	0.000168	mg/L			05/01/19 18:21	1
1,1-Dichloroethene	0.0127		0.00100	0.000192	mg/L			05/01/19 18:21	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 18:21	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 18:21	1
Tetrachloroethene	0.0176		0.00100	0.000333	mg/L			05/01/19 18:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					05/01/19 18:21	1
4-Bromofluorobenzene	116		67 - 139					05/01/19 18:21	1
Dibromofluoromethane	104		62 - 130					05/01/19 18:21	1
Toluene-d8 (Surr)	109		70 - 130					05/01/19 18:21	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 15:17	1

Client Sample ID: ARTESIA-MW21-04232019

Lab Sample ID: 600-184182-6

Date Collected: 04/23/19 09:00

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000562	J	0.00100	0.000168	mg/L			05/01/19 14:35	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 14:35	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 14:35	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 14:35	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					05/01/19 14:35	1
4-Bromofluorobenzene	118		67 - 139					05/01/19 14:35	1
Dibromofluoromethane	98		62 - 130					05/01/19 14:35	1
Toluene-d8 (Surr)	105		70 - 130					05/01/19 14:35	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0154	J	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:03	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW22-04232019

Lab Sample ID: 600-184182-7

Date Collected: 04/23/19 09:40

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000546	J	0.00100	0.000168	mg/L			05/01/19 18:46	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 18:46	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 18:46	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 18:46	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 18:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					05/01/19 18:46	1
4-Bromofluorobenzene	116		67 - 139					05/01/19 18:46	1
Dibromofluoromethane	102		62 - 130					05/01/19 18:46	1
Toluene-d8 (Surr)	106		70 - 130					05/01/19 18:46	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:08	1

Client Sample ID: ARTESIA-MW31-04232019

Lab Sample ID: 600-184182-8

Date Collected: 04/23/19 09:25

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00181		0.00100	0.000168	mg/L			05/01/19 19:11	1
1,1-Dichloroethene	0.000411	J	0.00100	0.000192	mg/L			05/01/19 19:11	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 19:11	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 19:11	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134					05/01/19 19:11	1
4-Bromofluorobenzene	113		67 - 139					05/01/19 19:11	1
Dibromofluoromethane	103		62 - 130					05/01/19 19:11	1
Toluene-d8 (Surr)	104		70 - 130					05/01/19 19:11	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0337	J	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:13	1

Client Sample ID: ARTESIA-MW25-04232019

Lab Sample ID: 600-184182-9

Date Collected: 04/23/19 09:55

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000701	J	0.00100	0.000168	mg/L			05/01/19 19:36	1
1,1-Dichloroethene	0.000777	J	0.00100	0.000192	mg/L			05/01/19 19:36	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 19:36	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 19:36	1
Tetrachloroethene	0.00118		0.00100	0.000333	mg/L			05/01/19 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					05/01/19 19:36	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW25-04232019

Lab Sample ID: 600-184182-9

Date Collected: 04/23/19 09:55

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	114		67 - 139		05/01/19 19:36	1
Dibromofluoromethane	106		62 - 130		05/01/19 19:36	1
Toluene-d8 (Surr)	106		70 - 130		05/01/19 19:36	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.244		0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:18	1

Client Sample ID: ARTESIA-MW18-04232019

Lab Sample ID: 600-184182-10

Date Collected: 04/23/19 10:10

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000706	J	0.00100	0.000168	mg/L			05/01/19 20:01	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 20:01	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 20:01	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 20:01	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134		05/01/19 20:01	1
4-Bromofluorobenzene	116		67 - 139		05/01/19 20:01	1
Dibromofluoromethane	105		62 - 130		05/01/19 20:01	1
Toluene-d8 (Surr)	105		70 - 130		05/01/19 20:01	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:23	1

Client Sample ID: ARTESIA-MD18-04232019

Lab Sample ID: 600-184182-11

Date Collected: 04/23/19 10:15

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000736	J	0.00100	0.000168	mg/L			05/01/19 20:26	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 20:26	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 20:26	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 20:26	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		05/01/19 20:26	1
4-Bromofluorobenzene	114		67 - 139		05/01/19 20:26	1
Dibromofluoromethane	102		62 - 130		05/01/19 20:26	1
Toluene-d8 (Surr)	104		70 - 130		05/01/19 20:26	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0276	J	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 16:28	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW15-04232019

Lab Sample ID: 600-184182-12

Date Collected: 04/23/19 11:05

Matrix: Water

Date Received: 04/24/19 10:21

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/02/19 13:19	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/02/19 13:19	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/02/19 13:19	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/02/19 13:19	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/02/19 13:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		50 - 134		05/02/19 13:19	1
4-Bromofluorobenzene	112		67 - 139		05/02/19 13:19	1
Dibromofluoromethane	106		62 - 130		05/02/19 13:19	1
Toluene-d8 (Surr)	107		70 - 130		05/02/19 13:19	1

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units
1,1-Dichloroethane	0.00100	0.000168	mg/L
1,1-Dichloroethene	0.00100	0.000192	mg/L
Benzene	0.00100	0.000176	mg/L
Naphthalene	0.00200	0.000129	mg/L
Tetrachloroethene	0.00100	0.000333	mg/L

Method: 6020 - Metals (ICP/MS) - Dissolved

Prep: 3010A

Analyte	RL	MDL	Units
Manganese, Dissolved	0.0500	0.0116	mg/L

Surrogate Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-184182-1	ARTESIA-TB02-04232019	100	117	101	101
600-184182-2	ARTESIA-MW33-04232019	100	117	101	104
600-184182-3	ARTESIA-MW29-04232019	104	113	102	104
600-184182-4	ARTESIA-MW35-04232019	105	122	103	103
600-184182-5	ARTESIA-MW28-04232019	104	116	104	109
600-184182-6	ARTESIA-MW21-04232019	98	118	98	105
600-184182-6 MS	ARTESIA-MW21-04232019	105	120	108	111
600-184182-6 MSD	ARTESIA-MW21-04232019	106	124	109	108
600-184182-7	ARTESIA-MW22-04232019	102	116	102	106
600-184182-8	ARTESIA-MW31-04232019	107	113	103	104
600-184182-9	ARTESIA-MW25-04232019	104	114	106	106
600-184182-10	ARTESIA-MW18-04232019	107	116	105	105
600-184182-11	ARTESIA-MD18-04232019	105	114	102	104
600-184182-12	ARTESIA-MW15-04232019	106	112	106	107
LCS 600-264044/3	Lab Control Sample	99	121	108	114
LCS 600-264156/3	Lab Control Sample	99	121	108	114
LCSD 600-264044/4	Lab Control Sample Dup	99	119	106	110
LCSD 600-264156/4	Lab Control Sample Dup	99	121	109	112
MB 600-264044/6	Method Blank	97	116	101	104
MB 600-264156/6	Method Blank	91	116	98	109

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-264044/6

Matrix: Water

Analysis Batch: 264044

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/01/19 11:15	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/01/19 11:15	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/01/19 11:15	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/01/19 11:15	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/01/19 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134		05/01/19 11:15	1
4-Bromofluorobenzene	116		67 - 139		05/01/19 11:15	1
Dibromofluoromethane	101		62 - 130		05/01/19 11:15	1
Toluene-d8 (Surr)	104		70 - 130		05/01/19 11:15	1

Lab Sample ID: LCS 600-264044/3

Matrix: Water

Analysis Batch: 264044

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.008956		mg/L		90	70 - 140
1,1-Dichloroethene	0.0100	0.01041		mg/L		104	58 - 148
Benzene	0.0100	0.009070		mg/L		91	70 - 130
Naphthalene	0.0100	0.008143		mg/L		81	10 - 150
Tetrachloroethene	0.0100	0.01141		mg/L		114	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	121		67 - 139
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	114		70 - 130

Lab Sample ID: LCSD 600-264044/4

Matrix: Water

Analysis Batch: 264044

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.009138		mg/L		91	70 - 140	2	20
1,1-Dichloroethene	0.0100	0.009998		mg/L		100	58 - 148	4	20
Benzene	0.0100	0.008819		mg/L		88	70 - 130	3	20
Naphthalene	0.0100	0.008532		mg/L		85	10 - 150	5	20
Tetrachloroethene	0.0100	0.01112		mg/L		111	47 - 150	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	119		67 - 139
Dibromofluoromethane	106		62 - 130
Toluene-d8 (Surr)	110		70 - 130

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-184182-6 MS

Matrix: Water

Analysis Batch: 264044

Client Sample ID: ARTESIA-MW21-04232019

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.000562	J	0.0100	0.01053		mg/L		100	70 - 140
1,1-Dichloroethene	0.000192	U	0.0100	0.01081		mg/L		108	58 - 148
Benzene	0.000176	U	0.0100	0.009354		mg/L		94	70 - 130
Naphthalene	0.000129	U	0.0100	0.008083		mg/L		81	10 - 150
Tetrachloroethene	0.000333	U	0.0100	0.01176		mg/L		118	47 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		50 - 134
4-Bromofluorobenzene	120		67 - 139
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	111		70 - 130

Lab Sample ID: 600-184182-6 MSD

Matrix: Water

Analysis Batch: 264044

Client Sample ID: ARTESIA-MW21-04232019

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.000562	J	0.0100	0.009922		mg/L		94	70 - 140	6	30
1,1-Dichloroethene	0.000192	U	0.0100	0.009990		mg/L		100	58 - 148	8	30
Benzene	0.000176	U	0.0100	0.008919		mg/L		89	70 - 130	5	30
Naphthalene	0.000129	U	0.0100	0.009583		mg/L		96	10 - 150	17	30
Tetrachloroethene	0.000333	U	0.0100	0.01092		mg/L		109	47 - 150	7	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		50 - 134
4-Bromofluorobenzene	124		67 - 139
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	108		70 - 130

Lab Sample ID: MB 600-264156/6

Matrix: Water

Analysis Batch: 264156

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			05/02/19 10:51	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			05/02/19 10:51	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/02/19 10:51	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			05/02/19 10:51	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			05/02/19 10:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		05/02/19 10:51	1
4-Bromofluorobenzene	116		67 - 139		05/02/19 10:51	1
Dibromofluoromethane	98		62 - 130		05/02/19 10:51	1
Toluene-d8 (Surr)	109		70 - 130		05/02/19 10:51	1

QC Sample Results

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-264156/3

Matrix: Water

Analysis Batch: 264156

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.008733		mg/L		87	70 - 140
1,1-Dichloroethene	0.0100	0.009985		mg/L		100	58 - 148
Benzene	0.0100	0.008602		mg/L		86	70 - 130
Naphthalene	0.0100	0.007376		mg/L		74	10 - 150
Tetrachloroethene	0.0100	0.01155		mg/L		116	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	121		67 - 139
Dibromofluoromethane	108		62 - 130
Toluene-d8 (Surr)	114		70 - 130

Lab Sample ID: LCSD 600-264156/4

Matrix: Water

Analysis Batch: 264156

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.008833		mg/L		88	70 - 140	1	20
1,1-Dichloroethene	0.0100	0.009958		mg/L		100	58 - 148	0	20
Benzene	0.0100	0.008709		mg/L		87	70 - 130	1	20
Naphthalene	0.0100	0.007757		mg/L		78	10 - 150	5	20
Tetrachloroethene	0.0100	0.01158		mg/L		116	47 - 150	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	121		67 - 139
Dibromofluoromethane	109		62 - 130
Toluene-d8 (Surr)	112		70 - 130

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 560-161936/1-A

Matrix: Water

Analysis Batch: 161978

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 161936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.0116	U	0.0500	0.0116	mg/L		04/29/19 10:28	04/29/19 14:47	1

Lab Sample ID: LCS 560-161936/2-A

Matrix: Water

Analysis Batch: 161978

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 161936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	2.50	2.397		mg/L		96	80 - 120

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

GC/MS VOA

Analysis Batch: 264044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184182-1	ARTESIA-TB02-04232019	Total/NA	Water	8260B	
600-184182-2	ARTESIA-MW33-04232019	Total/NA	Water	8260B	
600-184182-3	ARTESIA-MW29-04232019	Total/NA	Water	8260B	
600-184182-4	ARTESIA-MW35-04232019	Total/NA	Water	8260B	
600-184182-5	ARTESIA-MW28-04232019	Total/NA	Water	8260B	
600-184182-6	ARTESIA-MW21-04232019	Total/NA	Water	8260B	
600-184182-7	ARTESIA-MW22-04232019	Total/NA	Water	8260B	
600-184182-8	ARTESIA-MW31-04232019	Total/NA	Water	8260B	
600-184182-9	ARTESIA-MW25-04232019	Total/NA	Water	8260B	
600-184182-10	ARTESIA-MW18-04232019	Total/NA	Water	8260B	
600-184182-11	ARTESIA-MD18-04232019	Total/NA	Water	8260B	
MB 600-264044/6	Method Blank	Total/NA	Water	8260B	
LCS 600-264044/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-264044/4	Lab Control Sample Dup	Total/NA	Water	8260B	
600-184182-6 MS	ARTESIA-MW21-04232019	Total/NA	Water	8260B	
600-184182-6 MSD	ARTESIA-MW21-04232019	Total/NA	Water	8260B	

Analysis Batch: 264156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184182-12	ARTESIA-MW15-04232019	Total/NA	Water	8260B	
MB 600-264156/6	Method Blank	Total/NA	Water	8260B	
LCS 600-264156/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-264156/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Metals

Prep Batch: 161936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184182-3	ARTESIA-MW29-04232019	Dissolved	Water	3010A	
600-184182-5	ARTESIA-MW28-04232019	Dissolved	Water	3010A	
600-184182-6	ARTESIA-MW21-04232019	Dissolved	Water	3010A	
600-184182-7	ARTESIA-MW22-04232019	Dissolved	Water	3010A	
600-184182-8	ARTESIA-MW31-04232019	Dissolved	Water	3010A	
600-184182-9	ARTESIA-MW25-04232019	Dissolved	Water	3010A	
600-184182-10	ARTESIA-MW18-04232019	Dissolved	Water	3010A	
600-184182-11	ARTESIA-MD18-04232019	Dissolved	Water	3010A	
MB 560-161936/1-A	Method Blank	Total/NA	Water	3010A	
LCS 560-161936/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 161978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-184182-3	ARTESIA-MW29-04232019	Dissolved	Water	6020	161936
600-184182-5	ARTESIA-MW28-04232019	Dissolved	Water	6020	161936
600-184182-6	ARTESIA-MW21-04232019	Dissolved	Water	6020	161936
600-184182-7	ARTESIA-MW22-04232019	Dissolved	Water	6020	161936
600-184182-8	ARTESIA-MW31-04232019	Dissolved	Water	6020	161936
600-184182-9	ARTESIA-MW25-04232019	Dissolved	Water	6020	161936
600-184182-10	ARTESIA-MW18-04232019	Dissolved	Water	6020	161936
600-184182-11	ARTESIA-MD18-04232019	Dissolved	Water	6020	161936
MB 560-161936/1-A	Method Blank	Total/NA	Water	6020	161936
LCS 560-161936/2-A	Lab Control Sample	Total/NA	Water	6020	161936

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-TB02-04232019

Lab Sample ID: 600-184182-1

Date Collected: 04/23/19 07:45

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 16:41	WS1	TAL HOU

Client Sample ID: ARTESIA-MW33-04232019

Lab Sample ID: 600-184182-2

Date Collected: 04/23/19 08:05

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 17:06	WS1	TAL HOU

Client Sample ID: ARTESIA-MW29-04232019

Lab Sample ID: 600-184182-3

Date Collected: 04/23/19 08:20

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 17:31	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 15:13	JEM	TAL CC

Client Sample ID: ARTESIA-MW35-04232019

Lab Sample ID: 600-184182-4

Date Collected: 04/23/19 08:35

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 17:56	WS1	TAL HOU

Client Sample ID: ARTESIA-MW28-04232019

Lab Sample ID: 600-184182-5

Date Collected: 04/23/19 08:50

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 18:21	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 15:17	JEM	TAL CC

Client Sample ID: ARTESIA-MW21-04232019

Lab Sample ID: 600-184182-6

Date Collected: 04/23/19 09:00

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 14:35	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:03	JEM	TAL CC

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Client Sample ID: ARTESIA-MW22-04232019

Lab Sample ID: 600-184182-7

Date Collected: 04/23/19 09:40

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 18:46	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:08	JEM	TAL CC

Client Sample ID: ARTESIA-MW31-04232019

Lab Sample ID: 600-184182-8

Date Collected: 04/23/19 09:25

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 19:11	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:13	JEM	TAL CC

Client Sample ID: ARTESIA-MW25-04232019

Lab Sample ID: 600-184182-9

Date Collected: 04/23/19 09:55

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 19:36	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:18	JEM	TAL CC

Client Sample ID: ARTESIA-MW18-04232019

Lab Sample ID: 600-184182-10

Date Collected: 04/23/19 10:10

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 20:01	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:23	JEM	TAL CC

Client Sample ID: ARTESIA-MD18-04232019

Lab Sample ID: 600-184182-11

Date Collected: 04/23/19 10:15

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264044	05/01/19 20:26	WS1	TAL HOU
Dissolved	Prep	3010A			161936	04/29/19 10:28	AKM	TAL CC
Dissolved	Analysis	6020		1	161978	04/29/19 16:28	JEM	TAL CC

Client Sample ID: ARTESIA-MW15-04232019

Lab Sample ID: 600-184182-12

Date Collected: 04/23/19 11:05

Matrix: Water

Date Received: 04/24/19 10:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	264156	05/02/19 13:19	WS1	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	18-061-0	08-04-19
Louisiana	NELAP	6	01967	06-30-19
Oklahoma	State Program	6	2018-052	08-31-19
Texas	NELAP	6	T104704223-18-23	10-31-19
USDA	Federal		P330-18-00130	04-30-21

Laboratory: Eurofins TestAmerica, Corpus Christi

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Oklahoma	State Program	6	2018-070	08-31-19
Texas	NELAP	6	T104704210-19-23	03-31-20
USDA	Federal		P330-18-00314	10-31-21

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
6020	Metals (ICP/MS)	SW846	TAL CC
3010A	Preparation, Total Metals	SW846	TAL CC
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

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Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Dowell - Artesia 04/23/19

Job ID: 600-184182-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-184182-1	ARTESIA-TB02-04232019	Water	04/23/19 07:45	04/24/19 10:21
600-184182-2	ARTESIA-MW33-04232019	Water	04/23/19 08:05	04/24/19 10:21
600-184182-3	ARTESIA-MW29-04232019	Water	04/23/19 08:20	04/24/19 10:21
600-184182-4	ARTESIA-MW35-04232019	Water	04/23/19 08:35	04/24/19 10:21
600-184182-5	ARTESIA-MW28-04232019	Water	04/23/19 08:50	04/24/19 10:21
600-184182-6	ARTESIA-MW21-04232019	Water	04/23/19 09:00	04/24/19 10:21
600-184182-7	ARTESIA-MW22-04232019	Water	04/23/19 09:40	04/24/19 10:21
600-184182-8	ARTESIA-MW31-04232019	Water	04/23/19 09:25	04/24/19 10:21
600-184182-9	ARTESIA-MW25-04232019	Water	04/23/19 09:55	04/24/19 10:21
600-184182-10	ARTESIA-MW18-04232019	Water	04/23/19 10:10	04/24/19 10:21
600-184182-11	ARTESIA-MD18-04232019	Water	04/23/19 10:15	04/24/19 10:21
600-184182-12	ARTESIA-MW15-04232019	Water	04/23/19 11:05	04/24/19 10:21

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 259909Lab Sample ID: IC 600-259909/2 Client Sample ID: _____Date Analyzed: 03/07/19 10:55 Lab File ID: A06601.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	5.00	Baseline	shenw	03/07/19 11:53
Chloroethane	5.15	Baseline	shenw	03/07/19 11:53
Acrolein	5.71	Baseline	shenw	03/07/19 11:53
Acetonitrile	5.73	Baseline	shenw	03/07/19 11:53
Isopropyl alcohol	5.75	Baseline	shenw	03/07/19 11:53
Acetone	5.83	Baseline	shenw	03/07/19 11:53
t-Butanol	6.19	Baseline	shenw	03/07/19 11:53
Iodomethane	6.26	Baseline	shenw	03/07/19 11:54
Methyl acetate	6.34	Baseline	shenw	03/07/19 11:54
Propionitrile	7.10	Baseline	shenw	03/07/19 11:54
Vinyl acetate	7.15	Baseline	shenw	03/07/19 11:54
2-Butanone (MEK)	7.41	Baseline	shenw	03/07/19 11:54
Ethyl acetate	7.63	Baseline	shenw	03/07/19 11:54
Isobutyl alcohol	7.72	Baseline	shenw	03/07/19 11:55
Tetrahydrofuran	7.95	Baseline	shenw	03/07/19 11:55
1,2-Dichloroethane-d4 (Surr)	8.13	Baseline	shenw	03/07/19 11:55
1,2-Dichloroethane	8.20	Baseline	shenw	03/07/19 11:55
n-Butanol	8.32	Baseline	shenw	03/07/19 11:55
Dibromomethane	9.04	Baseline	shenw	03/07/19 11:55
2-Nitropropane	9.05	Baseline	shenw	03/07/19 11:56
1,4-Dioxane	9.20	Baseline	shenw	03/07/19 11:56
2-Chloroethyl vinyl ether	9.41	Baseline	shenw	03/07/19 11:56
cis-1,3-Dichloropropene	9.64	Baseline	shenw	03/07/19 11:56
4-Methyl-2-pentanone (MIBK)	9.69	Baseline	shenw	03/07/19 11:56
trans-1,3-Dichloropropene	10.01	Baseline	shenw	03/07/19 11:56
1,1,2-Trichloroethane	10.18	Baseline	shenw	03/07/19 11:56
Ethyl methacrylate	10.33	Baseline	shenw	03/07/19 11:56
2-Hexanone	10.51	Baseline	shenw	03/07/19 11:57
Bromoform	12.37	Baseline	shenw	03/07/19 11:57
Cyclohexanone	12.59	Baseline	shenw	03/07/19 11:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 259909Lab Sample ID: IC 600-259909/2 Client Sample ID: _____Date Analyzed: 03/07/19 10:55 Lab File ID: A06601.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2,2-Tetrachloroethane	12.61	Baseline	shenw	03/07/19 11:57
1,2,3-Trichloropropane	12.77	Baseline	shenw	03/07/19 11:57
trans-1,4-Dichloro-2-butene	12.77	Baseline	shenw	03/07/19 11:57
1,2-Dibromo-3-Chloropropane	15.21	Baseline	shenw	03/07/19 11:58
1,2,4-Trichlorobenzene	16.70	Baseline	shenw	03/07/19 11:58
Hexachlorobutadiene	17.04	Baseline	shenw	03/07/19 11:58
1,2,3-Trichlorobenzene	17.26	Baseline	shenw	03/07/19 11:58

Lab Sample ID: IC 600-259909/3 Client Sample ID: _____Date Analyzed: 03/07/19 11:20 Lab File ID: A06602.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	5.83	Peak assignment corrected	shenw	03/07/19 11:50
t-Butanol	6.20	Peak assignment corrected	shenw	03/07/19 11:50
Methyl acetate	6.34	Peak assignment corrected	shenw	03/07/19 11:50
Propionitrile	7.09	Peak assignment corrected	shenw	03/07/19 11:50
2-Butanone (MEK)	7.41	Baseline	shenw	03/07/19 11:51
Ethyl acetate	7.63	Baseline	shenw	03/07/19 11:51
Isobutyl alcohol	7.71	Baseline	shenw	03/07/19 11:51
Tetrahydrofuran	7.95	Baseline	shenw	03/07/19 11:51
n-Butanol	8.30	Baseline	shenw	03/07/19 11:52
1,4-Dioxane	9.18	Baseline	shenw	03/07/19 11:52
2-Chloroethyl vinyl ether	9.42	Baseline	shenw	03/07/19 11:52
trans-1,3-Dichloropropene	10.01	Baseline	shenw	03/07/19 11:52
2-Hexanone	10.50	Baseline	shenw	03/07/19 11:52
1,2,3-Trichloropropane	12.78	Baseline	shenw	03/07/19 11:52
trans-1,4-Dichloro-2-butene	12.78	Baseline	shenw	03/07/19 11:52
1,2-Dibromo-3-Chloropropane	15.21	Baseline	shenw	03/07/19 11:52

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 259909Lab Sample ID: IC 600-259909/4 Client Sample ID: _____Date Analyzed: 03/07/19 11:45 Lab File ID: A06603.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	5.82	Baseline	shenw	03/07/19 12:26
t-Butanol	6.20	Baseline	shenw	03/07/19 12:26
Tetrahydrofuran	7.95	Baseline	shenw	03/07/19 12:26
1,4-Dioxane	9.18	Baseline	shenw	03/07/19 12:26
2-Chloroethyl vinyl ether	9.41	Baseline	shenw	03/07/19 12:25
trans-1,4-Dichloro-2-butene	12.77	Baseline	shenw	03/07/19 12:25
1,2-Dibromo-3-Chloropropane	15.22	Baseline	shenw	03/07/19 12:25

Lab Sample ID: IC 600-259909/5 Client Sample ID: _____Date Analyzed: 03/07/19 12:10 Lab File ID: A06604.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	15.22	Baseline	shenw	03/08/19 09:43

Lab Sample ID: ICIS 600-259909/6 Client Sample ID: _____Date Analyzed: 03/07/19 12:35 Lab File ID: A06605.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dichlorobenzene-d4	14.34	Baseline	shenw	03/08/19 09:47
1,2-Dibromo-3-Chloropropane	15.22	Baseline	shenw	03/08/19 09:51

Lab Sample ID: IC 600-259909/7 Client Sample ID: _____Date Analyzed: 03/07/19 13:00 Lab File ID: A06606.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	15.22	Baseline	shenw	03/08/19 09:46

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 259909Lab Sample ID: IC 600-259909/8 Client Sample ID: _____Date Analyzed: 03/07/19 13:25 Lab File ID: A06607.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	15.22	Baseline	shenw	03/08/19 09:45

Lab Sample ID: ICV 600-259909/10 Client Sample ID: _____Date Analyzed: 03/07/19 14:28 Lab File ID: A06609.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	5.00	Baseline	shenw	03/07/19 15:28
Chloroethane	5.16	Baseline	shenw	03/07/19 15:28
Dichlorofluoromethane	5.20	Baseline	shenw	03/07/19 15:28
Trichlorofluoromethane	5.72	Baseline	shenw	03/07/19 15:28
Fluorobenzene	8.73	Baseline	shenw	03/07/19 15:27

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 264044Lab Sample ID: MB 600-264044/6 Client Sample ID: _____Date Analyzed: 05/01/19 11:15 Lab File ID: A12105.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	05/01/19 12:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 264156Lab Sample ID: MB 600-264156/6 Client Sample ID: _____Date Analyzed: 05/02/19 10:51 Lab File ID: A12205.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	05/02/19 11:21

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
BFB_00277							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Trihalomethanes, Total	
							Xylenes, Total	
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	25 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
BFB_00281							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Trihalomethanes, Total	
							Xylenes, Total	
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	50 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
EOxideStd_00146	03/13/19	02/27/19	Methanol, Lot V013019A	1 mL	MVETYLOIDE_00010	10 uL	Ethylene oxide	500 ug/mL
.MVETYLOIDE_00010	09/30/19	Sigma-Aldrich, Lot LRAB6887			(Purchased Reagent)		Ethylene oxide	50000 ug/mL
VOAIS50PPM_00246	03/13/19	02/27/19	Methanol, Lot V013019A	1 mL	VOAIS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VOAIS_00031	06/30/23	Restek, Lot A0138856			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOAIS50PPM_00250	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOAIS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
							.VOAIS_00031	06/30/23
Chlorobenzene-d5	2500 ug/mL							
Fluorobenzene	2500 ug/mL							
VOALCSPT2_00134	03/13/19	02/27/19	Methanol, Lot V013019A	1 mL	VOALMegMi2017_00003	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00003	06/30/19	Restek, Lot A0123775			(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOALCSPT2_00138	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOALMegMi2017_00003	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOALMegMi2017_00003	06/30/19		Restek, Lot A0123775		(Purchased Reagent)		Tetrachloroethene	50 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
VOASS50PPM_00284	03/13/19	02/27/19	Methanol, Lot V013019A	1 mL	VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
							1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
VOASS50PPM_00288	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOARSS_00012	20 uL	Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		Toluene-d8 (Surr)	2500 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASTDGASPT_00316	03/13/19	03/06/19	Methanol, Lot V013019A	1 mL	VOARGAS_00014	20 uL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
							Bromomethane	2500 ug/mL
.VOARGAS_00014	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
VOASTDPT2_00134	03/13/19	02/27/19	Methanol, Lot V013019A	1 mL	VOAMegMix2017_00005	20 uL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VOAR2CEVE_00014	40 uL	2-Chloroethyl vinyl ether	100 ug/mL
					VOARAcroleinS_00004	12.5 uL	Acrolein	250 ug/mL
					VOARADD4COM_00006	20 uL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VOARDDCOM_00013	20 uL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Isopropyl alcohol	500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VOARCYCHONE_00027	100 uL	Cyclohexanone	2500 ug/mL
					VOARKETONDup_00002	8 uL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VOARPOLADD_00013	20 uL	Acetonitrile	500 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
					VOARVALCS_00019	20 uL	Vinyl acetate	100 ug/mL
.VOAMegMix2017_00005	06/30/19		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOAR2CEVE_00014	12/31/20		Restek, Lot A0133302		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.VOARAcroleinS_00004	05/31/19		Restek, Lot A0143013		(Purchased Reagent)		Acrolein	20000 ug/mL
.VOARADD4COM_00006	08/31/19		Restek, Lot A0135442		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
.VOARADDCOM_00013	05/31/19		Restek, Lot A0132816		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.VOARCYCHONE_00027	12/31/20		Restek, Lot A0133136		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.VOARKETONDup_00002	01/31/20		RESTEK, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.VOARPOLADD_00013	07/31/20		Restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration				
					Reagent ID	Volume Added						
.VOARSS_00012	12/31/20	Restek, Lot A0115812			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL				
							4-Bromofluorobenzene	2500 ug/mL				
							Dibromofluoromethane	2500 ug/mL				
							Toluene-d8 (Surr)	2500 ug/mL				
.VOARVALCS_00019	02/28/19	Restek, Lot A0140470			(Purchased Reagent)		Vinyl acetate	5000 ug/mL				
VOASTDPT2_00138	05/08/19	04/24/19	Methanol, Lot V032119A	1 mL	VOAMegMix2017_00005	20 uL	1,1-Dichloroethane	50 ug/mL				
							1,1-Dichloroethene	50 ug/mL				
							Benzene	50 ug/mL				
							Naphthalene	50 ug/mL				
											Tetrachloroethene	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL				
							4-Bromofluorobenzene	50 ug/mL				
							Dibromofluoromethane	50 ug/mL				
Toluene-d8 (Surr)	50 ug/mL											
.VOAMegMix2017_00005	06/30/19	Restek, Lot A0123711			(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL				
							1,1-Dichloroethene	2500 ug/mL				
							Benzene	2500 ug/mL				
							Naphthalene	2500 ug/mL				
							Tetrachloroethene	2500 ug/mL				
.VOARSS_00012	12/31/20	Restek, Lot A0115812			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL				
							4-Bromofluorobenzene	2500 ug/mL				
							Dibromofluoromethane	2500 ug/mL				
							Toluene-d8 (Surr)	2500 ug/mL				

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Corpus Christ Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ESI-spkA_00021	07/09/20	Elemental Scientific, Lot 10075162-1			(Purchased Reagent)		Al	2500 mg/L
							As	25 mg/L
							B	25 mg/L
							Ba	25 mg/L
							Be	25 mg/L
							Ca	2500 mg/L
							Cd	25 mg/L
							Co	25 mg/L
							Cr	25 mg/L
							Cu	25 mg/L
							Fe	2500 mg/L
							K	2500 mg/L
							Li	25 mg/L
							Manganese, Dissolved	250 mg/L
							Mg	2500 mg/L
							Mo	25 mg/L
							Na	2500 mg/L
							Ni	25 mg/L
							P	250 mg/L
							Pb	25 mg/L
							Sb	25 mg/L
							Se	25 mg/L
							Sn	25 mg/L
							Sr	25 mg/L
							Ti	25 mg/L
							Tl	10 mg/L
							U	25 mg/L
							V	25 mg/L
							Zn	25 mg/L
ESI-spkB_00019	07/09/20	Elemental Scientific, Lot 10065177-3			(Purchased Reagent)		Ag	25 mg/L
ICV_ESI_00083	07/09/20	01/24/19	5%/3% HCl/HNO3, Lot icap acid	100 mL	ESI-spkA_00021	1 mL	Manganese, Dissolved	2.5 mg/L
.ESI-spkA_00021	07/09/20	Elemental Scientific, Lot 10075162-1			(Purchased Reagent)		Manganese, Dissolved	250 mg/L
INT-A_00133	05/31/20	04/03/19	DI+HNO3,HCl, Lot icap acid_0105	100 mL	171009INT-A_00002	5 mL	Al	250000 ug/L
							Ca	250000 ug/L
							Fe	100000 ug/L
							Mg	250000 ug/L
.171009INT-A_00002	05/31/20	CPI, Lot 171614-3			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
INT-AB_00139	05/31/20	04/03/19	5%/3% HCl/HNO3, Lot icap acid_00104	200 mL	171009INT-A_00002	5 mL	Al	125000 ug/L
							Ca	125000 ug/L
							Fe	50000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Corpus Christ Job No.: 600-184182-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					171009INTB_00002	1 mL	Mg	125000 ug/L
							Ag	500 ug/L
							Ba	250 ug/L
							Be	250 ug/L
							Cd	500 ug/L
							Co	250 ug/L
							Cr	250 ug/L
							Cu	250 ug/L
							Manganese, Dissolved	250 ug/L
							Ni	500 ug/L
							Pb	500 ug/L
							V	250 ug/L
Zn	500 ug/L							
.171009INT-A_00002	05/31/20	CPI, Lot 171614-3			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
.171009INTB_00002	05/31/20	CPI, Lot 10063227-10			(Purchased Reagent)		Ag	100 ug/mL
							Ba	50 ug/mL
							Be	50 ug/mL
							Cd	100 ug/mL
							Co	50 ug/mL
							Cr	50 ug/mL
							Cu	50 ug/mL
							Manganese, Dissolved	50 ug/mL
							Ni	100 ug/mL
							Pb	100 ug/mL
							V	50 ug/mL
							Zn	100 ug/mL
TS_MS250_00051	06/01/19	11/23/18	5%/3% HCl/HNO3, Lot icap acid	50 mL	TS_MS500_00038	25 mL	Manganese, Dissolved	2.5 mg/L
.TS_MS500_00038	06/01/19	11/23/18	5%/3% HCl/HNO3, Lot icap acid	200 mL	MT-STD-3_00014	1 mL	Manganese, Dissolved	5 mg/L
..MT-STD-3_00014	05/12/20	IV, Lot N2-MEB673370			(Purchased Reagent)		Manganese, Dissolved	1000 mg/L

Method 8260B Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
ARTESIA-TB02-04232 019	600-184182-1	101	100	101	117
ARTESIA-MW33-04232 019	600-184182-2	101	100	104	117
ARTESIA-MW29-04232 019	600-184182-3	102	104	104	113
ARTESIA-MW35-04232 019	600-184182-4	103	105	103	122
ARTESIA-MW28-04232 019	600-184182-5	104	104	109	116
ARTESIA-MW21-04232 019	600-184182-6	98	98	105	118
ARTESIA-MW22-04232 019	600-184182-7	102	102	106	116
ARTESIA-MW31-04232 019	600-184182-8	103	107	104	113
ARTESIA-MW25-04232 019	600-184182-9	106	104	106	114
ARTESIA-MW18-04232 019	600-184182-10	105	107	105	116
ARTESIA-MD18-04232 019	600-184182-11	102	105	104	114
ARTESIA-MW15-04232 019	600-184182-12	106	106	107	112
	MB 600-264044/6	101	97	104	116
	MB 600-264156/6	98	91	109	116
	LCS 600-264044/3	108	99	114	121
	LCS 600-264156/3	108	99	114	121
	LCSD 600-264044/4	106	99	110	119
	LCSD 600-264156/4	109	99	112	121
ARTESIA-MW21-04232 019 MS	600-184182-6 MS	108	105	111	120
ARTESIA-MW21-04232 019 MSD	600-184182-6 MSD	109	106	108	124

DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

QC LIMITS
62-130
50-134
70-130
67-139

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A12102.d
Lab ID: LCS 600-264044/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.008956	90	70-140	
1,1-Dichloroethene	0.0100	0.01041	104	58-148	
Benzene	0.0100	0.009070	91	70-130	
Naphthalene	0.0100	0.008143	81	10-150	
Tetrachloroethene	0.0100	0.01141	114	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A12202.d
Lab ID: LCS 600-264156/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.008733	87	70-140	
1,1-Dichloroethene	0.0100	0.009985	100	58-148	
Benzene	0.0100	0.008602	86	70-130	
Naphthalene	0.0100	0.007376	74	10-150	
Tetrachloroethene	0.0100	0.01155	116	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A12103.d
 Lab ID: LCSD 600-264044/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.009138	91	2	20	70-140	
1,1-Dichloroethene	0.0100	0.009998	100	4	20	58-148	
Benzene	0.0100	0.008819	88	3	20	70-130	
Naphthalene	0.0100	0.008532	85	5	20	10-150	
Tetrachloroethene	0.0100	0.01112	111	3	20	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A12203.d
 Lab ID: LCSD 600-264156/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.008833	88	1	20	70-140	
1,1-Dichloroethene	0.0100	0.009958	100	0	20	58-148	
Benzene	0.0100	0.008709	87	1	20	70-130	
Naphthalene	0.0100	0.007757	78	5	20	10-150	
Tetrachloroethene	0.0100	0.01158	116	0	20	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A12115.d
Lab ID: 600-184182-6 MS Client ID: ARTESIA-MW21-04232019 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.000562 J	0.01053	100	70-140	
1,1-Dichloroethene	0.0100	0.000192 U	0.01081	108	58-148	
Benzene	0.0100	0.000176 U	0.009354	94	70-130	
Naphthalene	0.0100	0.000129 U	0.008083	81	10-150	
Tetrachloroethene	0.0100	0.000333 U	0.01176	118	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A12116.d
 Lab ID: 600-184182-6 MSD Client ID: ARTESIA-MW21-04232019 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.009922	94	6	30	70-140	
1,1-Dichloroethene	0.0100	0.009990	100	8	30	58-148	
Benzene	0.0100	0.008919	89	5	30	70-130	
Naphthalene	0.0100	0.009583	96	17	30	10-150	
Tetrachloroethene	0.0100	0.01092	109	7	30	47-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab File ID: A12105.d Lab Sample ID: MB 600-264044/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHVOAMS07 Date Analyzed: 05/01/2019 11:15
 GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-264044/3	A12102.d	05/01/2019 10:01
	LCSD 600-264044/4	A12103.d	05/01/2019 10:26
ARTESIA-MW21-04232019	600-184182-6	A12113.d	05/01/2019 14:35
ARTESIA-MW21-04232019 MS	600-184182-6 MS	A12115.d	05/01/2019 15:25
ARTESIA-MW21-04232019 MSD	600-184182-6 MSD	A12116.d	05/01/2019 15:50
ARTESIA-TB02-04232019	600-184182-1	A12118.d	05/01/2019 16:41
ARTESIA-MW33-04232019	600-184182-2	A12119.d	05/01/2019 17:06
ARTESIA-MW29-04232019	600-184182-3	A12120.d	05/01/2019 17:31
ARTESIA-MW35-04232019	600-184182-4	A12121.d	05/01/2019 17:56
ARTESIA-MW28-04232019	600-184182-5	A12122.d	05/01/2019 18:21
ARTESIA-MW22-04232019	600-184182-7	A12123.d	05/01/2019 18:46
ARTESIA-MW31-04232019	600-184182-8	A12124.d	05/01/2019 19:11
ARTESIA-MW25-04232019	600-184182-9	A12125.d	05/01/2019 19:36
ARTESIA-MW18-04232019	600-184182-10	A12126.d	05/01/2019 20:01
ARTESIA-MD18-04232019	600-184182-11	A12127.d	05/01/2019 20:26

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Lab File ID: A12205.d Lab Sample ID: MB 600-264156/6
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: CHVOAMS07 Date Analyzed: 05/02/2019 10:51
GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-264156/3	A12202.d	05/02/2019 09:38
	LCSD 600-264156/4	A12203.d	05/02/2019 10:02
ARTESIA-MW15-04232019	600-184182-12	A12211.d	05/02/2019 13:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Lab File ID: A06600.d BFB Injection Date: 03/07/2019
Instrument ID: CHVOAMS07 BFB Injection Time: 10:21
Analysis Batch No.: 259909

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.7
75	30.0 - 60.0 % of mass 95	44.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.3 (0.3) 1
174	50.0 - 120.00 % of mass 95	100.7
175	5.0 - 9.0 % of mass 174	7.7 (7.7) 1
176	95.0 - 101.0 % of mass 174	98.4 (97.7) 1
177	5.0 - 9.0 % of mass 176	6.4 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-259909/2	A06601.d	03/07/2019	10:55
	IC 600-259909/3	A06602.d	03/07/2019	11:20
	IC 600-259909/4	A06603.d	03/07/2019	11:45
	IC 600-259909/5	A06604.d	03/07/2019	12:10
	ICIS 600-259909/6	A06605.d	03/07/2019	12:35
	IC 600-259909/7	A06606.d	03/07/2019	13:00
	IC 600-259909/8	A06607.d	03/07/2019	13:25
	ICV 600-259909/10	A06609.d	03/07/2019	14:28

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Lab File ID: A12100.d BFB Injection Date: 05/01/2019
Instrument ID: CHVOAMS07 BFB Injection Time: 08:29
Analysis Batch No.: 264044

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.1
75	30.0 - 60.0 % of mass 95	46.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	101.7
175	5.0 - 9.0 % of mass 174	7.4 (7.3) 1
176	95.0 - 101.0 % of mass 174	99.5 (97.8) 1
177	5.0 - 9.0 % of mass 176	6.5 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-264044/2	A12101.d	05/01/2019	09:00
	LCS 600-264044/3	A12102.d	05/01/2019	10:01
	LCSD 600-264044/4	A12103.d	05/01/2019	10:26
	MB 600-264044/6	A12105.d	05/01/2019	11:15
ARTESIA-MW21-04232019	600-184182-6	A12113.d	05/01/2019	14:35
ARTESIA-MW21-04232019 MS	600-184182-6 MS	A12115.d	05/01/2019	15:25
ARTESIA-MW21-04232019 MSD	600-184182-6 MSD	A12116.d	05/01/2019	15:50
ARTESIA-TB02-04232019	600-184182-1	A12118.d	05/01/2019	16:41
ARTESIA-MW33-04232019	600-184182-2	A12119.d	05/01/2019	17:06
ARTESIA-MW29-04232019	600-184182-3	A12120.d	05/01/2019	17:31
ARTESIA-MW35-04232019	600-184182-4	A12121.d	05/01/2019	17:56
ARTESIA-MW28-04232019	600-184182-5	A12122.d	05/01/2019	18:21
ARTESIA-MW22-04232019	600-184182-7	A12123.d	05/01/2019	18:46
ARTESIA-MW31-04232019	600-184182-8	A12124.d	05/01/2019	19:11
ARTESIA-MW25-04232019	600-184182-9	A12125.d	05/01/2019	19:36
ARTESIA-MW18-04232019	600-184182-10	A12126.d	05/01/2019	20:01
ARTESIA-MD18-04232019	600-184182-11	A12127.d	05/01/2019	20:26

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab File ID: A12200.d BFB Injection Date: 05/02/2019
 Instrument ID: CHVOAMS07 BFB Injection Time: 08:04
 Analysis Batch No.: 264156

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.8
75	30.0 - 60.0 % of mass 95	46.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	104.8
175	5.0 - 9.0 % of mass 174	7.8 (7.5) 1
176	95.0 - 101.0 % of mass 174	103.4 (98.6) 1
177	5.0 - 9.0 % of mass 176	6.6 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-264156/2	A12201.d	05/02/2019	08:51
	LCS 600-264156/3	A12202.d	05/02/2019	09:38
	LCSD 600-264156/4	A12203.d	05/02/2019	10:02
	MB 600-264156/6	A12205.d	05/02/2019	10:51
ARTESIA-MW15-04232019	600-184182-12	A12211.d	05/02/2019	13:19

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Sample No.: ICIS 600-259909/6 Date Analyzed: 03/07/2019 12:35
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A06605.d Heated Purge: (Y/N) N
 Calibration ID: 15456

	FB		CBNZd5		DCBd4		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	118578	8.73	44015	11.77	38135	14.34	
UPPER LIMIT	237156	9.23	88030	12.27	76270	14.84	
LOWER LIMIT	59289	8.23	22008	11.27	19068	13.84	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 600-259909/10		125548	8.73	45583	11.77	53438	14.34
CCVIS 600-264044/2		127895	8.73	44237	11.76	48566	14.34
CCVIS 600-264156/2		108104	8.73	36680	11.76	42110	14.34

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Sample No.: CCVIS 600-264044/2 Date Analyzed: 05/01/2019 09:00
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A12101.d Heated Purge: (Y/N) N
 Calibration ID: 15608

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		127895	8.73	44237	11.76	48566	14.34
UPPER LIMIT		255790	9.23	88474	12.26	97132	14.84
LOWER LIMIT		63948	8.23	22119	11.26	24283	13.84
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-264044/3		125396	8.73	41770	11.76	46133	14.34
LCSD 600-264044/4		127019	8.73	43158	11.76	48227	14.34
MB 600-264044/6		118576	8.73	40514	11.77	43913	14.34
600-184182-6	ARTESIA-MW21-04232019	130700	8.73	44253	11.77	47820	14.34
600-184182-6 MS	ARTESIA-MW21-04232019 MS	121835	8.73	42061	11.77	47827	14.34
600-184182-6 MSD	ARTESIA-MW21-04232019 MSD	126204	8.73	44662	11.77	50386	14.34
600-184182-1	ARTESIA-TB02-04232019	121138	8.73	44126	11.77	47701	14.34
600-184182-2	ARTESIA-MW33-04232019	119203	8.73	41608	11.77	45059	14.34
600-184182-3	ARTESIA-MW29-04232019	119031	8.73	41778	11.77	46223	14.34
600-184182-4	ARTESIA-MW35-04232019	114901	8.73	40851	11.77	44991	14.34
600-184182-5	ARTESIA-MW28-04232019	114742	8.73	38556	11.77	43735	14.34
600-184182-7	ARTESIA-MW22-04232019	112015	8.73	38459	11.77	43328	14.34
600-184182-8	ARTESIA-MW31-04232019	108276	8.73	38447	11.77	43411	14.34
600-184182-9	ARTESIA-MW25-04232019	103034	8.73	35793	11.77	39931	14.34
600-184182-10	ARTESIA-MW18-04232019	101657	8.73	35297	11.77	40277	14.34
600-184182-11	ARTESIA-MD18-04232019	101721	8.73	35384	11.77	39347	14.34

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Sample No.: CCVIS 600-264156/2 Date Analyzed: 05/02/2019 08:51
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A12201.d Heated Purge: (Y/N) N
 Calibration ID: 15608

	FB		CBNZd5		DCBd4		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	108104	8.73	36680	11.76	42110	14.34	
UPPER LIMIT	216208	9.23	73360	12.26	84220	14.84	
LOWER LIMIT	54052	8.23	18340	11.26	21055	13.84	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-264156/3		107106	8.73	35813	11.76	40114	14.34
LCSD 600-264156/4		109235	8.73	36365	11.76	40914	14.34
MB 600-264156/6		102912	8.73	33828	11.76	37190	14.34
600-184182-12	ARTESIA-MW15-04232019	99421	8.73	34277	11.77	39844	14.34

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
SDG No.: _____
Client Sample ID: ARTESIA-TB02-04232019 Lab Sample ID: 600-184182-1
Matrix: Water Lab File ID: A12118.d
Analysis Method: 8260B Date Collected: 04/23/2019 07:45
Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 16:41
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000725	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		50-134
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	101		62-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW33-04232019 Lab Sample ID: 600-184182-2
 Matrix: Water Lab File ID: A12119.d
 Analysis Method: 8260B Date Collected: 04/23/2019 08:05
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 17:06
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000640	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		50-134
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	101		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW29-04232019 Lab Sample ID: 600-184182-3
 Matrix: Water Lab File ID: A12120.d
 Analysis Method: 8260B Date Collected: 04/23/2019 08:20
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 17:31
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00861		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0237		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0306		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	113		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW35-04232019 Lab Sample ID: 600-184182-4
 Matrix: Water Lab File ID: A12121.d
 Analysis Method: 8260B Date Collected: 04/23/2019 08:35
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 17:56
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0205		0.00100	0.000192
127-18-4	Tetrachloroethene	0.0233		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
1868-53-7	Dibromofluoromethane	103		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130
460-00-4	4-Bromofluorobenzene	122		67-139

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW28-04232019 Lab Sample ID: 600-184182-5
 Matrix: Water Lab File ID: A12122.d
 Analysis Method: 8260B Date Collected: 04/23/2019 08:50
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 18:21
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00465		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0127		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0176		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	104		62-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW21-04232019 Lab Sample ID: 600-184182-6
 Matrix: Water Lab File ID: A12113.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 14:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000562	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134
460-00-4	4-Bromofluorobenzene	118		67-139
1868-53-7	Dibromofluoromethane	98		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW22-04232019 Lab Sample ID: 600-184182-7
 Matrix: Water Lab File ID: A12123.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:40
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 18:46
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000546	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW31-04232019 Lab Sample ID: 600-184182-8
 Matrix: Water Lab File ID: A12124.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:25
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 19:11
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00181		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000411	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	113		67-139
1868-53-7	Dibromofluoromethane	103		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW25-04232019 Lab Sample ID: 600-184182-9
 Matrix: Water Lab File ID: A12125.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:55
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 19:36
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000701	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000777	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00118		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	114		67-139
1868-53-7	Dibromofluoromethane	106		62-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW18-04232019 Lab Sample ID: 600-184182-10
 Matrix: Water Lab File ID: A12126.d
 Analysis Method: 8260B Date Collected: 04/23/2019 10:10
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 20:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000706	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	105		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MD18-04232019 Lab Sample ID: 600-184182-11
 Matrix: Water Lab File ID: A12127.d
 Analysis Method: 8260B Date Collected: 04/23/2019 10:15
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 20:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000736	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	114		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW15-04232019 Lab Sample ID: 600-184182-12
 Matrix: Water Lab File ID: A12211.d
 Analysis Method: 8260B Date Collected: 04/23/2019 11:05
 Sample wt/vol: 20 (mL) Date Analyzed: 05/02/2019 13:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264156 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		50-134
460-00-4	4-Bromofluorobenzene	112		67-139
1868-53-7	Dibromofluoromethane	106		62-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-259909/2	A06601.d
Level 2	IC 600-259909/3	A06602.d
Level 3	IC 600-259909/4	A06603.d
Level 4	IC 600-259909/5	A06604.d
Level 5	ICIS 600-259909/6	A06605.d
Level 6	IC 600-259909/7	A06606.d
Level 7	IC 600-259909/8	A06607.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3869 0.3859	0.5874 0.4883	0.5362	0.5181	0.3602	Lin	-0.339	0.4808							0.9900		0.9900
Chloromethane	0.3777 0.3940	0.4479 0.4405	0.4148	0.4218	0.4044	Ave		0.4145			0.1000	6.0		15.0			
Vinyl chloride	0.3646 0.3697	0.4191 0.4611	0.4189	0.4201	0.3698	Ave		0.4033				9.0		15.0			
Butadiene	0.5546 0.3796	0.4687 0.5069	0.4877	0.4612	0.3575	Qua	0.3365	0.2830	0.0043357						0.9990		0.9900
Ethylene oxide	0.0127 0.0154	0.0155 0.0167	0.0151	0.0160	0.0154	Ave		0.0153				8.1		15.0			
Bromomethane	0.0806 0.1242	0.1004 0.1568	0.0865	0.1386	0.1143	Lin	-0.198	0.1566							0.9920		0.9900
Chloroethane	0.1445 0.1622	0.1927 0.1809	0.1900	0.2562	0.1722	Lin	0.0258	0.1781							0.9950		0.9900
Dichlorofluoromethane	0.4394 0.4030	0.4509 0.4520	0.4694	0.6003	0.4206	Ave		0.4622				14.0		15.0			
Acrolein	0.0177 0.0237	0.0287 0.0321	0.0308	0.0277	0.0301	Qua	0.0998	0.0201	0.0000459						0.9970		0.9900
Trichlorofluoromethane	0.3907 0.3987	0.6251 0.5824	0.6163	0.6106	0.4533	Qua	0.6154	0.2853	0.0056675						0.9970		0.9900
Acetonitrile	0.0076 0.0143	0.0163 0.0189	0.0149	0.0162	0.0166	Lin	-0.185	0.0187							0.9910		0.9900
Isopropyl alcohol	0.0057 0.0077	0.0092 0.0084	0.0085	0.0078	0.0077	Ave		0.0078				14.0		15.0			
Acetone	0.0564 0.0329	0.0375 0.0347	0.0344	0.0311	0.0323	Lin1	0.0130	0.0334							0.9970		0.9900
Ethyl ether	0.1390 0.2085	0.2104 0.2195	0.2165	0.2190	0.2100	Ave		0.2033				14.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
t-Butanol	0.0100 0.0145	0.0132 0.0151	0.0141	0.0140	0.0139	Ave		0.0135				12.3		15.0			
1,1-Dichloroethene	0.3533 0.3007	0.3906 0.3703	0.3516	0.3570	0.3690	Ave		0.3561				7.8		15.0			
Acrylonitrile	0.0349 0.0417	0.0333 0.0469	0.0372	0.0387	0.0392	Ave		0.0389				11.6		15.0			
Iodomethane	0.1586 0.3713	0.1823 0.4825	0.1952	0.2499	0.3231	Lin	-0.915	0.4868							0.9910		0.9900
Methylene Chloride	0.9729 0.3584	0.8381 0.3979	0.5515	0.4203	0.3895	Lin1	0.3382	0.3743							0.9940		0.9900
Methyl acetate	0.1081 0.1169	0.1048 0.1374	0.1075	0.1039	0.1148	Ave		0.1098				14.9		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3127 0.2612	0.3732 0.4303	0.3395	0.3847	0.3729	Qua	0.4307	0.1838	0.0047267						0.9940		0.9900
3-Chloro-1-propene	0.2236 0.2061	0.2254 0.2128	0.2207	0.2202	0.2250	Ave		0.2191				3.3		15.0			
Carbon disulfide	1.3099 0.9551	1.2286 1.1494	1.1122	1.1191	1.1283	Ave		1.1432				9.6		15.0			
trans-1,2-Dichloroethene	0.4190 0.3657	0.4250 0.4206	0.3922	0.4022	0.4058	Ave		0.4043				5.1		15.0			
Methyl tert-butyl ether	0.5756 0.6641	0.6197 0.7059	0.6818	0.6475	0.6807	Ave		0.6536				6.7		15.0			
1,1-Dichloroethane	0.6258 0.6279	0.7149 0.6959	0.6738	0.6652	0.6884	Ave		0.6703			0.1000	5.0		15.0			
Propionitrile	0.0116 0.0174	0.0155 0.0190	0.0160	0.0164	0.0170	Ave		0.0161				14.2		15.0			
Vinyl acetate	0.3180 0.3943	0.3855 0.3933	0.3843	0.3990	0.4092	Ave		0.3834				7.8		15.0			
2-Chloro-1,3-butadiene	0.4938 0.5704	0.6009 0.7953	0.5581	0.6074	0.6554	Qua	0.3139	0.4589	0.0065738						0.9990		0.9900
Hexane	0.4906 0.4513	0.5530 0.7668	0.5573	0.5936	0.6122	Qua	0.6455	0.2980	0.0090688						0.9960		0.9900
Isopropyl ether	1.1415 1.4639	1.3465 1.7940	1.3325	1.3739	1.4794	Ave		1.4188				14.0		15.0			
2-Butanone (MEK)	0.0090 0.0186	0.0125 0.0215	0.0162	0.0192	0.0174	Lin2	-0.011	0.0194							0.9930		0.9900
Methacrylonitrile	0.0150 0.0215	0.0179 0.0241	0.0182	0.0194	0.0206	Ave		0.0195				14.8		15.0			
cis-1,2-Dichloroethene	0.4300 0.4138	0.4049 0.4673	0.4099	0.4181	0.4323	Ave		0.4252				5.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acetate	0.0678 0.1372	0.1060 0.1461	0.1159	0.1294	0.1354	Lin2	-0.072	0.1397							0.9990		0.9900
Chlorobromomethane	0.1552 0.1631	0.1844 0.1778	0.1675	0.1644	0.1685	Ave		0.1687				5.7		15.0			
Tert-butyl ethyl ether	0.7421 1.0525	0.9505 1.2234	0.9596	0.9957	1.0365	Ave		0.9943				14.5		15.0			
Chloroform	0.6046 0.6547	0.6582 0.7669	0.6404	0.6326	0.6787	Ave		0.6623				7.8		15.0			
Isobutyl alcohol	0.0049 0.0080	0.0066 0.0089	0.0054	0.0061	0.0069	Lin1	-0.079	0.0085							0.9900		0.9900
2,2-Dichloropropane	0.5801 0.5224	0.6344 0.6229	0.5823	0.5959	0.6039	Ave		0.5917				6.2		15.0			
Tetrahydrofuran	0.0375 0.0392	0.0378 0.0406	0.0391	0.0379	0.0379	Ave		0.0386				2.9		15.0			
1,2-Dichloroethane	0.2880 0.2913	0.3011 0.3039	0.3085	0.2928	0.3039	Ave		0.2985				2.6		15.0			
1,1,1-Trichloroethane	0.5812 0.5359	0.6626 0.6604	0.5886	0.6045	0.6251	Ave		0.6083				7.5		15.0			
n-Butanol	0.0017 0.0035	0.0016 0.0036	0.0031	0.0029	0.0030	Lin1	-0.035	0.0036							0.9960		0.9900
1,1-Dichloropropene	0.4387 0.4182	0.4959 0.5371	0.4718	0.4890	0.4916	Ave		0.4775				8.2		15.0			
Cyclohexane	0.4821 0.4081	0.5619 0.6200	0.5268	0.5688	0.5770	Ave		0.5349				13.2		15.0			
Carbon tetrachloride	0.5350 0.4549	0.5729 0.6054	0.5228	0.5653	0.5603	Ave		0.5452				8.8		15.0			
Benzene	1.4351 1.4721	1.5850 1.7446	1.5069	1.5090	1.5886	Ave		1.5487				6.6		15.0			
Tert-amyl methyl ether	0.6001 0.7079	0.6752 0.7881	0.7055	0.6982	0.7199	Ave		0.6993				8.0		15.0			
Isooctane	0.9347 0.8459	1.1663 1.2308	1.0650	1.1459	1.1250	Ave		1.0734				12.8		15.0			
Ethyl acrylate	0.1868 0.2555	0.2085 0.2800	0.2181	0.2444	0.2615	Ave		0.2364				14.0		15.0			
n-Heptane	0.4179 0.4046	0.4997 0.5613	0.4866	0.5399	0.5388	Ave		0.4927				12.4		15.0			
Dibromomethane	0.1233 0.1331	0.1320 0.1285	0.1241	0.1170	0.1358	Ave		0.1277				5.2		15.0			
1,2-Dichloropropane	0.3142 0.3306	0.3384 0.3304	0.3587	0.2972	0.3412	Ave		0.3301				6.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0348 0.0441	0.0296 0.0465	0.0369	0.0331	0.0398	Lin1	-0.026	0.0450							0.9940		0.9900
Trichloroethene	0.4220 0.4630	0.4941 0.4955	0.4582	0.4386	0.4850	Ave		0.4652				6.1		15.0			
Bromodichloromethane	0.3369 0.4098	0.3747 0.4278	0.3781	0.3915	0.4195	Ave		0.3912				8.0		15.0			
Methyl methacrylate	0.0992 0.1576	0.1213 0.1612	0.1316	0.1420	0.1562	Lin2	-0.060	0.1551							0.9980		0.9900
1,4-Dioxane	0.0013 0.0008	0.0010 0.0008	0.0009	0.0007	0.0008	Lin2	0.0050	0.0008							0.9930		0.9900
2-Chloroethyl vinyl ether	0.0415 0.1450	0.0718 0.1684	0.0895	0.1469	0.1220	Lin1	-0.173	0.1599							0.9900		0.9900
Methylcyclohexane	0.4696 0.4619	0.6426 0.7097	0.5844	0.6314	0.6224	Qua	0.6183	0.3477	0.0069470						0.9960		0.9900
cis-1,3-Dichloropropene	0.9248 1.1336	1.0712 1.1625	1.1231	1.4934	1.1883	Ave		1.1567				14.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.0970 0.1426	0.1029 0.1480	0.1259	0.1292	0.1402	Lin2	-0.051	0.1405							0.9960		0.9900
trans-1,3-Dichloropropene	0.7053 0.8508	0.7376 0.8623	0.7969	1.1222	0.8602	Lin1	-0.047	0.8741							0.9940		0.9900
1,1,2-Trichloroethane	0.4029 0.5070	0.5189 0.4947	0.5241	0.7082	0.5211	Qua	0.1635	0.5198	-0.000578						0.9980		0.9900
Ethyl methacrylate	0.3431 0.6001	0.4433 0.5658	0.5232	0.7231	0.5933	Lin1	-0.085	0.5886							0.9940		0.9900
Toluene	2.2588 2.3677	2.4129 2.2037	2.3547	3.1884	2.5089	Ave		2.4707				13.4		15.0			
1,3-Dichloropropane	0.6386 0.8770	0.7829 0.7952	0.8992	1.1132	0.9025	Lin1	0.0280	0.8429							0.9900		0.9900
2-Hexanone	0.1266 0.2379	0.1860 0.1915	0.2402	0.2846	0.2284	Qua	-0.101	0.2671	-0.000744						0.9990		0.9900
Dibromochloromethane	0.6095 0.7203	0.7583 0.5646	0.6915	0.8378	0.7340	Ave		0.7023				13.1		15.0			
n-Butyl acetate	0.3361 0.6628	0.4502 0.5256	0.5548	0.6968	0.6092	Qua	-0.332	0.7482	-0.004306						0.9990		0.9900
1,2-Dibromoethane	0.4365 0.4742	0.5291 0.4241	0.4977	0.5600	0.4442	Ave		0.4808				10.6		15.0			
Tetrachloroethene	0.8812 0.8169	1.0388 0.8633	0.9065	1.0659	0.9139	Ave		0.9266				9.9		15.0			
1-Chlorohexane	0.7576 0.7337	0.8615 0.9618	0.8161	0.9871	0.8769	Ave		0.8564				11.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.9335 0.9677	1.0058 1.0368	0.9963	1.1224	1.0165	Ave		1.0113				5.9		15.0			
Chlorobenzene	2.7354 2.6868	3.0680 2.9430	2.8990	2.8324	2.8690	Ave		2.8619			0.3000	4.5		15.0			
Ethylbenzene	1.3642 1.3589	1.6144 1.6083	1.5495	1.6416	1.5662	Ave		1.5290				7.7		15.0			
m-Xylene & p-Xylene	3.1551 3.3284	3.4664 3.7618	2.8103	4.0450	3.5444	Ave		3.4445				11.7		15.0			
Bromoform	0.3959 0.3677	0.3790 0.3858	0.2936	0.4475	0.4807	Lin	0.1378	0.3829			0.1000				0.9960		0.9900
Styrene	2.3023 2.7053	2.7087 2.5741	2.3827	3.5651	2.8441	Lin1	0.0847	2.6792							0.9910		0.9900
Cyclohexanone	0.0063 0.0092	0.0090 0.0082	0.0079	0.0126	0.0094	Qua	0.0352	0.0099	-0.000001						0.9980		0.9900
o-Xylene	1.7299 1.6398	1.8463 1.6623	1.5439	2.4003	1.6852	Lin	0.7055	1.6455							0.9980		0.9900
1,1,2,2-Tetrachloroethane	0.6521 0.4955	0.5417 0.6133	0.4194	0.6519	0.6174	Lin	-0.272	0.6058			0.3000				0.9930		0.9900
trans-1,4-Dichloro-2-butene	0.0899 0.0968	0.0927 0.1050	0.0900	0.1365	0.1223	Lin	0.0320	0.1038							0.9960		0.9900
1,2,3-Trichloropropane	0.1458 0.1219	0.1541 0.1310	0.1101	0.1858	0.1636	Lin	0.0858	0.1288							0.9940		0.9900
Isopropylbenzene	5.0403 3.6187	4.3730 4.4385	3.4903	5.4836	4.6682	Lin	-0.517	4.3604							0.9920		0.9900
Bromobenzene	1.2299 0.9425	1.1026 1.1753	1.0617	1.4164	1.2259	Ave		1.1649				12.9		15.0			
N-Propylbenzene	1.5154 1.0784	1.2133 1.3762	1.1665	1.6144	1.4909	Ave		1.3507				14.9		15.0			
2-Chlorotoluene	1.4459 1.0130	1.0272 1.2730	1.0792	1.4973	1.2951	Lin	-0.355	1.2513							0.9920		0.9900
4-Chlorotoluene	3.4193 2.3580	2.6352 3.2498	2.8341	3.8013	3.2906	Qua	3.1392	2.0512	0.0224647						0.9940		0.9900
1,3,5-Trimethylbenzene	4.4564 3.0993	3.2475 4.0104	3.3986	4.6541	4.0661	Lin	-1.384	3.9367							0.9900		0.9900
tert-Butylbenzene	3.8138 2.3515	2.8908 3.5752	2.9577	4.0859	3.5138	Qua	4.0819	1.8904	0.0317468						0.9920		0.9900
1,2,4-Trimethylbenzene	3.8063 3.1440	3.4073 4.4885	3.4693	4.4958	4.2203	Ave		3.8616				14.2		15.0			
sec-Butylbenzene	4.4148 3.4655	4.1166 4.7916	4.1444	4.4266	5.2474	Ave		4.3724				12.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzyl chloride	0.8361 0.8402	0.7726 1.0300	0.8068	0.8788	0.9254	Ave		0.8700				9.9		15.0			
1,3-Dichlorobenzene	2.3195 1.8809	2.1996 2.2597	2.0483	2.0421	2.1559	Ave		2.1294				7.0		15.0			
4-Isopropyltoluene	4.1729 3.8488	4.2370 5.2057	3.8402	4.1589	4.4256	Ave		4.2699				10.8		15.0			
1,4-Dichlorobenzene	2.1546 2.0694	2.1775 2.5518	2.0929	2.0984	2.2056	Ave		2.1929				7.6		15.0			
1,2,3-Trimethylbenzene	3.6121 3.2037	3.6411 4.1432	3.4109	3.6270	4.0596	Ave		3.6711				9.1		15.0			
1,2-Dichlorobenzene	2.0415 1.5707	1.7710 1.7052	1.6617	1.7518	1.9790	Ave		1.7830				9.5		15.0			
n-Butylbenzene	3.5787 2.6834	3.2604 3.6096	2.8812	3.5399	3.8138	Ave		3.3382				12.5		15.0			
1,2-Dibromo-3-Chloropropane	0.1152 0.0720	0.0937 0.0962	0.0680	0.1002	0.1092	Qua	0.0764	0.0675	0.0005366						0.9920		0.9900
1,3,5-Trichlorobenzene	1.5359 1.3865	1.4068 1.8530	1.1281	1.7982	1.8599	Qua	0.9390	1.2554	0.0114599						0.9950		0.9900
1,2,4-Trichlorobenzene	0.7516 0.8772	0.8101 1.1099	0.5987	1.1156	1.1719	Lin	-0.657	1.0997							0.9920		0.9900
Naphthalene	1.1448 1.1385	1.0134 1.3812	0.7552	1.4140	1.4572	Lin	-0.678	1.3707							0.9940		0.9900
Hexachlorobutadiene	0.2692 0.2020	0.2379 0.2739	0.1704	0.3069	0.2970	Qua	0.2102	0.1866	0.0016394						0.9920		0.9900
1,2,3-Trichlorobenzene	0.3353 0.4678	0.4308 0.5456	0.3904	0.5849	0.6287	Lin1	-0.106	0.5420							0.9900		0.9900
Dibromofluoromethane	0.3433 0.3240	0.3342 0.3676	0.3288	0.3307	0.3457	Ave		0.3392				4.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2442 0.2129	0.2390 0.2283	0.2366	0.2265	0.2220	Ave		0.2299				4.7		15.0			
Toluene-d8 (Surr)	3.5116 3.2448	3.4343 3.2866	3.3702	4.4253	3.4497	Ave		3.5318				11.5		15.0			
4-Bromofluorobenzene	1.7778 0.8169	1.0584 0.9212	0.8338	1.2462	1.0719	Lin	0.4479	0.9020							0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-259909/2	A06601.d
Level 2	IC 600-259909/3	A06602.d
Level 3	IC 600-259909/4	A06603.d
Level 4	IC 600-259909/5	A06604.d
Level 5	ICIS 600-259909/6	A06605.d
Level 6	IC 600-259909/7	A06606.d
Level 7	IC 600-259909/8	A06607.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin	1820 76058	5243 252297	9656	23928	34171	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	1777 77643	3998 227606	7470	19484	38365	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	1715 72853	3741 238222	7543	19403	35076	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Qua	2609 74813	4183 261884	8783	21300	33913	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylene oxide	FB	Ave	598 30389	1386 86062	2721	7413	14591	5.00 200	10.0 500	20.0	50.0	100
Bromomethane	FB	Lin	379 24470	896 80997	1557	6400	10843	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Lin	680 31960	1720 93490	3421	11835	16340	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	2067 79419	4024 233508	8453	27727	39903	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Qua	416 23346	1282 82929	2776	6390	14291	2.50 100	5.00 250	10.0	25.0	50.0
Trichlorofluoromethane	FB	Qua	1838 78571	5579 300904	11098	28202	43002	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acetonitrile	FB	Lin	357 28197	1459 97624	2685	7488	15720	5.00 200	10.0 500	20.0	50.0	100
Isopropyl alcohol	FB	Ave	268 15107	823 43411	1524	3588	7297	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	531 12967	669 35846	1239	2870	6129	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	654 41094	1878 113433	3899	10117	19921	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	471 28600	1179 78059	2533	6475	13157	5.00 200	10.0 500	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1-Dichloroethene	FB	Ave	1662 59269	3486 191338	6332	16488	35006	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	1643 82247	2971 242231	6694	17888	37220	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin	746 73176	1627 249287	3515	11543	30647	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	4577 70639	7480 205593	9931	19411	36952	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	782 46083	1871 141950	3873	9594	21772	1.00 40.0	2.00 100	4.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Qua	1471 51480	3331 222323	6113	17769	35375	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	1052 40625	2012 109933	3974	10170	21340	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	6162 188237	10966 593851	20028	51689	107036	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	1971 72070	3793 217307	7062	18578	38494	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	2708 130875	5531 364730	12278	29906	64569	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	2944 123741	6381 359532	12134	30724	65308	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	546 34243	1383 98237	2874	7557	16158	5.00 200	10.0 500	20.0	50.0	100
Vinyl acetate	FB	Ave	2992 155431	6882 406426	13842	36856	77627	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Qua	2323 112416	5363 410882	10051	28052	62176	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Qua	2308 88950	4936 396174	10036	27417	58075	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	5370 288516	12018 926902	23996	63455	140335	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin2	85 7314	223 22175	582	1773	3295	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	708 42370	1599 124262	3285	8955	19575	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	2023 81551	3614 241458	7382	19310	41013	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Lin2	638 54099	1892 150972	4173	11952	25696	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	730 32142	1646 91859	3017	7592	15986	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	3491 207435	8484 632065	17280	45987	98326	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	2844 129028	5875 396210	11532	29219	64384	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Lin1	581 39644	1469 114990	2442	7077	16459	12.5 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	2729 102962	5662 321854	10486	27521	57292	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	353 15449	674 41933	1408	3497	7192	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	1355 57412	2687 157012	5556	13524	28833	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	2734 105617	5914 341188	10599	27920	59300	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Lin1	195 17419	364 46830	1381	3358	7190	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	2064 82427	4426 277514	8497	22587	46630	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	2268 80430	5015 320326	9486	26269	54739	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	2517 89661	5113 312780	9414	26109	53156	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	6751 290120	14147 901366	27136	69698	150695	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	2823 139507	6026 407175	12705	32247	68293	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	4397 166716	10410 635934	19179	52927	106720	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	879 50349	1861 144677	3927	11287	24804	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	1966 79745	4460 290020	8762	24936	51108	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	580 26229	1178 66408	2235	5403	12886	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	1478 65163	3020 170686	6460	13726	32368	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Lin1	327 17396	528 48029	1328	3054	7556	1.00 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	1985 91255	4410 256012	8252	20258	46007	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	1585 80771	3344 221012	6809	18082	39797	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Lin2	933 62140	2165 166595	4740	13115	29641	1.00 40.0	2.00 100	4.00	10.0	20.0
1,4-Dioxane	FB	Lin2	119 3342	183 7765	316	660	1581	10.0 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Lin1	143 21502	479 68996	1194	3801	8594	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Qua	2209 91036	5735 366698	10524	29162	59047	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	1593 84059	3571 238100	7492	19322	41843	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Lin2	913 56211	1836 152958	4533	11939	26603	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	1215 63086	2459 176613	5316	14519	30289	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Qua	694 37592	1730 101319	3496	9163	18350	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Lin1	591 44500	1478 115881	3490	9355	20891	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	3891 175572	8044 451355	15707	41252	88345	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Lin1	1100 65031	2610 162878	5998	14403	31778	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Qua	436 35277	1240 78462	3204	7364	16082	1.00 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	1050 53413	2528 115644	4613	10839	25846	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Qua	579 49146	1501 107649	3701	9015	21452	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	752 35163	1764 86867	3320	7245	15642	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	1518 60576	3463 176813	6047	13791	32179	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	1305 54403	2872 196989	5444	12771	30877	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	1608 71754	3353 212351	6646	14522	35793	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	4712 199232	10228 602775	19338	36646	101022	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	2350 100765	5382 329405	10336	21239	55148	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	5435 246805	11556 770472	18746	52334	124806	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Bromoform	DCBd 4	Lin	581 30912	1407 74033	2266	6528	14665	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Styrene	CBNZ d5	Lin1	3966 200605	9030 527214	15894	46125	100147	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexanone	CBNZ d5	Qua	546 33949	1500 83821	2623	8156	16501	25.0 1000	50.0 2500	100	250	500
o-Xylene	CBNZ d5	Lin	2980 121594	6155 340466	10299	31055	59340	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Lin	957 41655	2011 117669	3237	9509	18836	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin	132 8142	344 20145	695	1991	3730	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Lin	214 10246	572 25140	850	2710	4992	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Lin	7397 304228	16233 851622	26940	79990	142417	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	1805 79235	4093 225514	8195	20661	37399	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	2224 90660	4504 264047	9004	23549	45483	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Lin	2122 85162	3813 244262	8330	21842	39511	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Qua	5018 198240	9782 623548	21875	55450	100390	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Lin	6540 260560	12055 769491	26232	67890	124049	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Qua	5597 197692	10731 685989	22829	59602	107199	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	5586 264317	12648 861215	26778	65581	128753	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	6479 291343	15281 919370	31989	64572	160089	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	1227 70638	2868 197619	6227	12819	28233	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	3404 158127	8165 433566	15810	29788	65771	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	6124 323566	15728 998824	29641	60666	135016	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	3162 173977	8083 489628	16154	30610	67288	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	5301 269335	13516 794963	26327	52908	123849	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1 Analy Batch No.: 259909

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/07/2019 10:55 Calibration End Date: 03/07/2019 13:25 Calibration ID: 15456

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichlorobenzene	DCBd 4	Ave	2996 132046	6574 327186	12826	25554	60374	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	5252 225594	12103 692581	22239	51637	116351	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Qua	169 6052	348 18461	525	1462	3330	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Qua	2254 116561	5222 355545	8707	26230	56741	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Lin	1103 73749	3007 212961	4621	16273	35752	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Lin	1680 95711	3762 265009	5829	20626	44456	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Qua	395 16985	883 52563	1315	4477	9062	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	492 39325	1599 104684	3013	8532	19180	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	1615 63862	2983 189946	5921	15275	32795	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	1149 41953	2133 117971	4261	10462	21060	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	6049 240610	11449 673142	22481	57254	121470	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Lin	2609 68677	3929 176755	6436	18178	32703	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: ICV 600-259909/10 Calibration Date: 03/07/2019 14:28
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A06609.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin		0.4485		10.0	10.0	0.3	50.0
Chloromethane	Ave	0.4145	0.4583	0.1000	11.1	10.0	10.6	30.0
Vinyl chloride	Ave	0.4033	0.4405		10.9	10.0	9.2	30.0
Butadiene	Qua		0.4476		12.3	10.0	23.1	50.0
Ethylene oxide	Ave	0.0153	0.0184		120	100	20.2	50.0
Bromomethane	Lin		0.1792		12.7	10.0	27.1	30.0
Chloroethane	Lin		0.2254		12.5	10.0	25.1	30.0
Dichlorofluoromethane	Ave	0.4622	0.5985		13.0	10.0	29.5	30.0
Acrolein	Qua		0.0263		53.8	50.0	7.6	50.0
Acetonitrile	Lin		0.0159		95.0	100	-5.0	30.0
Trichlorofluoromethane	Qua		0.5100		12.6	10.0	25.8	30.0
Isopropyl alcohol	Ave	0.0078	0.0073		93.3	100	-6.7	50.0
Acetone	Lin1		0.0338		19.8	20.0	-1.0	50.0
Ethyl ether	Ave	0.2033	0.2073		10.2	10.0	2.0	50.0
t-Butanol	Ave	0.0135	0.0133		98.4	100	-1.6	30.0
1,1-Dichloroethene	Ave	0.3561	0.3411		9.58	10.0	-4.2	30.0
Acrylonitrile	Ave	0.0389	0.0406		105	100	4.5	50.0
Iodomethane	Lin		0.3460		8.99	10.0	-10.1	30.0
Methylene Chloride	Lin1		0.3733		9.07	10.0	-9.3	50.0
Methyl acetate	Ave	0.1098	0.1140		20.8	20.0	3.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Qua		0.3415		12.3	10.0	23.3	30.0
3-Chloro-1-propene	Ave	0.2191	0.2202		10.1	10.0	0.5	30.0
Carbon disulfide	Ave	1.143	1.077		9.42	10.0	-5.8	30.0
trans-1,2-Dichloroethene	Ave	0.4043	0.3909		9.67	10.0	-3.3	30.0
Methyl tert-butyl ether	Ave	0.6536	0.6743		10.3	10.0	3.2	30.0
Propionitrile	Ave	0.0161	0.0168		104	100	3.9	30.0
1,1-Dichloroethane	Ave	0.6703	0.6685	0.1000	9.97	10.0	-0.3	30.0
Vinyl acetate	Ave	0.3834	0.3078		16.1	20.0	-19.7	50.0
2-Chloro-1,3-butadiene	Qua		0.6083		10.9	10.0	8.8	30.0
Hexane	Qua		0.5509		12.0	10.0	19.6	30.0
Isopropyl ether	Ave	1.419	1.416		9.98	10.0	-0.2	30.0
2-Butanone (MEK)	Lin2		0.0180		19.2	20.0	-4.1	50.0
Methacrylonitrile	Ave	0.0195	0.0210		108	100	7.5	30.0
cis-1,2-Dichloroethene	Ave	0.4252	0.4199		9.88	10.0	-1.3	30.0
Ethyl acetate	Lin2		0.1335		19.6	20.0	-1.9	30.0
Chlorobromomethane	Ave	0.1687	0.1712		10.2	10.0	1.5	30.0
Chloroform	Ave	0.6623	0.6598		9.96	10.0	-0.4	30.0
Tert-butyl ethyl ether	Ave	0.9943	1.024		10.3	10.0	3.0	30.0
Isobutyl alcohol	Lin1		0.0061		189	250	-24.3	50.0
2,2-Dichloropropane	Ave	0.5917	0.5395		9.12	10.0	-8.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: ICV 600-259909/10 Calibration Date: 03/07/2019 14:28
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A06609.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0386	0.0392		20.3	20.0	1.6	30.0
1,2-Dichloroethane	Ave	0.2985	0.3006		10.1	10.0	0.7	30.0
1,1,1-Trichloroethane	Ave	0.6083	0.5967		9.81	10.0	-1.9	30.0
1,1-Dichloropropene	Ave	0.4775	0.4664		9.77	10.0	-2.3	30.0
Cyclohexane	Ave	0.5349	0.5196		9.71	10.0	-2.9	50.0
Carbon tetrachloride	Ave	0.5452	0.5313		9.75	10.0	-2.5	30.0
Benzene	Ave	1.549	1.536		9.92	10.0	-0.8	30.0
Tert-amyl methyl ether	Ave	0.6993	0.7038		10.1	10.0	0.6	30.0
Isooctane	Ave	1.073	1.029		9.58	10.0	-4.2	30.0
Ethyl acrylate	Ave	0.2364	0.2581		10.9	10.0	9.2	30.0
n-Heptane	Ave	0.4927	0.4786		9.72	10.0	-2.9	30.0
Dibromomethane	Ave	0.1277	0.1304		10.2	10.0	2.1	30.0
1,2-Dichloropropane	Ave	0.3301	0.3412		10.3	10.0	3.4	30.0
2-Nitropropane	Lin1		0.0396		18.2	20.0	-9.2	30.0
Trichloroethene	Ave	0.4652	0.5025		10.8	10.0	8.0	30.0
Bromodichloromethane	Ave	0.3912	0.3942		10.1	10.0	0.8	30.0
Methyl methacrylate	Lin2		0.1508		19.8	20.0	-0.8	50.0
1,4-Dioxane	Lin2		0.0008		199	200	-0.5	50.0
2-Chloroethyl vinyl ether	Lin1		0.1421		18.9	20.0	-5.8	30.0
Methylcyclohexane	Qua		0.5721		11.9	10.0	18.6	30.0
cis-1,3-Dichloropropene	Ave	1.157	1.167		10.1	10.0	0.9	30.0
4-Methyl-2-pentanone (MIBK)	Lin2		0.1359		19.7	20.0	-1.5	50.0
trans-1,3-Dichloropropene	Lin1		0.8752		10.1	10.0	0.7	30.0
1,1,2-Trichloroethane	Qua		0.5191		9.78	10.0	-2.2	30.0
Ethyl methacrylate	Lin1		0.5966		10.3	10.0	2.8	50.0
Toluene	Ave	2.471	2.546		10.3	10.0	3.1	30.0
1,3-Dichloropropane	Lin1		0.9130		10.8	10.0	8.0	30.0
2-Hexanone	Qua		0.2318		18.7	20.0	-6.4	50.0
Dibromochloromethane	Ave	0.7023	0.7393		10.5	10.0	5.3	30.0
n-Butyl acetate	Qua		0.6512		9.69	10.0	-3.1	30.0
1,2-Dibromoethane	Ave	0.4808	0.5022		10.4	10.0	4.4	30.0
Tetrachloroethene	Ave	0.9266	0.9416		10.2	10.0	1.6	30.0
1-Chlorohexane	Ave	0.8564	0.8374		9.78	10.0	-2.2	30.0
1,1,1,2-Tetrachloroethane	Ave	1.011	1.010		9.99	10.0	-0.1	30.0
Chlorobenzene	Ave	2.862	2.852	0.3000	9.97	10.0	-0.3	30.0
Ethylbenzene	Ave	1.529	1.526		9.98	10.0	-0.2	30.0
m-Xylene & p-Xylene	Ave	3.444	3.493		10.1	10.0	1.4	30.0
Bromoform	Lin		0.3629	0.1000	9.12	10.0	-8.8	30.0
Styrene	Lin1		2.802		10.4	10.0	4.3	30.0
Cyclohexanone	Qua		0.0087		447	500	-10.5	30.0
o-Xylene	Lin		1.667		9.70	10.0	-3.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: ICV 600-259909/10 Calibration Date: 03/07/2019 14:28
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A06609.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Lin		0.4468	0.3000	7.82	10.0	-21.8	30.0
trans-1,4-Dichloro-2-butene	Lin		0.0941		8.76	10.0	-12.4	50.0
1,2,3-Trichloropropane	Lin		0.1251		9.04	10.0	-9.6	30.0
Isopropylbenzene	Lin		4.077		9.47	10.0	-5.3	30.0
Bromobenzene	Ave	1.165	1.062		9.12	10.0	-8.8	30.0
N-Propylbenzene	Ave	1.351	1.232		9.12	10.0	-8.8	30.0
2-Chlorotoluene	Lin		1.125		9.28	10.0	-7.2	30.0
4-Chlorotoluene	Qua		2.907		11.3	10.0	12.5	30.0
1,3,5-Trimethylbenzene	Lin		3.576		9.43	10.0	-5.7	30.0
tert-Butylbenzene	Qua		3.082		11.8	10.0	18.0	30.0
1,2,4-Trimethylbenzene	Ave	3.862	3.690		9.56	10.0	-4.4	30.0
sec-Butylbenzene	Ave	4.372	4.383		10.0	10.0	0.2	30.0
Benzyl chloride	Ave	0.8700	0.8359		9.61	10.0	-3.9	30.0
1,3-Dichlorobenzene	Ave	2.129	2.156		10.1	10.0	1.3	30.0
4-Isopropyltoluene	Ave	4.270	4.302		10.1	10.0	0.7	30.0
1,4-Dichlorobenzene	Ave	2.193	2.240		10.2	10.0	2.2	30.0
1,2,3-Trimethylbenzene	Ave	3.671	3.366		9.17	10.0	-8.3	30.0
1,2-Dichlorobenzene	Ave	1.783	1.438		8.07	10.0	-19.3	30.0
n-Butylbenzene	Ave	3.338	2.712		8.12	10.0	-18.8	30.0
1,2-Dibromo-3-Chloropropane	Qua		0.0733		9.08	10.0	-9.2	30.0
1,3,5-Trichlorobenzene	Qua		1.340		9.16	10.0	-8.4	30.0
1,2,4-Trichlorobenzene	Lin		0.8498		8.33	10.0	-16.7	30.0
Naphthalene	Lin		1.081		8.38	10.0	-16.2	30.0
Hexachlorobutadiene	Qua		0.2295		10.3	10.0	2.5	30.0
1,2,3-Trichlorobenzene	Lin1		0.4594		8.67	10.0	-13.3	30.0
Dibromofluoromethane	Ave	0.3392	0.3535		13.0	12.5	4.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2299	0.2071		11.3	12.5	-9.9	30.0
Toluene-d8 (Surr)	Ave	3.532	3.775		13.4	12.5	6.9	30.0
4-Bromofluorobenzene	Lin		1.075		14.4	12.5	15.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264044/2 Calibration Date: 05/01/2019 09:00
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12101.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin		0.2188		5.26	10.0	-47.5*	35.0
Chloromethane	Ave	0.4145	0.2430	0.1000	5.86	10.0	-41.4*	35.0
Vinyl chloride	Ave	0.4033	0.3236		8.02	10.0	-19.8	20.0
Butadiene	Qua		0.3114		8.66	10.0	-13.4	35.0
Ethylene oxide	Ave	0.0153	0.0139		90.7	100	-9.3	35.0
Bromomethane	Lin		0.1367		10.00	10.0	-0.0	35.0
Chloroethane	Lin		0.1744		9.65	10.0	-3.5	35.0
Dichlorofluoromethane	Ave	0.4622	0.5217		11.3	10.0	12.9	35.0
Acrolein	Qua		0.0178		36.3	50.0	-27.5	50.0
Acetonitrile	Lin		0.0108		67.4	100	-32.6	50.0
Trichlorofluoromethane	Qua		0.7008		16.8	10.0	68.0*	35.0
Isopropyl alcohol	Ave	0.0078	0.0058		74.2	100	-25.8	50.0
Acetone	Lin1		0.0259		15.1	20.0	-24.4	50.0
Ethyl ether	Ave	0.2033	0.1590		7.82	10.0	-21.8	35.0
t-Butanol	Ave	0.0135	0.0106		78.3	100	-21.7	35.0
1,1-Dichloroethene	Ave	0.3561	0.3531		9.92	10.0	-0.8	20.0
Acrylonitrile	Ave	0.0389	0.0273		70.4	100	-29.6	50.0
Iodomethane	Lin		0.2882		7.80	10.0	-22.0	35.0
Methylene Chloride	Lin1		0.3158		7.53	10.0	-24.7	50.0
Methyl acetate	Ave	0.1098	0.0822		15.0	20.0	-25.1	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Qua		0.4305		15.2	10.0	51.7*	35.0
3-Chloro-1-propene	Ave	0.2191	0.1962		8.96	10.0	-10.4	35.0
Carbon disulfide	Ave	1.143	0.9290		8.13	10.0	-18.7	35.0
trans-1,2-Dichloroethene	Ave	0.4043	0.3754		9.29	10.0	-7.2	35.0
Methyl tert-butyl ether	Ave	0.6536	0.5809		8.89	10.0	-11.1	35.0
Propionitrile	Ave	0.0161	0.0108		66.9	100	-33.1	35.0
1,1-Dichloroethane	Ave	0.6703	0.6090	0.1000	9.09	10.0	-9.1	35.0
Vinyl acetate	Ave	0.3834	0.3150		16.4	20.0	-17.8	50.0
2-Chloro-1,3-butadiene	Qua		0.6496		11.6	10.0	15.6	35.0
Hexane	Qua		0.5489		11.9	10.0	19.3	35.0
Isopropyl ether	Ave	1.419	1.162		8.19	10.0	-18.1	35.0
2-Butanone (MEK)	Lin2		0.0138		14.8	20.0	-26.2	50.0
Methacrylonitrile	Ave	0.0195	0.0148		75.8	100	-24.2	35.0
cis-1,2-Dichloroethene	Ave	0.4252	0.3692		8.68	10.0	-13.2	35.0
Ethyl acetate	Lin2		0.0967		14.4	20.0	-28.2	35.0
Chlorobromomethane	Ave	0.1687	0.1460		8.65	10.0	-13.5	35.0
Tert-butyl ethyl ether	Ave	0.9943	0.8448		8.50	10.0	-15.0	35.0
Chloroform	Ave	0.6623	0.6486		9.79	10.0	-2.1	20.0
Isobutyl alcohol	Lin1		0.0042		135	250	-46.2	50.0
2,2-Dichloropropane	Ave	0.5917	0.6966		11.8	10.0	17.7	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264044/2 Calibration Date: 05/01/2019 09:00
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12101.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0386	0.0313		16.3	20.0	-18.7	35.0
1,2-Dichloroethane	Ave	0.2985	0.2916		9.77	10.0	-2.3	35.0
1,1,1-Trichloroethane	Ave	0.6083	0.7282		12.0	10.0	19.7	35.0
1,1-Dichloropropene	Ave	0.4775	0.4801		10.1	10.0	0.5	35.0
Cyclohexane	Ave	0.5349	0.5573		10.4	10.0	4.2	35.0
Carbon tetrachloride	Ave	0.5452	0.6893		12.6	10.0	26.4	35.0
Benzene	Ave	1.549	1.335		8.62	10.0	-13.8	35.0
Tert-amyl methyl ether	Ave	0.6993	0.5834		8.34	10.0	-16.6	35.0
Isooctane	Ave	1.073	1.039		9.68	10.0	-3.2	35.0
Ethyl acrylate	Ave	0.2364	0.2180		9.22	10.0	-7.8	35.0
n-Heptane	Ave	0.4927	0.5147		10.5	10.0	4.5	35.0
Dibromomethane	Ave	0.1277	0.1100		8.62	10.0	-13.8	35.0
1,2-Dichloropropane	Ave	0.3301	0.2978		9.02	10.0	-9.8	20.0
2-Nitropropane	Lin1		0.0348		16.1	20.0	-19.7	35.0
Trichloroethene	Ave	0.4652	0.4676		10.1	10.0	0.5	35.0
Bromodichloromethane	Ave	0.3912	0.3700		9.46	10.0	-5.4	35.0
Methyl methacrylate	Lin2		0.1064		14.1	20.0	-29.5	50.0
1,4-Dioxane	Lin2		0.0004		106	200	-46.9	50.0
2-Chloroethyl vinyl ether	Lin1		0.1169		15.7	20.0	-21.5	35.0
Methylcyclohexane	Qua		0.6085		12.6	10.0	25.7	35.0
cis-1,3-Dichloropropene	Ave	1.157	0.9767		8.44	10.0	-15.6	35.0
4-Methyl-2-pentanone (MIBK)	Lin2		0.1021		14.9	20.0	-25.5	50.0
trans-1,3-Dichloropropene	Lin1		0.7533		8.67	10.0	-13.3	35.0
1,1,2-Trichloroethane	Qua		0.4445		8.31	10.0	-16.9	35.0
Ethyl methacrylate	Lin1		0.4715		8.15	10.0	-18.5	50.0
Toluene	Ave	2.471	2.364		9.57	10.0	-4.3	20.0
1,3-Dichloropropane	Lin1		0.7310		8.64	10.0	-13.6	35.0
2-Hexanone	Qua		0.1853		14.9	20.0	-25.7	50.0
Dibromochloromethane	Ave	0.7023	0.7310		10.4	10.0	4.1	35.0
n-Butyl acetate	Qua		0.4566		6.81	10.0	-31.9	35.0
1,2-Dibromoethane	Ave	0.4808	0.4313		8.97	10.0	-10.3	35.0
Tetrachloroethene	Ave	0.9266	0.997		10.8	10.0	7.6	35.0
1-Chlorohexane	Ave	0.8564	0.8847		10.3	10.0	3.3	35.0
1,1,1,2-Tetrachloroethane	Ave	1.011	1.031		10.2	10.0	2.0	35.0
Chlorobenzene	Ave	2.862	2.724	0.3000	9.52	10.0	-4.8	35.0
Ethylbenzene	Ave	1.529	1.530		10.0	10.0	0.0	20.0
m-Xylene & p-Xylene	Ave	3.444	3.568		10.4	10.0	3.6	35.0
Bromoform	Lin		0.3664	0.1000	9.21	10.0	-7.9	35.0
Styrene	Lin1		2.731		10.2	10.0	1.6	35.0
Cyclohexanone	Qua		0.0162		867	500	73.4*	35.0
1,1,2,2-Tetrachloroethane	Lin		0.4874	0.3000	8.49	10.0	-15.1	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264044/2 Calibration Date: 05/01/2019 09:00
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12101.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Lin		1.815		10.6	10.0	6.0	35.0
trans-1,4-Dichloro-2-butene	Lin		0.0874		8.11	10.0	-18.9	50.0
1,2,3-Trichloropropane	Lin		0.1360		9.89	10.0	-1.1	35.0
Isopropylbenzene	Lin		4.617		10.7	10.0	7.1	35.0
Bromobenzene	Ave	1.165	1.094		9.39	10.0	-6.1	35.0
N-Propylbenzene	Ave	1.351	1.397		10.4	10.0	3.5	35.0
2-Chlorotoluene	Lin		1.238		10.2	10.0	1.8	35.0
4-Chlorotoluene	Qua		3.137		12.2	10.0	21.5	35.0
1,3,5-Trimethylbenzene	Lin		4.020		10.6	10.0	5.6	35.0
tert-Butylbenzene	Qua		3.633		13.8	10.0	38.4*	35.0
1,2,4-Trimethylbenzene	Ave	3.862	4.155		10.8	10.0	7.6	35.0
sec-Butylbenzene	Ave	4.372	5.004		11.4	10.0	14.4	35.0
Benzyl chloride	Ave	0.8700	0.9415		10.8	10.0	8.2	35.0
1,3-Dichlorobenzene	Ave	2.129	2.270		10.7	10.0	6.6	35.0
4-Isopropyltoluene	Ave	4.270	4.874		11.4	10.0	14.1	35.0
1,4-Dichlorobenzene	Ave	2.193	2.289		10.4	10.0	4.4	35.0
1,2,3-Trimethylbenzene	Ave	3.671	3.905		10.6	10.0	6.4	35.0
1,2-Dichlorobenzene	Ave	1.783	1.765		9.90	10.0	-1.0	35.0
n-Butylbenzene	Ave	3.338	3.583		10.7	10.0	7.3	35.0
1,2-Dibromo-3-Chloropropane	Qua		0.0847		10.5	10.0	5.3	35.0
1,3,5-Trichlorobenzene	Qua		1.377		9.41	10.0	-5.9	35.0
1,2,4-Trichlorobenzene	Lin		0.7408		7.34	10.0	-26.7	35.0
Naphthalene	Lin		1.395		10.7	10.0	6.7	35.0
Hexachlorobutadiene	Qua		0.2735		12.2	10.0	22.2	35.0
1,2,3-Trichlorobenzene	Lin1		0.5670		10.7	10.0	6.6	35.0
Dibromofluoromethane	Ave	0.3392	0.3167		9.34	10.0	-6.6	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2299	0.2146		9.33	10.0	-6.7	35.0
Toluene-d8 (Surr)	Ave	3.532	3.190		9.03	10.0	-9.7	35.0
4-Bromofluorobenzene	Lin		0.9882		10.5	10.0	4.6	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264156/2 Calibration Date: 05/02/2019 08:51
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12201.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin		0.2291		5.47	10.0	-45.3*	35.0
Chloromethane	Ave	0.4145	0.2434	0.1000	5.87	10.0	-41.3*	35.0
Vinyl chloride	Ave	0.4033	0.3650		9.05	10.0	-9.5	20.0
Butadiene	Qua		0.3437		9.56	10.0	-4.4	35.0
Ethylene oxide	Ave	0.0153	0.0130		85.4	100	-14.6	35.0
Bromomethane	Lin		0.1552		11.2	10.0	11.7	35.0
Chloroethane	Lin		0.1760		9.74	10.0	-2.6	35.0
Dichlorofluoromethane	Ave	0.4622	0.5305		11.5	10.0	14.8	35.0
Acrolein	Qua		0.0155		31.4	50.0	-37.3	50.0
Acetonitrile	Lin		0.0097		61.5	100	-38.5	50.0
Trichlorofluoromethane	Qua		0.7712		18.3	10.0	82.5*	35.0
Isopropyl alcohol	Ave	0.0078	0.0048		61.5	100	-38.5	50.0
Acetone	Lin1		0.0240		14.0	20.0	-30.2	50.0
Ethyl ether	Ave	0.2033	0.1484		7.30	10.0	-27.0	35.0
t-Butanol	Ave	0.0135	0.0099		73.4	100	-26.6	35.0
1,1-Dichloroethene	Ave	0.3561	0.3766		10.6	10.0	5.8	20.0
Acrylonitrile	Ave	0.0389	0.0252		64.8	100	-35.2	50.0
Iodomethane	Lin		0.2720		7.47	10.0	-25.3	35.0
Methylene Chloride	Lin1		0.3188		7.62	10.0	-23.8	50.0
Methyl acetate	Ave	0.1098	0.0742		13.5	20.0	-32.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Qua		0.4602		16.1	10.0	60.6*	35.0
3-Chloro-1-propene	Ave	0.2191	0.2047		9.34	10.0	-6.6	35.0
Carbon disulfide	Ave	1.143	0.9495		8.31	10.0	-16.9	35.0
trans-1,2-Dichloroethene	Ave	0.4043	0.3775		9.34	10.0	-6.6	35.0
Methyl tert-butyl ether	Ave	0.6536	0.5575		8.53	10.0	-14.7	35.0
Propionitrile	Ave	0.0161	0.0102		63.3	100	-36.8*	35.0
1,1-Dichloroethane	Ave	0.6703	0.5981	0.1000	8.92	10.0	-10.8	35.0
Vinyl acetate	Ave	0.3834	0.2852		14.9	20.0	-25.6	50.0
2-Chloro-1,3-butadiene	Qua		0.6647		11.8	10.0	18.1	35.0
Hexane	Qua		0.5552		12.1	10.0	20.5	35.0
Isopropyl ether	Ave	1.419	1.095		7.72	10.0	-22.9	35.0
2-Butanone (MEK)	Lin2		0.0132		14.2	20.0	-28.9	50.0
Methacrylonitrile	Ave	0.0195	0.0137		70.0	100	-30.0	35.0
cis-1,2-Dichloroethene	Ave	0.4252	0.3790		8.91	10.0	-10.9	35.0
Ethyl acetate	Lin2		0.0853		12.7	20.0	-36.3*	35.0
Chlorobromomethane	Ave	0.1687	0.1491		8.84	10.0	-11.6	35.0
Isobutyl alcohol	Lin1		0.0070		215	250	-13.9	50.0
Tert-butyl ethyl ether	Ave	0.9943	0.8144		8.19	10.0	-18.1	35.0
Chloroform	Ave	0.6623	0.6728		10.2	10.0	1.6	20.0
2,2-Dichloropropane	Ave	0.5917	0.7314		12.4	10.0	23.6	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264156/2 Calibration Date: 05/02/2019 08:51
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12201.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0386	0.0256		13.3	20.0	-33.7	35.0
1,2-Dichloroethane	Ave	0.2985	0.2892		9.69	10.0	-3.1	35.0
1,1,1-Trichloroethane	Ave	0.6083	0.7810		12.8	10.0	28.4	35.0
1,1-Dichloropropene	Ave	0.4775	0.4911		10.3	10.0	2.9	35.0
Cyclohexane	Ave	0.5349	0.5858		11.0	10.0	9.5	35.0
Carbon tetrachloride	Ave	0.5452	0.7314		13.4	10.0	34.1	35.0
Benzene	Ave	1.549	1.353		8.74	10.0	-12.6	35.0
Tert-amyl methyl ether	Ave	0.6993	0.5467		7.82	10.0	-21.8	35.0
Isooctane	Ave	1.073	1.079		10.1	10.0	0.5	35.0
Ethyl acrylate	Ave	0.2364	0.1965		8.31	10.0	-16.9	35.0
n-Heptane	Ave	0.4927	0.4948		10.0	10.0	0.4	35.0
Dibromomethane	Ave	0.1277	0.1078		8.44	10.0	-15.6	35.0
1,2-Dichloropropane	Ave	0.3301	0.2782		8.43	10.0	-15.7	20.0
2-Nitropropane	Lin1		0.0346		15.9	20.0	-20.3	35.0
Trichloroethene	Ave	0.4652	0.4818		10.4	10.0	3.6	35.0
Bromodichloromethane	Ave	0.3912	0.3722		9.52	10.0	-4.9	35.0
Methyl methacrylate	Lin2		0.0946		12.6	20.0	-37.1	50.0
1,4-Dioxane	Lin2		0.0004		105	200	-47.7	50.0
2-Chloroethyl vinyl ether	Lin1		0.0776		10.8	20.0	-46.1*	35.0
Methylcyclohexane	Qua		0.6342		13.1	10.0	30.6	35.0
cis-1,3-Dichloropropene	Ave	1.157	1.002		8.66	10.0	-13.4	35.0
4-Methyl-2-pentanone (MIBK)	Lin2		0.0914		13.4	20.0	-33.1	50.0
trans-1,3-Dichloropropene	Lin1		0.7522		8.66	10.0	-13.4	35.0
1,1,2-Trichloroethane	Qua		0.4254		7.94	10.0	-20.6	35.0
Ethyl methacrylate	Lin1		0.4355		7.54	10.0	-24.6	50.0
Toluene	Ave	2.471	2.453		9.93	10.0	-0.7	20.0
1,3-Dichloropropane	Lin1		0.6756		7.98	10.0	-20.2	35.0
2-Hexanone	Qua		0.1752		14.1	20.0	-29.8	50.0
Dibromochloromethane	Ave	0.7023	0.7269		10.4	10.0	3.5	35.0
n-Butyl acetate	Qua		0.4224		6.32	10.0	-36.8*	35.0
1,2-Dibromoethane	Ave	0.4808	0.4237		8.81	10.0	-11.9	35.0
Tetrachloroethene	Ave	0.9266	1.018		11.0	10.0	9.8	35.0
1-Chlorohexane	Ave	0.8564	0.9233		10.8	10.0	7.8	35.0
1,1,1,2-Tetrachloroethane	Ave	1.011	1.047		10.4	10.0	3.5	35.0
Chlorobenzene	Ave	2.862	2.826	0.3000	9.87	10.0	-1.3	35.0
Ethylbenzene	Ave	1.529	1.595		10.4	10.0	4.3	20.0
m-Xylene & p-Xylene	Ave	3.444	3.745		10.9	10.0	8.7	35.0
Bromoform	Lin		0.3496	0.1000	8.77	10.0	-12.3	35.0
Styrene	Lin1		2.839		10.6	10.0	5.7	35.0
Cyclohexanone	Qua		0.0139		734	500	46.7*	35.0
o-Xylene	Lin		1.903		11.1	10.0	11.4	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-264156/2 Calibration Date: 05/02/2019 08:51
 Instrument ID: CHVOAMS07 Calib Start Date: 03/07/2019 10:55
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 03/07/2019 13:25
 Lab File ID: A12201.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Lin		0.4214	0.3000	7.40	10.0	-26.0	35.0
trans-1,4-Dichloro-2-butene	Lin		0.0844		7.83	10.0	-21.7	50.0
1,2,3-Trichloropropane	Lin		0.1245		9.00	10.0	-10.0	35.0
Isopropylbenzene	Lin		4.686		10.9	10.0	8.7	35.0
Bromobenzene	Ave	1.165	1.075		9.23	10.0	-7.7	35.0
N-Propylbenzene	Ave	1.351	1.431		10.6	10.0	6.0	35.0
2-Chlorotoluene	Lin		1.240		10.2	10.0	1.9	35.0
4-Chlorotoluene	Qua		3.117		12.1	10.0	20.7	35.0
1,3,5-Trimethylbenzene	Lin		4.060		10.7	10.0	6.6	35.0
tert-Butylbenzene	Qua		3.692		14.1	10.0	40.6*	35.0
1,2,4-Trimethylbenzene	Ave	3.862	4.080		10.6	10.0	5.6	35.0
sec-Butylbenzene	Ave	4.372	5.107		11.7	10.0	16.8	35.0
Benzyl chloride	Ave	0.8700	0.8602		9.89	10.0	-1.1	35.0
1,3-Dichlorobenzene	Ave	2.129	2.234		10.5	10.0	4.9	35.0
4-Isopropyltoluene	Ave	4.270	4.947		11.6	10.0	15.9	35.0
1,4-Dichlorobenzene	Ave	2.193	2.246		10.2	10.0	2.4	35.0
1,2,3-Trimethylbenzene	Ave	3.671	3.825		10.4	10.0	4.2	35.0
1,2-Dichlorobenzene	Ave	1.783	1.688		9.47	10.0	-5.3	35.0
n-Butylbenzene	Ave	3.338	3.548		10.6	10.0	6.3	35.0
1,2-Dibromo-3-Chloropropane	Qua		0.0724		8.96	10.0	-10.4	35.0
1,3,5-Trichlorobenzene	Qua		1.356		9.27	10.0	-7.3	35.0
1,2,4-Trichlorobenzene	Lin		0.6987		6.95	10.0	-30.5	35.0
Naphthalene	Lin		1.102		8.53	10.0	-14.7	35.0
Hexachlorobutadiene	Qua		0.2790		12.5	10.0	24.6	35.0
1,2,3-Trichlorobenzene	Lin1		0.4752		8.96	10.0	-10.4	35.0
Dibromofluoromethane	Ave	0.3392	0.3172		9.35	10.0	-6.5	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2299	0.2162		9.40	10.0	-6.0	35.0
Toluene-d8 (Surr)	Ave	3.532	3.285		9.30	10.0	-7.0	35.0
4-Bromofluorobenzene	Lin		0.9493		10.0	10.0	0.3	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-264044/6
 Matrix: Water Lab File ID: A12105.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 11:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	101		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-264156/6
 Matrix: Water Lab File ID: A12205.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/02/2019 10:51
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264156 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	98		62-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-264044/3
 Matrix: Water Lab File ID: A12102.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 10:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.008956		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01041		0.00100	0.000192
71-43-2	Benzene	0.009070		0.00100	0.000176
91-20-3	Naphthalene	0.008143		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01141		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	114		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-264156/3
 Matrix: Water Lab File ID: A12202.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/02/2019 09:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264156 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.008733		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009985		0.00100	0.000192
71-43-2	Benzene	0.008602		0.00100	0.000176
91-20-3	Naphthalene	0.007376		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01155		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	114		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-264044/4
 Matrix: Water Lab File ID: A12103.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 10:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009138		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009998		0.00100	0.000192
71-43-2	Benzene	0.008819		0.00100	0.000176
91-20-3	Naphthalene	0.008532		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01112		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	119		67-139
1868-53-7	Dibromofluoromethane	106		62-130
2037-26-5	Toluene-d8 (Surr)	110		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-264156/4
 Matrix: Water Lab File ID: A12203.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 05/02/2019 10:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264156 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.008833		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009958		0.00100	0.000192
71-43-2	Benzene	0.008709		0.00100	0.000176
91-20-3	Naphthalene	0.007757		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01158		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	109		62-130
2037-26-5	Toluene-d8 (Surr)	112		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW21-04232019 MS Lab Sample ID: 600-184182-6 MS
 Matrix: Water Lab File ID: A12115.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 15:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01053		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01081		0.00100	0.000192
71-43-2	Benzene	0.009354		0.00100	0.000176
91-20-3	Naphthalene	0.008083		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01176		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	120		67-139
1868-53-7	Dibromofluoromethane	108		62-130
2037-26-5	Toluene-d8 (Surr)	111		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1
 SDG No.: _____
 Client Sample ID: ARTESIA-MW21-04232019 MSD Lab Sample ID: 600-184182-6 MSD
 Matrix: Water Lab File ID: A12116.d
 Analysis Method: 8260B Date Collected: 04/23/2019 09:00
 Sample wt/vol: 20 (mL) Date Analyzed: 05/01/2019 15:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 264044 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009922		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009990		0.00100	0.000192
71-43-2	Benzene	0.008919		0.00100	0.000176
91-20-3	Naphthalene	0.009583		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01092		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		50-134
460-00-4	4-Bromofluorobenzene	124		67-139
1868-53-7	Dibromofluoromethane	109		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, HoustonJob No.: 600-184182-1

SDG No.: _____

Instrument ID: CHVOAMS07Start Date: 03/07/2019 10:21Analysis Batch Number: 259909End Date: 03/07/2019 17:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-259909/1		03/07/2019 10:21	1	A06600.d	DB-VRX 60 0.25 (mm)
IC 600-259909/2		03/07/2019 10:55	1	A06601.d	DB-VRX 60 0.25 (mm)
IC 600-259909/3		03/07/2019 11:20	1	A06602.d	DB-VRX 60 0.25 (mm)
IC 600-259909/4		03/07/2019 11:45	1	A06603.d	DB-VRX 60 0.25 (mm)
IC 600-259909/5		03/07/2019 12:10	1	A06604.d	DB-VRX 60 0.25 (mm)
ICIS 600-259909/6		03/07/2019 12:35	1	A06605.d	DB-VRX 60 0.25 (mm)
IC 600-259909/7		03/07/2019 13:00	1	A06606.d	DB-VRX 60 0.25 (mm)
IC 600-259909/8		03/07/2019 13:25	1	A06607.d	DB-VRX 60 0.25 (mm)
ICV 600-259909/10		03/07/2019 14:28	1	A06609.d	DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 14:28	1		DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 14:53	1		DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 15:44	1		DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 16:35	400		DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 17:05	80		DB-VRX 60 0.25 (mm)
ZZZZZ		03/07/2019 17:30	32		DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184182-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 05/01/2019 08:29

Analysis Batch Number: 264044

End Date: 05/01/2019 20:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-264044/1		05/01/2019 08:29	1	A12100.d	DB-VRX 60 0.25 (mm)
CCVIS 600-264044/2		05/01/2019 09:00	1	A12101.d	DB-VRX 60 0.25 (mm)
LCS 600-264044/3		05/01/2019 10:01	1	A12102.d	DB-VRX 60 0.25 (mm)
LCSD 600-264044/4		05/01/2019 10:26	1	A12103.d	DB-VRX 60 0.25 (mm)
MB 600-264044/6		05/01/2019 11:15	1	A12105.d	DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 11:40	500		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 12:05	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 12:29	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 12:54	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 13:19	5		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 13:44	250		DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 14:10	5000		DB-VRX 60 0.25 (mm)
600-184182-6		05/01/2019 14:35	1	A12113.d	DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 15:00	500		DB-VRX 60 0.25 (mm)
600-184182-6 MS		05/01/2019 15:25	1	A12115.d	DB-VRX 60 0.25 (mm)
600-184182-6 MSD		05/01/2019 15:50	1	A12116.d	DB-VRX 60 0.25 (mm)
ZZZZZ		05/01/2019 16:15	20		DB-VRX 60 0.25 (mm)
600-184182-1		05/01/2019 16:41	1	A12118.d	DB-VRX 60 0.25 (mm)
600-184182-2		05/01/2019 17:06	1	A12119.d	DB-VRX 60 0.25 (mm)
600-184182-3		05/01/2019 17:31	1	A12120.d	DB-VRX 60 0.25 (mm)
600-184182-4		05/01/2019 17:56	1	A12121.d	DB-VRX 60 0.25 (mm)
600-184182-5		05/01/2019 18:21	1	A12122.d	DB-VRX 60 0.25 (mm)
600-184182-7		05/01/2019 18:46	1	A12123.d	DB-VRX 60 0.25 (mm)
600-184182-8		05/01/2019 19:11	1	A12124.d	DB-VRX 60 0.25 (mm)
600-184182-9		05/01/2019 19:36	1	A12125.d	DB-VRX 60 0.25 (mm)
600-184182-10		05/01/2019 20:01	1	A12126.d	DB-VRX 60 0.25 (mm)
600-184182-11		05/01/2019 20:26	1	A12127.d	DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-184182-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 05/02/2019 08:04

Analysis Batch Number: 264156

End Date: 05/02/2019 19:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-264156/1		05/02/2019 08:04	1	A12200.d	DB-VRX 60 0.25 (mm)
CCVIS 600-264156/2		05/02/2019 08:51	1	A12201.d	DB-VRX 60 0.25 (mm)
LCS 600-264156/3		05/02/2019 09:38	1	A12202.d	DB-VRX 60 0.25 (mm)
LCSD 600-264156/4		05/02/2019 10:02	1	A12203.d	DB-VRX 60 0.25 (mm)
MB 600-264156/6		05/02/2019 10:51	1	A12205.d	DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 11:15	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 11:40	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 12:04	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 12:29	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 12:54	1		DB-VRX 60 0.25 (mm)
600-184182-12		05/02/2019 13:19	1	A12211.d	DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 13:43	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 14:08	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 14:33	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 14:57	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 15:22	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 15:47	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 16:12	5		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 16:37	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 17:02	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 17:27	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 17:52	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 18:17	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 18:42	1		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 19:06	10		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 19:31	10		DB-VRX 60 0.25 (mm)
ZZZZZ		05/02/2019 19:56	100		DB-VRX 60 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Batch Number: 259909 Batch Start Date: 03/07/19 10:21 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BFB 00277	EOxideLcs 00146	EOxideStd 00146	VOAIS50PPM 00246
BFB 600-259909/1		8260B		20 mL	20 mL	2 uL			
IC 600-259909/2		8260B		20 mL	20 mL			0.2 uL	5 uL
IC 600-259909/3		8260B		20 mL	20 mL			0.4 uL	5 uL
IC 600-259909/4		8260B		20 mL	20 mL			0.8 uL	5 uL
IC 600-259909/5		8260B		20 mL	20 mL			2 uL	5 uL
ICIS 600-259909/6		8260B		20 mL	20 mL			4 uL	5 uL
IC 600-259909/7		8260B		20 mL	20 mL			8 uL	5 uL
IC 600-259909/8		8260B		20 mL	20 mL			20 uL	5 uL
ICV 600-259909/10		8260B		20 mL	20 mL		4 uL		5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOALCSGASPT 00316	VOALCSPT2 00134	VOASS50PPM 00284	VOASTDGASPT 00316	VOASTDPT2 00134	
BFB 600-259909/1		8260B							
IC 600-259909/2		8260B					0.2 uL	0.2 uL	
IC 600-259909/3		8260B					0.4 uL	0.4 uL	
IC 600-259909/4		8260B					0.8 uL	0.8 uL	
IC 600-259909/5		8260B					2 uL	2 uL	
ICIS 600-259909/6		8260B					4 uL	4 uL	
IC 600-259909/7		8260B					8 uL	8 uL	
IC 600-259909/8		8260B					20 uL	20 uL	
ICV 600-259909/10		8260B		4 uL	4 uL	5 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

Page 1 of 1

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Batch Number: 264044 Batch Start Date: 05/01/19 08:29 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00281	EOxideLcs 00150	EOxideStd 00150
BFB 600-264044/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-264044/2		8260B		20 mL	20 mL				4 uL
LCS 600-264044/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-264044/4		8260B		20 mL	20 mL			4 uL	
MB 600-264044/6		8260B		20 mL	20 mL				
600-184182-C-6	ARTESIA-MW21-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-B-1	ARTESIA-TB02-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-B-6 MS	ARTESIA-MW21-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-B-6 MSD	ARTESIA-MW21-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-B-2	ARTESIA-MW33-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-3	ARTESIA-MW29-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-B-4	ARTESIA-MW35-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-5	ARTESIA-MW28-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-7	ARTESIA-MW22-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-8	ARTESIA-MW31-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-9	ARTESIA-MW25-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-10	ARTESIA-MW18-042 32019	8260B	T	20 mL	20 mL	2 SU			
600-184182-C-11	ARTESIA-MD18-042 32019	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00250	VOALCSGASPT 00323	VOALCSPT2 00138	VOASS50PPM 00288	VOASTDGASPT 00323	VOASTDPT2 00138
BFB 600-264044/1		8260B							
CCVIS 600-264044/2		8260B		5 uL				4 uL	4 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

Page 1 of 2

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Batch Number: 264044 Batch Start Date: 05/01/19 08:29 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00250	VOALCSGASPT 00323	VOALCSPT2 00138	VOASS50PPM 00288	VOASTDGASPT 00323	VOASTDPT2 00138
LCS 600-264044/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCSD 600-264044/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-264044/6		8260B		5 uL			5 uL		
600-184182-C-6	ARTESIA-MW21-042 32019	8260B	T	5 uL			5 uL		
600-184182-B-1	ARTESIA-TB02-042 32019	8260B	T	5 uL			5 uL		
600-184182-B-6 MS	ARTESIA-MW21-042 32019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-184182-B-6 MSD	ARTESIA-MW21-042 32019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-184182-B-2	ARTESIA-MW33-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-3	ARTESIA-MW29-042 32019	8260B	T	5 uL			5 uL		
600-184182-B-4	ARTESIA-MW35-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-5	ARTESIA-MW28-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-7	ARTESIA-MW22-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-8	ARTESIA-MW31-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-9	ARTESIA-MW25-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-10	ARTESIA-MW18-042 32019	8260B	T	5 uL			5 uL		
600-184182-C-11	ARTESIA-MD18-042 32019	8260B	T	5 uL			5 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

Page 2 of 2

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-184182-1

SDG No.: _____

Batch Number: 264156 Batch Start Date: 05/02/19 08:04 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00281	EOxideLcs 00150	EOxideStd 00150
BFB 600-264156/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-264156/2		8260B		20 mL	20 mL				4 uL
LCS 600-264156/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-264156/4		8260B		20 mL	20 mL			4 uL	
MB 600-264156/6		8260B		20 mL	20 mL				
600-184182-C-12	ARTESIA-MW15-042 32019	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00250	VOALCSGASPT 00324	VOALCSPT2 00138	VOASS50PPM 00288	VOASTDGASPT 00324	VOASTDPT2 00138
BFB 600-264156/1		8260B							
CCVIS 600-264156/2		8260B		5 uL				4 uL	4 uL
LCS 600-264156/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCSD 600-264156/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-264156/6		8260B		5 uL			5 uL		
600-184182-C-12	ARTESIA-MW15-042 32019	8260B	T	5 uL			5 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job Number: 600-184182-1

SDG No.: _____

Project: Dowell - Artesia 04/23/19

Client Sample ID	Lab Sample ID
ARTESIA-MW29-04232019	600-184182-3
ARTESIA-MW28-04232019	600-184182-5
ARTESIA-MW21-04232019	600-184182-6
ARTESIA-MW22-04232019	600-184182-7
ARTESIA-MW31-04232019	600-184182-8
ARTESIA-MW25-04232019	600-184182-9
ARTESIA-MW18-04232019	600-184182-10
ARTESIA-MD18-04232019	600-184182-11

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW29-04232019

Lab Sample ID: 600-184182-3

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 08:20

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW28-04232019

Lab Sample ID: 600-184182-5

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 08:50

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW21-04232019

Lab Sample ID: 600-184182-6

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 09:00

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0154	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW22-04232019

Lab Sample ID: 600-184182-7

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 09:40

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW31-04232019

Lab Sample ID: 600-184182-8

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 09:25

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0337	0.0500	0.0116	mg/L	J		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW25-04232019

Lab Sample ID: 600-184182-9

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 09:55

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.244	0.0500	0.0116	mg/L			1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MW18-04232019

Lab Sample ID: 600-184182-10

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 10:10

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0116	0.0500	0.0116	mg/L	U		1	6020

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: ARTESIA-MD18-04232019

Lab Sample ID: 600-184182-11

Lab Name: Eurofins TestAmerica, Corpus Christi

Job No.: 600-184182-1

SDG ID.:

Matrix: Water

Date Sampled: 04/23/2019 10:15

Reporting Basis: WET

Date Received: 04/24/2019 10:21

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.0276	0.0500	0.0116	mg/L	J		1	6020

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Corpus Chris Job No.: 600-184182-1

SDG No.: _____

ICV Source: ICV_ESI_00083 Concentration Units: ug/L

CCV Source: TS_MS250_00051

Analyte	ICV 560-161978/10 04/29/2019 13:52				CCV 560-161978/25 04/29/2019 15:38				CCV 560-161978/38 04/29/2019 16:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	2507		2500	100	2543		2500	102	2514		2500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184182-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 560-161978/14 04/29/2019 14:32		CCB 560-161978/27 04/29/2019 15:48		CCB 560-161978/40 04/29/2019 17:03			
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	50.0	11.6	U	11.6	U	11.6	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job No.: 600-184182-1

SDG No.: _____

Concentration Units: mg/L Lab Sample ID: MB 560-161936/1-A

Instrument Code: Micpms Batch No.: 161978

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.0116	U		6020

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Corpus Ch Job No.: 600-184182-1
 SDG No.: _____
 Lab Sample ID: ICSA 560-161978/11 Instrument ID: Micpms
 Lab File ID: 013SMPL.D ICS Source: INT-A_00133
 Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese, Dissolved		2.60	
<i>Aluminum</i>	<i>250000</i>	<i>217800</i>	<i>87</i>
<i>Antimony</i>		<i>0.599</i>	
<i>Arsenic</i>		<i>2.41</i>	
<i>Barium</i>		<i>1.69</i>	
<i>Beryllium</i>		<i>0.0496</i>	
<i>Boron</i>		<i>-2.74</i>	
<i>Cadmium</i>		<i>0.481</i>	
<i>Calcium</i>	<i>250000</i>	<i>234100</i>	<i>94</i>
<i>Cobalt</i>		<i>0.561</i>	
<i>Copper</i>		<i>0.442</i>	
<i>Iron</i>	<i>100000</i>	<i>95200</i>	<i>95</i>
<i>Lead</i>		<i>0.562</i>	
<i>Lithium</i>		<i>-1.97</i>	
<i>Magnesium</i>	<i>250000</i>	<i>243200</i>	<i>97</i>
<i>Molybdenum</i>		<i>0.334</i>	
<i>Nickel</i>		<i>-0.707</i>	
<i>Phosphorus</i>		<i>-50.9</i>	
<i>Potassium</i>		<i>35.7</i>	
<i>Selenium</i>		<i>0.694</i>	
<i>Silicon</i>		<i>0.0000</i>	
<i>Silver</i>		<i>0.420</i>	
<i>Sodium</i>		<i>150</i>	
<i>Strontium</i>		<i>4.18</i>	
<i>Thallium</i>		<i>-0.0546</i>	
<i>Tin</i>		<i>-38.7</i>	
<i>Titanium</i>		<i>0.407</i>	
<i>Uranium</i>		<i>0.117</i>	
<i>Zinc</i>		<i>3.29</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Corpus Ch

Job No.: 600-184182-1

SDG No.: _____

Lab Sample ID: ICSAB 560-161978/12

Instrument ID: Micpms

Lab File ID: 014SMPL.D

ICS Source: INT-AB_00139

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Manganese, Dissolved	250	267	107
<i>Aluminum</i>	<i>125000</i>	<i>105100</i>	<i>84</i>
<i>Antimony</i>		<i>0.431</i>	
<i>Arsenic</i>		<i>2.90</i>	
<i>Barium</i>	<i>250</i>	<i>236</i>	<i>94</i>
<i>Beryllium</i>	<i>250</i>	<i>226</i>	<i>91</i>
<i>Boron</i>		<i>-9.46</i>	
<i>Cadmium</i>	<i>500</i>	<i>467</i>	<i>93</i>
<i>Calcium</i>	<i>125000</i>	<i>111100</i>	<i>89</i>
<i>Chromium</i>	<i>250</i>	<i>243</i>	<i>97</i>
<i>Cobalt</i>	<i>250</i>	<i>235</i>	<i>94</i>
<i>Copper</i>	<i>250</i>	<i>233</i>	<i>93</i>
<i>Iron</i>	<i>50000</i>	<i>46390</i>	<i>93</i>
<i>Lead</i>	<i>500</i>	<i>475</i>	<i>95</i>
<i>Lithium</i>		<i>-3.53</i>	
<i>Magnesium</i>	<i>125000</i>	<i>117300</i>	<i>94</i>
<i>Molybdenum</i>		<i>-0.798</i>	
<i>Nickel</i>	<i>500</i>	<i>457</i>	<i>91</i>
<i>Phosphorus</i>		<i>-73.3</i>	
<i>Potassium</i>		<i>7.53</i>	
<i>Selenium</i>		<i>-0.315</i>	
<i>Silicon</i>		<i>0.0000</i>	
<i>Silver</i>	<i>500</i>	<i>477</i>	<i>95</i>
<i>Sodium</i>		<i>66.8</i>	
<i>Strontium</i>		<i>2.21</i>	
<i>Thallium</i>		<i>-0.241</i>	
<i>Tin</i>		<i>-31.9</i>	
<i>Titanium</i>		<i>0.106</i>	
<i>Uranium</i>		<i>0.0267</i>	
<i>Vanadium</i>	<i>250</i>	<i>249</i>	<i>100</i>
<i>Zinc</i>	<i>500</i>	<i>457</i>	<i>91</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 560-161936/2-A

Lab Name: Eurofins TestAmerica, Corpus Chri

Job No.: 600-184182-1

Sample Matrix: Water

LCS Source: ESI-spkA_00021

Analyte	Water (mg/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	2.50	2.397		96	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Corpus Ch Job Number: 600-184182-1
SDG Number: _____
Matrix: Water Instrument ID: Micpms
Method: 6020 MDL Date: 05/02/2011 10:33
Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Manganese, Dissolved	55	50	11.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Corpus Ch Job Number: 600-184182-1
SDG Number: _____
Matrix: Water Instrument ID: Micpms
Method: 6020 XMDL Date: 05/02/2011 10:34

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Manganese, Dissolved	55	50	11.6

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Corpus C

Job No: 600-184182-1

SDG No.: _____

Instrument ID: Micpms

Date: 05/12/2011 15:16

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Manganese, Dissolved	0.15	50000	6020

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Chr Job No.: 600-184182-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 560-161936/1-A	04/29/2019 10:28	161936		50	50
LCS 560-161936/2-A	04/29/2019 10:28	161936		50	50
600-184182-3	04/29/2019 10:28	161936		50	50
600-184182-5	04/29/2019 10:28	161936		50	50
600-184182-6	04/29/2019 10:28	161936		50	50
600-184182-7	04/29/2019 10:28	161936		50	50
600-184182-8	04/29/2019 10:28	161936		50	50
600-184182-9	04/29/2019 10:28	161936		50	50
600-184182-10	04/29/2019 10:28	161936		50	50
600-184182-11	04/29/2019 10:28	161936		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184182-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																	
				M n																	
CALIBSTD 560-161978/1 IC	1		13:07	X																	
IC 560-161978/2	1		13:12	X																	
IC 560-161978/3	1		13:17	X																	
IC 560-161978/4	1		13:22	X																	
IC 560-161978/5	1		13:26	X																	
IC 560-161978/6	1		13:32	X																	
CALIBSTD 560-161978/7 IC	1		13:38	X																	
ICV 560-161978/8			13:42																		
ZZZZZZ			13:47																		
ICV 560-161978/10	1		13:52	X																	
ICSA 560-161978/11	1		13:57	X																	
ICSAB 560-161978/12	1		14:02	X																	
ZZZZZZ			14:27																		
ICB 560-161978/14	1		14:32	X																	
ZZZZZZ			14:37																		
LCS 560-161936/2-A	1	T	14:42	X																	
MB 560-161936/1-A	1	T	14:47	X																	
ZZZZZZ			14:52																		
ZZZZZZ			14:57																		
ZZZZZZ			15:02																		
ZZZZZZ			15:08																		
600-184182-3	1	D	15:13	X																	
600-184182-5	1	D	15:17	X																	
ZZZZZZ			15:23																		
CCV 560-161978/25	1		15:38	X																	
ZZZZZZ			15:43																		
CCB 560-161978/27	1		15:48	X																	
ZZZZZZ			15:53																		
ZZZZZZ			15:58																		
600-184182-6	1	D	16:03	X																	
600-184182-7	1	D	16:08	X																	
600-184182-8	1	D	16:13	X																	
600-184182-9	1	D	16:18	X																	
600-184182-10	1	D	16:23	X																	
600-184182-11	1	D	16:28	X																	
ZZZZZZ			16:32																		
ZZZZZZ			16:37																		
CCV 560-161978/38	1		16:53	X																	
ZZZZZZ			16:58																		
CCB 560-161978/40	1		17:03	X																	
ZZZZZZ			17:08																		
ZZZZZZ			17:12																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184182-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
ZZZZZZ			17:22																										
ZZZZZZ			17:28																										
ZZZZZZ			17:33																										
ZZZZZZ			17:38																										
ZZZZZZ			17:43																										
ZZZZZZ			17:48																										
ZZZZZZ			17:53																										
CCV 560-161978/50			18:08																										
ZZZZZZ			18:12																										
CCB 560-161978/52			18:17																										
ZZZZZZ			18:22																										
ZZZZZZ			18:27																										
ZZZZZZ			18:32																										
ZZZZZZ			18:42																										
ZZZZZZ			18:47																										
ZZZZZZ			18:52																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:07																										
CCV 560-161978/62			19:23																										
ZZZZZZ			19:28																										
CCB 560-161978/64			19:33																										
ZZZZZZ			19:38																										
ZZZZZZ			19:42																										
ZZZZZZ			19:47																										
ZZZZZZ			19:52																										
ZZZZZZ			19:57																										
ZZZZZZ			20:02																										
ZZZZZZ			20:07																										
ZZZZZZ			20:12																										
ZZZZZZ			20:17																										
ZZZZZZ			20:22																										
CCV 560-161978/75			20:37																										
ZZZZZZ			20:41																										
CCB 560-161978/77			20:46																										
ZZZZZZ			20:51																										
ZZZZZZ			20:56																										
ZZZZZZ			21:01																										
ZZZZZZ			21:06																										
ZZZZZZ			21:11																										
CCV 560-161978/83			21:31																										
ZZZZZZ			21:36																										

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Corpus Christi Job No.: 600-184182-1

SDG No.: _____

Instrument ID: Micpms Analysis Method: 6020

Start Date: 04/29/2019 13:07 End Date: 04/29/2019 21:41

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
CCB 560-161978/85			21:41																										

Prep Types: _____
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184182-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Sc/3	Q	Element	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100			
IC 560-161978/2	13:12	100		105		100		100			
IC 560-161978/3	13:17	100		109		100		99			
IC 560-161978/4	13:22	101		108		103		101			
IC 560-161978/5	13:26	94		110		103		99			
IC 560-161978/6	13:32	91		124		102		98			
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100			
ICV 560-161978/10	13:52	95		93		103		94			
ICSA 560-161978/11	13:57	93		89		95		91		119	
ICSAB 560-161978/12	14:02	91		91		100		91			
ICB 560-161978/14	14:32	95		93		106		94			
LCS 560-161936/2-A	14:42	90		93		103		94			
MB 560-161936/1-A	14:47	94		94		104		92			
600-184182-3	15:13	89		95		100		86			
600-184182-5	15:17	90		95		99		88			
CCV 560-161978/25	15:38	93		99		97		92			
CCB 560-161978/27	15:48	92		98		103		93			
600-184182-6	16:03	92		98		96		91			
600-184182-7	16:08	89		97		96		90			
600-184182-8	16:13	89		97		96		90			
600-184182-9	16:18	89		96		95		89			
600-184182-10	16:23	85		93		93		90			
600-184182-11	16:28	82		94		96		88			
CCV 560-161978/38	16:53	88		98		92		90			
CCB 560-161978/40	17:03	95		98		91		91			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184182-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/1	Q	Element Ge/2	Q	Element Ge/3	Q	Element Y-89/1	Q	Element Y-89/2	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100		100	
IC 560-161978/2	13:12	103		102		100		101		99	
IC 560-161978/3	13:17	108		102		102		102		101	
IC 560-161978/4	13:22	114		108		105		104		104	
IC 560-161978/5	13:26	120		113		108		104		106	
IC 560-161978/6	13:32	140		116		109		109		104	
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100		100	
ICV 560-161978/10	13:52	109		113		106		99		102	
ICSA 560-161978/11	13:57					115		95		95	
ICSAB 560-161978/12	14:02	108		110		109		97		101	
ICB 560-161978/14	14:32	99		107		100		100		107	
LCS 560-161936/2-A	14:42	105		109		102		97		106	
MB 560-161936/1-A	14:47	103		107		100		100		107	
600-184182-3	15:13	103		100		95		96		100	
600-184182-5	15:17	103		98		98		95		98	
CCV 560-161978/25	15:38	115		106		106		102		101	
CCB 560-161978/27	15:48	106		106		100		103		107	
600-184182-6	16:03	107		97		100		97		98	
600-184182-7	16:08	106		98		97		97		97	
600-184182-8	16:13	101		97		99		95		98	
600-184182-9	16:18	102		95		101		94		95	
600-184182-10	16:23	100		93		99		90		96	
600-184182-11	16:28	101		96		100		94		96	
CCV 560-161978/38	16:53	115		102		110		100		96	
CCB 560-161978/40	17:03	105		96		101		99		97	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184182-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Y-89/3	Q	Element In/1	Q	Element In/2	Q	Element In/3	Q	Element Tb	Q
CALIBSTD 560-161978/1 IC	13:07	100		100		100		100		100	
IC 560-161978/2	13:12	99		95		98		98		99	
IC 560-161978/3	13:17	99		94		99		98		100	
IC 560-161978/4	13:22	101		95		104		101		103	
IC 560-161978/5	13:26	98		96		104		98		101	
IC 560-161978/6	13:32	97		89		104		95		100	
CALIBSTD 560-161978/7 IC	13:38	100		100		100		100		100	
ICV 560-161978/10	13:52	95		109		101		94		95	
ICSA 560-161978/11	13:57	93		102		94		90		94	
ICSAB 560-161978/12	14:02	93		103		98		91		95	
ICB 560-161978/14	14:32	97		109		107		96		97	
LCS 560-161936/2-A	14:42	96		106		102		95		97	
MB 560-161936/1-A	14:47	95		113		106		95		97	
600-184182-3	15:13	89		98		95		86		91	
600-184182-5	15:17	91		95		94		88		92	
CCV 560-161978/25	15:38	92		110		100		92		94	
CCB 560-161978/27	15:48	95		113		107		94		96	
600-184182-6	16:03	92		97		94		89		93	
600-184182-7	16:08	90		95		92		88		91	
600-184182-8	16:13	91		95		93		88		92	
600-184182-9	16:18	92		93		90		88		92	
600-184182-10	16:23	92		90		91		88		92	
600-184182-11	16:28	90		91		92		88		92	
CCV 560-161978/38	16:53	95		107		96		92		93	
CCB 560-161978/40	17:03	93		106		96		94		93	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Corpus Chri Job No.: 600-184182-1

SDG No.: _____

ICP-MS Instrument ID: Micpms Start Date: 04/29/2019 End Date: 04/29/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
CALIBSTD 560-161978/1 IC	13:07	100		100							
IC 560-161978/2	13:12	99		99							
IC 560-161978/3	13:17	99		99							
IC 560-161978/4	13:22	103		102							
IC 560-161978/5	13:26	101		100							
IC 560-161978/6	13:32	100		93							
CALIBSTD 560-161978/7 IC	13:38	100		100							
ICV 560-161978/10	13:52	95		94							
ICSA 560-161978/11	13:57	94		90							
ICSAB 560-161978/12	14:02	95		92							
ICB 560-161978/14	14:32	96		96							
LCS 560-161936/2-A	14:42	97		95							
MB 560-161936/1-A	14:47	95		97							
600-184182-3	15:13	90		84							
600-184182-5	15:17	93		86							
CCV 560-161978/25	15:38	92		92							
CCB 560-161978/27	15:48	96		95							
600-184182-6	16:03	94		86							
600-184182-7	16:08	92		84							
600-184182-8	16:13	92		87							
600-184182-9	16:18	93		86							
600-184182-10	16:23	91		84							
600-184182-11	16:28	93		86							
CCV 560-161978/38	16:53	95		92							
CCB 560-161978/40	17:03	94		94							

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Corpus C Job No.: 600-184182-1

SDG No.: _____

Batch Number: 161936Batch Start Date: 04/29/19 08:45Batch Analyst: Martinez, Andrea KBatch Method: 3010ABatch End Date: 04/29/19 10:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ESI-spkA 00021	ESI-spkB 00019	AnalysisComment
MB 560-161936/1		3010A, 6020		<2 SU	50 mL	50 mL			
LCS 560-161936/2		3010A, 6020		<2 SU	50 mL	50 mL	0.5 mL	0.5 mL	
600-184182-A-3	ARTESIA-MW29-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-5	ARTESIA-MW28-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-6	ARTESIA-MW21-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-7	ARTESIA-MW22-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-8	ARTESIA-MW31-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-9	ARTESIA-MW25-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-10	ARTESIA-MW18-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020
600-184182-A-11	ARTESIA-MD18-042 32019	3010A, 6020	D	<2 SU	50 mL	50 mL			6020

Batch Notes	
Balance ID	B-11
Temperature - Corrected - End	95.6 Degrees C
Temperature - Corrected - Start	95.6 Degrees C
Digestion End Time	04/29/2019 10:50
Digestion Start Time	04/28/2019 08:45
Digestion Unit ID	2
Hydrochloric Acid ID	0000201226
Nitric Acid ID	0000203839
pH Indicator ID	HC730269
Pipette/Syringe/Dispenser ID	172
Thermometer ID	250
Digestion Tube/Cup ID	18012117
Temperature - Uncorrected - End	95.0 Degrees C
Temperature - Uncorrected - Start	95.0 Degrees C

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Corpus C Job No.: 600-184182-1

SDG No.: _____

Batch Number: 161936 Batch Start Date: 04/29/19 08:45 Batch Analyst: Martinez, Andrea K

Batch Method: 3010A Batch End Date: 04/29/19 10:50

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Chain of Custody Record



Client Information		Lab PM		Carrier Tracking No(s)		COC No:	
Aleeca Forsberg		McDaniel, Bethany A		Felix		600-67988-18594.5	
Phone: 505 9181800		E-Mail: bethany.mcdaniel@testamericainc.com		4938 8201 6662		Page: 1 of 3	
Company: CH2M Hill, Inc.				4938 8201 6662		Job #:	
Address: 3721 Rutledge Rd. NE Suite B-1		City: Albuquerque		State: NM, 87109		Phone: 505-855-5239(Tel)	
Email: aleeca.forsberg@jacobs.com		Project Name: Dowell - Artesia Groundwater		Site:		Due Date Requested:	
PO #: D3151100 B.CS.TPEAR.19-05-02		WO #: 684703.18.05.02		Project #: 60004334		SSOW#:	
TAT Requested (days):		STD		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=oil, A=air)	
Sample Identification		Sample Date		Sample Time		Matrix	
ARTESIA - T802-04232019		4/23/19		0745		W	
ARTESIA - MW33-04232019		4/23/19		0805		W	
ARTESIA - MW29-04232019		4/23/19		0820		W	
ARTESIA - MW35-04232019		4/23/19		0835		W	
ARTESIA - MW28-04232019		4/23/19		0850		W	
ARTESIA - MW21-04232019		4/23/19		0900		W	
ARTESIA - MW22-04232019		4/23/19		0940		W	
ARTESIA - MW31-04232019		4/23/19		0925		W	
ARTESIA - MW25-04232019		4/23/19		0955		W	
ARTESIA - MW18-04232019		4/23/19		1010		W	
ARTESIA - MD18-04232019		4/23/19		1015		W	
Possible Hazard Identification		Poison B		Unknown		Radiological	
Non-Hazard		Flammable		Skin Irritant		Other (specify)	
Deliverable Requested: I, II, III, IV, Other (specify)		Level 3		Return To Client		Disposal By Lab	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:		Date/Time: 4/23/19		Company: Jacobs		Received by: [Signature]	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact:		Yes		No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks:							

Chain of Custody Record

Client Information Client Contact: Alecia Forsberg Company: CH2M Hill, Inc. Address: 3721 Rulledge Rd. NE Suite B-1 City: Albuquerque State, Zip: NM, 87109 Phone: 505-855-5239(Tel) Email: alecia.forsberg@jacobs.com Project Name: Dowell - Artesia Groundwater Site:		Sampler: Forsberg/Alecia Lab PM: McDaniel, Bethany A Phone: 505 418 1800 E-Mail: bethany.mcdaniel@testamericainc.com		Carrier Tracking No(s): Fedex 4938-9201 6662 COC No: 600-67988-18594.5 Page: 2 of 2 Job #:						
Due Date Requested: TAT Requested (days): STD PO #: D3151100 B.CS.TPE.AR.19-05-02 WO #: 684703.18.05.02 Project #: 60004334 SSOW#:		Analysis Requested 8260B_LL - NAP, Benzene, 1,1-DCE, 1,1-DCA, and PCE 6020 - Manganese, Dissolved 300.0 - Anions, IC (Sulfate) 8260B_LL - 1,1-DCE and PCE only Total Number of Containers:								
Sample Identification ARTESIA-AW15-04272019		Sample Date 7/27/19	Sample Time 1105	Sample Type (C=Comp, G=grab) G	Matrix (W=water, S=solid, O=water, BT=Issue A=Air) W	Preservation Code: A D N A	Field Filtered Sample (Yes or No) N N X	Perform MS/MSD (Yes or No) X	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	Special Instructions/Note: X
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify) Level 3										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/OC Requirements:										
Empty Kit Relinquished by:										
Relinquished by: [Signature] Date/Time: 7/27/19 Company: JACOBS Relinquished by: [Signature] Date/Time: 7/27/19 Company: JACOBS Relinquished by: [Signature] Date/Time: 7/27/19 Company: JACOBS										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:										
Cooler Temperature(s) °C and Other Remarks:										

Sample Receipt Checklist

Loc: 600

184182

19 APR 24 10:21

Date/Time Received:

JOB NUMBER:

CLIENT:

CH2m Hill

UNPACKED BY:

CARRIER/DRIVER:

Fedex

Custody Seal Present:



YES

☐ NO

Number of Coolers Received:

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
BW	(Y) / N	(Y) / N	1.3	IR676	-0.2	1.1
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?



YES

☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:



NO

☐ YES

Base samples are >pH 12:

☐ YES☐ NO

Acid preserved are <pH 2:

☐ YES☐ NO

pH paper Lot #

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

YES

NO

COMMENTS:

J.S. 4-24-19



600-184182 Wi yt

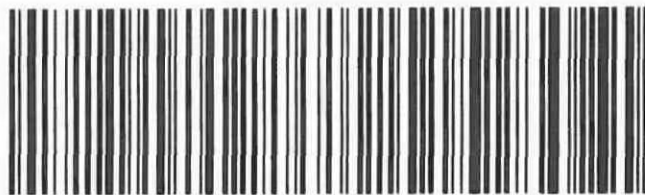
FedEx

TRK# 4931 8201 6662
0221

WED - 24 APR 10:30A
PRIORITY OVERNIGHT

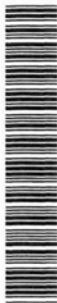
AB LKSA

77040
TX-US IAH



#237218 04/23 565J1/D7E5/2

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:	Lab PM:	Carrier Tracking No(s):		COC No:
Client Contact: Shipping/Receiving		Phone:	McDaniel, Bethany A	State of Origin: Oklahoma		600-39050.1
Company: TestAmerica Laboratories, Inc.		E-Mail: bethany.mcdaniel@testamericainc.com		Page: Page 1 of 1		
Address: 1733 N. Padre Island Drive,		Accreditations Required (See note):		Job #:		600-184182-1
City: Corpus Christi		Due Date Requested: 5/6/2019		Analysis Requested		Preservation Codes:
State, Zip: TX, 78408		TAT Requested (days):		6020/FIELD_FLTRD 6020_FF - Metals, Diss Mn		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:
Phone: 361-289-2673(Tel) 361-289-2471(Fax)		PO #:		Perform MS/MSD (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Email:		WO #:		Field Filtered Sample (Yes or No)		
Project Name: Dowell - Artesia 04/23/19		Project #: 60004334		6020/FIELD_FLTRD 6020_FF - Metals, Diss Mn		
Site:		SSOW#:		Total Number of Containers		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=Al)	Special Instructions/Note:	
ARTESIA-MW29-04232019 (600-184182-3)	4/23/19	08:20 Central		Water		1
ARTESIA-MW28-04232019 (600-184182-5)	4/23/19	08:50 Central		Water		1
ARTESIA-MW21-04232019 (600-184182-6)	4/23/19	09:00 Central		Water		1
ARTESIA-MW22-04232019 (600-184182-7)	4/23/19	09:40 Central		Water		1
ARTESIA-MW31-04232019 (600-184182-8)	4/23/19	09:25 Central		Water		1
ARTESIA-MW25-04232019 (600-184182-9)	4/23/19	09:55 Central		Water		1
ARTESIA-MW18-04232019 (600-184182-10)	4/23/19	10:10 Central		Water		1
ARTESIA-MD18-04232019 (600-184182-11)	4/23/19	10:15 Central		Water		1

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: *[Signature]* Date: *4/25/19 10:00* Company: *[Signature]*

Relinquished by: *[Signature]* Date/Time: *4-26-19 9:20* Company: *[Signature]*

Relinquished by: *[Signature]* Date/Time: *[Signature]* Company: *[Signature]*

Relinquished by: *[Signature]* Date/Time: *[Signature]* Company: *[Signature]*

Custody Seals Intact: *[Signature]* Custody Seal No.: *12-10 -0.4/-0.3 CP*

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-184182-1

Login Number: 184182
List Number: 1
Creator: Snow, Tiffany B

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 600-184182-1

Login Number: 184182
List Number: 2
Creator: Medellin, Alyssa L

List Source: Eurofins TestAmerica, Corpus Christi
List Creation: 04/26/19 10:43 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

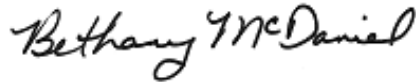
ANALYTICAL REPORT

Job Number: 600-191341-1

Job Description: Dowell - Artesia Waters 08/28-08/29

For:

Jacobs Engineering Group, Inc.
3721 Rutledge Rd NE
Suite B-1
Albuquerque, NM 87109
Attention: Aleeca Forsberg



Approved for release.
Bethany A McDaniel
Senior Project Manager
9/11/2019 10:43 AM

Bethany A McDaniel, Senior Project Manager
6310 Rothway Street, Houston, TX, 77040
(713)358-2005
bethany.mcdaniel@testamericainc.com
09/11/2019

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
600-191341-1

Comments

No additional comments.

Receipt

The samples were received on 9/4/2019 10:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

GC/MS VOA

Method(s) 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Artesia - MW38 - 082819 (600-191341-1) and Artesia - MW37 - 082819 (600-191341-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Client Sample ID: Artesia - MW38 - 082819

Lab Sample ID: 600-191341-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0145		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.00980		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.0127		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00903		0.00100	0.000333	mg/L	1		8260B	Total/NA
1,1-Dichloroethane - DL	0.0699		0.00500	0.000840	mg/L	5		8260B	Total/NA
Sulfate	2340		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia - MW37 - 082819

Lab Sample ID: 600-191341-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0125		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.00569		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.00755		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0101		0.00100	0.000333	mg/L	1		8260B	Total/NA
1,1-Dichloroethane - DL	0.241		0.0200	0.00336	mg/L	20		8260B	Total/NA
Sulfate	1480		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia - MW36 - 082819

Lab Sample ID: 600-191341-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0412		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00193		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.0292		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.00696		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000630	J	0.00100	0.000333	mg/L	1		8260B	Total/NA
Sulfate	1680		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia - MW36 - 082819 FD

Lab Sample ID: 600-191341-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0278		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00215		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.0162		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.00432		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000375	J	0.00100	0.000333	mg/L	1		8260B	Total/NA
Sulfate	1850		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia - TB01 - 082819

Lab Sample ID: 600-191341-5

No Detections.

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Client Sample ID: Artesia - MW38 - 082819

Lab Sample ID: 600-191341-1

Date Collected: 08/28/19 17:21

Matrix: Water

Date Received: 09/04/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0145		0.00100	0.000192	mg/L			09/10/19 10:53	1
Benzene	0.00980		0.00100	0.000176	mg/L			09/10/19 10:53	1
Naphthalene	0.0127		0.00200	0.000129	mg/L			09/10/19 10:53	1
Tetrachloroethene	0.00903		0.00100	0.000333	mg/L			09/10/19 10:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134					09/10/19 10:53	1
4-Bromofluorobenzene	73		67 - 139					09/10/19 10:53	1
Dibromofluoromethane	89		62 - 130					09/10/19 10:53	1
Toluene-d8 (Surr)	104		70 - 130					09/10/19 10:53	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0699		0.00500	0.000840	mg/L			09/10/19 12:34	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					09/10/19 12:34	5
4-Bromofluorobenzene	83		67 - 139					09/10/19 12:34	5
Dibromofluoromethane	98		62 - 130					09/10/19 12:34	5
Toluene-d8 (Surr)	102		70 - 130					09/10/19 12:34	5

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2340		50.0	9.57	mg/L			09/06/19 22:49	100

Client Sample ID: Artesia - MW37 - 082819

Lab Sample ID: 600-191341-2

Date Collected: 08/28/19 19:37

Matrix: Water

Date Received: 09/04/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0125		0.00100	0.000192	mg/L			09/10/19 12:08	1
Benzene	0.00569		0.00100	0.000176	mg/L			09/10/19 12:08	1
Naphthalene	0.00755		0.00200	0.000129	mg/L			09/10/19 12:08	1
Tetrachloroethene	0.0101		0.00100	0.000333	mg/L			09/10/19 12:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					09/10/19 12:08	1
4-Bromofluorobenzene	78		67 - 139					09/10/19 12:08	1
Dibromofluoromethane	91		62 - 130					09/10/19 12:08	1
Toluene-d8 (Surr)	100		70 - 130					09/10/19 12:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.241		0.0200	0.00336	mg/L			09/10/19 14:39	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					09/10/19 14:39	20
4-Bromofluorobenzene	75		67 - 139					09/10/19 14:39	20
Dibromofluoromethane	96		62 - 130					09/10/19 14:39	20
Toluene-d8 (Surr)	102		70 - 130					09/10/19 14:39	20

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Client Sample ID: Artesia - MW37 - 082819

Lab Sample ID: 600-191341-2

Date Collected: 08/28/19 19:37

Matrix: Water

Date Received: 09/04/19 10:34

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1480		50.0	9.57	mg/L			09/06/19 23:09	100

Client Sample ID: Artesia - MW36 - 082819

Lab Sample ID: 600-191341-3

Date Collected: 08/29/19 11:40

Matrix: Water

Date Received: 09/04/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0412		0.00100	0.000168	mg/L			09/10/19 11:18	1
1,1-Dichloroethene	0.00193		0.00100	0.000192	mg/L			09/10/19 11:18	1
Benzene	0.0292		0.00100	0.000176	mg/L			09/10/19 11:18	1
Naphthalene	0.00696		0.00200	0.000129	mg/L			09/10/19 11:18	1
Tetrachloroethene	0.000630	J	0.00100	0.000333	mg/L			09/10/19 11:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		09/10/19 11:18	1
4-Bromofluorobenzene	76		67 - 139		09/10/19 11:18	1
Dibromofluoromethane	93		62 - 130		09/10/19 11:18	1
Toluene-d8 (Surr)	98		70 - 130		09/10/19 11:18	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1680		50.0	9.57	mg/L			09/06/19 23:29	100

Client Sample ID: Artesia - MW36 - 082819 FD

Lab Sample ID: 600-191341-4

Date Collected: 08/29/19 11:45

Matrix: Water

Date Received: 09/04/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0278		0.00100	0.000168	mg/L			09/10/19 11:43	1
1,1-Dichloroethene	0.00215		0.00100	0.000192	mg/L			09/10/19 11:43	1
Benzene	0.0162		0.00100	0.000176	mg/L			09/10/19 11:43	1
Naphthalene	0.00432		0.00200	0.000129	mg/L			09/10/19 11:43	1
Tetrachloroethene	0.000375	J	0.00100	0.000333	mg/L			09/10/19 11:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		09/10/19 11:43	1
4-Bromofluorobenzene	80		67 - 139		09/10/19 11:43	1
Dibromofluoromethane	93		62 - 130		09/10/19 11:43	1
Toluene-d8 (Surr)	101		70 - 130		09/10/19 11:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1850		50.0	9.57	mg/L			09/07/19 00:29	100

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Client Sample ID: Artesia - TB01 - 082819

Lab Sample ID: 600-191341-5

Date Collected: 08/28/19 08:00

Matrix: Water

Date Received: 09/04/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			09/10/19 10:29	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			09/10/19 10:29	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/10/19 10:29	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			09/10/19 10:29	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			09/10/19 10:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		09/10/19 10:29	1
4-Bromofluorobenzene	82		67 - 139		09/10/19 10:29	1
Dibromofluoromethane	94		62 - 130		09/10/19 10:29	1
Toluene-d8 (Surr)	96		70 - 130		09/10/19 10:29	1

Default Detection Limits

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units
1,1-Dichloroethane	0.00100	0.000168	mg/L
1,1-Dichloroethene	0.00100	0.000192	mg/L
Benzene	0.00100	0.000176	mg/L
Naphthalene	0.00200	0.000129	mg/L
Tetrachloroethene	0.00100	0.000333	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL	MDL	Units
Sulfate	0.500	0.0957	mg/L

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-191341-1 - DL	Artesia - MW38 - 082819	104	83	98	102
600-191341-1	Artesia - MW38 - 082819	96	73	89	104
600-191341-2	Artesia - MW37 - 082819	97	78	91	100
600-191341-2 - DL	Artesia - MW37 - 082819	101	75	96	102
600-191341-3	Artesia - MW36 - 082819	99	76	93	98
600-191341-4	Artesia - MW36 - 082819 FD	99	80	93	101
600-191341-5	Artesia - TB01 - 082819	98	82	94	96
LCS 600-274277/3	Lab Control Sample	76	77	79	103
LCSD 600-274277/4	Lab Control Sample Dup	80	79	76	107
MB 600-274277/6	Method Blank	96	81	86	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-274277/6

Matrix: Water

Analysis Batch: 274277

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			09/10/19 10:04	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			09/10/19 10:04	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			09/10/19 10:04	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			09/10/19 10:04	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			09/10/19 10:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		09/10/19 10:04	1
4-Bromofluorobenzene	81		67 - 139		09/10/19 10:04	1
Dibromofluoromethane	86		62 - 130		09/10/19 10:04	1
Toluene-d8 (Surr)	100		70 - 130		09/10/19 10:04	1

Lab Sample ID: LCS 600-274277/3

Matrix: Water

Analysis Batch: 274277

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.01041		mg/L		104	70 - 140
1,1-Dichloroethene	0.0100	0.01267		mg/L		127	58 - 148
Benzene	0.0100	0.01083		mg/L		108	70 - 130
Naphthalene	0.0100	0.01119		mg/L		112	10 - 150
Tetrachloroethene	0.0100	0.009727		mg/L		97	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		50 - 134
4-Bromofluorobenzene	77		67 - 139
Dibromofluoromethane	79		62 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 600-274277/4

Matrix: Water

Analysis Batch: 274277

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.01093		mg/L		109	70 - 140	5	20
1,1-Dichloroethene	0.0100	0.01324		mg/L		132	58 - 148	4	20
Benzene	0.0100	0.01127		mg/L		113	70 - 130	4	20
Naphthalene	0.0100	0.01301		mg/L		130	10 - 150	15	20
Tetrachloroethene	0.0100	0.009682		mg/L		97	47 - 150	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		50 - 134
4-Bromofluorobenzene	79		67 - 139
Dibromofluoromethane	76		62 - 130
Toluene-d8 (Surr)	107		70 - 130

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-274043/4

Matrix: Water

Analysis Batch: 274043

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.0957	U	0.500	0.0957	mg/L			09/06/19 16:29	1

Lab Sample ID: LCS 600-274043/5

Matrix: Water

Analysis Batch: 274043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.50		mg/L		103	90 - 110

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

GC/MS VOA

Analysis Batch: 274277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191341-1	Artesia - MW38 - 082819	Total/NA	Water	8260B	
600-191341-1 - DL	Artesia - MW38 - 082819	Total/NA	Water	8260B	
600-191341-2	Artesia - MW37 - 082819	Total/NA	Water	8260B	
600-191341-2 - DL	Artesia - MW37 - 082819	Total/NA	Water	8260B	
600-191341-3	Artesia - MW36 - 082819	Total/NA	Water	8260B	
600-191341-4	Artesia - MW36 - 082819 FD	Total/NA	Water	8260B	
600-191341-5	Artesia - TB01 - 082819	Total/NA	Water	8260B	
MB 600-274277/6	Method Blank	Total/NA	Water	8260B	
LCS 600-274277/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-274277/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 274043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191341-1	Artesia - MW38 - 082819	Total/NA	Water	300.0	
600-191341-2	Artesia - MW37 - 082819	Total/NA	Water	300.0	
600-191341-3	Artesia - MW36 - 082819	Total/NA	Water	300.0	
600-191341-4	Artesia - MW36 - 082819 FD	Total/NA	Water	300.0	
MB 600-274043/4	Method Blank	Total/NA	Water	300.0	
LCS 600-274043/5	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Client Sample ID: Artesia - MW38 - 082819

Lab Sample ID: 600-191341-1

Date Collected: 08/28/19 17:21

Matrix: Water

Date Received: 09/04/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274277	09/10/19 10:53	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	5	274277	09/10/19 12:34	WS1	TAL HOU
Total/NA	Analysis	300.0		100	274043	09/06/19 22:49	SKR	TAL HOU

Client Sample ID: Artesia - MW37 - 082819

Lab Sample ID: 600-191341-2

Date Collected: 08/28/19 19:37

Matrix: Water

Date Received: 09/04/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274277	09/10/19 12:08	WS1	TAL HOU
Total/NA	Analysis	8260B	DL	20	274277	09/10/19 14:39	WS1	TAL HOU
Total/NA	Analysis	300.0		100	274043	09/06/19 23:09	SKR	TAL HOU

Client Sample ID: Artesia - MW36 - 082819

Lab Sample ID: 600-191341-3

Date Collected: 08/29/19 11:40

Matrix: Water

Date Received: 09/04/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274277	09/10/19 11:18	WS1	TAL HOU
Total/NA	Analysis	300.0		100	274043	09/06/19 23:29	SKR	TAL HOU

Client Sample ID: Artesia - MW36 - 082819 FD

Lab Sample ID: 600-191341-4

Date Collected: 08/29/19 11:45

Matrix: Water

Date Received: 09/04/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274277	09/10/19 11:43	WS1	TAL HOU
Total/NA	Analysis	300.0		100	274043	09/07/19 00:29	SKR	TAL HOU

Client Sample ID: Artesia - TB01 - 082819

Lab Sample ID: 600-191341-5

Date Collected: 08/28/19 08:00

Matrix: Water

Date Received: 09/04/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274277	09/10/19 10:29	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State Program	2018-052	08-31-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20
Utah	NELAP	TX000832019-5	07-31-20

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia Waters 08/28-08/29

Job ID: 600-191341-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-191341-1	Artesia - MW38 - 082819	Water	08/28/19 17:21	09/04/19 10:34	
600-191341-2	Artesia - MW37 - 082819	Water	08/28/19 19:37	09/04/19 10:34	
600-191341-3	Artesia - MW36 - 082819	Water	08/29/19 11:40	09/04/19 10:34	
600-191341-4	Artesia - MW36 - 082819 FD	Water	08/29/19 11:45	09/04/19 10:34	
600-191341-5	Artesia - TB01 - 082819	Water	08/28/19 08:00	09/04/19 10:34	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 269550Lab Sample ID: IC 600-269550/2 Client Sample ID: _____Date Analyzed: 07/17/19 09:37 Lab File ID: A19801a.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	4.35	Baseline	shenw	07/17/19 10:16
Vinyl chloride	4.54	Baseline	shenw	07/17/19 10:12
Ethylene oxide	4.91	Baseline	shenw	07/17/19 10:59
Bromomethane	4.99	Baseline	shenw	07/17/19 10:12
Chloroethane	5.15	Baseline	shenw	07/17/19 10:17
Dichlorofluoromethane	5.19	Baseline	shenw	07/17/19 10:12
Acetonitrile	5.73	Baseline	shenw	07/17/19 10:17
Isopropyl alcohol	5.74	Baseline	shenw	07/17/19 10:13
Acetone	5.81	Baseline	shenw	07/17/19 11:00
Iodomethane	6.25	Baseline	shenw	07/17/19 10:17
Methyl acetate	6.32	Baseline	shenw	07/17/19 10:17
1,1,2-Trichloro-1,2,2-trifluoroethane	6.34	Baseline	shenw	07/17/19 10:13
Carbon disulfide	6.56	Baseline	shenw	07/17/19 10:13
Propionitrile	7.07	Baseline	shenw	07/17/19 10:18
Vinyl acetate	7.13	Baseline	shenw	07/17/19 10:18
2-Butanone (MEK)	7.35	Baseline	shenw	07/17/19 10:13
Ethyl acetate	7.61	Baseline	shenw	07/17/19 10:18
Tetrahydrofuran	7.93	Baseline	shenw	07/17/19 10:18
1,2-Dichloroethane	8.19	Baseline	shenw	07/17/19 10:18
n-Heptane	8.93	Baseline	shenw	07/17/19 10:18
2-Nitropropane	9.06	Baseline	shenw	07/17/19 10:18
4-Methyl-2-pentanone (MIBK)	9.69	Baseline	shenw	07/17/19 10:14
trans-1,3-Dichloropropene	9.99	Baseline	shenw	07/17/19 10:18
1,2-Dibromo-3-Chloropropane		Invalid Compound ID	shenw	07/17/19 11:21
1,4-Dioxane		Invalid Compound ID	shenw	07/17/19 11:24
Hexachlorobutadiene		Invalid Compound ID	shenw	07/17/19 11:22
Isobutyl alcohol		Invalid Compound ID	shenw	07/17/19 11:23
n-Butanol		Invalid Compound ID	shenw	07/17/19 11:24
t-Butanol		Invalid Compound ID	shenw	07/17/19 11:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 269550Lab Sample ID: IC 600-269550/2 Client Sample ID: _____Date Analyzed: 07/17/19 09:37 Lab File ID: A19801a.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane	10.18	Baseline	shenw	07/17/19 10:18
Toluene-d8 (Surr)	10.27	Baseline	shenw	07/17/19 10:15
Ethyl methacrylate	10.32	Baseline	shenw	07/17/19 10:15
2-Hexanone	10.52	Baseline	shenw	07/17/19 10:15
n-Butyl acetate	10.75	Baseline	shenw	07/17/19 10:15
1,2-Dibromoethane	10.96	Baseline	shenw	07/17/19 10:15
m-Xylene & p-Xylene	12.14	Baseline	shenw	07/17/19 10:19
Bromoform	12.35	Baseline	shenw	07/17/19 10:19
Styrene	12.53	Baseline	shenw	07/17/19 10:15
Cyclohexanone	12.57	Baseline	shenw	07/17/19 10:19
1,1,2,2-Tetrachloroethane	12.59	Baseline	shenw	07/17/19 10:16
trans-1,4-Dichloro-2-butene	12.74	Baseline	shenw	07/17/19 11:01
Naphthalene	16.99	Baseline	shenw	07/17/19 11:21

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 269550Lab Sample ID: IC 600-269550/3 Client Sample ID: _____Date Analyzed: 07/17/19 10:02 Lab File ID: A19802.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	4.33	Baseline	shenw	07/17/19 10:34
Vinyl chloride	4.54	Baseline	shenw	07/17/19 10:34
Ethylene oxide	4.91	Baseline	shenw	07/17/19 10:35
Bromomethane	5.00	Baseline	shenw	07/17/19 10:34
Acetonitrile	5.70	Baseline	shenw	07/17/19 10:35
Isopropyl alcohol	5.74	Baseline	shenw	07/17/19 10:35
Acetone	5.81	Baseline	shenw	07/17/19 11:05
t-Butanol	6.21	Baseline	shenw	07/17/19 10:33
Iodomethane	6.26	Baseline	shenw	07/17/19 10:33
Methyl acetate	6.33	Baseline	shenw	07/17/19 10:35
Propionitrile	7.08	Baseline	shenw	07/17/19 10:33
2-Butanone (MEK)	7.37	Baseline	shenw	07/17/19 11:04
Ethyl acetate	7.62	Baseline	shenw	07/17/19 10:36
Isobutyl alcohol	7.74	Baseline	shenw	07/17/19 11:04
Tetrahydrofuran	7.94	Baseline	shenw	07/17/19 10:36
n-Butanol	8.27	Baseline	shenw	07/17/19 10:34
Ethyl acrylate	8.91	Baseline	shenw	07/17/19 10:37
1,4-Dioxane	9.17	Baseline	shenw	07/17/19 10:34
Ethyl methacrylate	10.30	Baseline	shenw	07/17/19 10:37
2-Hexanone	10.48	Baseline	shenw	07/17/19 10:34
Cyclohexanone	12.57	Baseline	shenw	07/17/19 10:37
1,1,2,2-Tetrachloroethane	12.61	Baseline	shenw	07/17/19 10:38
1,2,3-Trichloropropane	12.74	Baseline	shenw	07/17/19 10:38
trans-1,4-Dichloro-2-butene	12.75	Baseline	shenw	07/17/19 11:03
1,2-Dibromo-3-Chloropropane	15.20	Baseline	shenw	07/17/19 11:03
1,3,5-Trichlorobenzene	16.05	Baseline	shenw	07/17/19 10:38

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 269550Lab Sample ID: IC 600-269550/4 Client Sample ID: _____Date Analyzed: 07/17/19 10:26 Lab File ID: A19803.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	4.34	Baseline	shenw	07/17/19 10:50
Vinyl chloride	4.54	Baseline	shenw	07/17/19 10:50
Ethylene oxide	4.91	Baseline	shenw	07/17/19 10:51
Bromomethane	5.00	Baseline	shenw	07/17/19 10:51
Acetone	5.81	Baseline	shenw	07/17/19 11:06
t-Butanol	6.18	Baseline	shenw	07/17/19 11:26
1,1-Dichloroethene	6.20	Baseline	shenw	07/17/19 10:51
Carbon disulfide	6.56	Baseline	shenw	07/17/19 10:52
Propionitrile	7.09	Baseline	shenw	07/17/19 10:52
2-Butanone (MEK)	7.39	Baseline	shenw	07/17/19 11:06
Ethyl acetate	7.61	Baseline	shenw	07/17/19 10:53
Isobutyl alcohol	7.72	Baseline	shenw	07/17/19 11:28
n-Butanol	8.28	Baseline	shenw	07/17/19 11:28
Ethyl acrylate	8.92	Baseline	shenw	07/17/19 10:53
1,4-Dioxane	9.20	Baseline	shenw	07/17/19 11:07
Ethyl methacrylate	10.32	Baseline	shenw	07/17/19 10:54
2-Hexanone	10.47	Baseline	shenw	07/17/19 10:54
n-Butyl acetate	10.77	Baseline	shenw	07/17/19 10:55
trans-1,4-Dichloro-2-butene	12.74	Baseline	shenw	07/17/19 10:55
1,2-Dibromo-3-Chloropropane	15.19	Baseline	shenw	07/17/19 11:30

Lab Sample ID: IC 600-269550/5 Client Sample ID: _____Date Analyzed: 07/17/19 10:51 Lab File ID: A19804.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	9.20	Baseline	shenw	07/17/19 11:16
2-Hexanone	10.47	Baseline	shenw	07/17/19 11:16
1,2,3-Trichloropropane	12.74	Baseline	shenw	07/17/19 11:17
trans-1,4-Dichloro-2-butene	12.74	Baseline	shenw	07/17/19 11:16

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 269550Lab Sample ID: ICIS 600-269550/6 Client Sample ID: _____Date Analyzed: 07/17/19 11:16 Lab File ID: A19805.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	7.71	Baseline	shenw	07/17/19 12:28
Tetrahydrofuran	7.94	Baseline	shenw	07/17/19 11:43
n-Butanol	8.27	Baseline	shenw	07/17/19 11:43
1,4-Dioxane	9.19	Baseline	shenw	07/17/19 11:44

Lab Sample ID: IC 600-269550/7 Client Sample ID: _____Date Analyzed: 07/17/19 11:41 Lab File ID: A19806.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Butanol	8.26	Baseline	shenw	07/17/19 12:26

Lab Sample ID: ICV 600-269550/10 Client Sample ID: _____Date Analyzed: 07/17/19 12:56 Lab File ID: A19809.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	5.00	Baseline	shenw	07/17/19 13:27
Iodomethane	6.25	Baseline	shenw	07/17/19 13:27
1,4-Dioxane	9.18	Baseline	shenw	07/17/19 13:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 274277Lab Sample ID: CCVIS 600-274277/2 Client Sample ID: _____Date Analyzed: 09/10/19 08:01 Lab File ID: A25301.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	5.64	Baseline	shenw	09/10/19 08:29

Lab Sample ID: MB 600-274277/6 Client Sample ID: _____Date Analyzed: 09/10/19 10:04 Lab File ID: A25305.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	09/10/19 10:24

Lab Sample ID: 600-191341-5 Client Sample ID: Artesia - TB01 - 082819Date Analyzed: 09/10/19 10:29 Lab File ID: A25306.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	09/10/19 10:53

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHWC11 Analysis Batch Number: 271285Lab Sample ID: IC 600-271285/6 Client Sample ID: _____Date Analyzed: 08/06/19 13:54 Lab File ID: CAL080619-6.d GC Column: AS-18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	4.69	Incomplete Integration	patelk	08/07/19 12:50

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHWC11 Analysis Batch Number: 274043Lab Sample ID: CCB 600-274043/15 Client Sample ID: _____Date Analyzed: 09/06/19 20:09 Lab File ID: 090619a-15.d GC Column: AS-18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	8.89	Baseline Smoothing	reachs	09/09/19 10:54

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
BFB_00286							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
					Xylenes, Total			
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	50 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
BFB_00290							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
					Xylenes, Total			
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	50 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
CCV_00108	10/05/19	08/09/19	DI WATER, Lot NONE	500 mL	WETSICCSO4_00015	10 mL	Sulfate	20 mg/L
.WETSICCSO4_00015	06/21/20	INORGANIC-VENTURE, Lot k2-sox01111			(Purchased Reagent)		Sulfate	1000 mg/L
EOxideStd_00155	07/17/19	07/03/19	Methanol, Lot V032119A	1 mL	MVETYLOIDE_00010	10 uL	Ethylene oxide	500 ug/mL
.MVETYLOIDE_00010	09/30/19	Sigma-Aldrich, Lot LRA6887			(Purchased Reagent)		Ethylene oxide	50000 ug/mL
ICCALSTD2_00050	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00013	20 uL	Bromide	0.2 mg/L
					WETSICCCL_00024	40 uL	Chloride	0.4 mg/L
					WETSICCFL_00013	20 uL	Fluoride	0.2 mg/L
					WETSICCSO4_00016	40 uL	Sulfate	0.4 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00013	04/25/20	INORGANIC VENTURES, Lot N2-BR665239			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Sulfate	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD3_00043	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00013	50 uL	Bromide	0.5 mg/L
					WETSICCCL_00024	100 uL	Chloride	1 mg/L
					WETSICCFL_00013	50 uL	Fluoride	0.5 mg/L
					WETSICCSO4_00016	100 uL	Sulfate	1 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00013	04/25/20	INORGANIC VENTURES, Lot N2-BR665239			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00013	10/05/19	INORGANIC VENTURES, Lot n2-f670705			(Purchased Reagent)		Sulfate	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD4_00042	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00013	100 uL	Bromide	1 mg/L
					WETSICCCL_00024	200 uL	Chloride	2 mg/L
					WETSICCFL_00013	100 uL	Fluoride	1 mg/L
					WETSICCSO4_00016	200 uL	Sulfate	2 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00013	04/25/20	INORGANIC VENTURES, Lot N2-BR665239			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.WETSICCFL 00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4 00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD5_00043	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO 00013	200 uL	Bromide	2 mg/L
					WETSICCCL 00024	500 uL	Chloride	5 mg/L
					WETSICCFL 00013	200 uL	Fluoride	2 mg/L
					WETSICCSO4 00016	500 uL	Sulfate	5 mg/L
.WETSICCBRO 00013	04/25/20		INORGANIC VENTURES, Lot N2-BR665239		(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL 00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL 00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4 00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD6_00039	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO 00013	500 uL	Bromide	5 mg/L
					WETSICCCL 00024	1 mL	Chloride	10 mg/L
					WETSICCFL 00013	500 uL	Fluoride	5 mg/L
					WETSICCSO4 00016	1 mL	Sulfate	10 mg/L
.WETSICCBRO 00013	04/25/20		INORGANIC VENTURES, Lot N2-BR665239		(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL 00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL 00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4 00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD7_00042	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO 00013	750 uL	Bromide	7.5 mg/L
					WETSICCCL 00024	2 mL	Chloride	20 mg/L
					WETSICCFL 00013	750 uL	Fluoride	7.5 mg/L
					WETSICCSO4 00016	2 mL	Sulfate	20 mg/L
.WETSICCBRO 00013	04/25/20		INORGANIC VENTURES, Lot N2-BR665239		(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL 00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL 00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4 00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD8_00030	09/30/19	07/29/19	DI WATER, Lot NONE	100 mL	WETSICCBRO 00013	1 mL	Bromide	10 mg/L
					WETSICCCL 00024	4 mL	Chloride	40 mg/L
					WETSICCFL 00013	1 mL	Fluoride	10 mg/L
					WETSICCSO4 00016	4 mL	Sulfate	40 mg/L
.WETSICCBRO 00013	04/25/20		INORGANIC VENTURES, Lot N2-BR665239		(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL 00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL 00013	10/05/19		INORGANIC VENTURES, Lot n2-f670705		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4 00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Sulfate	1000 mg/L
ICV/LCS 00105	09/30/19	07/31/19	DI WATER, Lot NONE	500 mL	WETSICISO4 00012	10 mL	Sulfate	20 mg/L
.WETSICISO4 00012	09/29/20		ACCUSTANDARD, Lot 218085152		(Purchased Reagent)		Sulfate	1000 mg/L
VOAIS50PPM_00255	07/17/19	07/03/19	Methanol, Lot V032119A	1 mL	VOAIS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
							1,4-Dichlorobenzene-d4	2500 ug/mL
.VOAIS_00031	06/30/23		Restek, Lot A0138856		(Purchased Reagent)		Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOAIS50PPM_00259	09/11/19	08/28/19	Methanol, Lot V071019A	1 mL	VOAIS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA3IS_00031	06/30/23		Restek, Lot A0138856		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOALCSPT2_00143	07/17/19	07/03/19	Methanol, Lot V032119A	1 mL	VOALMegMi2017_00004	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00004	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOALCSPT2_00147	09/11/19	08/28/19	Methanol, Lot V071019A	1 mL	VOALMegMi2017_00004	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00004	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOASS50PPM_00293	07/17/19	07/03/19	Methanol, Lot V032119A	1 mL	VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASS50PPM_00297	09/11/19	08/28/19	Methanol, Lot V071019A	1 mL	VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASTDGASPT_00334	07/17/19	07/10/19	Methanol, Lot V032119A	1 mL	VOARGAS_00014	20 uL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOARGAS_00014	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Vinyl chloride	50 ug/mL
							Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
VOASTDPT2_00143	07/17/19	07/03/19	Methanol, Lot V032119A	1 mL	VOAMegMix2017_00006	20 uL	Vinyl chloride	2500 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VOARAcroleinS_00005	12.5 uL	Acrolein	250 ug/mL
					VOARADD4COM_00006	20 uL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
					VOARADD4COM_00014	20 uL	n-Butyl acetate	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Isopropyl alcohol	500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					VOARCYCHONE_00027	100 uL	Cyclohexanone	2500 ug/mL
					VOARKETONDup_00002	8 uL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VOARPOLADD_00013	20 uL	Acetonitrile	500 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
					VOARVASTD_00004	20 uL	Vinyl acetate	100 ug/mL
.VOAMegMix2017_00006	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOARAcroleinS_00005	10/31/19		Restek, Lot A0147676		(Purchased Reagent)		Acrolein	20000 ug/mL
.VOARADD4COM_00006	08/31/19		Restek, Lot A0135442		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
.VOARADD4COM_00014	09/30/19		Restek, Lot A0135915		(Purchased Reagent)		Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
							1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.VOARCYCHONE_00027	12/31/20		Restek, Lot A0133136		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.VOARKETONDup_00002	01/31/20		RESTEK, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.VOARPOLADD_00013	07/31/20		Restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
.VOARVASTD_00004	08/31/19		Restek, Lot A0145775		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VOASTDPT2_00147	09/11/19	08/28/19	Methanol, Lot V071019A	1 mL	VOAMegMix2017_00006	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOAMegMix2017_00006	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL

Method 8260B Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): DB-VRX 60 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
Artesia - MW38 - 082819	600-191341-1	89	96	104	73
Artesia - MW38 - 082819 DL	600-191341-1 DL	98	104	102	83
Artesia - MW37 - 082819	600-191341-2	91	97	100	78
Artesia - MW37 - 082819 DL	600-191341-2 DL	96	101	102	75
Artesia - MW36 - 082819	600-191341-3	93	99	98	76
Artesia - MW36 - 082819 FD	600-191341-4	93	99	101	80
Artesia - TB01 - 082819	600-191341-5	94	98	96	82
	MB 600-274277/6	86	96	100	81
	LCS 600-274277/3	79	76	103	77
	LCSD 600-274277/4	76	80	107	79

	<u>QC LIMITS</u>
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A25302.d
Lab ID: LCS 600-274277/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01041	104	70-140	
1,1-Dichloroethene	0.0100	0.01267	127	58-148	
Benzene	0.0100	0.01083	108	70-130	
Naphthalene	0.0100	0.01119	112	10-150	
Tetrachloroethene	0.0100	0.009727	97	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A25303.d
 Lab ID: LCSD 600-274277/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.01093	109	5	20	70-140	
1,1-Dichloroethene	0.0100	0.01324	132	4	20	58-148	
Benzene	0.0100	0.01127	113	4	20	70-130	
Naphthalene	0.0100	0.01301	130	15	20	10-150	
Tetrachloroethene	0.0100	0.009682	97	0	20	47-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab File ID: A25305.d Lab Sample ID: MB 600-274277/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHVOAMS07 Date Analyzed: 09/10/2019 10:04
 GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-274277/3	A25302.d	09/10/2019 08:51
	LCSD 600-274277/4	A25303.d	09/10/2019 09:15
Artesia - TB01 - 082819	600-191341-5	A25306.d	09/10/2019 10:29
Artesia - MW38 - 082819	600-191341-1	A25307.d	09/10/2019 10:53
Artesia - MW36 - 082819	600-191341-3	A25308.d	09/10/2019 11:18
Artesia - MW36 - 082819 FD	600-191341-4	A25309.d	09/10/2019 11:43
Artesia - MW37 - 082819	600-191341-2	A25310.d	09/10/2019 12:08
Artesia - MW38 - 082819 DL	600-191341-1 DL	A25311.d	09/10/2019 12:34
Artesia - MW37 - 082819 DL	600-191341-2 DL	A25316.d	09/10/2019 14:39

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab File ID: A19800a.d BFB Injection Date: 07/17/2019
 Instrument ID: CHVOAMS07 BFB Injection Time: 08:09
 Analysis Batch No.: 269550

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.4
75	30.0 - 60.0 % of mass 95	52.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.3
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	106.9
175	5.0 - 9.0 % of mass 174	7.7 (7.2) 1
176	95.0 - 101.0 % of mass 174	103.4 (96.7) 1
177	5.0 - 9.0 % of mass 176	6.7 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-269550/2	A19801a.d	07/17/2019	09:37
	IC 600-269550/3	A19802.d	07/17/2019	10:02
	IC 600-269550/4	A19803.d	07/17/2019	10:26
	IC 600-269550/5	A19804.d	07/17/2019	10:51
	ICIS 600-269550/6	A19805.d	07/17/2019	11:16
	IC 600-269550/7	A19806.d	07/17/2019	11:41
	IC 600-269550/8	A19807.d	07/17/2019	12:06
	ICV 600-269550/10	A19809.d	07/17/2019	12:56

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab File ID: A25300.d BFB Injection Date: 09/10/2019
 Instrument ID: CHVOAMS07 BFB Injection Time: 07:21
 Analysis Batch No.: 274277

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.4
75	30.0 - 60.0 % of mass 95	55.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.7
173	Less than 2.0 % of mass 174	0.4 (0.4) 1
174	50.0 - 120.00 % of mass 95	98.8
175	5.0 - 9.0 % of mass 174	7.5 (7.6) 1
176	95.0 - 101.0 % of mass 174	99.5 (100.8) 1
177	5.0 - 9.0 % of mass 176	7.4 (7.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-274277/2	A25301.d	09/10/2019	08:01
	LCS 600-274277/3	A25302.d	09/10/2019	08:51
	LCSD 600-274277/4	A25303.d	09/10/2019	09:15
	MB 600-274277/6	A25305.d	09/10/2019	10:04
Artesia - TB01 - 082819	600-191341-5	A25306.d	09/10/2019	10:29
Artesia - MW38 - 082819	600-191341-1	A25307.d	09/10/2019	10:53
Artesia - MW36 - 082819	600-191341-3	A25308.d	09/10/2019	11:18
Artesia - MW36 - 082819 FD	600-191341-4	A25309.d	09/10/2019	11:43
Artesia - MW37 - 082819	600-191341-2	A25310.d	09/10/2019	12:08
Artesia - MW38 - 082819 DL	600-191341-1 DL	A25311.d	09/10/2019	12:34
Artesia - MW37 - 082819 DL	600-191341-2 DL	A25316.d	09/10/2019	14:39

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Sample No.: ICIS 600-269550/6 Date Analyzed: 07/17/2019 11:16
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A19805.d Heated Purge: (Y/N) N
 Calibration ID: 16122

	FB		CBNZd5		DCBd4	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	249850	8.72	78672	11.75	103439	14.32
UPPER LIMIT	499700	9.22	157344	12.25	206878	14.82
LOWER LIMIT	124925	8.22	39336	11.25	51720	13.82
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 600-269550/10		276517 8.72	86267 11.75		110474 14.32	
CCVIS 600-274277/2		186878 8.68	70133 11.74		105532 14.33	

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Sample No.: CCVIS 600-274277/2 Date Analyzed: 09/10/2019 08:01
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A25301.d Heated Purge: (Y/N) N
 Calibration ID: 16475

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		186878	8.68	70133	11.74	105532	14.33
UPPER LIMIT		373756	9.18	140266	12.24	211064	14.83
LOWER LIMIT		93439	8.18	35067	11.24	52766	13.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-274277/3		193578	8.67	72052	11.74	106627	14.34
LCSD 600-274277/4		191342	8.68	70682	11.74	104154	14.34
MB 600-274277/6		132938	8.68	61512	11.75	76805	14.34
600-191341-5	Artesia - TB01 - 082819	122290	8.68	57617	11.75	71213	14.34
600-191341-1	Artesia - MW38 - 082819	122405	8.69	56223	11.75	92910	14.34
600-191341-3	Artesia - MW36 - 082819	158325	8.68	77896	11.75	118492	14.34
600-191341-4	Artesia - MW36 - 082819 FD	194277	8.69	92669	11.75	139638	14.34
600-191341-2	Artesia - MW37 - 082819	213779	8.69	102303	11.75	152436	14.34
600-191341-1 DL	Artesia - MW38 - 082819 DL	218234	8.68	106639	11.75	151940	14.34
600-191341-2 DL	Artesia - MW37 - 082819 DL	176970	8.68	85628	11.75	120415	14.34

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: Artesia - MW38 - 082819 Lab Sample ID: 600-191341-1
 Matrix: Water Lab File ID: A25307.d
 Analysis Method: 8260B Date Collected: 08/28/2019 17:21
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 10:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0145		0.00100	0.000192
71-43-2	Benzene	0.00980		0.00100	0.000176
91-20-3	Naphthalene	0.0127		0.00200	0.000129
127-18-4	Tetrachloroethene	0.00903		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
460-00-4	4-Bromofluorobenzene	73		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

Lab Name: Eurofins TestAmerica, Houston	Job No.: 600-191341-1
SDG No.:	
Client Sample ID: Artesia - MW38 - 082819 DL	Lab Sample ID: 600-191341-1 DL
Matrix: Water	Lab File ID: A25311.d
Analysis Method: 8260B	Date Collected: 08/28/2019 17:21
Sample wt/vol: 20 (mL)	Date Analyzed: 09/10/2019 12:34
Soil Aliquot Vol:	Dilution Factor: 5
Soil Extract Vol.:	GC Column: DB-VRX 60 ID: 0.25 (mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 274277	Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0699		0.00500	0.000840

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	83		67-139
1868-53-7	Dibromofluoromethane	98		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: Artesia - MW37 - 082819 Lab Sample ID: 600-191341-2
 Matrix: Water Lab File ID: A25310.d
 Analysis Method: 8260B Date Collected: 08/28/2019 19:37
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 12:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0125		0.00100	0.000192
71-43-2	Benzene	0.00569		0.00100	0.000176
91-20-3	Naphthalene	0.00755		0.00200	0.000129
127-18-4	Tetrachloroethene	0.0101		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	78		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I

Lab Name: Eurofins TestAmerica, Houston	Job No.: 600-191341-1
SDG No.:	
Client Sample ID: Artesia - MW37 - 082819 DL	Lab Sample ID: 600-191341-2 DL
Matrix: Water	Lab File ID: A25316.d
Analysis Method: 8260B	Date Collected: 08/28/2019 19:37
Sample wt/vol: 20 (mL)	Date Analyzed: 09/10/2019 14:39
Soil Aliquot Vol:	Dilution Factor: 20
Soil Extract Vol.:	GC Column: DB-VRX 60 ID: 0.25 (mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 274277	Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.241		0.0200	0.00336

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134
460-00-4	4-Bromofluorobenzene	75		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: Artesia - MW36 - 082819 Lab Sample ID: 600-191341-3
 Matrix: Water Lab File ID: A25308.d
 Analysis Method: 8260B Date Collected: 08/29/2019 11:40
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 11:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0412		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00193		0.00100	0.000192
71-43-2	Benzene	0.0292		0.00100	0.000176
91-20-3	Naphthalene	0.00696		0.00200	0.000129
127-18-4	Tetrachloroethene	0.000630	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	76		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: Artesia - TB01 - 082819 Lab Sample ID: 600-191341-5
 Matrix: Water Lab File ID: A25306.d
 Analysis Method: 8260B Date Collected: 08/28/2019 08:00
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 10:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134
460-00-4	4-Bromofluorobenzene	82		67-139
1868-53-7	Dibromofluoromethane	94		62-130
2037-26-5	Toluene-d8 (Surr)	96		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-269550/2	A19801a.d
Level 2	IC 600-269550/3	A19802.d
Level 3	IC 600-269550/4	A19803.d
Level 4	IC 600-269550/5	A19804.d
Level 5	ICIS 600-269550/6	A19805.d
Level 6	IC 600-269550/7	A19806.d
Level 7	IC 600-269550/8	A19807.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2899 0.3715	0.4571 0.3798	0.4757	0.4144	0.4140	Lin1	0.0297	0.3839							0.9960		0.9900
Chloromethane	0.3394 0.3167	0.4349 0.3486	0.3337	0.3453	0.3397	Ave		0.3512			0.1000	10.9		15.0			
Vinyl chloride	0.3532 0.3880	0.3994 0.4709	0.3866	0.3415	0.4162	Ave		0.3937				10.9		15.0			
Butadiene	0.4482 0.4354	0.4897 0.4928	0.4988	0.4685	0.4889	Ave		0.4746				5.2		15.0			
Ethylene oxide	0.0286 0.0239	0.0269 0.0261	0.0227	0.0245	0.0242	Ave		0.0253				8.1		15.0			
Bromomethane	0.1488 0.1116	0.1205 0.1622	0.0881	0.0957	0.0921	Qua	0.0365	0.0742	0.0017465						1.0000		0.9900
Chloroethane	0.1918 0.1569	0.1737 0.1820	0.2050	0.1653	0.1723	Ave		0.1781				9.2		15.0			
Dichlorofluoromethane	0.5262 0.4207	0.4375 0.4704	0.4117	0.3802	0.4094	Ave		0.4366				11.1		15.0			
Acrolein	0.0191 0.0147	0.0129 0.0148	0.0164	0.0140	0.0139	Ave		0.0151				13.7		15.0			
Trichlorofluoromethane	0.5530 0.5379	0.6908 0.5400	0.6102	0.6134	0.6093	Ave		0.5935				9.2		15.0			
Acetonitrile	0.0115 0.0115	0.0114 0.0131	0.0091	0.0102	0.0105	Ave		0.0110				11.4		15.0			
Isopropyl alcohol	0.0082 0.0060	0.0071 0.0064	0.0082	0.0067	0.0057	Ave		0.0069				14.6		15.0			
Acetone	0.0347 0.0267	0.0381 0.0302	0.0324	0.0327	0.0242	Lin1	0.0096	0.0286							0.9920		0.9900
Ethyl ether	0.1273 0.1509	0.1608 0.1564	0.1726	0.1534	0.1466	Ave		0.1526				9.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
t-Butanol	++++ 0.0103	0.0109 0.0114	0.0098	0.0095	0.0097	Ave		0.0102				7.5		15.0			
1,1-Dichloroethene	0.4198 0.2828	0.4145 0.2898	0.3081	0.3107	0.3010	Lin2	0.0740	0.2915							0.9910		0.9900
Acrylonitrile	0.0282 0.0268	0.0229 0.0292	0.0207	0.0245	0.0255	Ave		0.0254				11.7		15.0			
Iodomethane	0.1069 0.2024	0.0828 0.2500	0.0888	0.1086	0.1522	Lin	-0.504	0.2537							0.9920		0.9900
Methylene Chloride	0.5361 0.3079	0.4595 0.3298	0.3678	0.3472	0.3058	Lin2	0.1170	0.3144							0.9960		0.9900
Methyl acetate	0.0848 0.0973	0.0861 0.1094	0.0897	0.0828	0.0897	Ave		0.0914				10.1		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3563 0.3318	0.3824 0.3415	0.3858	0.3487	0.3312	Ave		0.3539				6.3		15.0			
3-Chloro-1-propene	0.1822 0.1764	0.1936 0.1684	0.1978	0.1747	0.1751	Ave		0.1812				6.0		15.0			
Carbon disulfide	0.9618 0.7299	0.9158 0.7574	0.8578	0.7923	0.7282	Ave		0.8204				11.3		15.0			
trans-1,2-Dichloroethene	0.4078 0.3375	0.3298 0.3673	0.3513	0.3444	0.3325	Ave		0.3529				7.7		15.0			
Methyl tert-butyl ether	0.5300 0.5445	0.6343 0.5861	0.5664	0.5594	0.5205	Ave		0.5630				6.8		15.0			
1,1-Dichloroethane	0.6233 0.5137	0.5164 0.5618	0.5486	0.5505	0.5099	Ave		0.5463			0.1000	7.3		15.0			
Propionitrile	0.0095 0.0112	0.0120 0.0126	0.0101	0.0087	0.0100	Ave		0.0106				13.1		15.0			
Vinyl acetate	0.1893 0.2687	0.2127 0.3007	0.2083	0.2501	0.2463	Lin2	-0.087	0.2634							0.9900		0.9900
2-Chloro-1,3-butadiene	0.4465 0.4852	0.4615 0.5856	0.4808	0.4675	0.4492	Ave		0.4823				9.9		15.0			
Hexane	0.3699 0.4010	0.4433 0.4496	0.4337	0.4220	0.3907	Ave		0.4157				7.1		15.0			
Isopropyl ether	0.9609 1.1001	1.0704 1.3527	1.0575	1.0452	1.0190	Ave		1.0865				11.5		15.0			
2-Butanone (MEK)	0.0228 0.0153	0.0222 0.0192	0.0176	0.0189	0.0160	Lin	-0.025	0.0189							0.9920		0.9900
Methacrylonitrile	0.0112 0.0168	0.0143 0.0201	0.0131	0.0157	0.0157	Lin1	-0.065	0.0188							0.9900		0.9900
cis-1,2-Dichloroethene	0.4382 0.3690	0.3615 0.3984	0.3905	0.3909	0.3591	Ave		0.3868				7.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acetate	0.0810 0.1194	0.0827 0.1252	0.0963	0.1116	0.1058	Lin2	-0.041	0.1145							0.9920		0.9900
Chlorobromomethane	0.1780 0.1674	0.2084 0.1736	0.1571	0.1699	0.1686	Ave		0.1747				9.3		15.0			
Tert-butyl ethyl ether	0.6408 0.7654	0.6842 0.9077	0.7340	0.7554	0.7088	Ave		0.7423				11.4		15.0			
Chloroform	0.6423 0.5888	0.6303 0.7030	0.5928	0.6018	0.5709	Ave		0.6186				7.2		15.0			
Isobutyl alcohol	++++ 0.0048	0.0056 0.0051	0.0049	0.0054	0.0042	Ave		0.0050				10.1		15.0			
2,2-Dichloropropane	0.5637 0.5043	0.6259 0.5391	0.5508	0.5359	0.5070	Ave		0.5467				7.5		15.0			
Tetrahydrofuran	0.0456 0.0359	0.0373 0.0359	0.0389	0.0405	0.0337	Ave		0.0382				10.2		15.0			
1,2-Dichloroethane	0.2797 0.2498	0.2602 0.2701	0.2619	0.2458	0.2556	Ave		0.2605				4.5		15.0			
1,1,1-Trichloroethane	0.6506 0.5840	0.6423 0.6408	0.6020	0.5984	0.5604	Ave		0.6112				5.6		15.0			
n-Butanol	++++ 0.0022	0.0018 0.0027	0.0020	0.0016	0.0021	Lin	-0.113	0.0027							0.9940		0.9900
1,1-Dichloropropene	0.3922 0.4467	0.4453 0.4685	0.4624	0.4800	0.4275	Ave		0.4461				6.6		15.0			
Cyclohexane	0.5026 0.4866	0.5178 0.4957	0.5254	0.5363	0.4929	Ave		0.5082				3.6		15.0			
Carbon tetrachloride	0.6140 0.5687	0.5973 0.6237	0.5801	0.5901	0.5639	Ave		0.5911				3.8		15.0			
Benzene	1.3432 1.2487	1.2416 1.4054	1.2453	1.2422	1.1931	Ave		1.2742				5.7		15.0			
Tert-amyl methyl ether	0.4738 0.5848	0.5622 0.6421	0.5587	0.5886	0.5707	Ave		0.5687				8.8		15.0			
Isooctane	0.8727 0.8082	0.9069 0.7996	0.8978	0.8636	0.8212	Ave		0.8528				5.1		15.0			
Ethyl acrylate	0.1002 0.1988	0.1462 0.2279	0.1679	0.1949	0.1832	Lin2	-0.054	0.2042							0.9940		0.9900
n-Heptane	0.3850 0.3928	0.3764 0.3976	0.3696	0.4115	0.3703	Ave		0.3862				4.0		15.0			
Dibromomethane	0.0780 0.1317	0.1361 0.1447	0.1537	0.1414	0.1201	Lin1	-0.019	0.1400							0.9950		0.9900
1,2-Dichloropropane	0.2639 0.2636	0.3093 0.2910	0.2730	0.2675	0.2606	Ave		0.2755				6.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0369 0.0332	0.0284 0.0433	0.0299	0.0252	0.0332	Lin	-0.125	0.0433							0.9910		0.9900
Trichloroethene	0.4968 0.4666	0.5093 0.5238	0.4385	0.4595	0.4438	Ave		0.4769				7.0		15.0			
Bromodichloromethane	0.3353 0.3518	0.3590 0.3906	0.3409	0.3534	0.3293	Ave		0.3515				5.8		15.0			
Methyl methacrylate	0.0794 0.1246	0.1081 0.1398	0.0966	0.1142	0.1153	Lin2	-0.045	0.1236							0.9900		0.9900
1,4-Dioxane	++++ 0.0006	0.0020 0.0006	0.0014	0.0009	0.0008	Lin2	0.0283	0.0006							0.9920		0.9900
Methylcyclohexane	0.5837 0.5036	0.4934 0.5048	0.5624	0.5641	0.5019	Ave		0.5306				7.1		15.0			
cis-1,3-Dichloropropene	1.0094 1.1624	1.1049 1.2191	1.1440	1.1550	1.1783	Ave		1.1390				5.9		15.0			
4-Methyl-2-pentanone (MIBK)	0.1291 0.1187	0.1183 0.1264	0.1044	0.1180	0.1079	Ave		0.1176				7.6		15.0			
trans-1,3-Dichloropropene	1.0488 0.8522	0.8935 0.8960	0.8557	0.8853	0.8647	Ave		0.8995				7.6		15.0			
1,1,2-Trichloroethane	0.7425 0.5035	0.6104 0.5072	0.4811	0.5281	0.5141	Lin2	0.1199	0.4890							0.9950		0.9900
Ethyl methacrylate	0.4763 0.5673	0.5877 0.6033	0.4702	0.4790	0.5210	Ave		0.5293				10.7		15.0			
Toluene	2.6479 2.4001	2.3625 2.5401	2.4486	2.4705	2.4936	Ave		2.4805				3.8		15.0			
1,3-Dichloropropene	0.7432 0.8436	0.7517 0.8419	0.9530	0.8798	0.8279	Ave		0.8344				8.7		15.0			
2-Hexanone	0.2869 0.2261	0.1726 0.2344	0.2024	0.2119	0.2279	Lin1	-0.026	0.2304							0.9980		0.9900
Dibromochloromethane	0.8421 0.8208	0.7898 0.8653	0.8882	0.8675	0.8432	Ave		0.8453				3.9		15.0			
n-Butyl acetate	0.5615 0.5944	0.4988 0.6194	0.5200	0.5643	0.6024	Ave		0.5658				7.8		15.0			
1,2-Dibromoethane	0.5777 0.4787	0.4584 0.5044	0.5520	0.4811	0.4722	Ave		0.5035				8.9		15.0			
Tetrachloroethene	1.2175 0.9376	0.9153 0.9778	0.9471	0.9451	0.9361	Ave		0.9824				10.7		15.0			
1-Chlorohexane	1.0076 0.7576	0.6930 0.7586	0.7133	0.7793	0.7548	Ave		0.7806				13.4		15.0			
1,1,1,2-Tetrachloroethane	1.2942 1.1100	1.1469 1.2204	1.0890	1.1539	1.1150	Ave		1.1613				6.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	3.2109 3.0030	3.3533 3.2505	2.9725	3.1217	2.9867	Ave		3.1284			0.3000	4.7		15.0			
Ethylbenzene	1.7896 1.5493	1.5799 1.6269	1.4908	1.5551	1.6098	Ave		1.6002				5.9		15.0			
m-Xylene & p-Xylene	3.6608 3.4290	3.4857 3.7594	3.4723	3.6046	3.3665	Ave		3.5398				3.9		15.0			
Bromoform	0.4717 0.3193	0.3469 0.3341	0.3001	0.3231	0.3192	Lin2	0.0710	0.3056			0.1000				0.9900		0.9900
Styrene	2.4331 2.9883	2.8002 3.3252	2.6219	2.8553	2.9194	Ave		2.8491				9.9		15.0			
Cyclohexanone	0.0131 0.0104	0.0088 0.0108	0.0081	0.0083	0.0093	Lin1	-0.056	0.0104							0.9930		0.9900
o-Xylene	2.1860 1.8857	2.0065 2.1385	1.8698	2.0199	1.9295	Ave		2.0051				6.1		15.0			
1,1,2,2-Tetrachloroethane	0.5313 0.4813	0.5919 0.5463	0.4802	0.5086	0.4658	Ave		0.5151			0.3000	8.7		15.0			
trans-1,4-Dichloro-2-butene	0.1878 0.0900	0.1257 0.0943	0.0967	0.0721	0.0890	Lin1	0.0328	0.0898							0.9930		0.9900
1,2,3-Trichloropropane	0.2806 0.1444	0.1830 0.1396	0.1557	0.1531	0.1494	Lin2	0.0667	0.1354							0.9900		0.9900
Isopropylbenzene	4.6780 4.0368	4.3393 4.5648	4.3370	4.1652	3.8814	Ave		4.2861				6.6		15.0			
Bromobenzene	1.2831 1.0180	1.1254 1.1049	1.1450	1.0457	0.9814	Ave		1.1005				9.1		15.0			
N-Propylbenzene	1.5964 1.1993	1.1923 1.3564	1.3685	1.3440	1.2186	Ave		1.3251				10.7		15.0			
2-Chlorotoluene	1.4724 1.1473	1.1826 1.2598	1.3281	1.2231	1.1247	Ave		1.2483				9.7		15.0			
4-Chlorotoluene	2.6866 2.5700	2.8804 2.9525	2.7553	2.6776	2.4806	Ave		2.7147				6.1		15.0			
1,3,5-Trimethylbenzene	3.8891 3.4804	3.5519 4.1287	3.5448	3.5134	3.3164	Ave		3.6321				7.7		15.0			
tert-Butylbenzene	3.4824 3.1344	3.2557 3.6343	3.3731	3.2341	3.0382	Ave		3.3074				6.2		15.0			
1,2,4-Trimethylbenzene	3.5833 3.5372	3.6073 4.2050	3.6251	3.6224	3.3093	Ave		3.6414				7.5		15.0			
sec-Butylbenzene	4.6178 4.3959	4.4218 4.9353	4.5845	4.3706	4.1144	Ave		4.4915				5.7		15.0			
Benzyl chloride	0.7317 0.7134	0.6556 0.8749	0.5514	0.6548	0.6204	Ave		0.6860				14.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	2.2466 2.1751	2.1836 2.5875	2.2242	2.2732	2.0809	Ave		2.2530				7.1		15.0			
4-Isopropyltoluene	4.3722 4.4017	3.9745 5.5003	4.2414	4.1537	3.9344	Ave		4.3683				12.1		15.0			
1,4-Dichlorobenzene	2.6426 2.3057	2.3627 2.8282	2.1527	2.3060	2.1010	Ave		2.3856				11.0		15.0			
1,2,3-Trimethylbenzene	3.4285 3.4517	3.2084 4.0366	3.4833	3.4611	3.2922	Ave		3.4803				7.6		15.0			
1,2-Dichlorobenzene	1.9124 1.7648	1.8849 1.9844	2.0006	1.8355	1.6836	Ave		1.8666				6.2		15.0			
n-Butylbenzene	3.4917 3.0013	3.0391 3.5198	3.0907	3.0655	2.8761	Ave		3.1549				7.9		15.0			
1,2-Dibromo-3-Chloropropane	++++ 0.0870	0.0927 0.0763	0.0914	0.0862	0.0764	Ave		0.0850				8.4		15.0			
1,3,5-Trichlorobenzene	1.4883 1.1700	1.3254 1.3377	1.3347	1.1917	1.0910	Ave		1.2770				10.5		15.0			
1,2,4-Trichlorobenzene	1.1052 0.7035	0.8196 0.7824	0.7582	0.7285	0.6671	Lin2	0.1884	0.6908							0.9920		0.9900
Naphthalene	1.6048 0.9992	1.1500 1.0774	0.8864	0.9553	0.9061	Lin1	0.1051	1.0246							0.9940		0.9900
Hexachlorobutadiene	++++ 0.1739	0.2215 0.1819	0.1677	0.1990	0.1698	Ave		0.1856				11.3		15.0			
1,2,3-Trichlorobenzene	0.7041 0.3938	0.5836 0.3887	0.4196	0.3823	0.3619	Lin2	0.1751	0.3652							0.9920		0.9900
Dibromofluoromethane	0.3310 0.3378	0.3447 0.3586	0.3422	0.3473	0.3281	Ave		0.3414				3.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.1878 0.2083	0.1992 0.2175	0.2218	0.2184	0.2109	Ave		0.2091				5.8		15.0			
Toluene-d8 (Surr)	3.9322 3.4736	3.8217 3.8637	3.5957	3.4519	3.4444	Ave		3.6547				5.8		15.0			
4-Bromofluorobenzene	1.2543 0.8482	1.0178 0.8760	0.8345	0.9041	0.8235	Lin2	0.2026	0.8249							0.9950		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-269550/2	A19801a.d
Level 2	IC 600-269550/3	A19802.d
Level 3	IC 600-269550/4	A19803.d
Level 4	IC 600-269550/5	A19804.d
Level 5	ICIS 600-269550/6	A19805.d
Level 6	IC 600-269550/7	A19806.d
Level 7	IC 600-269550/8	A19807.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	2687 157805	7790 439095	16497	38614	82742	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	3146 134546	7412 403023	11574	32176	67908	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	3274 164811	6806 544467	13406	31816	83195	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Ave	4155 184972	8346 569774	17300	43648	97721	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylene oxide	FB	Ave	2655 101650	4578 301690	7859	22818	48313	5.00 200	10.0 500	20.0	50.0	100
Bromomethane	FB	Qua	1379 47410	2053 187573	3056	8917	18415	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Ave	1778 66637	2960 210455	7110	15399	34434	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	4878 178723	7455 543875	14278	35426	81831	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	886 31219	1097 85412	2843	6520	13933	2.50 100	5.00 250	10.0	25.0	50.0
Trichlorofluoromethane	FB	Ave	5126 228480	11772 624350	21161	57158	121777	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acetonitrile	FB	Ave	1063 48979	1950 150971	3144	9542	21029	5.00 200	10.0 500	20.0	50.0	100
Isopropyl alcohol	FB	Ave	762 25424	1204 73958	2840	6279	11307	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	644 22650	1300 69736	2244	6085	9690	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	1180 64095	2740 180872	5985	14293	29299	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	++++ 43563	1866 131415	3395	8813	19305	++++ 200	10.0 500	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1-Dichloroethene	FB	Lin2	3891 120128	7063 335023	10684	28945	60167	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	2618 113687	3904 337574	7194	22803	51063	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin	991 85987	1411 288987	3079	10122	30416	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin2	4969 130790	7831 381334	12756	32348	61117	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	1573 82695	2935 252936	6219	15421	35863	1.00 40.0	2.00 100	4.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3303 140930	6516 394759	13381	32493	66191	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	1689 74934	3299 194677	6860	16279	34989	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	8915 310043	15606 875649	29748	73826	145556	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	3780 143358	5621 424644	12182	32085	66454	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	4913 231296	10809 677654	19643	52123	104038	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	5778 218199	8801 649535	19024	51294	101923	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	879 47504	2043 145375	3502	8109	20013	5.00 200	10.0 500	20.0	50.0	100
Vinyl acetate	FB	Lin2	3509 228279	7251 695232	14446	46609	98449	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	4139 206097	7865 676996	16675	43563	89794	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	3429 170328	7554 519750	15040	39319	78101	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	8907 467329	18241 1563883	36674	97383	203670	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin	423 12987	756 44333	1224	3529	6383	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Lin1	1038 71455	2430 232041	4547	14631	31346	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	4062 156745	6161 460632	13544	36418	71782	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Lin2	1502 101431	2819 289427	6681	20793	42301	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	1650 71124	3551 200722	5447	15832	33696	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	5940 325145	11660 1049429	25455	70380	141671	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	5954 250117	10742 812781	20558	56077	114104	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Ave	++++ 51023	2388 146023	4289	12584	20800	++++ 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	5225 214215	10667 623224	19103	49935	101341	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	845 30509	1272 82930	2696	7539	13474	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	2593 106106	4434 312236	9084	22907	51089	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	6031 248097	10946 740782	20877	55760	112005	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Lin	++++ 23238	780 77694	1757	3621	10301	++++ 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	3635 189739	7589 541601	16036	44728	85449	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	4659 206721	8824 573079	18220	49971	98522	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	5691 241591	10179 721081	20119	54981	112704	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	12451 530447	21158 1624759	43186	115741	238473	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	4392 248430	9580 742349	19377	54841	114078	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	8089 343311	15454 924469	31136	80468	164132	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Lin2	929 84447	2491 263426	5824	18161	36623	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	3569 166858	6414 459656	12818	38339	74024	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Lin1	723 55938	2319 167261	5332	13174	23999	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	2446 111967	5271 336408	9468	24922	52090	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Lin	684 28167	967 100190	2072	4702	13258	1.00 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	4605 198206	8680 605539	15208	42811	88706	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	3108 149426	6118 451522	11824	32932	65826	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Lin2	1472 105890	3683 323270	6701	21281	46080	1.00 40.0	2.00 100	4.00	10.0	20.0
1,4-Dioxane	FB	Lin2	++++ 5294	688 14880	952	1731	3278	++++ 400	20.0 1000	40.0	100	200
Methylcyclohexane	FB	Ave	5411 213938	8408 583661	19505	52563	100320	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	2867 161500	6178 483268	12897	34713	74157	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	2393 100848	4032 292268	7243	21998	43145	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	2979 118399	4996 355174	9647	26608	54425	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Lin2	2109 69949	3413 201054	5424	15873	32357	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	1353 78814	3286 239143	5301	14396	32790	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	7521 333465	13210 1006943	27605	74249	156941	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	2111 117208	4203 333762	10744	26441	52105	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Lin1	1630 62819	1930 185845	4564	12737	28681	1.00 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	2392 114037	4416 343025	10013	26073	53067	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Ave	1595 82589	2789 245525	5862	16959	37916	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	1641 66512	2563 199938	6223	14459	29716	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	3458 130274	5118 387618	10677	28405	58914	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	2862 105262	3875 300702	8042	23420	47506	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	3676 154217	6413 483786	12277	34679	70174	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	9120 417235	18750 1288536	33511	93821	187974	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	5083 215258	8834 644947	16807	46738	101320	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10398 476427	19490 1490305	39146	108332	211881	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCBd 4	Lin2	1575 57358	2260 172403	3948	11743	26415	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBNZ d5	Ave	6911 415192	15657 1318153	29559	85814	183740	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexanone	CBNZ d5	Lin1	1859 72519	2450 214854	4578	12401	29226	25.0 1000	50.0 2500	100	250	500
o-Xylene	CBNZ d5	Ave	6209 262004	11219 847744	21080	60705	121438	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	1774 86464	3856 281847	6319	18483	38548	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	627 16170	819 48654	1272	2621	7361	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Lin2	937 25949	1192 72041	2049	5563	12363	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	15619 725262	28271 2355217	57065	151378	321187	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	4284 182901	7332 570090	15066	38003	81213	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	5330 215464	7768 699839	18006	48844	100840	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	4916 206129	7705 650004	17475	44451	93071	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	8970 461727	18766 1523371	36254	97312	205273	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	12985 625290	23141 2130216	46641	127689	274432	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	11627 563137	21211 1875117	44382	117536	251411	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	11964 635488	23502 2169606	47698	131651	273846	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	15418 789770	28808 2546398	60322	158841	340469	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	2443 128169	4271 451422	7255	23799	51341	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	7501 390774	14226 1335059	29266	82614	172198	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	14598 790808	25894 2837919	55807	150957	325575	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	8823 414248	15393 1459242	28325	83809	173860	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	11447 620139	20903 2082721	45832	125786	272433	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCBd 4	Ave	6385 317065	12280 1023855	26324	66709	139323	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 269550

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/17/2019 09:37 Calibration End Date: 07/17/2019 12:06 Calibration ID: 16122

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	11658 539217	19800 1816061	40667	111410	238002	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	++++ 15624	604 39381	1202	3133	6323	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	4969 210201	8635 690190	17562	43312	90280	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Lin2	3690 126388	5340 403672	9976	26476	55205	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Lin1	5358 179511	7492 555893	11663	34717	74978	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Ave	++++ 31240	1443 93835	2206	7231	14050	++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Lin2	2351 70754	3802 200533	5521	13895	29947	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	3068 143497	5874 414554	11868	32359	65579	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	1741 88480	3394 251450	7691	20351	42152	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	11169 482615	21369 1531650	40537	103742	216780	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Lin2	4188 152388	6631 451993	10980	32859	68143	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: ICV 600-269550/10 Calibration Date: 07/17/2019 12:56
Instrument ID: CHVOAMS07 Calib Start Date: 05/14/2019 08:32
GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 05/14/2019 11:00
Lab File ID: A19809.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.0390			0.500	20.0		

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: ICV 600-269550/10 Calibration Date: 07/17/2019 12:56
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A19809.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.4357		11.3	10.0	12.7	50.0
Chloromethane	Ave	0.3512	0.3676	0.1000	10.5	10.0	4.7	30.0
Vinyl chloride	Ave	0.3937	0.4429		11.3	10.0	12.5	30.0
Butadiene	Ave	0.4746	0.5406		11.4	10.0	13.9	50.0
Ethylene oxide	Ave	0.0253	0.0266		105	100	5.2	50.0
Bromomethane	Qua		0.1271		12.8	10.0	27.8	30.0
Chloroethane	Ave	0.1781	0.1767		9.92	10.0	-0.8	30.0
Dichlorofluoromethane	Ave	0.4366	0.4713		10.8	10.0	7.9	30.0
Acrolein	Ave	0.0151	0.0120		39.7	50.0	-20.7	50.0
Acetonitrile	Ave	0.0110	0.0111		100	100	0.3	30.0
Trichlorofluoromethane	Ave	0.5935	0.6083		10.3	10.0	2.5	30.0
Isopropyl alcohol	Ave	0.0069	0.0057		82.4	100	-17.6	50.0
Acetone	Lin1		0.0304		20.9	20.0	4.6	50.0
Ethyl ether	Ave	0.1526	0.1526		10.0	10.0	0.0	50.0
t-Butanol	Ave	0.0102	0.0101		98.4	100	-1.6	30.0
1,1-Dichloroethene	Lin2		0.3052		10.2	10.0	2.2	30.0
Acrylonitrile	Ave	0.0254	0.0259		102	100	2.0	50.0
Iodomethane	Lin		0.1378		7.42	10.0	-25.8	30.0
Methylene Chloride	Lin2		0.3195		9.79	10.0	-2.1	50.0
Methyl acetate	Ave	0.0914	0.0896		19.6	20.0	-2.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3539	0.3292		9.30	10.0	-7.0	30.0
3-Chloro-1-propene	Ave	0.1812	0.1707		9.42	10.0	-5.8	30.0
Carbon disulfide	Ave	0.8204	0.7610		9.28	10.0	-7.2	30.0
trans-1,2-Dichloroethene	Ave	0.3529	0.3435		9.73	10.0	-2.7	30.0
Methyl tert-butyl ether	Ave	0.5630	0.5646		10.0	10.0	0.3	30.0
Propionitrile	Ave	0.0106	0.0109		103	100	3.0	30.0
1,1-Dichloroethane	Ave	0.5463	0.5387	0.1000	9.86	10.0	-1.4	30.0
Vinyl acetate	Lin2		0.2482		19.2	20.0	-4.1	50.0
2-Chloro-1,3-butadiene	Ave	0.4823	0.4909		10.2	10.0	1.8	30.0
Hexane	Ave	0.4157	0.3809		9.16	10.0	-8.4	30.0
Isopropyl ether	Ave	1.087	1.072		9.87	10.0	-1.4	30.0
2-Butanone (MEK)	Lin		0.0168		19.0	20.0	-4.9	50.0
Methacrylonitrile	Lin1		0.0175		96.3	100	-3.7	30.0
cis-1,2-Dichloroethene	Ave	0.3868	0.3671		9.49	10.0	-5.1	30.0
Ethyl acetate	Lin2		0.1155		20.5	20.0	2.7	30.0
Chlorobromomethane	Ave	0.1747	0.1657		9.49	10.0	-5.1	30.0
Tert-butyl ethyl ether	Ave	0.7423	0.7691		10.4	10.0	3.6	30.0
Chloroform	Ave	0.6186	0.6099		9.86	10.0	-1.4	30.0
Isobutyl alcohol	Ave	0.0050	0.0044		221	250	-11.7	50.0
2,2-Dichloropropane	Ave	0.5467	0.5131		9.39	10.0	-6.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: ICV 600-269550/10 Calibration Date: 07/17/2019 12:56
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A19809.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0382	0.0375		19.6	20.0	-2.1	30.0
1,2-Dichloroethane	Ave	0.2605	0.2654		10.2	10.0	1.9	30.0
1,1,1-Trichloroethane	Ave	0.6112	0.5980		9.78	10.0	-2.2	30.0
1,1-Dichloropropene	Ave	0.4461	0.4486		10.1	10.0	0.6	30.0
Cyclohexane	Ave	0.5082	0.4851		9.55	10.0	-4.5	50.0
Carbon tetrachloride	Ave	0.5911	0.5860		9.91	10.0	-0.9	30.0
Benzene	Ave	1.274	1.256		9.86	10.0	-1.4	30.0
Tert-amyl methyl ether	Ave	0.5687	0.5895		10.4	10.0	3.7	30.0
Isooctane	Ave	0.8528	0.7909		9.27	10.0	-7.3	30.0
Ethyl acrylate	Lin2		0.1926		9.70	10.0	-3.0	30.0
n-Heptane	Ave	0.3862	0.3750		9.71	10.0	-2.9	30.0
Dibromomethane	Lin1		0.1301		9.43	10.0	-5.7	30.0
1,2-Dichloropropane	Ave	0.2755	0.2626		9.53	10.0	-4.7	30.0
2-Nitropropane	Lin		0.0329		18.1	20.0	-9.6	30.0
Trichloroethene	Ave	0.4769	0.4887		10.3	10.0	2.5	30.0
Bromodichloromethane	Ave	0.3515	0.3452		9.82	10.0	-1.8	30.0
Methyl methacrylate	Lin2		0.1214		20.0	20.0	0.0	50.0
1,4-Dioxane	Lin2		0.0007		170	200	-14.8	50.0
Methylcyclohexane	Ave	0.5306	0.5075		9.57	10.0	-4.4	30.0
cis-1,3-Dichloropropene	Ave	1.139	1.200		10.5	10.0	5.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1176	0.1080		18.4	20.0	-8.1	50.0
trans-1,3-Dichloropropene	Ave	0.8995	0.9314		10.4	10.0	3.6	30.0
1,1,2-Trichloroethane	Lin2		0.5324		10.6	10.0	6.4	30.0
Ethyl methacrylate	Ave	0.5293	0.5870		11.1	10.0	10.9	50.0
Toluene	Ave	2.480	2.562		10.3	10.0	3.3	30.0
1,3-Dichloropropane	Ave	0.8344	0.8600		10.3	10.0	3.1	30.0
2-Hexanone	Lin1		0.2344		20.5	20.0	2.3	50.0
Dibromochloromethane	Ave	0.8453	0.8986		10.6	10.0	6.3	30.0
n-Butyl acetate	Ave	0.5658	0.6058		10.7	10.0	7.1	30.0
1,2-Dibromoethane	Ave	0.5035	0.5175		10.3	10.0	2.8	30.0
Tetrachloroethene	Ave	0.9824	1.008		10.3	10.0	2.6	30.0
1-Chlorohexane	Ave	0.7806	0.7851		10.1	10.0	0.6	30.0
1,1,1,2-Tetrachloroethane	Ave	1.161	1.171		10.1	10.0	0.8	30.0
Chlorobenzene	Ave	3.128	3.134	0.3000	10.0	10.0	0.2	30.0
Ethylbenzene	Ave	1.600	1.673		10.5	10.0	4.5	30.0
m-Xylene & p-Xylene	Ave	3.540	3.637		10.3	10.0	2.8	30.0
Bromoform	Lin2		0.3299	0.1000	10.6	10.0	5.6	30.0
Styrene	Ave	2.849	3.079		10.8	10.0	8.1	30.0
Cyclohexanone	Lin1		0.0106		512	500	2.3	30.0
o-Xylene	Ave	2.005	2.055		10.3	10.0	2.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5151	0.4830	0.3000	9.38	10.0	-6.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: ICV 600-269550/10 Calibration Date: 07/17/2019 12:56
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A19809.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,4-Dichloro-2-butene	Lin1		0.0959		10.3	10.0	3.2	50.0
1,2,3-Trichloropropane	Lin2		0.1517		10.7	10.0	7.1	30.0
Isopropylbenzene	Ave	4.286	4.117		9.61	10.0	-3.9	30.0
Bromobenzene	Ave	1.101	1.032		9.38	10.0	-6.2	30.0
N-Propylbenzene	Ave	1.325	1.282		9.68	10.0	-3.2	30.0
2-Chlorotoluene	Ave	1.248	1.195		9.58	10.0	-4.2	30.0
4-Chlorotoluene	Ave	2.715	2.679		9.87	10.0	-1.3	30.0
1,3,5-Trimethylbenzene	Ave	3.632	3.585		9.87	10.0	-1.3	30.0
tert-Butylbenzene	Ave	3.307	3.244		9.81	10.0	-1.9	30.0
1,2,4-Trimethylbenzene	Ave	3.641	3.617		9.93	10.0	-0.7	30.0
sec-Butylbenzene	Ave	4.491	4.417		9.83	10.0	-1.7	30.0
Benzyl chloride	Ave	0.6860	0.6145		8.96	10.0	-10.4	30.0
1,3-Dichlorobenzene	Ave	2.253	2.265		10.1	10.0	0.6	30.0
4-Isopropyltoluene	Ave	4.368	4.350		9.96	10.0	-0.4	30.0
1,4-Dichlorobenzene	Ave	2.386	2.272		9.52	10.0	-4.8	30.0
1,2,3-Trimethylbenzene	Ave	3.480	3.553		10.2	10.0	2.1	30.0
1,2-Dichlorobenzene	Ave	1.867	1.869		10.0	10.0	0.1	30.0
n-Butylbenzene	Ave	3.155	2.999		9.51	10.0	-4.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0850	0.0887		10.4	10.0	4.4	30.0
1,3,5-Trichlorobenzene	Ave	1.277	1.211		9.49	10.0	-5.2	30.0
1,2,4-Trichlorobenzene	Lin2		0.7697		10.9	10.0	8.7	30.0
Naphthalene	Lin1		1.115		10.8	10.0	7.8	30.0
Hexachlorobutadiene	Ave	0.1856	0.1881		10.1	10.0	1.3	30.0
1,2,3-Trichlorobenzene	Lin2		0.4435		11.7	10.0	16.6	30.0
Dibromofluoromethane	Ave	0.3414	0.3867		14.2	12.5	13.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2091	0.2116		12.7	12.5	1.2	30.0
Toluene-d8 (Surr)	Ave	3.655	4.233		14.5	12.5	15.8	30.0
4-Bromofluorobenzene	Lin2		0.9824		14.6	12.5	17.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-274277/2 Calibration Date: 09/10/2019 08:01
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A25301.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2809		7.24	10.0	-27.6	35.0
Chloromethane	Ave	0.3512	0.3308	0.1000	9.42	10.0	-5.8	35.0
Vinyl chloride	Ave	0.3937	0.3692		9.38	10.0	-6.2	20.0
Butadiene	Ave	0.4746	0.3816		8.04	10.0	-19.6	35.0
Ethylene oxide	Ave	0.0253	0.0280		111	100	10.7	35.0
Bromomethane	Qua		0.0810		8.66	10.0	-13.4	35.0
Chloroethane	Ave	0.1781	0.1848		10.4	10.0	3.7	35.0
Dichlorofluoromethane	Ave	0.4366	0.5229		12.0	10.0	19.8	35.0
Acrolein	Ave	0.0151	0.0147		48.8	50.0	-2.5	50.0
Acetonitrile	Ave	0.0110	0.0165		149	100	49.0	50.0
Trichlorofluoromethane	Ave	0.5935	0.5564		9.38	10.0	-6.2	35.0
Isopropyl alcohol	Ave	0.0069	0.0089		129	100	29.4	50.0
Acetone	Lin1		0.0310		21.3	20.0	6.6	50.0
Ethyl ether	Ave	0.1526	0.1604		10.5	10.0	5.1	35.0
t-Butanol	Ave	0.0102	0.0144		140	100	40.3*	35.0
1,1-Dichloroethene	Lin2		0.2714		9.06	10.0	-9.4	20.0
Acrylonitrile	Ave	0.0254	0.0334		131	100	31.4	50.0
Iodomethane	Lin		0.1397		7.49	10.0	-25.1	35.0
Methylene Chloride	Lin2		0.3478		10.7	10.0	6.9	50.0
Methyl acetate	Ave	0.0914	0.1117		24.5	20.0	22.2	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3539	0.2488		7.03	10.0	-29.7	35.0
3-Chloro-1-propene	Ave	0.1812	0.1629		8.99	10.0	-10.1	35.0
Carbon disulfide	Ave	0.8204	0.5962		7.27	10.0	-27.3	35.0
trans-1,2-Dichloroethene	Ave	0.3529	0.3500		9.92	10.0	-0.8	35.0
Methyl tert-butyl ether	Ave	0.5630	0.6352		11.3	10.0	12.8	35.0
Propionitrile	Ave	0.0106	0.0145		138	100	37.5*	35.0
1,1-Dichloroethane	Ave	0.5463	0.5698	0.1000	10.4	10.0	4.3	35.0
Vinyl acetate	Lin2		0.2805		21.6	20.0	8.1	50.0
2-Chloro-1,3-butadiene	Ave	0.4823	0.4776		9.90	10.0	-1.0	35.0
Hexane	Ave	0.4157	0.3012		7.24	10.0	-27.6	35.0
Isopropyl ether	Ave	1.087	1.159		10.7	10.0	6.7	35.0
2-Butanone (MEK)	Lin		0.0200		22.5	20.0	12.3	50.0
Methacrylonitrile	Lin1		0.0208		114	100	14.0	35.0
cis-1,2-Dichloroethene	Ave	0.3868	0.4324		11.2	10.0	11.8	35.0
Ethyl acetate	Lin2		0.1454		25.8	20.0	28.7	35.0
Chlorobromomethane	Ave	0.1747	0.1774		10.2	10.0	1.5	35.0
Chloroform	Ave	0.6186	0.6969		11.3	10.0	12.7	20.0
Tert-butyl ethyl ether	Ave	0.7423	0.8774		11.8	10.0	18.2	35.0
Isobutyl alcohol	Ave	0.0050	0.0053		266	250	6.3	50.0
2,2-Dichloropropane	Ave	0.5467	0.6071		11.1	10.0	11.1	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-274277/2 Calibration Date: 09/10/2019 08:01
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A25301.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0382	0.0558		29.2	20.0	45.8*	35.0
1,2-Dichloroethane	Ave	0.2605	0.3228		12.4	10.0	23.9	35.0
1,1,1-Trichloroethane	Ave	0.6112	0.6503		10.6	10.0	6.4	35.0
1,1-Dichloropropene	Ave	0.4461	0.4793		10.8	10.0	7.5	35.0
Cyclohexane	Ave	0.5082	0.4860		9.56	10.0	-4.4	35.0
Carbon tetrachloride	Ave	0.5911	0.6411		10.9	10.0	8.5	35.0
Benzene	Ave	1.274	1.402		11.0	10.0	10.0	35.0
Tert-amyl methyl ether	Ave	0.5687	0.7385		13.0	10.0	29.9	35.0
Isooctane	Ave	0.8528	0.8398		9.85	10.0	-1.5	35.0
Ethyl acrylate	Lin2		0.2433		12.2	10.0	21.8	35.0
n-Heptane	Ave	0.3862	0.3570		9.25	10.0	-7.5	35.0
Dibromomethane	Lin1		0.1512		10.9	10.0	9.4	35.0
1,2-Dichloropropane	Ave	0.2755	0.3157		11.5	10.0	14.6	20.0
2-Nitropropane	Lin		0.0328		18.1	20.0	-9.8	35.0
Trichloroethene	Ave	0.4769	0.4932		10.3	10.0	3.4	35.0
Bromodichloromethane	Ave	0.3515	0.4603		13.1	10.0	31.0	35.0
Methyl methacrylate	Lin2		0.1485		24.4	20.0	21.9	50.0
1,4-Dioxane	Lin2		0.0008		206	200	3.1	50.0
2-Chloroethyl vinyl ether	None		0.1106			20.0		35.0
Methylcyclohexane	Ave	0.5306	0.5427		10.2	10.0	2.3	35.0
cis-1,3-Dichloropropene	Ave	1.139	1.199		10.5	10.0	5.3	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1176	0.1544		26.3	20.0	31.3	50.0
trans-1,3-Dichloropropene	Ave	0.8995	0.9052		10.1	10.0	0.6	35.0
1,1,2-Trichloroethane	Lin2		0.5665		11.3	10.0	13.4	35.0
Ethyl methacrylate	Ave	0.5293	0.5997		11.3	10.0	13.3	50.0
Toluene	Ave	2.480	2.470		9.96	10.0	-0.4	20.0
1,3-Dichloropropane	Ave	0.8344	0.9383		11.2	10.0	12.4	35.0
2-Hexanone	Lin1		0.2442		21.3	20.0	6.6	50.0
Dibromochloromethane	Ave	0.8453	0.9616		11.4	10.0	13.8	35.0
n-Butyl acetate	Ave	0.5658	0.6270		11.1	10.0	10.8	35.0
1,2-Dibromoethane	Ave	0.5035	0.5453		10.8	10.0	8.3	35.0
Tetrachloroethene	Ave	0.9824	0.9213		9.38	10.0	-6.2	35.0
1-Chlorohexane	Ave	0.7806	0.8056		10.3	10.0	3.2	35.0
1,1,1,2-Tetrachloroethane	Ave	1.161	1.130		9.73	10.0	-2.7	35.0
Chlorobenzene	Ave	3.128	3.072	0.3000	9.82	10.0	-1.8	35.0
Ethylbenzene	Ave	1.600	1.661		10.4	10.0	3.8	20.0
m-Xylene & p-Xylene	Ave	3.540	3.553		10.0	10.0	0.4	35.0
Bromoform	Lin2		0.3036	0.1000	9.70	10.0	-3.0	35.0
Styrene	Ave	2.849	2.924		10.3	10.0	2.6	35.0
Cyclohexanone	Lin1		0.0160		770	500	53.9*	35.0
o-Xylene	Ave	2.005	2.041		10.2	10.0	1.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-274277/2 Calibration Date: 09/10/2019 08:01
 Instrument ID: CHVOAMS07 Calib Start Date: 07/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 07/17/2019 12:06
 Lab File ID: A25301.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Ave	0.5151	0.4746	0.3000	9.21	10.0	-7.9	35.0
trans-1,4-Dichloro-2-butene	Lin1		0.0971		10.5	10.0	4.5	50.0
1,2,3-Trichloropropane	Lin2		0.1308		9.17	10.0	-8.3	35.0
Isopropylbenzene	Ave	4.286	3.568		8.32	10.0	-16.8	35.0
Bromobenzene	Ave	1.101	0.8952		8.13	10.0	-18.7	35.0
N-Propylbenzene	Ave	1.325	1.098		8.28	10.0	-17.2	35.0
2-Chlorotoluene	Ave	1.248	0.9363		7.50	10.0	-25.0	35.0
4-Chlorotoluene	Ave	2.715	2.212		8.15	10.0	-18.5	35.0
1,3,5-Trimethylbenzene	Ave	3.632	2.933		8.08	10.0	-19.2	35.0
tert-Butylbenzene	Ave	3.307	2.694		8.14	10.0	-18.6	35.0
1,2,4-Trimethylbenzene	Ave	3.641	3.049		8.37	10.0	-16.3	35.0
sec-Butylbenzene	Ave	4.491	3.883		8.65	10.0	-13.5	35.0
Benzyl chloride	Ave	0.6860	0.8559		12.5	10.0	24.8	35.0
1,3-Dichlorobenzene	Ave	2.253	1.943		8.63	10.0	-13.7	35.0
4-Isopropyltoluene	Ave	4.368	3.751		8.59	10.0	-14.1	35.0
1,4-Dichlorobenzene	Ave	2.386	1.985		8.32	10.0	-16.8	35.0
1,2,3-Trimethylbenzene	Ave	3.480	3.108		8.93	10.0	-10.7	35.0
1,2-Dichlorobenzene	Ave	1.867	1.585		8.49	10.0	-15.1	35.0
n-Butylbenzene	Ave	3.155	2.710		8.59	10.0	-14.1	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.0850	0.0784		9.23	10.0	-7.7	35.0
1,3,5-Trichlorobenzene	Ave	1.277	1.107		8.67	10.0	-13.3	35.0
1,2,4-Trichlorobenzene	Lin2		0.7143		10.1	10.0	0.7	35.0
Naphthalene	Lin1		1.040		10.1	10.0	0.5	35.0
Hexachlorobutadiene	Ave	0.1856	0.1848		9.96	10.0	-0.4	35.0
1,2,3-Trichlorobenzene	Lin2		0.4765		12.6	10.0	25.7	35.0
Dibromofluoromethane	Ave	0.3414	0.3705		10.9	10.0	8.5	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2091	0.2654		12.7	10.0	26.9	35.0
Toluene-d8 (Surr)	Ave	3.655	3.516		9.62	10.0	-3.8	35.0
4-Bromofluorobenzene	Lin2		0.7318		8.63	10.0	-13.7	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-274277/6
 Matrix: Water Lab File ID: A25305.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 10:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
460-00-4	4-Bromofluorobenzene	81		67-139
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-274277/3
 Matrix: Water Lab File ID: A25302.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 08:51
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01041		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01267		0.00100	0.000192
71-43-2	Benzene	0.01083		0.00100	0.000176
91-20-3	Naphthalene	0.01119		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009727		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		50-134
460-00-4	4-Bromofluorobenzene	77		67-139
1868-53-7	Dibromofluoromethane	79		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-274277/4
 Matrix: Water Lab File ID: A25303.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 09/10/2019 09:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 274277 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01093		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01324		0.00100	0.000192
71-43-2	Benzene	0.01127		0.00100	0.000176
91-20-3	Naphthalene	0.01301		0.00200	0.000129
127-18-4	Tetrachloroethene	0.009682		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		50-134
460-00-4	4-Bromofluorobenzene	79		67-139
1868-53-7	Dibromofluoromethane	76		62-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-191341-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 07/17/2019 08:09

Analysis Batch Number: 269550

End Date: 07/17/2019 20:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-269550/1		07/17/2019 08:09	1	A19800a.d	DB-VRX 60 0.25 (mm)
IC 600-269550/2		07/17/2019 09:37	1	A19801a.d	DB-VRX 60 0.25 (mm)
IC 600-269550/3		07/17/2019 10:02	1	A19802.d	DB-VRX 60 0.25 (mm)
IC 600-269550/4		07/17/2019 10:26	1	A19803.d	DB-VRX 60 0.25 (mm)
IC 600-269550/5		07/17/2019 10:51	1	A19804.d	DB-VRX 60 0.25 (mm)
ICIS 600-269550/6		07/17/2019 11:16	1	A19805.d	DB-VRX 60 0.25 (mm)
IC 600-269550/7		07/17/2019 11:41	1	A19806.d	DB-VRX 60 0.25 (mm)
IC 600-269550/8		07/17/2019 12:06	1	A19807.d	DB-VRX 60 0.25 (mm)
ICV 600-269550/10		07/17/2019 12:56	1	A19809.d	DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 12:56	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 13:21	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 14:12	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 14:38	5		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 15:03	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 15:29	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 15:54	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 16:19	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 16:45	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 17:10	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 17:35	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 18:01	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 18:27	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 18:52	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 19:17	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 19:42	1		DB-VRX 60 0.25 (mm)
ZZZZZ		07/17/2019 20:07	1		DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, HoustonJob No.: 600-191341-1

SDG No.: _____

Instrument ID: CHVOAMS07Start Date: 09/10/2019 07:21Analysis Batch Number: 274277End Date: 09/10/2019 19:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-274277/1		09/10/2019 07:21	1	A25300.d	DB-VRX 60 0.25 (mm)
CCVIS 600-274277/2		09/10/2019 08:01	1	A25301.d	DB-VRX 60 0.25 (mm)
LCS 600-274277/3		09/10/2019 08:51	1	A25302.d	DB-VRX 60 0.25 (mm)
LCSD 600-274277/4		09/10/2019 09:15	1	A25303.d	DB-VRX 60 0.25 (mm)
MB 600-274277/6		09/10/2019 10:04	1	A25305.d	DB-VRX 60 0.25 (mm)
600-191341-5		09/10/2019 10:29	1	A25306.d	DB-VRX 60 0.25 (mm)
600-191341-1		09/10/2019 10:53	1	A25307.d	DB-VRX 60 0.25 (mm)
600-191341-3		09/10/2019 11:18	1	A25308.d	DB-VRX 60 0.25 (mm)
600-191341-4		09/10/2019 11:43	1	A25309.d	DB-VRX 60 0.25 (mm)
600-191341-2		09/10/2019 12:08	1	A25310.d	DB-VRX 60 0.25 (mm)
600-191341-1 DL		09/10/2019 12:34	5	A25311.d	DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 12:59	25		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 13:25	500		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 13:50	5		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 14:15	10		DB-VRX 60 0.25 (mm)
600-191341-2 DL		09/10/2019 14:39	20	A25316.d	DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 15:04	100		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 15:29	2000		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 15:54	50		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 16:18	200		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 16:44	5000		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 17:08	100		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 17:33	2000		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 17:58	100		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 18:22	50		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 18:46	20		DB-VRX 60 0.25 (mm)
ZZZZZ		09/10/2019 19:11	20		DB-VRX 60 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Batch Number: 269550 Batch Start Date: 07/17/19 08:09 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BFB 00286	EOxideLcs 00155	EOxideStd 00155	VOAIS50PPM 00255
BFB 600-269550/1		8260B		20 mL	20 mL	2 uL			
IC 600-269550/2		8260B		20 mL	20 mL			0.2 uL	5 uL
IC 600-269550/3		8260B		20 mL	20 mL			0.4 uL	5 uL
IC 600-269550/4		8260B		20 mL	20 mL			0.8 uL	5 uL
IC 600-269550/5		8260B		20 mL	20 mL			2 uL	5 uL
ICIS 600-269550/6		8260B		20 mL	20 mL			4 uL	5 uL
IC 600-269550/7		8260B		20 mL	20 mL			8 uL	5 uL
IC 600-269550/8		8260B		20 mL	20 mL			20 uL	5 uL
ICV 600-269550/10		8260B		20 mL	20 mL		4 uL		5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOALCSGASPT 00334	VOALCSPT2 00143	VOASS50PPM 00293	VOASTDGASPT 00334	VOASTDPT2 00143	
BFB 600-269550/1		8260B							
IC 600-269550/2		8260B					0.2 uL	0.2 uL	
IC 600-269550/3		8260B					0.4 uL	0.4 uL	
IC 600-269550/4		8260B					0.8 uL	0.8 uL	
IC 600-269550/5		8260B					2 uL	2 uL	
ICIS 600-269550/6		8260B					4 uL	4 uL	
IC 600-269550/7		8260B					8 uL	8 uL	
IC 600-269550/8		8260B					20 uL	20 uL	
ICV 600-269550/10		8260B		4 uL	4 uL	5 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

Page 1 of 1

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Batch Number: 274277 Batch Start Date: 09/10/19 07:21 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00290	EOxideLcs 00159	EOxideStd 00159
BFB 600-274277/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-274277/2		8260B		20 mL	20 mL				4 uL
LCS 600-274277/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-274277/4		8260B		20 mL	20 mL			4 uL	
MB 600-274277/6		8260B		20 mL	20 mL				
600-191341-B-5	Artesia - TB01 - 082819	8260B	T	20 mL	20 mL	2 SU			
600-191341-C-1	Artesia - MW38 - 082819	8260B	T	20 mL	20 mL	2 SU			
600-191341-C-3	Artesia - MW36 - 082819	8260B	T	20 mL	20 mL	2 SU			
600-191341-C-4	Artesia - MW36 - 082819 FD	8260B	T	20 mL	20 mL	2 SU			
600-191341-C-2	Artesia - MW37 - 082819	8260B	T	20 mL	20 mL	2 SU			
600-191341-D-1	Artesia - MW38 - 082819	8260B	T	20 mL	20 mL	2 SU			
600-191341-B-2	Artesia - MW37 - 082819	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00259	VOALCSGASPT 00342	VOALCSPT2 00147	VOASS50PPM 00297	VOASTDGASPT 00342	VOASTDPT2 00147
BFB 600-274277/1		8260B							
CCVIS 600-274277/2		8260B		5 uL				4 uL	4 uL
LCS 600-274277/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCSD 600-274277/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-274277/6		8260B		5 uL			5 uL		
600-191341-B-5	Artesia - TB01 - 082819	8260B	T	5 uL			5 uL		
600-191341-C-1	Artesia - MW38 - 082819	8260B	T	5 uL			5 uL		
600-191341-C-3	Artesia - MW36 - 082819	8260B	T	5 uL			5 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

Page 1 of 2

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Batch Number: 274277 Batch Start Date: 09/10/19 07:21 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00259	VOALCSGASPT 00342	VOALCSPT2 00147	VOASS50PPM 00297	VOASTDGASPT 00342	VOASTDPT2 00147
600-191341-C-4	Artesia - MW36 - 082819 FD	8260B	T	5 uL			5 uL		
600-191341-C-2	Artesia - MW37 - 082819	8260B	T	5 uL			5 uL		
600-191341-D-1	Artesia - MW38 - 082819	8260B	T	5 uL			5 uL		
600-191341-B-2	Artesia - MW37 - 082819	8260B	T	5 uL			5 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 300.0

Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: 090619a-5.d
Lab ID: LCS 600-274043/5 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Sulfate	20.0	20.50	103	90-110	

Column to be used to flag recovery and RPD values

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
 SDG No.: _____
 Lab File ID: 090619a-4.d Lab Sample ID: MB 600-274043/4
 Matrix: Water Date Extracted: _____
 Instrument ID: CHWC11 Date Analyzed: 09/06/2019 16:29
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 600-274043/3	090619a-3.d	09/06/2019 12:18
	LCS 600-274043/5	090619a-5.d	09/06/2019 16:49
	CCB 600-274043/15	090619a-15. d	09/06/2019 20:09
Artesia - MW38 - 082819	600-191341-1	090619a-23. d	09/06/2019 22:49
Artesia - MW37 - 082819	600-191341-2	090619a-24. d	09/06/2019 23:09
Artesia - MW36 - 082819	600-191341-3	090619a-25. d	09/06/2019 23:29
	CCB 600-274043/27	090619a-27. d	09/07/2019 00:09
Artesia - MW36 - 082819 FD	600-191341-4	090619a-28. d	09/07/2019 00:29
	CCB 600-274043/39	090619a-39. d	09/07/2019 04:09

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: Artesia - MW38 - 082819 Lab Sample ID: 600-191341-1
Matrix: Water Lab File ID: 090619a-23.d
Analysis Method: 300.0 Date Collected: 08/28/2019 17:21
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 22:49
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2340		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: Artesia - MW37 - 082819 Lab Sample ID: 600-191341-2
Matrix: Water Lab File ID: 090619a-24.d
Analysis Method: 300.0 Date Collected: 08/28/2019 19:37
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 23:09
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1480		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: Artesia - MW36 - 082819 Lab Sample ID: 600-191341-3
Matrix: Water Lab File ID: 090619a-25.d
Analysis Method: 300.0 Date Collected: 08/29/2019 11:40
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 23:29
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1680		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: Artesia - MW36 - 082819 Lab Sample ID: 600-191341-4
FD
Matrix: Water Lab File ID: 090619a-28.d
Analysis Method: 300.0 Date Collected: 08/29/2019 11:45
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/07/2019 00:29
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1850		50.0	9.57

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 271285

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2019 12:34 Calibration End Date: 08/06/2019 14:54 Calibration ID: 16441

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-271285/3	CAL080619-3.d
Level 2	IC 600-271285/4	CAL080619-4.d
Level 3	IC 600-271285/5	CAL080619-5.d
Level 4	IC 600-271285/6	CAL080619-6.d
Level 5	IC 600-271285/7	CAL080619-7.d
Level 6	IC 600-271285/8	CAL080619-8.d
Level 7	IC 600-271285/9	CAL080619-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Fluoride	3.117	3.117	3.117	3.125	3.125	3.133	3.133				2.867 - 3.367	3.124
Chloride	4.675	4.683	4.675	4.692	4.692	4.692	4.692				4.425 - 4.925	4.686
Bromide	8.117	8.117	8.125	8.150	8.133	8.133	8.108				7.875 - 8.375	8.126
Sulfate	8.958	8.958	8.975	9.025	9.017	9.000	8.942				8.725 - 9.225	8.982

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 271285

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2019 12:34 Calibration End Date: 08/06/2019 14:54 Calibration ID: 16441

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-271285/3	CAL080619-3.d
Level 2	IC 600-271285/4	CAL080619-4.d
Level 3	IC 600-271285/5	CAL080619-5.d
Level 4	IC 600-271285/6	CAL080619-6.d
Level 5	IC 600-271285/7	CAL080619-7.d
Level 6	IC 600-271285/8	CAL080619-8.d
Level 7	IC 600-271285/9	CAL080619-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Fluoride	15355420 13961483	13089104 14206918	13774445 14544461	15427881	Lin	-193661.41	14404785.7							0.9990		0.9900
Chloride	6214203 8198923	6250080 8156228	6438896 8282348	7442534	Lin1	-1529094.5	8238999.86							0.9990		0.9900
Bromide	1403710 2794383	1909324 2976003	2196242 3233473	2456616	Lin1	-509006.28	3073838.93							0.9940		0.9900
Sulfate	4294033 5579752	4789087 5793746	4907581 5969194	5095650	Lin1	-1053215.7	5862408.75							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1 Analy Batch No.: 271285

SDG No.: _____

Instrument ID: CHWC11 GC Column: AS-18 ID: _____ Heated Purge: (Y/N) N

Calibration Start Date: 08/06/2019 12:34 Calibration End Date: 08/06/2019 14:54 Calibration ID: 16441

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-271285/3	CAL080619-3.d
Level 2	IC 600-271285/4	CAL080619-4.d
Level 3	IC 600-271285/5	CAL080619-5.d
Level 4	IC 600-271285/6	CAL080619-6.d
Level 5	IC 600-271285/7	CAL080619-7.d
Level 6	IC 600-271285/8	CAL080619-8.d
Level 7	IC 600-271285/9	CAL080619-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Fluoride	Lin	3071084 106551887	6544552 145444611	13774445	30855762	69807415	0.200 7.50	0.500 10.0	1.00	2.00	5.00
Chloride	Lin1	2485681 163124559	6250080 331293919	12877791	37212670	81989228	0.400 20.0	1.00 40.0	2.00	5.00	10.0
Bromide	Lin1	280742 22320019	954662 32334726	2196242	4913232	13971913	0.200 7.50	0.500 10.0	1.00	2.00	5.00
Sulfate	Lin1	1717613 115874929	4789087 238767778	9815161	25478248	55797520	0.400 20.0	1.00 40.0	2.00	5.00	10.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/2 Calibration Date: 09/06/2019 11:58
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		13772060		7.18	7.50	-4.2	10.0
Chloride	Lin1		7940965		19.5	20.0	-2.7	10.0
Bromide	Lin1		2900737		7.24	7.50	-3.4	10.0
Sulfate	Lin1		5684509		19.6	20.0	-2.1	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/2 Calibration Date: 09/06/2019 11:58
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.13	2.88	3.38
Chloride	4.64	4.39	4.89
Bromide	7.99	7.74	8.24
Sulfate	8.82	8.57	9.07

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/14 Calibration Date: 09/06/2019 19:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-14.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		14416104		7.52	7.50	0.3	10.0
Chloride	Lin1		8239693		20.2	20.0	0.9	10.0
Bromide	Lin1		2965366		7.40	7.50	-1.3	10.0
Sulfate	Lin1		5966670		20.5	20.0	2.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/14 Calibration Date: 09/06/2019 19:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-14.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.13	2.88	3.38
Chloride	4.65	4.40	4.90
Bromide	7.99	7.76	8.26
Sulfate	8.82	8.58	9.08

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/26 Calibration Date: 09/06/2019 23:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-26.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		14203903		7.41	7.50	-1.2	10.0
Chloride	Lin1		8048337		19.7	20.0	-1.4	10.0
Bromide	Lin1		2860734		7.15	7.50	-4.7	10.0
Sulfate	Lin1		5766752		19.9	20.0	-0.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/26 Calibration Date: 09/06/2019 23:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-26.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.13	2.88	3.38
Chloride	4.65	4.40	4.90
Bromide	8.01	7.76	8.26
Sulfate	8.83	8.58	9.08

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/38 Calibration Date: 09/07/2019 03:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-38.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin		13965381		7.29	7.50	-2.9	10.0
Chloride	Lin1		7991699		19.6	20.0	-2.1	10.0
Bromide	Lin1		2834131		7.08	7.50	-5.6	10.0
Sulfate	Lin1		5666394		19.5	20.0	-2.4	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Lab Sample ID: CCV 600-274043/38 Calibration Date: 09/07/2019 03:49
Instrument ID: CHWC11 Calib Start Date: 08/06/2019 12:34
GC Column: AS-18 ID: _____ Calib End Date: 08/06/2019 14:54
Lab File ID: 090619a-38.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.13	2.88	3.38
Chloride	4.65	4.40	4.90
Bromide	7.99	7.76	8.26
Sulfate	8.81	8.58	9.08

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 600-274043/4
Matrix: Water Lab File ID: 090619a-4.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 16:29
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-274043/3
Matrix: Water Lab File ID: 090619a-3.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 12:18
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-274043/15
Matrix: Water Lab File ID: 090619a-15.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 20:09
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.2202	J	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-274043/27
Matrix: Water Lab File ID: 090619a-27.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/07/2019 00:09
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-274043/39
Matrix: Water Lab File ID: 090619a-39.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/07/2019 04:09
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: LCS 600-274043/5
Matrix: Water Lab File ID: 090619a-5.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 09/06/2019 16:49
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS-18 ID: _____
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 274043 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	20.50		0.500	0.0957

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, HoustonJob No.: 600-191341-1

SDG No.: _____

Instrument ID: CHWC11Start Date: 08/06/2019 12:34Analysis Batch Number: 271285End Date: 08/07/2019 11:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 600-271285/2		08/06/2019 12:34	1		AS-18
IC 600-271285/3		08/06/2019 12:54	1	CAL080619-3.d	AS-18
IC 600-271285/4		08/06/2019 13:14	1	CAL080619-4.d	AS-18
IC 600-271285/5		08/06/2019 13:34	1	CAL080619-5.d	AS-18
IC 600-271285/6		08/06/2019 13:54	1	CAL080619-6.d	AS-18
IC 600-271285/7		08/06/2019 14:14	1	CAL080619-7.d	AS-18
IC 600-271285/8		08/06/2019 14:34	1	CAL080619-8.d	AS-18
IC 600-271285/9		08/06/2019 14:54	1	CAL080619-9.d	AS-18
ICV 600-271285/10		08/06/2019 15:14	1		AS-18
ICB 600-271285/11		08/06/2019 15:34	1		AS-18
ZZZZZ		08/06/2019 15:54	1		AS-18
ZZZZZ		08/06/2019 16:14	1		AS-18
ZZZZZ		08/06/2019 16:34	1		AS-18
ZZZZZ		08/06/2019 16:54	1		AS-18
ZZZZZ		08/06/2019 17:14	1		AS-18
ZZZZZ		08/06/2019 17:34	1		AS-18
ZZZZZ		08/06/2019 17:54	1		AS-18
ZZZZZ		08/06/2019 18:14	1		AS-18
ZZZZZ		08/06/2019 18:34	1		AS-18
ZZZZZ		08/06/2019 18:54	1		AS-18
CCV 600-271285/22		08/06/2019 19:14	1		AS-18
CCB 600-271285/23		08/06/2019 19:34	1		AS-18
ZZZZZ		08/06/2019 19:54	1		AS-18
ZZZZZ		08/06/2019 20:14	1		AS-18
ZZZZZ		08/06/2019 20:34	1		AS-18
ZZZZZ		08/06/2019 20:54	1		AS-18
ZZZZZ		08/06/2019 21:14	1		AS-18
ZZZZZ		08/06/2019 21:34	1		AS-18
ZZZZZ		08/06/2019 21:54	1		AS-18
ZZZZZ		08/06/2019 22:14	5		AS-18
ZZZZZ		08/06/2019 22:34	1		AS-18
ZZZZZ		08/06/2019 22:54	1		AS-18
CCV 600-271285/34		08/06/2019 23:14	1		AS-18
CCB 600-271285/35		08/06/2019 23:34	1		AS-18
ZZZZZ		08/06/2019 23:54	1		AS-18
ZZZZZ		08/07/2019 00:14	1		AS-18
ZZZZZ		08/07/2019 00:34	1		AS-18
ZZZZZ		08/07/2019 00:54	1		AS-18
ZZZZZ		08/07/2019 01:14	1		AS-18
ZZZZZ		08/07/2019 01:34	1		AS-18
ZZZZZ		08/07/2019 01:54	1		AS-18
ZZZZZ		08/07/2019 02:14	100		AS-18
ZZZZZ		08/07/2019 02:34	1		AS-18
ZZZZZ		08/07/2019 02:54	1		AS-18
ZZZZZ		08/07/2019 03:14	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, HoustonJob No.: 600-191341-1

SDG No.: _____

Instrument ID: CHWC11Start Date: 08/06/2019 12:34Analysis Batch Number: 271285End Date: 08/07/2019 11:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/07/2019 03:34	1		AS-18
CCV 600-271285/48		08/07/2019 03:54	1		AS-18
CCB 600-271285/49		08/07/2019 04:14	1		AS-18
ZZZZZ		08/07/2019 04:34	1		AS-18
ZZZZZ		08/07/2019 04:54	1		AS-18
ZZZZZ		08/07/2019 05:14	1		AS-18
ZZZZZ		08/07/2019 05:34	1		AS-18
ZZZZZ		08/07/2019 05:54	1		AS-18
ZZZZZ		08/07/2019 06:14	1		AS-18
ZZZZZ		08/07/2019 06:34	20		AS-18
ZZZZZ		08/07/2019 06:54	20		AS-18
ZZZZZ		08/07/2019 07:14	1		AS-18
ZZZZZ		08/07/2019 07:34	1		AS-18
CCV 600-271285/60		08/07/2019 07:54	1		AS-18
CCB 600-271285/61		08/07/2019 08:14	1		AS-18
ZZZZZ		08/07/2019 08:34	5		AS-18
ZZZZZ		08/07/2019 08:54	1		AS-18
ZZZZZ		08/07/2019 09:14	1		AS-18
ZZZZZ		08/07/2019 09:34	1		AS-18
ZZZZZ		08/07/2019 09:54	1		AS-18
ZZZZZ		08/07/2019 10:14	1		AS-18
ZZZZZ		08/07/2019 10:34	1		AS-18
ZZZZZ		08/07/2019 10:54	1		AS-18
CCV 600-271285/70		08/07/2019 11:14	1		AS-18
CCB 600-271285/71		08/07/2019 11:34	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-191341-1

SDG No.:

Instrument ID: CHWC11

Start Date: 09/06/2019 11:58

Analysis Batch Number: 274043

End Date: 09/07/2019 07:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 600-274043/2		09/06/2019 11:58	1	090619a-2.d	AS-18
CCB 600-274043/3		09/06/2019 12:18	1	090619a-3.d	AS-18
MB 600-274043/4		09/06/2019 16:29	1	090619a-4.d	AS-18
LCS 600-274043/5		09/06/2019 16:49	1	090619a-5.d	AS-18
ZZZZZ		09/06/2019 17:09	5		AS-18
ZZZZZ		09/06/2019 17:29	10		AS-18
ZZZZZ		09/06/2019 17:49	10		AS-18
ZZZZZ		09/06/2019 18:09	10		AS-18
ZZZZZ		09/06/2019 18:29	10		AS-18
ZZZZZ		09/06/2019 18:49	1		AS-18
ZZZZZ		09/06/2019 19:09	10		AS-18
ZZZZZ		09/06/2019 19:29	100		AS-18
CCV 600-274043/14		09/06/2019 19:49	1	090619a-14.d	AS-18
CCB 600-274043/15		09/06/2019 20:09	1	090619a-15.d	AS-18
ZZZZZ		09/06/2019 20:29	500		AS-18
ZZZZZ		09/06/2019 20:49	1000		AS-18
ZZZZZ		09/06/2019 21:09	500		AS-18
ZZZZZ		09/06/2019 21:29	500		AS-18
ZZZZZ		09/06/2019 21:49	500		AS-18
ZZZZZ		09/06/2019 22:09	500		AS-18
ZZZZZ		09/06/2019 22:29	500		AS-18
600-191341-1		09/06/2019 22:49	100	090619a-23.d	AS-18
600-191341-2		09/06/2019 23:09	100	090619a-24.d	AS-18
600-191341-3		09/06/2019 23:29	100	090619a-25.d	AS-18
CCV 600-274043/26		09/06/2019 23:49	1	090619a-26.d	AS-18
CCB 600-274043/27		09/07/2019 00:09	1	090619a-27.d	AS-18
600-191341-4		09/07/2019 00:29	100	090619a-28.d	AS-18
ZZZZZ		09/07/2019 00:49	1		AS-18
ZZZZZ		09/07/2019 01:09	1000		AS-18
ZZZZZ		09/07/2019 01:29	2		AS-18
ZZZZZ		09/07/2019 01:49	1		AS-18
ZZZZZ		09/07/2019 02:09	2		AS-18
ZZZZZ		09/07/2019 02:29	2		AS-18
ZZZZZ		09/07/2019 02:49	1		AS-18
ZZZZZ		09/07/2019 03:09	1		AS-18
ZZZZZ		09/07/2019 03:29	2		AS-18
CCV 600-274043/38		09/07/2019 03:49	1	090619a-38.d	AS-18
CCB 600-274043/39		09/07/2019 04:09	1	090619a-39.d	AS-18
ZZZZZ		09/07/2019 04:29	10		AS-18
ZZZZZ		09/07/2019 04:49	10		AS-18
ZZZZZ		09/07/2019 05:09	10		AS-18
ZZZZZ		09/07/2019 05:29	2		AS-18
ZZZZZ		09/07/2019 05:49	2		AS-18
ZZZZZ		09/07/2019 06:09	1		AS-18
ZZZZZ		09/07/2019 06:29	20		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Instrument ID: CHWC11 Start Date: 09/06/2019 11:58Analysis Batch Number: 274043 End Date: 09/07/2019 07:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 600-274043/47		09/07/2019 06:49	1		AS-18
CCB 600-274043/48		09/07/2019 07:09	1		AS-18

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-191341-1

SDG No.: _____

Batch Number: 274043 Batch Start Date: 09/06/19 11:58 Batch Analyst: Reach, Shrey KBatch Method: 300.0 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 00108	ICV/LCS 00105			
CCV 600-274043/2		300.0		5 mL	5 mL				
CCB 600-274043/3		300.0		5 mL					
MB 600-274043/4		300.0		5 mL					
LCS 600-274043/5		300.0		5 mL		5 mL			
CCV 600-274043/14		300.0		5 mL	5 mL				
CCB 600-274043/15		300.0		5 mL					
600-191341-A-1	Artesia - MW38 - 082819	300.0	T	5 mL					
600-191341-A-2	Artesia - MW37 - 082819	300.0	T	5 mL					
600-191341-A-3	Artesia - MW36 - 082819	300.0	T	5 mL					
CCV 600-274043/26		300.0		5 mL	5 mL				
CCB 600-274043/27		300.0		5 mL					
600-191341-A-4	Artesia - MW36 - 082819 FD	300.0	T	5 mL					
CCV 600-274043/38		300.0		5 mL	5 mL				
CCB 600-274043/39		300.0		5 mL					

Batch Notes	
Eluent 1 ID	190400143011
Filter ID	16894409

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

300.0

Page 1 of 1

Shipping and Receiving Documents

Chain of Custody Record

[illegible]

6/14/16 *th*

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
---------------------------------------------------------------------------------------------	-----------------------------------------	-----------------------------

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☒ NA

TX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

Base samples are > pH 12: ☐ YES ☐ NO
Acid preserved are < pH 2: ☐ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Samples received on ice? ☒ YES ☐ NO

CF = correction factor

[illegible]

Custody Seal Present: ☒ YES ☐ NO

UNPACKED BY:

JOB NUMBER:

CLIENT:

CARRIER/DRIVER:Date/Time Received:

Sample Receipt Checklist

Eurofins TestAmerica Houston

191341

009 : 507

eurofins

Environment: Testing
TestAmerica

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 600-191341-1

Login Number: 191341

List Number: 1

Creator: Rubio, Yuri

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

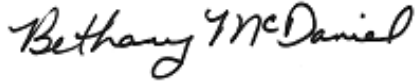
ANALYTICAL REPORT

Job Number: 600-194999-1

Job Description: Dowell - Artesia 10/29/19

For:

Jacobs Engineering Group, Inc.
3721 Rutledge Rd NE
Suite B-1
Albuquerque, NM 87109
Attention: Aleeca Forsberg



Approved for release.
Bethany A McDaniel
Senior Project Manager
11/15/2019 10:29 AM

Bethany A McDaniel, Senior Project Manager
6310 Rothway Street, Houston, TX, 77040
(713)358-2005
bethany.mcdaniel@testamericainc.com
11/15/2019

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Comments

No additional comments.

Receipt

The samples were received on 10/31/2019 10:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 0.8° C.

Receipt Exceptions

MW-22 not listed on COC however analyzed for 8260 (nap, bz, PCE, 11DCE, and 11DCA) and dissolved Mn per containers received and client instruction.

TB not marked for analyses on coc; analyzed per client instruction. Extra TB also received not listed on COC; not analyzed per client request.

Sample MW32 not marked for analyses on the coc; analyzed for VOA (nap, bz, PCE, 11DCE, and 11DCA) per vials received and client instruction.

MW28 marked for ms/msd however extra vials received for voa only.

Sample ID's on the second page of coc were changed to "102919" in the sample ID's for this report per client request.

GC/MS VOA

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of sample 600-194999-12 for analytical batch 600-279189 were low outside control limits for 1,1-Dichloroethene. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Artesia-MW12-102919 (600-194999-6) and Artesia-MW38-102919 (600-194999-17). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 300.0: The calibration blank(CCB) for analytical batch 600-280102 contained sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) of sample 600-194999-17 for analytical batch 600-280102 had recoveries for sulfate high outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Industrial Hygiene

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-Outlet-102919

Lab Sample ID: 600-194999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00403		0.00100	0.000168	mg/L		1		8260B	Total/NA
1,1-Dichloroethene	0.00567		0.00100	0.000192	mg/L		1		8260B	Total/NA
Naphthalene	0.000342	J	0.00200	0.000129	mg/L		1		8260B	Total/NA
Manganese, Dissolved	3.64		1.00	0.250	ug/L		1		6020A	Dissolved

Client Sample ID: Artesia-MW30-102919

Lab Sample ID: 600-194999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00132		0.00100	0.000168	mg/L		1		8260B	Total/NA
1,1-Dichloroethene	0.00315		0.00100	0.000192	mg/L		1		8260B	Total/NA
Naphthalene	0.000249	J	0.00200	0.000129	mg/L		1		8260B	Total/NA
Tetrachloroethene	0.00498		0.00100	0.000333	mg/L		1		8260B	Total/NA
Manganese, Dissolved	8.87		1.00	0.250	ug/L		1		6020A	Dissolved

Client Sample ID: Artesia-MD30-102919

Lab Sample ID: 600-194999-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00141		0.00100	0.000168	mg/L		1		8260B	Total/NA
1,1-Dichloroethene	0.00345		0.00100	0.000192	mg/L		1		8260B	Total/NA
Naphthalene	0.000184	J	0.00200	0.000129	mg/L		1		8260B	Total/NA
Tetrachloroethene	0.00476		0.00100	0.000333	mg/L		1		8260B	Total/NA
Manganese, Dissolved	7.11		1.00	0.250	ug/L		1		6020A	Dissolved

Client Sample ID: Artesia-MW32-102919

Lab Sample ID: 600-194999-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000171	J	0.00100	0.000168	mg/L		1		8260B	Total/NA
Tetrachloroethene	0.000921	J	0.00100	0.000333	mg/L		1		8260B	Total/NA
Manganese, Dissolved	4.14		1.00	0.250	ug/L		1		6020A	Dissolved

Client Sample ID: Artesia-MW36-102919

Lab Sample ID: 600-194999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0337		0.00100	0.000168	mg/L		1		8260B	Total/NA
1,1-Dichloroethene	0.000593	J	0.00100	0.000192	mg/L		1		8260B	Total/NA
Benzene	0.0129		0.00100	0.000176	mg/L		1		8260B	Total/NA
Naphthalene	0.0236		0.00200	0.000129	mg/L		1		8260B	Total/NA
Tetrachloroethene	0.0100		0.00100	0.000333	mg/L		1		8260B	Total/NA
Sulfate	738		125	23.9	mg/L		250		300.0	Total/NA

Client Sample ID: Artesia-MW12-102919

Lab Sample ID: 600-194999-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethene	0.00252		0.00100	0.000192	mg/L		1		8260B	Total/NA
Benzene	0.00858		0.00100	0.000176	mg/L		1		8260B	Total/NA
Naphthalene	0.0297		0.00200	0.000129	mg/L		1		8260B	Total/NA
Tetrachloroethene	0.00172		0.00100	0.000333	mg/L		1		8260B	Total/NA
1,1-Dichloroethane - DL	0.0502		0.00500	0.000840	mg/L		5		8260B	Total/NA
Sulfate	2150		50.0	9.57	mg/L		100		300.0	Total/NA

Client Sample ID: Artesia-MW17C-102919

Lab Sample ID: 600-194999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000178	J	0.00100	0.000168	mg/L		1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW17C-102919 (Continued)

Lab Sample ID: 600-194999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.000350	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.00222		0.00200	0.000129	mg/L	1		8260B	Total/NA
Sulfate	1290		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia-MW11-102919

Lab Sample ID: 600-194999-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00488		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000201	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000441	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000390	J	0.00100	0.000333	mg/L	1		8260B	Total/NA
Sulfate	1330		100	19.1	mg/L	200		300.0	Total/NA

Client Sample ID: Artesia-MD11-102919

Lab Sample ID: 600-194999-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00457		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000205	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000223	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000399	J	0.00100	0.000333	mg/L	1		8260B	Total/NA
Sulfate	911		100	19.1	mg/L	200		300.0	Total/NA

Client Sample ID: Artesia-MW29-102919

Lab Sample ID: 600-194999-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0103		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0267		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0365		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	0.793	J	1.00	0.250	ug/L	1		6020A	Dissolved

Client Sample ID: Artesia-MW35-102919

Lab Sample ID: 600-194999-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0234		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0262		0.00100	0.000333	mg/L	1		8260B	Total/NA

Client Sample ID: Artesia-MW28-102919

Lab Sample ID: 600-194999-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00553		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0132	F1	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000316	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0178		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	1.25		1.00	0.250	ug/L	1		6020A	Dissolved

Client Sample ID: Artesia-MW25-102919

Lab Sample ID: 600-194999-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000989	J	0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000473	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.000895	J	0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	138		1.00	0.250	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW31-102919

Lab Sample ID: 600-194999-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00316		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00215		0.00100	0.000192	mg/L	1		8260B	Total/NA
Manganese, Dissolved	81.7		1.00	0.250	ug/L	1		6020A	Dissolved

Client Sample ID: Artesia-MW34-102919

Lab Sample ID: 600-194999-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00104		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.000784	J F1	0.00100	0.000192	mg/L	1		8260B	Total/NA
Naphthalene	0.000174	J	0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00126		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	1.08		1.00	0.250	ug/L	1		6020A	Dissolved

Client Sample ID: Artesia-MW37-102919

Lab Sample ID: 600-194999-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.0475		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00822		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.00701		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.0114		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00688		0.00100	0.000333	mg/L	1		8260B	Total/NA
Sulfate	2570		50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia-MW38-102919

Lab Sample ID: 600-194999-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.0101		0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene	0.00167		0.00100	0.000176	mg/L	1		8260B	Total/NA
Naphthalene	0.0221		0.00200	0.000129	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0108		0.00100	0.000333	mg/L	1		8260B	Total/NA
1,1-Dichloroethane - DL	0.154		0.0100	0.00168	mg/L	10		8260B	Total/NA
Sulfate	927	F1	50.0	9.57	mg/L	100		300.0	Total/NA

Client Sample ID: Artesia-TB01-102919

Lab Sample ID: 600-194999-18

No Detections.

Client Sample ID: Artesia-Inlet-102919

Lab Sample ID: 600-194999-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00321		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.00909		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.0102		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	3.51		1.00	0.250	ug/L	1		6020A	Dissolved

Client Sample ID: Artesia-MID-102919

Lab Sample ID: 600-194999-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.00343		0.00100	0.000168	mg/L	1		8260B	Total/NA
1,1-Dichloroethene	0.0111		0.00100	0.000192	mg/L	1		8260B	Total/NA
Tetrachloroethene	0.00201		0.00100	0.000333	mg/L	1		8260B	Total/NA
Manganese, Dissolved	3.25		1.00	0.250	ug/L	1		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Houston

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW-22-102919

Lab Sample ID: 600-194999-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.000832	J	0.00100	0.000168	mg/L		1		8260B	Total/NA
Manganese, Dissolved	0.683	J	1.00	0.250	ug/L		1		6020A	Dissolved

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-Outlet-102919

Lab Sample ID: 600-194999-1

Date Collected: 10/29/19 08:25

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00403		0.00100	0.000168	mg/L			11/01/19 14:50	1
1,1-Dichloroethene	0.00567		0.00100	0.000192	mg/L			11/01/19 14:50	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 14:50	1
Naphthalene	0.000342	J	0.00200	0.000129	mg/L			11/01/19 14:50	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/01/19 14:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		50 - 134					11/01/19 14:50	1
4-Bromofluorobenzene	125		67 - 139					11/01/19 14:50	1
Dibromofluoromethane	96		62 - 130					11/01/19 14:50	1
Toluene-d8 (Surr)	103		70 - 130					11/01/19 14:50	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	3.64		1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:25	1

Client Sample ID: Artesia-MW30-102919

Lab Sample ID: 600-194999-2

Date Collected: 10/29/19 09:05

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00132		0.00100	0.000168	mg/L			11/01/19 15:14	1
1,1-Dichloroethene	0.00315		0.00100	0.000192	mg/L			11/01/19 15:14	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 15:14	1
Naphthalene	0.000249	J	0.00200	0.000129	mg/L			11/01/19 15:14	1
Tetrachloroethene	0.00498		0.00100	0.000333	mg/L			11/01/19 15:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					11/01/19 15:14	1
4-Bromofluorobenzene	133		67 - 139					11/01/19 15:14	1
Dibromofluoromethane	95		62 - 130					11/01/19 15:14	1
Toluene-d8 (Surr)	106		70 - 130					11/01/19 15:14	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	8.87		1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:37	1

Client Sample ID: Artesia-MD30-102919

Lab Sample ID: 600-194999-3

Date Collected: 10/29/19 09:10

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00141		0.00100	0.000168	mg/L			11/01/19 15:38	1
1,1-Dichloroethene	0.00345		0.00100	0.000192	mg/L			11/01/19 15:38	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 15:38	1
Naphthalene	0.000184	J	0.00200	0.000129	mg/L			11/01/19 15:38	1
Tetrachloroethene	0.00476		0.00100	0.000333	mg/L			11/01/19 15:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		50 - 134					11/01/19 15:38	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MD30-102919

Lab Sample ID: 600-194999-3

Date Collected: 10/29/19 09:10

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	127		67 - 139		11/01/19 15:38	1
Dibromofluoromethane	100		62 - 130		11/01/19 15:38	1
Toluene-d8 (Surr)	103		70 - 130		11/01/19 15:38	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	7.11		1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:40	1

Client Sample ID: Artesia-MW32-102919

Lab Sample ID: 600-194999-4

Date Collected: 10/29/19 09:25

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000171	J	0.00100	0.000168	mg/L			11/01/19 16:02	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/01/19 16:02	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 16:02	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/01/19 16:02	1
Tetrachloroethene	0.000921	J	0.00100	0.000333	mg/L			11/01/19 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		50 - 134					11/01/19 16:02	1
4-Bromofluorobenzene	122		67 - 139					11/01/19 16:02	1
Dibromofluoromethane	97		62 - 130					11/01/19 16:02	1
Toluene-d8 (Surr)	101		70 - 130					11/01/19 16:02	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	4.14		1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:43	1

Client Sample ID: Artesia-MW36-102919

Lab Sample ID: 600-194999-5

Date Collected: 10/29/19 11:33

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0337		0.00100	0.000168	mg/L			11/01/19 16:26	1
1,1-Dichloroethene	0.000593	J	0.00100	0.000192	mg/L			11/01/19 16:26	1
Benzene	0.0129		0.00100	0.000176	mg/L			11/01/19 16:26	1
Naphthalene	0.0236		0.00200	0.000129	mg/L			11/01/19 16:26	1
Tetrachloroethene	0.0100		0.00100	0.000333	mg/L			11/01/19 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		50 - 134					11/01/19 16:26	1
4-Bromofluorobenzene	111		67 - 139					11/01/19 16:26	1
Dibromofluoromethane	95		62 - 130					11/01/19 16:26	1
Toluene-d8 (Surr)	102		70 - 130					11/01/19 16:26	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	738		125	23.9	mg/L			11/12/19 13:32	250

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW12-102919

Lab Sample ID: 600-194999-6

Date Collected: 10/29/19 12:23

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.00252		0.00100	0.000192	mg/L			11/01/19 16:51	1
Benzene	0.00858		0.00100	0.000176	mg/L			11/01/19 16:51	1
Naphthalene	0.0297		0.00200	0.000129	mg/L			11/01/19 16:51	1
Tetrachloroethene	0.00172		0.00100	0.000333	mg/L			11/01/19 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					11/01/19 16:51	1
4-Bromofluorobenzene	117		67 - 139					11/01/19 16:51	1
Dibromofluoromethane	98		62 - 130					11/01/19 16:51	1
Toluene-d8 (Surr)	108		70 - 130					11/01/19 16:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0502		0.00500	0.000840	mg/L			11/04/19 18:03	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					11/04/19 18:03	5
4-Bromofluorobenzene	124		67 - 139					11/04/19 18:03	5
Dibromofluoromethane	90		62 - 130					11/04/19 18:03	5
Toluene-d8 (Surr)	105		70 - 130					11/04/19 18:03	5

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2150		50.0	9.57	mg/L			11/12/19 13:43	100

Client Sample ID: Artesia-MW17C-102919

Lab Sample ID: 600-194999-7

Date Collected: 10/29/19 13:00

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000178	J	0.00100	0.000168	mg/L			11/01/19 17:15	1
1,1-Dichloroethene	0.000350	J	0.00100	0.000192	mg/L			11/01/19 17:15	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 17:15	1
Naphthalene	0.00222		0.00200	0.000129	mg/L			11/01/19 17:15	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/01/19 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					11/01/19 17:15	1
4-Bromofluorobenzene	120		67 - 139					11/01/19 17:15	1
Dibromofluoromethane	96		62 - 130					11/01/19 17:15	1
Toluene-d8 (Surr)	105		70 - 130					11/01/19 17:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1290		50.0	9.57	mg/L			11/12/19 13:53	100

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW11-102919

Lab Sample ID: 600-194999-8

Date Collected: 10/29/19 16:15

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00488		0.00100	0.000168	mg/L			11/01/19 17:39	1
1,1-Dichloroethene	0.000201	J	0.00100	0.000192	mg/L			11/01/19 17:39	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 17:39	1
Naphthalene	0.000441	J	0.00200	0.000129	mg/L			11/01/19 17:39	1
Tetrachloroethene	0.000390	J	0.00100	0.000333	mg/L			11/01/19 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		50 - 134					11/01/19 17:39	1
4-Bromofluorobenzene	120		67 - 139					11/01/19 17:39	1
Dibromofluoromethane	95		62 - 130					11/01/19 17:39	1
Toluene-d8 (Surr)	103		70 - 130					11/01/19 17:39	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1330		100	19.1	mg/L			11/12/19 14:04	200

Client Sample ID: Artesia-MD11-102919

Lab Sample ID: 600-194999-9

Date Collected: 10/29/19 16:15

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00457		0.00100	0.000168	mg/L			11/01/19 18:03	1
1,1-Dichloroethene	0.000205	J	0.00100	0.000192	mg/L			11/01/19 18:03	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 18:03	1
Naphthalene	0.000223	J	0.00200	0.000129	mg/L			11/01/19 18:03	1
Tetrachloroethene	0.000399	J	0.00100	0.000333	mg/L			11/01/19 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					11/01/19 18:03	1
4-Bromofluorobenzene	124		67 - 139					11/01/19 18:03	1
Dibromofluoromethane	96		62 - 130					11/01/19 18:03	1
Toluene-d8 (Surr)	100		70 - 130					11/01/19 18:03	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	911		100	19.1	mg/L			11/12/19 14:36	200

Client Sample ID: Artesia-MW29-102919

Lab Sample ID: 600-194999-10

Date Collected: 10/29/19 10:19

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0103		0.00100	0.000168	mg/L			11/01/19 18:28	1
1,1-Dichloroethene	0.0267		0.00100	0.000192	mg/L			11/01/19 18:28	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 18:28	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/01/19 18:28	1
Tetrachloroethene	0.0365		0.00100	0.000333	mg/L			11/01/19 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					11/01/19 18:28	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW29-102919

Lab Sample ID: 600-194999-10

Date Collected: 10/29/19 10:19

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	125		67 - 139		11/01/19 18:28	1
Dibromofluoromethane	96		62 - 130		11/01/19 18:28	1
Toluene-d8 (Surr)	103		70 - 130		11/01/19 18:28	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.793	J	1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:46	1

Client Sample ID: Artesia-MW35-102919

Lab Sample ID: 600-194999-11

Date Collected: 10/29/19 10:38

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0234		0.00100	0.000192	mg/L			11/01/19 18:53	1
Tetrachloroethene	0.0262		0.00100	0.000333	mg/L			11/01/19 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		11/01/19 18:53	1
4-Bromofluorobenzene	124		67 - 139		11/01/19 18:53	1
Dibromofluoromethane	97		62 - 130		11/01/19 18:53	1
Toluene-d8 (Surr)	103		70 - 130		11/01/19 18:53	1

Client Sample ID: Artesia-MW28-102919

Lab Sample ID: 600-194999-12

Date Collected: 10/29/19 11:15

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00553		0.00100	0.000168	mg/L			11/01/19 11:38	1
1,1-Dichloroethene	0.0132	F1	0.00100	0.000192	mg/L			11/01/19 11:38	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 11:38	1
Naphthalene	0.000316	J	0.00200	0.000129	mg/L			11/01/19 11:38	1
Tetrachloroethene	0.0178		0.00100	0.000333	mg/L			11/01/19 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		11/01/19 11:38	1
4-Bromofluorobenzene	124		67 - 139		11/01/19 11:38	1
Dibromofluoromethane	90		62 - 130		11/01/19 11:38	1
Toluene-d8 (Surr)	107		70 - 130		11/01/19 11:38	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	1.25		1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:59	1

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW25-102919

Lab Sample ID: 600-194999-13

Date Collected: 10/29/19 11:51

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000989	J	0.00100	0.000168	mg/L			11/01/19 19:18	1
1,1-Dichloroethene	0.000473	J	0.00100	0.000192	mg/L			11/01/19 19:18	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 19:18	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/01/19 19:18	1
Tetrachloroethene	0.000895	J	0.00100	0.000333	mg/L			11/01/19 19:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134					11/01/19 19:18	1
4-Bromofluorobenzene	126		67 - 139					11/01/19 19:18	1
Dibromofluoromethane	95		62 - 130					11/01/19 19:18	1
Toluene-d8 (Surr)	102		70 - 130					11/01/19 19:18	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	138		1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:09	1

Client Sample ID: Artesia-MW31-102919

Lab Sample ID: 600-194999-14

Date Collected: 10/29/19 12:45

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00316		0.00100	0.000168	mg/L			11/01/19 19:43	1
1,1-Dichloroethene	0.00215		0.00100	0.000192	mg/L			11/01/19 19:43	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 19:43	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/01/19 19:43	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/01/19 19:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		50 - 134					11/01/19 19:43	1
4-Bromofluorobenzene	121		67 - 139					11/01/19 19:43	1
Dibromofluoromethane	92		62 - 130					11/01/19 19:43	1
Toluene-d8 (Surr)	103		70 - 130					11/01/19 19:43	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	81.7		1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:12	1

Client Sample ID: Artesia-MW34-102919

Lab Sample ID: 600-194999-15

Date Collected: 10/29/19 13:17

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00104		0.00100	0.000168	mg/L			11/01/19 12:01	1
1,1-Dichloroethene	0.000784	J F1	0.00100	0.000192	mg/L			11/01/19 12:01	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 12:01	1
Naphthalene	0.000174	J	0.00200	0.000129	mg/L			11/01/19 12:01	1
Tetrachloroethene	0.00126		0.00100	0.000333	mg/L			11/01/19 12:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134					11/01/19 12:01	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW34-102919

Lab Sample ID: 600-194999-15

Date Collected: 10/29/19 13:17

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	128		67 - 139		11/01/19 12:01	1
Dibromofluoromethane	93		62 - 130		11/01/19 12:01	1
Toluene-d8 (Surr)	108		70 - 130		11/01/19 12:01	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	1.08		1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:15	1

Client Sample ID: Artesia-MW37-102919

Lab Sample ID: 600-194999-16

Date Collected: 10/29/19 15:08

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.0475		0.00100	0.000168	mg/L			11/01/19 20:08	1
1,1-Dichloroethene	0.00822		0.00100	0.000192	mg/L			11/01/19 20:08	1
Benzene	0.00701		0.00100	0.000176	mg/L			11/01/19 20:08	1
Naphthalene	0.0114		0.00200	0.000129	mg/L			11/01/19 20:08	1
Tetrachloroethene	0.00688		0.00100	0.000333	mg/L			11/01/19 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		11/01/19 20:08	1
4-Bromofluorobenzene	122		67 - 139		11/01/19 20:08	1
Dibromofluoromethane	94		62 - 130		11/01/19 20:08	1
Toluene-d8 (Surr)	105		70 - 130		11/01/19 20:08	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2570		50.0	9.57	mg/L			11/12/19 14:47	100

Client Sample ID: Artesia-MW38-102919

Lab Sample ID: 600-194999-17

Date Collected: 10/29/19 14:20

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.0101		0.00100	0.000192	mg/L			11/04/19 18:27	1
Benzene	0.00167		0.00100	0.000176	mg/L			11/04/19 18:27	1
Naphthalene	0.0221		0.00200	0.000129	mg/L			11/05/19 19:09	1
Tetrachloroethene	0.0108		0.00100	0.000333	mg/L			11/04/19 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		11/04/19 18:27	1
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		11/05/19 19:09	1
4-Bromofluorobenzene	119		67 - 139		11/04/19 18:27	1
4-Bromofluorobenzene	119		67 - 139		11/05/19 19:09	1
Dibromofluoromethane	92		62 - 130		11/04/19 18:27	1
Dibromofluoromethane	91		62 - 130		11/05/19 19:09	1
Toluene-d8 (Surr)	106		70 - 130		11/04/19 18:27	1
Toluene-d8 (Surr)	105		70 - 130		11/05/19 19:09	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW38-102919

Lab Sample ID: 600-194999-17

Date Collected: 10/29/19 14:20

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.154		0.0100	0.00168	mg/L			11/04/19 18:51	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		50 - 134					11/04/19 18:51	10
4-Bromofluorobenzene	126		67 - 139					11/04/19 18:51	10
Dibromofluoromethane	93		62 - 130					11/04/19 18:51	10
Toluene-d8 (Surr)	108		70 - 130					11/04/19 18:51	10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	927	F1	50.0	9.57	mg/L			11/12/19 14:58	100

Client Sample ID: Artesia-TB01-102919

Lab Sample ID: 600-194999-18

Date Collected: 10/29/19 08:05

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			11/05/19 18:45	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/05/19 18:45	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/05/19 18:45	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/05/19 18:45	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/05/19 18:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		50 - 134					11/05/19 18:45	1
4-Bromofluorobenzene	125		67 - 139					11/05/19 18:45	1
Dibromofluoromethane	90		62 - 130					11/05/19 18:45	1
Toluene-d8 (Surr)	102		70 - 130					11/05/19 18:45	1

Client Sample ID: Artesia-Inlet-102919

Lab Sample ID: 600-194999-19

Date Collected: 10/29/19 08:10

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00321		0.00100	0.000168	mg/L			11/05/19 17:33	1
1,1-Dichloroethene	0.00909		0.00100	0.000192	mg/L			11/05/19 17:33	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/05/19 17:33	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/05/19 17:33	1
Tetrachloroethene	0.0102		0.00100	0.000333	mg/L			11/05/19 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134					11/05/19 17:33	1
4-Bromofluorobenzene	126		67 - 139					11/05/19 17:33	1
Dibromofluoromethane	93		62 - 130					11/05/19 17:33	1
Toluene-d8 (Surr)	102		70 - 130					11/05/19 17:33	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	3.51		1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:24	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MID-102919

Lab Sample ID: 600-194999-20

Date Collected: 10/29/19 08:20

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.00343		0.00100	0.000168	mg/L			11/05/19 17:57	1
1,1-Dichloroethene	0.0111		0.00100	0.000192	mg/L			11/05/19 17:57	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/05/19 17:57	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/05/19 17:57	1
Tetrachloroethene	0.00201		0.00100	0.000333	mg/L			11/05/19 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		50 - 134					11/05/19 17:57	1
4-Bromofluorobenzene	127		67 - 139					11/05/19 17:57	1
Dibromofluoromethane	93		62 - 130					11/05/19 17:57	1
Toluene-d8 (Surr)	103		70 - 130					11/05/19 17:57	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	3.25		1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:27	1

Client Sample ID: Artesia-MW-22-102919

Lab Sample ID: 600-194999-21

Date Collected: 10/29/19 12:12

Matrix: Water

Date Received: 10/31/19 10:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000832	J	0.00100	0.000168	mg/L			11/05/19 18:21	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/05/19 18:21	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/05/19 18:21	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/05/19 18:21	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/05/19 18:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		50 - 134					11/05/19 18:21	1
4-Bromofluorobenzene	120		67 - 139					11/05/19 18:21	1
Dibromofluoromethane	89		62 - 130					11/05/19 18:21	1
Toluene-d8 (Surr)	98		70 - 130					11/05/19 18:21	1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.683	J	1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:40	1

Default Detection Limits

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units
1,1-Dichloroethane	0.00100	0.000168	mg/L
1,1-Dichloroethene	0.00100	0.000192	mg/L
Benzene	0.00100	0.000176	mg/L
Naphthalene	0.00200	0.000129	mg/L
Tetrachloroethene	0.00100	0.000333	mg/L

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL	MDL	Units
Sulfate	0.500	0.0957	mg/L

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry - Dissolved Prep: 3010A

Analyte	RL	MDL	Units
Manganese, Dissolved	1.00	0.250	ug/L

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-194999-1	Artesia-Outlet-102919	108	125	96	103
600-194999-2	Artesia-MW30-102919	104	133	95	106
600-194999-3	Artesia-MD30-102919	108	127	100	103
600-194999-4	Artesia-MW32-102919	107	122	97	101
600-194999-5	Artesia-MW36-102919	108	111	95	102
600-194999-6	Artesia-MW12-102919	106	117	98	108
600-194999-6 - DL	Artesia-MW12-102919	93	124	90	105
600-194999-7	Artesia-MW17C-102919	102	120	96	105
600-194999-8	Artesia-MW11-102919	104	120	95	103
600-194999-9	Artesia-MD11-102919	105	124	96	100
600-194999-10	Artesia-MW29-102919	102	125	96	103
600-194999-11	Artesia-MW35-102919	105	124	97	103
600-194999-12	Artesia-MW28-102919	96	124	90	107
600-194999-12 MS	Artesia-MW28-102919	97	117	94	105
600-194999-12 MSD	Artesia-MW28-102919	99	116	97	101
600-194999-13	Artesia-MW25-102919	105	126	95	102
600-194999-14	Artesia-MW31-102919	106	121	92	103
600-194999-15	Artesia-MW34-102919	98	128	93	108
600-194999-15 MS	Artesia-MW34-102919	99	122	97	104
600-194999-15 MSD	Artesia-MW34-102919	101	122	99	103
600-194999-16	Artesia-MW37-102919	102	122	94	105
600-194999-17	Artesia-MW38-102919	98	119	92	106
600-194999-17 - DL	Artesia-MW38-102919	97	126	93	108
600-194999-17	Artesia-MW38-102919	99	119	91	105
600-194999-18	Artesia-TB01-102919	92	125	90	102
600-194999-19	Artesia-Inlet-102919	102	126	93	102
600-194999-20	Artesia-MID-102919	101	127	93	103
600-194999-21	Artesia-MW-22-102919	89	120	89	98
LCS 600-279189/3	Lab Control Sample	78	121	84	109
LCS 600-279297/3	Lab Control Sample	85	118	90	105
LCS 600-279414/3	Lab Control Sample	89	119	96	105
LCSD 600-279189/4	Lab Control Sample Dup	87	117	91	108
LCSD 600-279297/4	Lab Control Sample Dup	90	121	97	108
LCSD 600-279414/4	Lab Control Sample Dup	93	123	97	105
MB 600-279189/6	Method Blank	91	128	88	109
MB 600-279297/6	Method Blank	91	129	91	106
MB 600-279414/6	Method Blank	98	125	94	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-279189/6

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			11/01/19 10:27	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/01/19 10:27	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/01/19 10:27	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/01/19 10:27	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/01/19 10:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		11/01/19 10:27	1
4-Bromofluorobenzene	128		67 - 139		11/01/19 10:27	1
Dibromofluoromethane	88		62 - 130		11/01/19 10:27	1
Toluene-d8 (Surr)	109		70 - 130		11/01/19 10:27	1

Lab Sample ID: LCS 600-279189/3

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.01012		mg/L		101	70 - 140
1,1-Dichloroethene	0.0100	0.01041		mg/L		104	58 - 148
Benzene	0.0100	0.01042		mg/L		104	70 - 130
Naphthalene	0.0100	0.008346		mg/L		83	10 - 150
Tetrachloroethene	0.0100	0.01271		mg/L		127	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		50 - 134
4-Bromofluorobenzene	121		67 - 139
Dibromofluoromethane	84		62 - 130
Toluene-d8 (Surr)	109		70 - 130

Lab Sample ID: LCSD 600-279189/4

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.009687		mg/L		97	70 - 140	4	20
1,1-Dichloroethene	0.0100	0.009293		mg/L		93	58 - 148	11	20
Benzene	0.0100	0.009905		mg/L		99	70 - 130	5	20
Naphthalene	0.0100	0.007494		mg/L		75	10 - 150	11	20
Tetrachloroethene	0.0100	0.01167		mg/L		117	47 - 150	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		50 - 134
4-Bromofluorobenzene	117		67 - 139
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	108		70 - 130

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-194999-12 MS

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Artesia-MW28-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.00553		0.0100	0.01454		mg/L		90	70 - 140
1,1-Dichloroethene	0.0132	F1	0.0100	0.01921		mg/L		60	58 - 148
Benzene	0.000176	U	0.0100	0.009915		mg/L		99	70 - 130
Naphthalene	0.000316	J	0.0100	0.01097		mg/L		107	10 - 150
Tetrachloroethene	0.0178		0.0100	0.03042		mg/L		126	47 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		50 - 134
4-Bromofluorobenzene	117		67 - 139
Dibromofluoromethane	94		62 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: 600-194999-12 MSD

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Artesia-MW28-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.00553		0.0100	0.01380		mg/L		83	70 - 140	5	30
1,1-Dichloroethene	0.0132	F1	0.0100	0.01877	F1	mg/L		55	58 - 148	2	30
Benzene	0.000176	U	0.0100	0.009215		mg/L		92	70 - 130	7	30
Naphthalene	0.000316	J	0.0100	0.01180		mg/L		115	10 - 150	7	30
Tetrachloroethene	0.0178		0.0100	0.02864		mg/L		108	47 - 150	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	116		67 - 139
Dibromofluoromethane	97		62 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: 600-194999-15 MS

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Artesia-MW34-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.00104		0.0100	0.009147		mg/L		81	70 - 140
1,1-Dichloroethene	0.000784	J F1	0.0100	0.006369	F1	mg/L		56	58 - 148
Benzene	0.000176	U	0.0100	0.009160		mg/L		92	70 - 130
Naphthalene	0.000174	J	0.0100	0.01287		mg/L		127	10 - 150
Tetrachloroethene	0.00126		0.0100	0.01215		mg/L		109	47 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
4-Bromofluorobenzene	122		67 - 139
Dibromofluoromethane	97		62 - 130
Toluene-d8 (Surr)	104		70 - 130

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-194999-15 MSD

Matrix: Water

Analysis Batch: 279189

Client Sample ID: Artesia-MW34-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.00104		0.0100	0.009379		mg/L		83	70 - 140	3	30
1,1-Dichloroethene	0.000784	J F1	0.0100	0.006394	F1	mg/L		56	58 - 148	0	30
Benzene	0.000176	U	0.0100	0.009334		mg/L		93	70 - 130	2	30
Naphthalene	0.000174	J	0.0100	0.01322		mg/L		130	10 - 150	3	30
Tetrachloroethene	0.00126		0.0100	0.01183		mg/L		106	47 - 150	3	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		50 - 134
4-Bromofluorobenzene	122		67 - 139
Dibromofluoromethane	99		62 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 600-279297/6

Matrix: Water

Analysis Batch: 279297

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			11/04/19 10:29	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/04/19 10:29	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/04/19 10:29	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/04/19 10:29	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/04/19 10:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		11/04/19 10:29	1
4-Bromofluorobenzene	129		67 - 139		11/04/19 10:29	1
Dibromofluoromethane	91		62 - 130		11/04/19 10:29	1
Toluene-d8 (Surr)	106		70 - 130		11/04/19 10:29	1

Lab Sample ID: LCS 600-279297/3

Matrix: Water

Analysis Batch: 279297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.009861		mg/L		99	70 - 140
1,1-Dichloroethene	0.0100	0.009945		mg/L		99	58 - 148
Benzene	0.0100	0.01011		mg/L		101	70 - 130
Tetrachloroethene	0.0100	0.01231		mg/L		123	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		50 - 134
4-Bromofluorobenzene	118		67 - 139
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	105		70 - 130

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-279297/4

Matrix: Water

Analysis Batch: 279297

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.009516		mg/L		95	70 - 140	4	20
1,1-Dichloroethene	0.0100	0.009406		mg/L		94	58 - 148	6	20
Benzene	0.0100	0.009735		mg/L		97	70 - 130	4	20
Tetrachloroethene	0.0100	0.01168		mg/L		117	47 - 150	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		50 - 134
4-Bromofluorobenzene	121		67 - 139
Dibromofluoromethane	97		62 - 130
Toluene-d8 (Surr)	108		70 - 130

Lab Sample ID: MB 600-279414/6

Matrix: Water

Analysis Batch: 279414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	0.000168	U	0.00100	0.000168	mg/L			11/05/19 11:07	1
1,1-Dichloroethene	0.000192	U	0.00100	0.000192	mg/L			11/05/19 11:07	1
Benzene	0.000176	U	0.00100	0.000176	mg/L			11/05/19 11:07	1
Naphthalene	0.000129	U	0.00200	0.000129	mg/L			11/05/19 11:07	1
Tetrachloroethene	0.000333	U	0.00100	0.000333	mg/L			11/05/19 11:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		11/05/19 11:07	1
4-Bromofluorobenzene	125		67 - 139		11/05/19 11:07	1
Dibromofluoromethane	94		62 - 130		11/05/19 11:07	1
Toluene-d8 (Surr)	104		70 - 130		11/05/19 11:07	1

Lab Sample ID: LCS 600-279414/3

Matrix: Water

Analysis Batch: 279414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	0.0100	0.01038		mg/L		104	70 - 140
1,1-Dichloroethene	0.0100	0.01038		mg/L		104	58 - 148
Benzene	0.0100	0.01057		mg/L		106	70 - 130
Naphthalene	0.0100	0.01226		mg/L		123	10 - 150
Tetrachloroethene	0.0100	0.01231		mg/L		123	47 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		50 - 134
4-Bromofluorobenzene	119		67 - 139
Dibromofluoromethane	96		62 - 130
Toluene-d8 (Surr)	105		70 - 130

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-279414/4

Matrix: Water

Analysis Batch: 279414

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0100	0.01025		mg/L		103	70 - 140	1	20
1,1-Dichloroethene	0.0100	0.01046		mg/L		105	58 - 148	1	20
Benzene	0.0100	0.01079		mg/L		108	70 - 130	2	20
Naphthalene	0.0100	0.01400		mg/L		140	10 - 150	13	20
Tetrachloroethene	0.0100	0.01200		mg/L		120	47 - 150	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		50 - 134
4-Bromofluorobenzene	123		67 - 139
Dibromofluoromethane	97		62 - 130
Toluene-d8 (Surr)	105		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-280102/6

Matrix: Water

Analysis Batch: 280102

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.0957	U	0.500	0.0957	mg/L			11/12/19 05:30	1

Lab Sample ID: LCS 600-280102/7

Matrix: Water

Analysis Batch: 280102

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.73		mg/L		99	90 - 110

Lab Sample ID: 600-194999-17 MS

Matrix: Water

Analysis Batch: 280102

Client Sample ID: Artesia-MW38-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	927	F1	1000	2653	F1	mg/L		173	80 - 120

Lab Sample ID: 600-194999-17 MSD

Matrix: Water

Analysis Batch: 280102

Client Sample ID: Artesia-MW38-102919

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	927	F1	1000	2632	F1	mg/L		170	80 - 120	1	20

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry

Lab Sample ID: MB 600-279566/1-A

Matrix: Water

Analysis Batch: 280165

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 279566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.250	U	1.00	0.250	ug/L		11/06/19 09:00	11/12/19 16:18	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry

Lab Sample ID: LCS 600-279566/2-A
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279566
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	100	98.75		ug/L		99	80 - 120

Lab Sample ID: MB 600-279592/1-A
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.250	U	1.00	0.250	ug/L		11/06/19 11:18	11/12/19 17:02	1

Lab Sample ID: LCS 600-279592/2-A
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279592
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	100	95.57		ug/L		96	80 - 120

Lab Sample ID: MB 600-279977/1-A
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	0.250	U	1.00	0.250	ug/L		11/11/19 09:55	11/12/19 17:46	1

Lab Sample ID: LCS 600-279977/2-A
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279977
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	100	97.59		ug/L		98	80 - 120

Lab Sample ID: 600-194999-1 MS
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Artesia-Outlet-102919
Prep Type: Dissolved
Prep Batch: 279566
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese, Dissolved	3.64		100	100.5		ug/L		97	75 - 125

Lab Sample ID: 600-194999-1 MSD
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Artesia-Outlet-102919
Prep Type: Dissolved
Prep Batch: 279566
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Manganese, Dissolved	3.64		100	99.54		ug/L		96	75 - 125	1	20

Lab Sample ID: 600-194999-1 DU
Matrix: Water
Analysis Batch: 280165

Client Sample ID: Artesia-Outlet-102919
Prep Type: Dissolved
Prep Batch: 279566
%Rec.

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Manganese, Dissolved	3.64		3.953		ug/L		8	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method: 6020A - Inductively Coupled Plasma - Mass Spectrometry

Lab Sample ID: 600-194999-15 MS

Matrix: Water

Analysis Batch: 280165

Client Sample ID: Artesia-MW34-102919

Prep Type: Dissolved

Prep Batch: 279592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese, Dissolved	1.08		100	96.02		ug/L		95	75 - 125

Lab Sample ID: 600-194999-15 MSD

Matrix: Water

Analysis Batch: 280165

Client Sample ID: Artesia-MW34-102919

Prep Type: Dissolved

Prep Batch: 279592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese, Dissolved	1.08		100	95.85		ug/L		95	75 - 125	0	20

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

GC/MS VOA

Analysis Batch: 279189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-1	Artesia-Outlet-102919	Total/NA	Water	8260B	
600-194999-2	Artesia-MW30-102919	Total/NA	Water	8260B	
600-194999-3	Artesia-MD30-102919	Total/NA	Water	8260B	
600-194999-4	Artesia-MW32-102919	Total/NA	Water	8260B	
600-194999-5	Artesia-MW36-102919	Total/NA	Water	8260B	
600-194999-6	Artesia-MW12-102919	Total/NA	Water	8260B	
600-194999-7	Artesia-MW17C-102919	Total/NA	Water	8260B	
600-194999-8	Artesia-MW11-102919	Total/NA	Water	8260B	
600-194999-9	Artesia-MD11-102919	Total/NA	Water	8260B	
600-194999-10	Artesia-MW29-102919	Total/NA	Water	8260B	
600-194999-11	Artesia-MW35-102919	Total/NA	Water	8260B	
600-194999-12	Artesia-MW28-102919	Total/NA	Water	8260B	
600-194999-13	Artesia-MW25-102919	Total/NA	Water	8260B	
600-194999-14	Artesia-MW31-102919	Total/NA	Water	8260B	
600-194999-15	Artesia-MW34-102919	Total/NA	Water	8260B	
600-194999-16	Artesia-MW37-102919	Total/NA	Water	8260B	
MB 600-279189/6	Method Blank	Total/NA	Water	8260B	
LCS 600-279189/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-279189/4	Lab Control Sample Dup	Total/NA	Water	8260B	
600-194999-12 MS	Artesia-MW28-102919	Total/NA	Water	8260B	
600-194999-12 MSD	Artesia-MW28-102919	Total/NA	Water	8260B	
600-194999-15 MS	Artesia-MW34-102919	Total/NA	Water	8260B	
600-194999-15 MSD	Artesia-MW34-102919	Total/NA	Water	8260B	

Analysis Batch: 279297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-6 - DL	Artesia-MW12-102919	Total/NA	Water	8260B	
600-194999-17	Artesia-MW38-102919	Total/NA	Water	8260B	
600-194999-17 - DL	Artesia-MW38-102919	Total/NA	Water	8260B	
MB 600-279297/6	Method Blank	Total/NA	Water	8260B	
LCS 600-279297/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-279297/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 279414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-17	Artesia-MW38-102919	Total/NA	Water	8260B	
600-194999-18	Artesia-TB01-102919	Total/NA	Water	8260B	
600-194999-19	Artesia-Inlet-102919	Total/NA	Water	8260B	
600-194999-20	Artesia-MID-102919	Total/NA	Water	8260B	
600-194999-21	Artesia-MW-22-102919	Total/NA	Water	8260B	
MB 600-279414/6	Method Blank	Total/NA	Water	8260B	
LCS 600-279414/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-279414/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 280102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-5	Artesia-MW36-102919	Total/NA	Water	300.0	
600-194999-6	Artesia-MW12-102919	Total/NA	Water	300.0	
600-194999-7	Artesia-MW17C-102919	Total/NA	Water	300.0	

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

HPLC/IC (Continued)

Analysis Batch: 280102 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-8	Artesia-MW11-102919	Total/NA	Water	300.0	
600-194999-9	Artesia-MD11-102919	Total/NA	Water	300.0	
600-194999-16	Artesia-MW37-102919	Total/NA	Water	300.0	
600-194999-17	Artesia-MW38-102919	Total/NA	Water	300.0	
MB 600-280102/6	Method Blank	Total/NA	Water	300.0	
LCS 600-280102/7	Lab Control Sample	Total/NA	Water	300.0	
600-194999-17 MS	Artesia-MW38-102919	Total/NA	Water	300.0	
600-194999-17 MSD	Artesia-MW38-102919	Total/NA	Water	300.0	

Metals

Prep Batch: 279566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-1	Artesia-Outlet-102919	Dissolved	Water	3010A	
600-194999-2	Artesia-MW30-102919	Dissolved	Water	3010A	
600-194999-3	Artesia-MD30-102919	Dissolved	Water	3010A	
600-194999-4	Artesia-MW32-102919	Dissolved	Water	3010A	
600-194999-10	Artesia-MW29-102919	Dissolved	Water	3010A	
600-194999-12	Artesia-MW28-102919	Dissolved	Water	3010A	
MB 600-279566/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-279566/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-194999-1 MS	Artesia-Outlet-102919	Dissolved	Water	3010A	
600-194999-1 MSD	Artesia-Outlet-102919	Dissolved	Water	3010A	
600-194999-1 DU	Artesia-Outlet-102919	Dissolved	Water	3010A	

Prep Batch: 279592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-13	Artesia-MW25-102919	Dissolved	Water	3010A	
600-194999-14	Artesia-MW31-102919	Dissolved	Water	3010A	
600-194999-15	Artesia-MW34-102919	Dissolved	Water	3010A	
600-194999-19	Artesia-Inlet-102919	Dissolved	Water	3010A	
600-194999-20	Artesia-MID-102919	Dissolved	Water	3010A	
600-194999-21	Artesia-MW-22-102919	Dissolved	Water	3010A	
MB 600-279592/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-279592/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-194999-15 MS	Artesia-MW34-102919	Dissolved	Water	3010A	
600-194999-15 MSD	Artesia-MW34-102919	Dissolved	Water	3010A	

Prep Batch: 279977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-279977/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-279977/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 280165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-1	Artesia-Outlet-102919	Dissolved	Water	6020A	279566
600-194999-2	Artesia-MW30-102919	Dissolved	Water	6020A	279566
600-194999-3	Artesia-MD30-102919	Dissolved	Water	6020A	279566
600-194999-4	Artesia-MW32-102919	Dissolved	Water	6020A	279566
600-194999-10	Artesia-MW29-102919	Dissolved	Water	6020A	279566
600-194999-12	Artesia-MW28-102919	Dissolved	Water	6020A	279566

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Metals (Continued)

Analysis Batch: 280165 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-194999-13	Artesia-MW25-102919	Dissolved	Water	6020A	279592
600-194999-14	Artesia-MW31-102919	Dissolved	Water	6020A	279592
600-194999-15	Artesia-MW34-102919	Dissolved	Water	6020A	279592
600-194999-19	Artesia-Inlet-102919	Dissolved	Water	6020A	279592
600-194999-20	Artesia-MID-102919	Dissolved	Water	6020A	279592
600-194999-21	Artesia-MW-22-102919	Dissolved	Water	6020A	279592
MB 600-279566/1-A	Method Blank	Total/NA	Water	6020A	279566
MB 600-279592/1-A	Method Blank	Total/NA	Water	6020A	279592
MB 600-279977/1-A	Method Blank	Total/NA	Water	6020A	279977
LCS 600-279566/2-A	Lab Control Sample	Total/NA	Water	6020A	279566
LCS 600-279592/2-A	Lab Control Sample	Total/NA	Water	6020A	279592
LCS 600-279977/2-A	Lab Control Sample	Total/NA	Water	6020A	279977
600-194999-1 MS	Artesia-Outlet-102919	Dissolved	Water	6020A	279566
600-194999-1 MSD	Artesia-Outlet-102919	Dissolved	Water	6020A	279566
600-194999-15 MS	Artesia-MW34-102919	Dissolved	Water	6020A	279592
600-194999-15 MSD	Artesia-MW34-102919	Dissolved	Water	6020A	279592
600-194999-1 DU	Artesia-Outlet-102919	Dissolved	Water	6020A	279566

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-Outlet-102919

Lab Sample ID: 600-194999-1

Date Collected: 10/29/19 08:25

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 14:50	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:25	DCL	TAL HOU

Client Sample ID: Artesia-MW30-102919

Lab Sample ID: 600-194999-2

Date Collected: 10/29/19 09:05

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 15:14	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:37	DCL	TAL HOU

Client Sample ID: Artesia-MD30-102919

Lab Sample ID: 600-194999-3

Date Collected: 10/29/19 09:10

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 15:38	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:40	DCL	TAL HOU

Client Sample ID: Artesia-MW32-102919

Lab Sample ID: 600-194999-4

Date Collected: 10/29/19 09:25

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 16:02	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:43	DCL	TAL HOU

Client Sample ID: Artesia-MW36-102919

Lab Sample ID: 600-194999-5

Date Collected: 10/29/19 11:33

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 16:26	WS1	TAL HOU
Total/NA	Analysis	300.0		250	280102	11/12/19 13:32	SKR	TAL HOU

Client Sample ID: Artesia-MW12-102919

Lab Sample ID: 600-194999-6

Date Collected: 10/29/19 12:23

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 16:51	WS1	TAL HOU

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW12-102919

Lab Sample ID: 600-194999-6

Date Collected: 10/29/19 12:23

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	5	279297	11/04/19 18:03	WS1	TAL HOU
Total/NA	Analysis	300.0		100	280102	11/12/19 13:43	SKR	TAL HOU

Client Sample ID: Artesia-MW17C-102919

Lab Sample ID: 600-194999-7

Date Collected: 10/29/19 13:00

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 17:15	WS1	TAL HOU
Total/NA	Analysis	300.0		100	280102	11/12/19 13:53	SKR	TAL HOU

Client Sample ID: Artesia-MW11-102919

Lab Sample ID: 600-194999-8

Date Collected: 10/29/19 16:15

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 17:39	WS1	TAL HOU
Total/NA	Analysis	300.0		200	280102	11/12/19 14:04	SKR	TAL HOU

Client Sample ID: Artesia-MD11-102919

Lab Sample ID: 600-194999-9

Date Collected: 10/29/19 16:15

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 18:03	WS1	TAL HOU
Total/NA	Analysis	300.0		200	280102	11/12/19 14:36	SKR	TAL HOU

Client Sample ID: Artesia-MW29-102919

Lab Sample ID: 600-194999-10

Date Collected: 10/29/19 10:19

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 18:28	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:46	DCL	TAL HOU

Client Sample ID: Artesia-MW35-102919

Lab Sample ID: 600-194999-11

Date Collected: 10/29/19 10:38

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 18:53	WS1	TAL HOU

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW28-102919

Lab Sample ID: 600-194999-12

Date Collected: 10/29/19 11:15

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 11:38	WS1	TAL HOU
Dissolved	Prep	3010A			279566	11/06/19 09:00	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 16:59	DCL	TAL HOU

Client Sample ID: Artesia-MW25-102919

Lab Sample ID: 600-194999-13

Date Collected: 10/29/19 11:51

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 19:18	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:09	DCL	TAL HOU

Client Sample ID: Artesia-MW31-102919

Lab Sample ID: 600-194999-14

Date Collected: 10/29/19 12:45

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 19:43	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:12	DCL	TAL HOU

Client Sample ID: Artesia-MW34-102919

Lab Sample ID: 600-194999-15

Date Collected: 10/29/19 13:17

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 12:01	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:15	DCL	TAL HOU

Client Sample ID: Artesia-MW37-102919

Lab Sample ID: 600-194999-16

Date Collected: 10/29/19 15:08

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279189	11/01/19 20:08	WS1	TAL HOU
Total/NA	Analysis	300.0		100	280102	11/12/19 14:47	SKR	TAL HOU

Client Sample ID: Artesia-MW38-102919

Lab Sample ID: 600-194999-17

Date Collected: 10/29/19 14:20

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279297	11/04/19 18:27	WS1	TAL HOU

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Client Sample ID: Artesia-MW38-102919

Lab Sample ID: 600-194999-17

Date Collected: 10/29/19 14:20

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	279297	11/04/19 18:51	WS1	TAL HOU
Total/NA	Analysis	8260B		1	279414	11/05/19 19:09	WS1	TAL HOU
Total/NA	Analysis	300.0		100	280102	11/12/19 14:58	SKR	TAL HOU

Client Sample ID: Artesia-TB01-102919

Lab Sample ID: 600-194999-18

Date Collected: 10/29/19 08:05

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279414	11/05/19 18:45	WS1	TAL HOU

Client Sample ID: Artesia-Inlet-102919

Lab Sample ID: 600-194999-19

Date Collected: 10/29/19 08:10

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279414	11/05/19 17:33	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:24	DCL	TAL HOU

Client Sample ID: Artesia-MID-102919

Lab Sample ID: 600-194999-20

Date Collected: 10/29/19 08:20

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279414	11/05/19 17:57	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:27	DCL	TAL HOU

Client Sample ID: Artesia-MW-22-102919

Lab Sample ID: 600-194999-21

Date Collected: 10/29/19 12:12

Matrix: Water

Date Received: 10/31/19 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	279414	11/05/19 18:21	WS1	TAL HOU
Dissolved	Prep	3010A			279592	11/06/19 11:18	DCL	TAL HOU
Dissolved	Analysis	6020A		1	280165	11/12/19 17:40	DCL	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0759	08-04-20
Louisiana	NELAP	01967	06-30-20
Oklahoma	State	2019-073	09-01-20
Texas	NELAP	T104704223-19-24	10-31-20
USDA	US Federal Programs	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6020A	Inductively Coupled Plasma - Mass Spectrometry	SW846	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Dowell - Artesia 10/29/19

Job ID: 600-194999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-194999-1	Artesia-Outlet-102919	Water	10/29/19 08:25	10/31/19 10:34	
600-194999-2	Artesia-MW30-102919	Water	10/29/19 09:05	10/31/19 10:34	
600-194999-3	Artesia-MD30-102919	Water	10/29/19 09:10	10/31/19 10:34	
600-194999-4	Artesia-MW32-102919	Water	10/29/19 09:25	10/31/19 10:34	
600-194999-5	Artesia-MW36-102919	Water	10/29/19 11:33	10/31/19 10:34	
600-194999-6	Artesia-MW12-102919	Water	10/29/19 12:23	10/31/19 10:34	
600-194999-7	Artesia-MW17C-102919	Water	10/29/19 13:00	10/31/19 10:34	
600-194999-8	Artesia-MW11-102919	Water	10/29/19 16:15	10/31/19 10:34	
600-194999-9	Artesia-MD11-102919	Water	10/29/19 16:15	10/31/19 10:34	
600-194999-10	Artesia-MW29-102919	Water	10/29/19 10:19	10/31/19 10:34	
600-194999-11	Artesia-MW35-102919	Water	10/29/19 10:38	10/31/19 10:34	
600-194999-12	Artesia-MW28-102919	Water	10/29/19 11:15	10/31/19 10:34	
600-194999-13	Artesia-MW25-102919	Water	10/29/19 11:51	10/31/19 10:34	
600-194999-14	Artesia-MW31-102919	Water	10/29/19 12:45	10/31/19 10:34	
600-194999-15	Artesia-MW34-102919	Water	10/29/19 13:17	10/31/19 10:34	
600-194999-16	Artesia-MW37-102919	Water	10/29/19 15:08	10/31/19 10:34	
600-194999-17	Artesia-MW38-102919	Water	10/29/19 14:20	10/31/19 10:34	
600-194999-18	Artesia-TB01-102919	Water	10/29/19 08:05	10/31/19 10:34	
600-194999-19	Artesia-Inlet-102919	Water	10/29/19 08:10	10/31/19 10:34	
600-194999-20	Artesia-MID-102919	Water	10/29/19 08:20	10/31/19 10:34	
600-194999-21	Artesia-MW-22-102919	Water	10/29/19 12:12	10/31/19 10:34	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 277761Lab Sample ID: IC 600-277761/2 Client Sample ID: _____Date Analyzed: 10/17/19 09:37 Lab File ID: A29001.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	5.70	Baseline	shenw	10/17/19 12:37
Acetone	5.81	Baseline	shenw	10/17/19 12:39
t-Butanol	6.19	Baseline	shenw	10/17/19 10:37
Propionitrile	7.08	Baseline	shenw	10/17/19 10:36
Vinyl acetate	7.13	Baseline	shenw	10/17/19 10:36
Isobutyl alcohol	7.71	Baseline	shenw	10/18/19 15:40
Tetrahydrofuran	7.94	Baseline	shenw	10/17/19 12:38
n-Butanol	8.28	Baseline	shenw	10/18/19 15:42
Dibromomethane	9.02	Baseline	shenw	10/17/19 10:36
2-Nitropropane	9.06	Baseline	shenw	10/18/19 15:42
1,4-Dioxane	9.18	Baseline	shenw	10/17/19 10:36
2-Chloroethyl vinyl ether	9.38	Baseline	shenw	10/18/19 15:42
4-Methyl-2-pentanone (MIBK)	9.67	Baseline	shenw	10/18/19 15:42
Ethyl methacrylate	10.32	Baseline	shenw	10/17/19 10:36
trans-1,4-Dichloro-2-butene	12.74	Baseline	shenw	10/18/19 15:43
1,2-Dibromo-3-Chloropropane	15.19	Baseline	shenw	10/17/19 10:35
Hexachlorobutadiene	16.99	Baseline	shenw	10/18/19 15:43
1,2,3-Trichlorobenzene	17.24	Baseline	shenw	10/17/19 10:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 277761Lab Sample ID: IC 600-277761/3 Client Sample ID: _____Date Analyzed: 10/17/19 10:01 Lab File ID: A29002.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	5.81	Baseline	shenw	10/17/19 10:40
Methyl acetate	6.34	Baseline	shenw	10/17/19 10:40
Propionitrile	7.07	Baseline	shenw	10/17/19 10:34
n-Heptane	8.91	Baseline	shenw	10/17/19 10:40
Dibromomethane	9.03	Baseline	shenw	10/17/19 10:35
2-Chloroethyl vinyl ether	9.40	Baseline	shenw	10/17/19 10:35
trans-1,4-Dichloro-2-butene	12.75	Baseline	shenw	10/17/19 10:35

Lab Sample ID: IC 600-277761/4 Client Sample ID: _____Date Analyzed: 10/17/19 10:27 Lab File ID: A29003.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl acrylate	8.91	Peak assignment corrected	shenw	10/17/19 10:57
n-Heptane	8.91	Peak assignment corrected	shenw	10/17/19 10:57
1,4-Dioxane	9.20	Baseline	shenw	10/17/19 10:58
2-Chloroethyl vinyl ether	9.41	Baseline	shenw	10/17/19 10:58

Lab Sample ID: IC 600-277761/5 Client Sample ID: _____Date Analyzed: 10/17/19 10:51 Lab File ID: A29004.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptane	8.91	Peak assignment corrected	shenw	10/17/19 12:19
Dibromomethane	9.02	Peak assignment corrected	shenw	10/17/19 12:20
2-Chloroethyl vinyl ether	9.38	Baseline	shenw	10/17/19 11:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 277761Lab Sample ID: ICIS 600-277761/6 Client Sample ID: _____Date Analyzed: 10/17/19 11:15 Lab File ID: A29005.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	7.70	Baseline	shenw	10/17/19 12:19
Ethyl acrylate	8.90	Peak assignment corrected	shenw	10/17/19 11:39
Dibromomethane	9.03	Peak assignment corrected	shenw	10/17/19 11:38

Lab Sample ID: IC 600-277761/7 Client Sample ID: _____Date Analyzed: 10/17/19 11:40 Lab File ID: A29006.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	7.70	Baseline	shenw	10/17/19 12:16
Chlorobenzene-d5	11.74	Baseline	shenw	10/17/19 12:17

Lab Sample ID: IC 600-277761/8 Client Sample ID: _____Date Analyzed: 10/17/19 12:04 Lab File ID: A29007.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	7.69	Baseline	shenw	10/17/19 12:26
Dibromomethane	9.02	Baseline	shenw	10/17/19 12:26
Chlorobenzene-d5	11.74	Peak assignment corrected	shenw	10/17/19 12:25

Lab Sample ID: ICV 600-277761/10 Client Sample ID: _____Date Analyzed: 10/17/19 14:31 Lab File ID: A29009B.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibromomethane	9.02	Peak assignment corrected	shenw	10/17/19 14:56
Hexachlorobutadiene	17.01	Baseline	shenw	10/17/19 14:57
1,2,3-Trichlorobenzene	17.23	Baseline	shenw	10/17/19 14:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 279189Lab Sample ID: CCVIS 600-279189/2 Client Sample ID: _____Date Analyzed: 11/01/19 08:34 Lab File ID: A30501.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibromomethane	9.02	Peak assignment corrected	shenw	11/01/19 08:56
2-Chloroethyl vinyl ether	9.40	Baseline	shenw	11/01/19 08:56
1,4-Dichlorobenzene-d4	14.32	Baseline	shenw	11/01/19 09:22
Naphthalene	16.98	Baseline	shenw	11/01/19 09:20

Lab Sample ID: MB 600-279189/6 Client Sample ID: _____Date Analyzed: 11/01/19 10:27 Lab File ID: A30505.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/01/19 10:48
Naphthalene		Invalid Compound ID	shenw	11/01/19 10:49

Lab Sample ID: 600-194999-4 Client Sample ID: Artesia-MW32-102919Date Analyzed: 11/01/19 16:02 Lab File ID: A30518.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	11/04/19 08:46

Lab Sample ID: 600-194999-5 Client Sample ID: _____Date Analyzed: 11/01/19 16:26 Lab File ID: A30519.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/04/19 08:46

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 279189Lab Sample ID: 600-194999-6 Client Sample ID: _____Date Analyzed: 11/01/19 16:51 Lab File ID: A30520.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/04/19 08:47

Lab Sample ID: 600-194999-10 Client Sample ID: _____Date Analyzed: 11/01/19 18:28 Lab File ID: A30524.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/04/19 08:48
Naphthalene		Invalid Compound ID	shenw	11/04/19 08:48

Lab Sample ID: 600-194999-11 Client Sample ID: _____Date Analyzed: 11/01/19 18:53 Lab File ID: A30525.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/14/19 12:43

Lab Sample ID: 600-194999-14 Client Sample ID: Artesia-MW31-102919Date Analyzed: 11/01/19 19:43 Lab File ID: A30527.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	11/04/19 08:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 279297Lab Sample ID: LCS 600-279297/3 Client Sample ID: _____Date Analyzed: 11/04/19 09:17 Lab File ID: A30802.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/04/19 09:47

Lab Sample ID: MB 600-279297/6 Client Sample ID: _____Date Analyzed: 11/04/19 10:29 Lab File ID: A30805.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	11/04/19 12:10

Lab Sample ID: 600-194999-17 Client Sample ID: _____Date Analyzed: 11/04/19 18:27 Lab File ID: A30825.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/05/19 08:59

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHVOAMS07 Analysis Batch Number: 279414Lab Sample ID: CCVIS 600-279414/2 Client Sample ID: _____Date Analyzed: 11/05/19 09:09 Lab File ID: A30901.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dibromomethane	9.03	Peak assignment corrected	shenw	11/05/19 09:34

Lab Sample ID: MB 600-279414/6 Client Sample ID: _____Date Analyzed: 11/05/19 11:07 Lab File ID: A30905.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene		Invalid Compound ID	shenw	11/05/19 12:28

Lab Sample ID: 600-194999-19 Client Sample ID: Artesia-Inlet-102919Date Analyzed: 11/05/19 17:33 Lab File ID: A30921.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene		Invalid Compound ID	shenw	11/06/19 08:41

Lab Sample ID: 600-194999-17 Client Sample ID: _____Date Analyzed: 11/05/19 19:09 Lab File ID: A30925.d GC Column: DB-VRX 60 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluorobenzene	8.72	Peak assignment corrected	shenw	11/06/19 08:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Analysis Batch Number: 278508Lab Sample ID: IC 600-278508/5 Client Sample ID: _____Date Analyzed: 10/24/19 13:38 Lab File ID: CAL102419-600-0031875-005 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.22	Baseline Smoothing	buschk	10/25/19 17:11
Bromide	4.43	Baseline Smoothing	buschk	10/25/19 17:11
Sulfate	7.04	Baseline Smoothing	buschk	10/25/19 17:36

Lab Sample ID: IC 600-278508/6 Client Sample ID: _____Date Analyzed: 10/24/19 13:49 Lab File ID: CAL102419-600-0031875-006 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.21	Baseline Smoothing	buschk	10/25/19 17:14
Chloride	3.10	Baseline Smoothing	buschk	10/25/19 17:15
Bromide	4.43	Baseline Smoothing	buschk	10/25/19 17:14
Sulfate	7.04	Baseline Smoothing	buschk	10/25/19 17:15

Lab Sample ID: IC 600-278508/7 Client Sample ID: _____Date Analyzed: 10/24/19 14:00 Lab File ID: CAL102419-600-0031875-007 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.21	Baseline Smoothing	buschk	10/25/19 17:16
Chloride	3.09	Baseline Smoothing	buschk	10/25/19 17:16
Bromide	4.42	Baseline Smoothing	buschk	10/25/19 17:15
Sulfate	7.04	Baseline Smoothing	buschk	10/25/19 17:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Analysis Batch Number: 278508Lab Sample ID: IC 600-278508/8 Client Sample ID: _____Date Analyzed: 10/24/19 14:11 Lab File ID: CAL102419-600-0031875-008 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.22	Baseline Smoothing	buschk	10/25/19 17:19
Chloride	3.10	Baseline Smoothing	buschk	10/25/19 17:18
Bromide	4.41	Baseline Smoothing	buschk	10/25/19 17:18
Sulfate	7.06	Baseline Smoothing	buschk	10/25/19 17:19

Lab Sample ID: IC 600-278508/9 Client Sample ID: _____Date Analyzed: 10/24/19 14:21 Lab File ID: CAL102419-600-0031875-009 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.22	Baseline Smoothing	buschk	10/25/19 17:20
Chloride	3.11	Baseline Smoothing	buschk	10/25/19 17:21
Bromide	4.42	Baseline Smoothing	buschk	10/25/19 17:21
Sulfate	7.08	Baseline Smoothing	buschk	10/25/19 17:22

Lab Sample ID: IC 600-278508/10 Client Sample ID: _____Date Analyzed: 10/24/19 14:32 Lab File ID: CAL102419-600-0031875-010 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.23	Baseline Smoothing	buschk	10/25/19 17:25
Chloride	3.12	Baseline Smoothing	buschk	10/25/19 17:24
Bromide	4.42	Baseline Smoothing	buschk	10/25/19 17:24
Sulfate	7.11	Baseline Smoothing	buschk	10/25/19 17:25

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Analysis Batch Number: 278508Lab Sample ID: IC 600-278508/11 Client Sample ID: _____Date Analyzed: 10/24/19 14:43 Lab File ID: CAL102419-600-0031875-011 GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.22	Baseline Smoothing	buschk	10/25/19 17:32
Chloride	3.14	Baseline Smoothing	buschk	10/25/19 17:30
Bromide	4.42	Baseline Smoothing	buschk	10/25/19 17:30
Sulfate	7.17	Baseline Smoothing	buschk	10/25/19 17:31

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Analysis Batch Number: 280102Lab Sample ID: CCV 600-280102/4 Client Sample ID: _____Date Analyzed: 11/12/19 05:08 Lab File ID: 111219-600-0032213-004.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.21	Baseline Smoothing	reachs	11/12/19 13:17
Chloride	3.05	Baseline Smoothing	reachs	11/12/19 13:17
Bromide	4.25	Baseline Smoothing	reachs	11/12/19 13:17
Sulfate	6.75	Baseline Smoothing	reachs	11/12/19 13:17

Lab Sample ID: CCB 600-280102/5 Client Sample ID: _____Date Analyzed: 11/12/19 05:19 Lab File ID: 111219-600-0032213-005.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.69	Baseline Smoothing	reachs	11/12/19 13:18

Lab Sample ID: LCS 600-280102/7 Client Sample ID: _____Date Analyzed: 11/12/19 05:41 Lab File ID: 111219-600-0032213-007.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.75	Baseline Smoothing	reachs	11/12/19 13:20

Lab Sample ID: 600-194999-5 Client Sample ID: Artesia-MW36-102919Date Analyzed: 11/12/19 13:32 Lab File ID: 111219-600-0032213-012.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.66	Baseline Smoothing	reachs	11/13/19 12:30

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Housto Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Analysis Batch Number: 280102Lab Sample ID: CCV 600-280102/16 Client Sample ID: _____Date Analyzed: 11/12/19 14:15 Lab File ID: 111219-600-0032213-016.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.20	Baseline Smoothing	reachs	11/13/19 12:30
Chloride	3.03	Baseline Smoothing	reachs	11/13/19 12:31
Bromide	4.21	Baseline Smoothing	reachs	11/13/19 12:31
Sulfate	6.72	Baseline Smoothing	reachs	11/13/19 12:32

Lab Sample ID: 600-194999-17 MS Client Sample ID: Artesia-MW38-102919 MSDate Analyzed: 11/12/19 15:09 Lab File ID: 111219-600-0032213-021.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.73	Baseline Smoothing	reachs	11/13/19 12:34

Lab Sample ID: 600-194999-17 MSD Client Sample ID: Artesia-MW38-102919 MSDDate Analyzed: 11/12/19 15:20 Lab File ID: 111219-600-0032213-022.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	6.73	Baseline Smoothing	reachs	11/13/19 12:35

Lab Sample ID: CCV 600-280102/28 Client Sample ID: _____Date Analyzed: 11/12/19 16:24 Lab File ID: 111219-600-0032213-028.d GC Column: AS22 ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.20	Baseline Smoothing	reachs	11/13/19 12:36
Chloride	3.03	Baseline Smoothing	reachs	11/13/19 12:36
Bromide	4.21	Baseline Smoothing	reachs	11/13/19 12:36
Sulfate	6.71	Baseline Smoothing	reachs	11/13/19 12:37

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
BFB_00293							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
					Xylenes, Total			
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	50 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
BFB_00294							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							2,3-dichlorobutane	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
					Xylenes, Total			
.VOASBFB_00014	07/31/21	Restek, Lot A0120567			VOASBFB_00014	50 uL	BFB	25 ug/mL
					(Purchased Reagent)		BFB	2000 ug/mL
CCV_00114	12/26/19	11/08/19	DI WATER, Lot NONE	500 mL	WETSICCSO4_00015	10 mL	Sulfate	20 mg/L
.WETSICCSO4_00015	06/21/20	INORGANIC-VENTURE, Lot k2-sox01111			(Purchased Reagent)		Sulfate	1000 mg/L
EOxideStd_00162	10/23/19	10/09/19	Methanol, Lot V071019A	1 mL	MVETYLOIDE_00011	10 uL	Ethylene oxide	500 ug/mL
.MVETYLOIDE_00011	04/30/20	Sigma-Aldrich, Lot LRAB8535			(Purchased Reagent)		Ethylene oxide	50000 ug/mL
ICCALSTD1_00045	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00013	0 mL	Bromide	0 mg/L
					WETSICCCL_00024	0 mL	Chloride	0 mg/L
					WETSICCFL_00014	0 mL	Fluoride	0 mg/L
					WETSICCSO4_00016	0 mL	Sulfate	0 mg/L
					(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCBRO_00013	04/25/20	INORGANIC VENTURES, Lot N2-BR665239			(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCFL_00014	11/03/20	Accustandard, Lot 218105011			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD2_00052	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCCL_00024	40 uL	Chloride	0.4 mg/L
					WETSICCFL_00014	20 uL	Fluoride	0.2 mg/L
					(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00014	11/03/20	Accustandard, Lot 218105011			(Purchased Reagent)		Fluoride	1000 mg/L
ICCALSTD3_00045	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCCL_00024	100 uL	Chloride	1 mg/L
					WETSICCFL_00014	50 uL	Fluoride	0.5 mg/L
					WETSICCSO4_00016	100 uL	Sulfate	1 mg/L
					(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCCL_00024	12/26/19	INORGANIC-VENTURE, Lot N2-CL664868			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00014	11/03/20	Accustandard, Lot 218105011			(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCSO4_00016	02/26/20	INORGANIC-VENTURE, Lot N2-SOX671919			(Purchased Reagent)		Sulfate	1000 mg/L
ICCALSTD4_00044	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCBRO_00013	100 uL	Bromide	1 mg/L
					WETSICCCL_00024	200 uL	Chloride	2 mg/L
					WETSICCFL_00014	100 uL	Fluoride	1 mg/L
					(Purchased Reagent)		Sulfate	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.WETSICCBRO_00013	04/25/20		INORGANIC VENTURES, Lot N2-BR665239		WETSICCSO4_00016	200 uL	Sulfate	2 mg/L
.WETSICCCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Bromide	1000 mg/L
.WETSICCFL_00014	11/03/20		Accustandard, Lot 218105011		(Purchased Reagent)		Chloride	1000 mg/L
.WETSICCSO4_00016	02/26/20		INORGANIC-VENTURE, Lot N2-SOX671919		(Purchased Reagent)		Fluoride	1000 mg/L
ICCALSTD5_00045	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCCCL_00024	500 uL	Sulfate	1000 mg/L
					WETSICCFL_00014	200 uL	Chloride	5 mg/L
.WETSICCCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Fluoride	2 mg/L
.WETSICCFL_00014	11/03/20		Accustandard, Lot 218105011		(Purchased Reagent)		Chloride	1000 mg/L
ICCALSTD8_00032	12/26/19	10/25/19	DI WATER, Lot NONE	100 mL	WETSICCCCL_00024	4 mL	Fluoride	40 mg/L
					WETSICCFL_00014	1 mL	Chloride	10 mg/L
.WETSICCCCL_00024	12/26/19		INORGANIC-VENTURE, Lot N2-CL664868		(Purchased Reagent)		Fluoride	1000 mg/L
.WETSICCFL_00014	11/03/20		Accustandard, Lot 218105011		(Purchased Reagent)		Fluoride	1000 mg/L
ICPMSCALMIX1S_00006	10/24/20		CPI, Lot 992738-1		(Purchased Reagent)		As	100 mg/L
							Ba	100 mg/L
							Be	100 mg/L
							Cd	100 mg/L
							Co	100 mg/L
							Cr	100 mg/L
							Cu	100 mg/L
							Li	100 mg/L
							Manganese, Dissolved	100 mg/L
							Mo	100 mg/L
							Ni	100 mg/L
							Pb	100 mg/L
							Sb	100 mg/L
							Se	100 mg/L
							Si	1000 mg/L
							SiO2	2140 mg/L
							Sn	100 mg/L
							Sr	100 mg/L
							Ti	100 mg/L
							Tl	100 mg/L
							V	100 mg/L
ICPMSCALMIX2S_00003	09/24/20		CPI, Lot 992740-2		(Purchased Reagent)		Al	2000 mg/L
							Ca	2000 mg/L
							Fe	2000 mg/L
							K	2000 mg/L
							Mg	2000 mg/L
							Na	2000 mg/L
ICPMSCALMIX3S_00004	09/24/20		CPI, Lot 987270-1		(Purchased Reagent)		P	1000 mg/L
							Sulfur	1000 mg/L
							U	100 mg/L
							W	100 mg/L
ICPMSCALMIX4S_00004	10/24/20		CPI, Lot 10100318-2		(Purchased Reagent)		Ag	50 mg/L
							B	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sb	100 mg/L
							Zn	100 mg/L
ICSMS_00119	04/29/20	10/29/19	DI WATER, Lot NONE	50 mL	WETSICISO4_00012	10 mL	Sulfate	200 mg/L
.WETSICISO4_00012	09/29/20		ACCUSTANDARD, Lot 218085152		(Purchased Reagent)		Sulfate	1000 mg/L
ICV/LCS_00108	04/23/20	10/23/19	DI WATER, Lot NONE	500 mL	WETSICISO4_00012	10 mL	Sulfate	20 mg/L
.WETSICISO4_00012	09/29/20		ACCUSTANDARD, Lot 218085152		(Purchased Reagent)		Sulfate	1000 mg/L
METHCL_00283	08/26/24		J.T.Baker, Lot 0000240180		(Purchased Reagent)		Stock Chemical	0 mL
METHCL_00284	08/26/24		J.T.Baker, Lot 0000240180		(Purchased Reagent)		Stock Chemical	0 mL
METHNO3_00334	11/01/23		Macron, Lot 0000216908		(Purchased Reagent)		Stock Chemical	0 mL
METHNO3_00336	12/20/23		Macron, Lot 0000221803		(Purchased Reagent)		Stock Chemical	0 mL
METICPMSICAL4_00009	03/20/20	11/12/19	DI WATER, Lot n/a	500 mL	ICPMSICALMIX1_00002	1.25 mL	Manganese, Dissolved	250 ug/L
.ICPMSICALMIX1_00002	12/26/20		CPI, Lot 1018875-1		(Purchased Reagent)		Manganese, Dissolved	100 mg/L
METICPMSICSA_00007	12/10/19	09/13/19	DI Water, Lot n/a	500 mL	ICPMSICSAMIX_00002	5 mL	Al	10000 ug/L
							Ca	10000 ug/L
							Fe	10000 ug/L
							K	10000 ug/L
							Mg	10000 ug/L
							Mo	200 ug/L
							Na	10000 ug/L
							Ti	200 ug/L
.ICPMSICSAMIX_00002	05/19/20		CPI, Lot 982746-1		(Purchased Reagent)		Al	1000 mg/L
							Ca	1000 mg/L
							Fe	1000 mg/L
							K	1000 mg/L
							Mg	1000 mg/L
							Mo	20 mg/L
							Na	1000 mg/L
							Ti	20 mg/L
METICPMSICSAB_00007	12/10/19	06/25/19	DI Water, Lot n/a	500 mL	ICPMSICSABMIX_00002	5 mL	As	100 ug/L
							Ba	100 ug/L
							Be	100 ug/L
							Cd	100 ug/L
							Co	100 ug/L
							Cr	100 ug/L
							Cu	100 ug/L
							Li	100 ug/L
							Manganese, Dissolved	100 ug/L
							Ni	100 ug/L
							Pb	100 ug/L
							Sb	50 ug/L
							Se	100 ug/L
							Sn	100 ug/L
							Sr	100 ug/L
							Tl	50 ug/L
							V	100 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					ICPMSICSAMIX_00001	5 mL	Al	10000 ug/L
							Ca	10000 ug/L
							Fe	10000 ug/L
							K	10000 ug/L
							Mg	10000 ug/L
							Mo	200 ug/L
							Na	10000 ug/L
					Ti	200 ug/L		
METAG_00015	0.05 mL	Ag	100 ug/L					
METZN_00015	0.05 mL	Zn	100 ug/L					
.ICPMSICSABMIX_00002	05/19/20	CPI, Lot 982898-1			(Purchased Reagent)		As	10 mg/L
							Ba	10 mg/L
							Be	10 mg/L
							Cd	10 mg/L
							Co	10 mg/L
							Cr	10 mg/L
							Cu	10 mg/L
							Li	10 mg/L
							Manganese, Dissolved	10 mg/L
							Ni	10 mg/L
							Pb	10 mg/L
							Sb	5 mg/L
							Se	10 mg/L
							Sn	10 mg/L
							Sr	10 mg/L
							Tl	5 mg/L
							V	10 mg/L
							.ICPMSICSAMIX_00001	05/19/20
Ca	1000 mg/L							
Fe	1000 mg/L							
K	1000 mg/L							
Mg	1000 mg/L							
Mo	20 mg/L							
Na	1000 mg/L							
Ti	20 mg/L							
.METAG_00015	12/04/20	CPI, Lot 975475-22			(Purchased Reagent)	Ag	1000 ug/mL	
.METZN_00015	12/04/20	CPI, Lot 984272-63			(Purchased Reagent)	Zn	1000 ug/mL	
METICPMSICV_00013	03/20/20	07/19/19	DI Water, Lot n/a	500 mL	ICPMSCALMIX1S_00001	1.25 mL	Manganese, Dissolved	250 ug/L
.ICPMSCALMIX1S_00001	05/31/20	CPI, Lot 982733-2			(Purchased Reagent)		Manganese, Dissolved	100 mg/L
VOAIS50PPM_00262	10/23/19	10/09/19	Methanol, Lot V071019A	1 mL	VOA3IS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VOA3IS_00031	06/30/23	Restek, Lot A0138856			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOAIS50PPM_00263	11/06/19	10/23/19	Methanol, Lot V071019A	1 mL	VOA3IS_00031	20 uL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA3IS_00031	06/30/23		Restek, Lot A0138856		(Purchased Reagent)		Fluorobenzene	50 ug/mL
							1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
VOALCSPT2_00150	10/23/19	10/09/19	Methanol, Lot V071019A	1 mL	VOALMegMi2017_00004	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00004	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOALCSPT2_00151	11/06/19	10/23/19	Methanol, Lot V071019A	1 mL	VOALMegMi2017_00004	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
.VOALMegMi2017_00004	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
VOASS50PPM_00300	10/23/19	10/09/19	Methanol, Lot V071019A	1 mL	VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
VOASS50PPM_00301	11/06/19	10/23/19	Methanol, Lot V071019A	1 mL	VOARSS_00012	20 uL	Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		Toluene-d8 (Surr)	2500 ug/mL
							1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOASTDGASPT_00348	10/23/19	10/16/19	Methanol, Lot V071019A	1 mL	VOARGAS_00014	20 uL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VOARGAS_00014	10/31/20		Restek, Lot A0131502		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VOASTDPT2_00150	10/23/19	10/09/19	Methanol, Lot V071019A	1 mL	VOAMegMix2017_00006	20 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VOAR2CEVE_00014	40 uL	2-Chloroethyl vinyl ether	100 ug/mL
					VOARAcroleinS_00005	12.5 uL	Acrolein	250 ug/mL
					VOARADD4COM_00009	20 uL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
					VOARADDCOM_00015	20 uL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Isooctane	50 ug/mL
							Isopropyl alcohol	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
					VOARCYCHONE_00027	100 uL	Cyclohexanone	2500 ug/mL
					VOARKETONDup_00002	8 uL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VOARPOLADD_00013	20 uL	Acetonitrile	500 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOAMegMix2017_00006	06/30/21		Restek, Lot A0143774		VOARVASTD_00006	20 uL	Vinyl acetate	100 ug/mL
					(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOAR2CEVE_00014	12/31/20		Restek, Lot A0133302		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.VOARAcroleinS_00005	10/31/19		Restek, Lot A0147676		(Purchased Reagent)		Acrolein	20000 ug/mL
.VOARADD4COM_00009	05/31/20		Restek, Lot A0143198		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
.VOARADD4COM_00015	07/31/20		Restek, Lot A0145375		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Isooctane	2500 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
.VOARCYCHONE_00027	12/31/20		Restek, Lot A0133136		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
.VOARKETONDup_00002	01/31/20		RESTEK, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.VOARPOLADD_00013	07/31/20		Restek, Lot A0139911		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
.VOARVASTD_00006	01/31/20		Restek, Lot A0150515		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VOASTDPT2_00151	11/06/19	10/23/19	Methanol, Lot V071019A	1 mL	VOAMegMix2017_00006	20 uL	1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							Naphthalene	50 ug/mL
							Tetrachloroethene	50 ug/mL
					VOARSS_00012	20 uL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene	50 ug/mL
							Dibromofluoromethane	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VOAMegMix2017_00006	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
.VOARSS_00012	12/31/20		Restek, Lot A0115812		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene	2500 ug/mL
							Dibromofluoromethane	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL

Method 8260B Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
Artesia-Outlet-102919	600-194999-1	96	108	103	125
Artesia-MW30-102919	600-194999-2	95	104	106	133
Artesia-MD30-102919	600-194999-3	100	108	103	127
Artesia-MW32-102919	600-194999-4	97	107	101	122
Artesia-MW36-102919	600-194999-5	95	108	102	111
Artesia-MW12-102919	600-194999-6	98	106	108	117
Artesia-MW12-102919 DL	600-194999-6 DL	90	93	105	124
Artesia-MW17C-102919	600-194999-7	96	102	105	120
Artesia-MW11-102919	600-194999-8	95	104	103	120
Artesia-MD11-102919	600-194999-9	96	105	100	124
Artesia-MW29-102919	600-194999-10	96	102	103	125
Artesia-MW35-102919	600-194999-11	97	105	103	124
Artesia-MW28-102919	600-194999-12	90	96	107	124
Artesia-MW25-102919	600-194999-13	95	105	102	126
Artesia-MW31-102919	600-194999-14	92	106	103	121
Artesia-MW34-102919	600-194999-15	93	98	108	128
Artesia-MW37-102919	600-194999-16	94	102	105	122
Artesia-MW38-102919	600-194999-17	92	98	106	119
Artesia-MW38-102919	600-194999-17	91	99	105	119
Artesia-MW38-102919 DL	600-194999-17 DL	93	97	108	126
Artesia-TB01-102919	600-194999-18	90	92	102	125
Artesia-Inlet-102919	600-194999-19	93	102	102	126
Artesia-MID-102919	600-194999-20	93	101	103	127
Artesia-MW-22-102919	600-194999-21	89	89	98	120
	MB 600-279189/6	88	91	109	128

DBFM = Dibromofluoromethane
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

QC LIMITS
62-130
50-134
70-130
67-139

Column to be used to flag recovery values

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): DB-VRX 60 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	MB 600-279297/6	91	91	106	129
	MB 600-279414/6	94	98	104	125
	LCS 600-279189/3	84	78	109	121
	LCS 600-279297/3	90	85	105	118
	LCS 600-279414/3	96	89	105	119
	LCSD 600-279189/4	91	87	108	117
	LCSD 600-279297/4	97	90	108	121
	LCSD 600-279414/4	97	93	105	123
Artesia-MW28-10291 9 MS	600-194999-12 MS	94	97	105	117
Artesia-MW34-10291 9 MS	600-194999-15 MS	97	99	104	122
Artesia-MW28-10291 9 MSD	600-194999-12 MSD	97	99	101	116
Artesia-MW34-10291 9 MSD	600-194999-15 MSD	99	101	103	122

DBFM = Dibromofluoromethane
 DCA = 1,2-Dichloroethane-d4 (Surr)
 TOL = Toluene-d8 (Surr)
 BFB = 4-Bromofluorobenzene

QC LIMITS
62-130
 50-134
 70-130
 67-139

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A30502.d
Lab ID: LCS 600-279189/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01012	101	70-140	
1,1-Dichloroethene	0.0100	0.01041	104	58-148	
Benzene	0.0100	0.01042	104	70-130	
Naphthalene	0.0100	0.008346	83	10-150	
Tetrachloroethene	0.0100	0.01271	127	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A30802.d
Lab ID: LCS 600-279297/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.009861	99	70-140	
1,1-Dichloroethene	0.0100	0.009945	99	58-148	
Benzene	0.0100	0.01011	101	70-130	
Tetrachloroethene	0.0100	0.01231	123	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A30902.d
Lab ID: LCS 600-279414/3 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.01038	104	70-140	
1,1-Dichloroethene	0.0100	0.01038	104	58-148	
Benzene	0.0100	0.01057	106	70-130	
Naphthalene	0.0100	0.01226	123	10-150	
Tetrachloroethene	0.0100	0.01231	123	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A30503a.d
 Lab ID: LCSD 600-279189/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.009687	97	4	20	70-140	
1,1-Dichloroethene	0.0100	0.009293	93	11	20	58-148	
Benzene	0.0100	0.009905	99	5	20	70-130	
Naphthalene	0.0100	0.007494	75	11	20	10-150	
Tetrachloroethene	0.0100	0.01167	117	9	20	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A30803.d
 Lab ID: LCSD 600-279297/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.009516	95	4	20	70-140	
1,1-Dichloroethene	0.0100	0.009406	94	6	20	58-148	
Benzene	0.0100	0.009735	97	4	20	70-130	
Tetrachloroethene	0.0100	0.01168	117	5	20	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A30903.d
 Lab ID: LCSD 600-279414/4 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.01025	103	1	20	70-140	
1,1-Dichloroethene	0.0100	0.01046	105	1	20	58-148	
Benzene	0.0100	0.01079	108	2	20	70-130	
Naphthalene	0.0100	0.01400	140	13	20	10-150	
Tetrachloroethene	0.0100	0.01200	120	3	20	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A30510.d
Lab ID: 600-194999-12 MS Client ID: Artesia-MW28-102919 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.00553	0.01454	90	70-140	
1,1-Dichloroethene	0.0100	0.0132	0.01921	60	58-148	
Benzene	0.0100	0.000176 U	0.009915	99	70-130	
Naphthalene	0.0100	0.000316 J	0.01097	107	10-150	
Tetrachloroethene	0.0100	0.0178	0.03042	126	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: A30512.d
Lab ID: 600-194999-15 MS Client ID: Artesia-MW34-102919 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	0.0100	0.00104	0.009147	81	70-140	
1,1-Dichloroethene	0.0100	0.000784 J	0.006369	56	58-148	F1
Benzene	0.0100	0.000176 U	0.009160	92	70-130	
Naphthalene	0.0100	0.000174 J	0.01287	127	10-150	
Tetrachloroethene	0.0100	0.00126	0.01215	109	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A30511.d
 Lab ID: 600-194999-12 MSD Client ID: Artesia-MW28-102919 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.01380	83	5	30	70-140	
1,1-Dichloroethene	0.0100	0.01877	55	2	30	58-148	F1
Benzene	0.0100	0.009215	92	7	30	70-130	
Naphthalene	0.0100	0.01180	115	7	30	10-150	
Tetrachloroethene	0.0100	0.02864	108	6	30	47-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: A30513.d
 Lab ID: 600-194999-15 MSD Client ID: Artesia-MW34-102919 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1-Dichloroethane	0.0100	0.009379	83	3	30	70-140	
1,1-Dichloroethene	0.0100	0.006394	56	0	30	58-148	F1
Benzene	0.0100	0.009334	93	2	30	70-130	
Naphthalene	0.0100	0.01322	130	3	30	10-150	
Tetrachloroethene	0.0100	0.01183	106	3	30	47-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab File ID: A30505.d Lab Sample ID: MB 600-279189/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHVOAMS07 Date Analyzed: 11/01/2019 10:27
 GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-279189/3	A30502.d	11/01/2019 09:17
	LCSD 600-279189/4	A30503a.d	11/01/2019 10:50
Artesia-MW28-102919	600-194999-12	A30507.d	11/01/2019 11:38
Artesia-MW34-102919	600-194999-15	A30508.d	11/01/2019 12:01
Artesia-MW28-102919 MS	600-194999-12 MS	A30510.d	11/01/2019 12:49
Artesia-MW28-102919 MSD	600-194999-12 MSD	A30511.d	11/01/2019 13:13
Artesia-MW34-102919 MS	600-194999-15 MS	A30512.d	11/01/2019 13:37
Artesia-MW34-102919 MSD	600-194999-15 MSD	A30513.d	11/01/2019 14:01
Artesia-Outlet-102919	600-194999-1	A30515.d	11/01/2019 14:50
Artesia-MW30-102919	600-194999-2	A30516.d	11/01/2019 15:14
Artesia-MD30-102919	600-194999-3	A30517.d	11/01/2019 15:38
Artesia-MW32-102919	600-194999-4	A30518.d	11/01/2019 16:02
Artesia-MW36-102919	600-194999-5	A30519.d	11/01/2019 16:26
Artesia-MW12-102919	600-194999-6	A30520.d	11/01/2019 16:51
Artesia-MW17C-102919	600-194999-7	A30521.d	11/01/2019 17:15
Artesia-MW11-102919	600-194999-8	A30522.d	11/01/2019 17:39
Artesia-MD11-102919	600-194999-9	A30523.d	11/01/2019 18:03
Artesia-MW29-102919	600-194999-10	A30524.d	11/01/2019 18:28
Artesia-MW35-102919	600-194999-11	A30525.d	11/01/2019 18:53
Artesia-MW25-102919	600-194999-13	A30526.d	11/01/2019 19:18
Artesia-MW31-102919	600-194999-14	A30527.d	11/01/2019 19:43
Artesia-MW37-102919	600-194999-16	A30528.d	11/01/2019 20:08

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab File ID: A30805.d Lab Sample ID: MB 600-279297/6
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: CHVOAMS07 Date Analyzed: 11/04/2019 10:29
GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-279297/3	A30802.d	11/04/2019 09:17
	LCSD 600-279297/4	A30803.d	11/04/2019 09:41
Artesia-MW12-102919 DL	600-194999-6 DL	A30824.d	11/04/2019 18:03
Artesia-MW38-102919	600-194999-17	A30825.d	11/04/2019 18:27
Artesia-MW38-102919 DL	600-194999-17 DL	A30826.d	11/04/2019 18:51

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab File ID: A30905.d Lab Sample ID: MB 600-279414/6
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: CHVOAMS07 Date Analyzed: 11/05/2019 11:07
GC Column: DB-VRX 60 ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-279414/3	A30902.d	11/05/2019 09:54
	LCSD 600-279414/4	A30903.d	11/05/2019 10:18
Artesia-Inlet-102919	600-194999-19	A30921.d	11/05/2019 17:33
Artesia-MID-102919	600-194999-20	A30922.d	11/05/2019 17:57
Artesia-MW-22-102919	600-194999-21	A30923.d	11/05/2019 18:21
Artesia-TB01-102919	600-194999-18	A30924.d	11/05/2019 18:45
Artesia-MW38-102919	600-194999-17	A30925.d	11/05/2019 19:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab File ID: A29000.d BFB Injection Date: 10/17/2019
 Instrument ID: CHVOAMS07 BFB Injection Time: 09:07
 Analysis Batch No.: 277761

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.5
75	30.0 - 60.0 % of mass 95	46.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	5.9
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	89.7
175	5.0 - 9.0 % of mass 174	6.7 (7.4) 1
176	95.0 - 101.0 % of mass 174	85.3 (95.1) 1
177	5.0 - 9.0 % of mass 176	6.2 (7.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-277761/2	A29001.d	10/17/2019	09:37
	IC 600-277761/3	A29002.d	10/17/2019	10:01
	IC 600-277761/4	A29003.d	10/17/2019	10:27
	IC 600-277761/5	A29004.d	10/17/2019	10:51
	ICIS 600-277761/6	A29005.d	10/17/2019	11:15
	IC 600-277761/7	A29006.d	10/17/2019	11:40
	IC 600-277761/8	A29007.d	10/17/2019	12:04
	ICV 600-277761/10	A29009B.d	10/17/2019	14:31

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab File ID: A30500.d BFB Injection Date: 11/01/2019
Instrument ID: CHVOAMS07 BFB Injection Time: 08:08
Analysis Batch No.: 279189

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.7
75	30.0 - 60.0 % of mass 95	46.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.1 (0.1) 1
174	50.0 - 120.00 % of mass 95	90.1
175	5.0 - 9.0 % of mass 174	7.3 (8.1) 1
176	95.0 - 101.0 % of mass 174	86.6 (96.1) 1
177	5.0 - 9.0 % of mass 176	5.8 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-279189/2	A30501.d	11/01/2019	08:34
	LCS 600-279189/3	A30502.d	11/01/2019	09:17
	MB 600-279189/6	A30505.d	11/01/2019	10:27
	LCSD 600-279189/4	A30503a.d	11/01/2019	10:50
Artesia-MW28-102919	600-194999-12	A30507.d	11/01/2019	11:38
Artesia-MW34-102919	600-194999-15	A30508.d	11/01/2019	12:01
Artesia-MW28-102919 MS	600-194999-12 MS	A30510.d	11/01/2019	12:49
Artesia-MW28-102919 MSD	600-194999-12 MSD	A30511.d	11/01/2019	13:13
Artesia-MW34-102919 MS	600-194999-15 MS	A30512.d	11/01/2019	13:37
Artesia-MW34-102919 MSD	600-194999-15 MSD	A30513.d	11/01/2019	14:01
Artesia-Outlet-102919	600-194999-1	A30515.d	11/01/2019	14:50
Artesia-MW30-102919	600-194999-2	A30516.d	11/01/2019	15:14
Artesia-MD30-102919	600-194999-3	A30517.d	11/01/2019	15:38
Artesia-MW32-102919	600-194999-4	A30518.d	11/01/2019	16:02
Artesia-MW36-102919	600-194999-5	A30519.d	11/01/2019	16:26
Artesia-MW12-102919	600-194999-6	A30520.d	11/01/2019	16:51
Artesia-MW17C-102919	600-194999-7	A30521.d	11/01/2019	17:15
Artesia-MW11-102919	600-194999-8	A30522.d	11/01/2019	17:39
Artesia-MD11-102919	600-194999-9	A30523.d	11/01/2019	18:03
Artesia-MW29-102919	600-194999-10	A30524.d	11/01/2019	18:28
Artesia-MW35-102919	600-194999-11	A30525.d	11/01/2019	18:53
Artesia-MW25-102919	600-194999-13	A30526.d	11/01/2019	19:18
Artesia-MW31-102919	600-194999-14	A30527.d	11/01/2019	19:43
Artesia-MW37-102919	600-194999-16	A30528.d	11/01/2019	20:08

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab File ID: A30800.d BFB Injection Date: 11/04/2019
 Instrument ID: CHVOAMS07 BFB Injection Time: 07:58
 Analysis Batch No.: 279297

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.6
75	30.0 - 60.0 % of mass 95	44.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.7
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	94.9
175	5.0 - 9.0 % of mass 174	6.7 (7.0) 1
176	95.0 - 101.0 % of mass 174	90.6 (95.5) 1
177	5.0 - 9.0 % of mass 176	5.9 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-279297/2	A30801.d	11/04/2019	08:32
	LCS 600-279297/3	A30802.d	11/04/2019	09:17
	LCSD 600-279297/4	A30803.d	11/04/2019	09:41
	MB 600-279297/6	A30805.d	11/04/2019	10:29
Artesia-MW12-102919 DL	600-194999-6 DL	A30824.d	11/04/2019	18:03
Artesia-MW38-102919	600-194999-17	A30825.d	11/04/2019	18:27
Artesia-MW38-102919 DL	600-194999-17 DL	A30826.d	11/04/2019	18:51

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab File ID: A30900.d BFB Injection Date: 11/05/2019
Instrument ID: CHVOAMS07 BFB Injection Time: 08:10
Analysis Batch No.: 279414

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.4
75	30.0 - 60.0 % of mass 95	44.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.9
173	Less than 2.0 % of mass 174	0.8 (0.9) 1
174	50.0 - 120.00 % of mass 95	89.2
175	5.0 - 9.0 % of mass 174	7.5 (8.5) 1
176	95.0 - 101.0 % of mass 174	89.8 (100.7) 1
177	5.0 - 9.0 % of mass 176	6.1 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-279414/2	A30901.d	11/05/2019	09:09
	LCS 600-279414/3	A30902.d	11/05/2019	09:54
	LCSD 600-279414/4	A30903.d	11/05/2019	10:18
	MB 600-279414/6	A30905.d	11/05/2019	11:07
Artesia-Inlet-102919	600-194999-19	A30921.d	11/05/2019	17:33
Artesia-MID-102919	600-194999-20	A30922.d	11/05/2019	17:57
Artesia-MW-22-102919	600-194999-21	A30923.d	11/05/2019	18:21
Artesia-TB01-102919	600-194999-18	A30924.d	11/05/2019	18:45
Artesia-MW38-102919	600-194999-17	A30925.d	11/05/2019	19:09

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Sample No.: ICIS 600-277761/6 Date Analyzed: 10/17/2019 11:15
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A29005.d Heated Purge: (Y/N) N
 Calibration ID: 16917

	FB		CBNZd5		DCBd4		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	406865	8.72	143485	11.74	156616	14.32	
UPPER LIMIT	813730	9.22	286970	12.24	313232	14.82	
LOWER LIMIT	203433	8.22	71743	11.24	78308	13.82	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 600-277761/10		488715	8.72	163455	11.74	173063	14.32
CCVIS 600-279189/2		378444	8.71	128494	11.74	127283	14.32
CCVIS 600-279297/2		461035	8.72	162764	11.75	178970	14.32
CCVIS 600-279414/2		415359	8.72	144542	11.75	153051	14.32

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Sample No.: CCVIS 600-279189/2 Date Analyzed: 11/01/2019 08:34
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A30501.d Heated Purge: (Y/N) N
 Calibration ID: 16917

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		378444	8.71	128494	11.74	127283	14.32
UPPER LIMIT		756888	9.21	256988	12.24	254566	14.82
LOWER LIMIT		189222	8.21	64247	11.24	63642	13.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-279189/3		363937	8.71	121375	11.74	124330	14.32
MB 600-279189/6		330822	8.72	114411	11.75	114140	14.32
LCSD 600-279189/4		345837	8.72	118629	11.75	134855	14.32
600-194999-12	Artesia-MW28-102919	332051	8.72	117066	11.75	123727	14.32
600-194999-15	Artesia-MW34-102919	328551	8.72	115271	11.74	124498	14.32
600-194999-12 MS	Artesia-MW28-102919 MS	372525	8.72	135900	11.75	155301	14.32
600-194999-12 MSD	Artesia-MW28-102919 MSD	378724	8.72	141155	11.75	162101	14.32
600-194999-15 MS	Artesia-MW34-102919 MS	380761	8.72	137897	11.75	159364	14.32
600-194999-15 MSD	Artesia-MW34-102919 MSD	373671	8.72	138124	11.75	158256	14.32
600-194999-1	Artesia-Outlet-102919	349443	8.72	130589	11.75	140897	14.32
600-194999-2	Artesia-MW30-102919	337893	8.72	122367	11.75	129946	14.32
600-194999-3	Artesia-MD30-102919	323714	8.72	121927	11.75	130282	14.32
600-194999-4	Artesia-MW32-102919	321979	8.72	119521	11.75	130712	14.32
600-194999-5	Artesia-MW36-102919	321351	8.72	118735	11.75	169040	14.32
600-194999-6	Artesia-MW12-102919	391275	8.72	139059	11.75	182673	14.32
600-194999-7	Artesia-MW17C-102919	410764	8.72	152232	11.75	177183	14.32
600-194999-8	Artesia-MW11-102919	415856	8.72	152423	11.75	172088	14.32
600-194999-9	Artesia-MD11-102919	400882	8.72	149353	11.75	165791	14.33
600-194999-10	Artesia-MW29-102919	400037	8.72	146415	11.75	162171	14.32
600-194999-11	Artesia-MW35-102919	387208	8.72	143182	11.75	155342	14.33
600-194999-13	Artesia-MW25-102919	349699	8.72	130574	11.76	136579	14.33
600-194999-14	Artesia-MW31-102919	339839	8.72	122553	11.76	131532	14.33
600-194999-16	Artesia-MW37-102919	334536	8.72	120718	11.76	143718	14.33

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Sample No.: CCVIS 600-279297/2 Date Analyzed: 11/04/2019 08:32
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A30801.d Heated Purge: (Y/N) N
 Calibration ID: 16917

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		461035	8.72	162764	11.75	178970	14.32
UPPER LIMIT		922070	9.22	325528	12.25	357940	14.82
LOWER LIMIT		230518	8.22	81382	11.25	89485	13.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-279297/3		423102	8.72	146000	11.75	163491	14.32
LCSD 600-279297/4		421255	8.72	146127	11.75	161356	14.32
MB 600-279297/6		409950	8.72	139010	11.75	142140	14.32
600-194999-6 DL	Artesia-MW12-102919 DL	306933	8.72	108852	11.74	119865	14.32
600-194999-17	Artesia-MW38-102919	315875	8.72	108426	11.75	132851	14.32
600-194999-17 DL	Artesia-MW38-102919 DL	371184	8.72	129115	11.75	141543	14.32

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Sample No.: CCVIS 600-279414/2 Date Analyzed: 11/05/2019 09:09
 Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm)
 Lab File ID (Standard): A30901.d Heated Purge: (Y/N) N
 Calibration ID: 16917

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		415359	8.72	144542	11.75	153051	14.32
UPPER LIMIT		830718	9.22	289084	12.25	306102	14.82
LOWER LIMIT		207680	8.22	72271	11.25	76526	13.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-279414/3		402696	8.72	139436	11.75	154450	14.32
LCSD 600-279414/4		399737	8.72	142724	11.75	157118	14.32
MB 600-279414/6		362364	8.72	128007	11.75	137131	14.33
600-194999-19	Artesia-Inlet-102919	313535	8.72	114867	11.75	122439	14.32
600-194999-20	Artesia-MID-102919	312556	8.72	113719	11.75	120447	14.32
600-194999-21	Artesia-MW-22-102919	318087	8.72	115990	11.75	123726	14.33
600-194999-18	Artesia-TB01-102919	307304	8.72	111733	11.75	117027	14.32
600-194999-17	Artesia-MW38-102919	302723	8.72	107037	11.75	129841	14.32

FB = Fluorobenzene

CBNZd5 = Chlorobenzene-d5

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area

RT Limit = \pm 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-Outlet-102919 Lab Sample ID: 600-194999-1
 Matrix: Water Lab File ID: A30515.d
 Analysis Method: 8260B Date Collected: 10/29/2019 08:25
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 14:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00403		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00567		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000342	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	125		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW30-102919 Lab Sample ID: 600-194999-2
 Matrix: Water Lab File ID: A30516.d
 Analysis Method: 8260B Date Collected: 10/29/2019 09:05
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 15:14
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00132		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00315		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000249	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00498		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	133		67-139
1868-53-7	Dibromofluoromethane	95		62-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MD30-102919 Lab Sample ID: 600-194999-3
 Matrix: Water Lab File ID: A30517.d
 Analysis Method: 8260B Date Collected: 10/29/2019 09:10
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00141		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00345		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000184	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00476		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	127		67-139
1868-53-7	Dibromofluoromethane	100		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW32-102919 Lab Sample ID: 600-194999-4
 Matrix: Water Lab File ID: A30518.d
 Analysis Method: 8260B Date Collected: 10/29/2019 09:25
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 16:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000171	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000921	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		50-134
460-00-4	4-Bromofluorobenzene	122		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW36-102919 Lab Sample ID: 600-194999-5
 Matrix: Water Lab File ID: A30519.d
 Analysis Method: 8260B Date Collected: 10/29/2019 11:33
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 16:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0337		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000593	J	0.00100	0.000192
71-43-2	Benzene	0.0129		0.00100	0.000176
91-20-3	Naphthalene	0.0236		0.00200	0.000129
127-18-4	Tetrachloroethene	0.0100		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		50-134
460-00-4	4-Bromofluorobenzene	111		67-139
1868-53-7	Dibromofluoromethane	95		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW12-102919 Lab Sample ID: 600-194999-6
 Matrix: Water Lab File ID: A30520.d
 Analysis Method: 8260B Date Collected: 10/29/2019 12:23
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 16:51
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.00252		0.00100	0.000192
71-43-2	Benzene	0.00858		0.00100	0.000176
91-20-3	Naphthalene	0.0297		0.00200	0.000129
127-18-4	Tetrachloroethene	0.00172		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		50-134
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	98		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW12-102919 DL Lab Sample ID: 600-194999-6 DL
 Matrix: Water Lab File ID: A30824.d
 Analysis Method: 8260B Date Collected: 10/29/2019 12:23
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 18:03
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0502		0.00500	0.000840

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		50-134
460-00-4	4-Bromofluorobenzene	124		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW17C-102919 Lab Sample ID: 600-194999-7
 Matrix: Water Lab File ID: A30521.d
 Analysis Method: 8260B Date Collected: 10/29/2019 13:00
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 17:15
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000178	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000350	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.00222		0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	120		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW11-102919 Lab Sample ID: 600-194999-8
 Matrix: Water Lab File ID: A30522.d
 Analysis Method: 8260B Date Collected: 10/29/2019 16:15
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 17:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00488		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000201	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000441	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000390	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
460-00-4	4-Bromofluorobenzene	120		67-139
1868-53-7	Dibromofluoromethane	95		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MD11-102919 Lab Sample ID: 600-194999-9
 Matrix: Water Lab File ID: A30523.d
 Analysis Method: 8260B Date Collected: 10/29/2019 16:15
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 18:03
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00457		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000205	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000223	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000399	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	124		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	100		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW29-102919 Lab Sample ID: 600-194999-10
 Matrix: Water Lab File ID: A30524.d
 Analysis Method: 8260B Date Collected: 10/29/2019 10:19
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 18:28
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0103		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0267		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0365		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	125		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW35-102919 Lab Sample ID: 600-194999-11
 Matrix: Water Lab File ID: A30525.d
 Analysis Method: 8260B Date Collected: 10/29/2019 10:38
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 18:53
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0234		0.00100	0.000192
127-18-4	Tetrachloroethene	0.0262		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	124		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW28-102919 Lab Sample ID: 600-194999-12
 Matrix: Water Lab File ID: A30507.d
 Analysis Method: 8260B Date Collected: 10/29/2019 11:15
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 11:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00553		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0132	F1	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000316	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0178		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
460-00-4	4-Bromofluorobenzene	124		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	107		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW25-102919 Lab Sample ID: 600-194999-13
 Matrix: Water Lab File ID: A30526.d
 Analysis Method: 8260B Date Collected: 10/29/2019 11:51
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 19:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000989	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000473	J	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000895	J	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
460-00-4	4-Bromofluorobenzene	126		67-139
1868-53-7	Dibromofluoromethane	95		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW31-102919 Lab Sample ID: 600-194999-14
 Matrix: Water Lab File ID: A30527.d
 Analysis Method: 8260B Date Collected: 10/29/2019 12:45
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 19:43
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00316		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00215		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	92		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW34-102919 Lab Sample ID: 600-194999-15
 Matrix: Water Lab File ID: A30508.d
 Analysis Method: 8260B Date Collected: 10/29/2019 13:17
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 12:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00104		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000784	J F1	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000174	J	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00126		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134
460-00-4	4-Bromofluorobenzene	128		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW37-102919 Lab Sample ID: 600-194999-16
 Matrix: Water Lab File ID: A30528.d
 Analysis Method: 8260B Date Collected: 10/29/2019 15:08
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 20:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.0475		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00822		0.00100	0.000192
71-43-2	Benzene	0.00701		0.00100	0.000176
91-20-3	Naphthalene	0.0114		0.00200	0.000129
127-18-4	Tetrachloroethene	0.00688		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	122		67-139
1868-53-7	Dibromofluoromethane	94		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW38-102919 Lab Sample ID: 600-194999-17
 Matrix: Water Lab File ID: A30825.d
 Analysis Method: 8260B Date Collected: 10/29/2019 14:20
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 18:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	0.0101		0.00100	0.000192
71-43-2	Benzene	0.00167		0.00100	0.000176
127-18-4	Tetrachloroethene	0.0108		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134
460-00-4	4-Bromofluorobenzene	119		67-139
1868-53-7	Dibromofluoromethane	92		62-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW38-102919 Lab Sample ID: 600-194999-17
 Matrix: Water Lab File ID: A30925.d
 Analysis Method: 8260B Date Collected: 10/29/2019 14:20
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 19:09
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
91-20-3	Naphthalene	0.0221		0.00200	0.000129

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	119		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW38-102919 DL Lab Sample ID: 600-194999-17 DL
 Matrix: Water Lab File ID: A30826.d
 Analysis Method: 8260B Date Collected: 10/29/2019 14:20
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 18:51
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.154		0.0100	0.00168

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	126		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-TB01-102919 Lab Sample ID: 600-194999-18
 Matrix: Water Lab File ID: A30924.d
 Analysis Method: 8260B Date Collected: 10/29/2019 08:05
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 18:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		50-134
460-00-4	4-Bromofluorobenzene	125		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-Inlet-102919 Lab Sample ID: 600-194999-19
 Matrix: Water Lab File ID: A30921.d
 Analysis Method: 8260B Date Collected: 10/29/2019 08:10
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 17:33
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00321		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.00909		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.0102		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134
460-00-4	4-Bromofluorobenzene	126		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MID-102919 Lab Sample ID: 600-194999-20
 Matrix: Water Lab File ID: A30922.d
 Analysis Method: 8260B Date Collected: 10/29/2019 08:20
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 17:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.00343		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.0111		0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.00201		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134
460-00-4	4-Bromofluorobenzene	127		67-139
1868-53-7	Dibromofluoromethane	93		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW-22-102919 Lab Sample ID: 600-194999-21
 Matrix: Water Lab File ID: A30923.d
 Analysis Method: 8260B Date Collected: 10/29/2019 12:12
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 18:21
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000832	J	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		50-134
460-00-4	4-Bromofluorobenzene	120		67-139
1868-53-7	Dibromofluoromethane	89		62-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-277761/2	A29001.d
Level 2	IC 600-277761/3	A29002.d
Level 3	IC 600-277761/4	A29003.d
Level 4	IC 600-277761/5	A29004.d
Level 5	ICIS 600-277761/6	A29005.d
Level 6	IC 600-277761/7	A29006.d
Level 7	IC 600-277761/8	A29007.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3319 0.3560	0.4185 0.3606	0.4438	0.4051	0.3940	Ave		0.3871				10.2		15.0			
Chloromethane	0.4804 0.3574	0.4445 0.4032	0.4705	0.4286	0.4228	Ave		0.4296			0.1000	9.7		15.0			
Vinyl chloride	0.3776 0.3346	0.3716 0.3797	0.4106	0.3955	0.3696	Ave		0.3770				6.3		15.0			
Butadiene	0.6739 0.4509	0.4599 0.4945	0.5107	0.5032	0.4777	Ave		0.5101				14.8		15.0			
Ethylene oxide	0.0254 0.0198	0.0200 0.0206	0.0188	0.0186	0.0198	Ave		0.0204				11.2		15.0			
Bromomethane	0.0963 0.1743	0.1676 0.2073	0.1775	0.1718	0.1872	Lin2	-0.044	0.1931							0.9930		0.9900
Chloroethane	0.1804 0.1623	0.1852 0.1769	0.2105	0.1905	0.1786	Ave		0.1835				8.0		15.0			
Dichlorofluoromethane	0.4921 0.3903	0.4411 0.4433	0.4676	0.4422	0.4581	Ave		0.4478				7.0		15.0			
Acrolein	0.0093 0.0087	0.0085 0.0087	0.0071	0.0084	0.0075	Ave		0.0083				9.1		15.0			
Trichlorofluoromethane	0.4144 0.4856	0.5227 0.5126	0.5806	0.5425	0.5321	Ave		0.5129				10.2		15.0			
Acetonitrile	0.0112 0.0137	0.0157 0.0135	0.0121	0.0105	0.0124	Ave		0.0127				13.7		15.0			
Isopropyl alcohol	0.0063 0.0057	0.0077 0.0058	0.0049	0.0055	0.0050	Lin1	0.0032	0.0057							0.9950		0.9900
Acetone	0.0677 0.0261	0.0418 0.0250	0.0277	0.0285	0.0251	Lin1	0.0363	0.0245							0.9970		0.9900
Ethyl ether	0.1587 0.1526	0.1557 0.1537	0.1478	0.1518	0.1498	Ave		0.1529				2.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
t-Butanol	0.0149 0.0100	0.0108 0.0102	0.0091	0.0083	0.0083	Lin1	0.0082	0.0098							0.9920		0.9900
1,1-Dichloroethene	0.3355 0.3070	0.3556 0.3118	0.3115	0.2978	0.2991	Ave		0.3169				6.7		15.0			
Acrylonitrile	0.0279 0.0305	0.0305 0.0319	0.0282	0.0286	0.0262	Ave		0.0291				6.7		15.0			
Iodomethane	0.2273 0.4263	0.2267 0.4656	0.2681	0.3362	0.3874	Lin1	-0.207	0.4484							0.9940		0.9900
Methylene Chloride	1.0973 0.2836	0.6678 0.2861	0.3518	0.3142	0.2899	Lin1	0.3634	0.2692							0.9930		0.9900
Methyl acetate	0.1106 0.0984	0.0844 0.1050	0.0905	0.0942	0.0844	Ave		0.0954				10.5		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3489 0.2971	0.2797 0.2927	0.2668	0.2822	0.2956	Ave		0.2947				8.9		15.0			
3-Chloro-1-propene	0.1896 0.1684	0.1641 0.1621	0.1679	0.1650	0.1713	Ave		0.1698				5.4		15.0			
Carbon disulfide	1.0761 0.8068	0.8614 0.7882	0.8621	0.8316	0.8202	Ave		0.8638				11.3		15.0			
trans-1,2-Dichloroethene	0.3695 0.3383	0.3209 0.3487	0.3372	0.3222	0.3355	Ave		0.3389				4.9		15.0			
Methyl tert-butyl ether	0.5194 0.4711	0.5051 0.4639	0.4575	0.4700	0.4417	Ave		0.4755				5.7		15.0			
1,1-Dichloroethane	0.5579 0.5027	0.5189 0.5181	0.5058	0.5015	0.5017	Ave		0.5153			0.1000	3.9		15.0			
Propionitrile	0.0134 0.0130	0.0114 0.0131	0.0101	0.0113	0.0106	Ave		0.0118				11.1		15.0			
Vinyl acetate	0.2626 0.3118	0.2556 0.3251	0.2638	0.2873	0.2805	Ave		0.2838				9.3		15.0			
2-Chloro-1,3-butadiene	0.5043 0.5825	0.4620 0.6460	0.4833	0.4965	0.5305	Ave		0.5293				12.1		15.0			
Hexane	0.4222 0.4999	0.4002 0.5254	0.4366	0.4583	0.4616	Ave		0.4577				9.5		15.0			
Isopropyl ether	1.0732 1.1683	1.0071 1.2923	1.0020	1.0115	1.0296	Ave		1.0834				10.1		15.0			
2-Butanone (MEK)	0.0032 0.0119	0.0064 0.0123	0.0036	0.0027	0.0088	Lin	-0.043	0.0127							0.9950		0.9900
Methacrylonitrile	0.0125 0.0148	0.0114 0.0159	0.0139	0.0148	0.0130	Ave		0.0138				11.3		15.0			
cis-1,2-Dichloroethene	0.3268 0.3455	0.3224 0.3555	0.3582	0.3384	0.3406	Ave		0.3411				3.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl acetate	0.0889 0.1096	0.0770 0.1106	0.0801	0.0947	0.0926	Ave		0.0934				14.0		15.0			
Chlorobromomethane	0.1596 0.1460	0.1412 0.1465	0.1341	0.1426	0.1388	Ave		0.1441				5.6		15.0			
Tert-butyl ethyl ether	0.6626 0.7070	0.6513 0.7604	0.6446	0.6462	0.6334	Ave		0.6722				6.8		15.0			
Chloroform	0.5584 0.5239	0.5287 0.5700	0.4795	0.5123	0.4977	Ave		0.5244				6.1		15.0			
Isobutyl alcohol	0.0024 0.0040	0.0075 0.0051	0.0038	0.0041	0.0040	Lin	-0.128	0.0051							0.9920		0.9900
2,2-Dichloropropane	0.5370 0.4722	0.4803 0.4795	0.4754	0.4728	0.4743	Ave		0.4845				4.8		15.0			
Tetrahydrofuran	0.0354 0.0297	0.0209 0.0283	0.0300	0.0283	0.0317	Ave		0.0292				15.0		15.0			
1,2-Dichloroethane	0.2622 0.2379	0.2578 0.2300	0.2250	0.2315	0.2234	Ave		0.2382				6.6		15.0			
1,1,1-Trichloroethane	0.5416 0.5445	0.5365 0.5472	0.5280	0.5103	0.5154	Ave		0.5319				2.7		15.0			
n-Butanol	0.0011 0.0022	0.0010 0.0024	0.0017	0.0017	0.0017	Lin	-0.080	0.0025							0.9960		0.9900
1,1-Dichloropropene	0.3809 0.3873	0.3348 0.3844	0.3654	0.3550	0.3671	Ave		0.3678				5.1		15.0			
Cyclohexane	0.4296 0.4657	0.4085 0.4393	0.4455	0.4302	0.4443	Ave		0.4376				4.0		15.0			
Carbon tetrachloride	0.6034 0.5047	0.4767 0.5057	0.4796	0.4842	0.4948	Ave		0.5070				8.7		15.0			
Benzene	1.3352 1.1847	1.1002 1.2409	1.1370	1.1063	1.1547	Ave		1.1799				7.1		15.0			
Tert-amyl methyl ether	0.4973 0.4895	0.5069 0.4926	0.4438	0.4895	0.4626	Ave		0.4832				4.6		15.0			
Isooctane	0.9354 0.9077	0.8016 0.8600	0.8372	0.8619	0.8603	Ave		0.8663				5.1		15.0			
Ethyl acrylate	0.2160 0.2111	0.1660 0.2113	0.1541	0.1888	0.1974	Ave		0.1921				12.5		15.0			
n-Heptane	0.3745 0.4660	0.3846 0.4616	0.4142	0.4274	0.4400	Ave		0.4241				8.4		15.0			
Dibromomethane	0.1492 0.1039	0.1016 0.1053	0.1061	0.1095	0.1007	Lin1	0.0126	0.1039							0.9990		0.9900
1,2-Dichloropropane	0.2729 0.2532	0.2547 0.2630	0.2271	0.2365	0.2330	Ave		0.2486				6.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0431 0.0365	0.0294 0.0392	0.0295	0.0308	0.0310	Lin1	-0.011	0.0374							0.9920		0.9900
Trichloroethene	0.4511 0.4084	0.3838 0.4263	0.3888	0.3810	0.3958	Ave		0.4050				6.3		15.0			
Bromodichloromethane	0.3251 0.3320	0.3200 0.3344	0.3149	0.3241	0.3183	Ave		0.3241				2.2		15.0			
Methyl methacrylate	0.0876 0.1245	0.0738 0.1232	0.0941	0.1096	0.1143	Lin1	-0.069	0.1230							0.9980		0.9900
1,4-Dioxane	0.0018 0.0007	0.0011 0.0006	0.0008	0.0007	0.0006	Lin2	0.0114	0.0006							0.9900		0.9900
2-Chloroethyl vinyl ether	0.0177 0.0126	0.0166 0.0141	0.0117	0.0098	0.0095	Qua	0.0004	0.0105	0.0000366						0.9990		0.9900
Methylcyclohexane	0.4077 0.4866	0.4203 0.4683	0.4237	0.4512	0.4581	Ave		0.4451				6.4		15.0			
cis-1,3-Dichloropropene	0.9646 0.8742	0.8747 0.8137	0.9049	0.8822	0.9142	Ave		0.8898				5.2		15.0			
4-Methyl-2-pentanone (MIBK)	0.1014 0.1012	0.0879 0.1013	0.0763	0.0923	0.0927	Ave		0.0933				9.9		15.0			
trans-1,3-Dichloropropene	0.6783 0.6114	0.6579 0.5595	0.5782	0.6402	0.6001	Ave		0.6179				7.0		15.0			
1,1,2-Trichloroethane	0.5894 0.3921	0.4549 0.3466	0.4002	0.4101	0.3917	Lin2	0.1047	0.3686							0.9960		0.9900
Ethyl methacrylate	0.4134 0.3997	0.3738 0.3733	0.3692	0.3882	0.3737	Ave		0.3845				4.3		15.0			
Toluene	2.1642 1.9553	1.8934 1.8375	1.9751	2.0102	2.0285	Ave		1.9806				5.3		15.0			
1,3-Dichloropropane	0.6642 0.6152	0.7241 0.5451	0.6035	0.6362	0.6330	Ave		0.6316				8.7		15.0			
2-Hexanone	0.0875 0.1696	0.1388 0.1562	0.1187	0.1350	0.1615	Lin1	-0.080	0.1604							0.9970		0.9900
Dibromochloromethane	0.7169 0.6054	0.6530 0.5678	0.6197	0.6314	0.6307	Ave		0.6321				7.3		15.0			
n-Butyl acetate	0.4184 0.4912	0.3697 0.4392	0.4800	0.4646	0.4589	Ave		0.4460				9.3		15.0			
1,2-Dibromoethane	0.4812 0.3864	0.4466 0.3519	0.4435	0.4331	0.3995	Ave		0.4203				10.4		15.0			
Tetrachloroethene	0.7045 0.6938	0.6940 0.6657	0.7526	0.7009	0.7047	Ave		0.7023				3.7		15.0			
1-Chlorohexane	0.7633 0.7360	0.7050 0.6906	0.7696	0.7393	0.7644	Ave		0.7383				4.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761
SDG No.: _____
Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.9704 0.8026	0.8031 0.7734	0.8983	0.8463	0.8451	Ave		0.8485				7.9		15.0			
Chlorobenzene	2.9591 2.3621	2.6585 2.3026	2.5851	2.4995	2.4861	Ave		2.5504			0.3000	8.5		15.0			
Ethylbenzene	1.3561 1.2929	1.4399 1.2187	1.4066	1.3392	1.3383	Ave		1.3417				5.4		15.0			
m-Xylene & p-Xylene	2.8832 2.8476	2.8551 2.8075	2.8902	2.8843	2.9183	Ave		2.8695				1.3		15.0			
Bromoform	0.4283 0.2748	0.3125 0.2557	0.2831	0.2876	0.2751	Lin2	0.0772	0.2598			0.1000				0.9950		0.9900
Styrene	2.1898 2.3484	2.1143 2.2834	2.1622	2.2690	2.3386	Ave		2.2437				4.0		15.0			
Cyclohexanone	0.0095 0.0075	0.0087 0.0071	0.0072	0.0072	0.0070	Ave		0.0078				12.3		15.0			
o-Xylene	1.7929 1.6023	1.6458 1.5400	1.6252	1.6200	1.6539	Ave		1.6400				4.7		15.0			
1,1,2,2-Tetrachloroethane	0.5766 0.4417	0.5403 0.4470	0.4445	0.4257	0.4107	Ave		0.4695			0.3000	13.4		15.0			
trans-1,4-Dichloro-2-butene	0.0962 0.0926	0.1143 0.0902	0.0725	0.0888	0.0836	Ave		0.0912				14.0		15.0			
1,2,3-Trichloropropane	0.2422 0.1222	0.1880 0.1136	0.1543	0.1291	0.1195	Lin2	0.0647	0.1169							0.9980		0.9900
Isopropylbenzene	4.3010 4.0057	3.7805 4.0662	4.0149	3.8659	3.9953	Ave		4.0042				4.1		15.0			
Bromobenzene	1.1634 0.9149	0.9033 0.8955	0.8974	0.9219	0.8594	Ave		0.9366				10.9		15.0			
N-Propylbenzene	1.2446 1.2114	1.1197 1.1965	1.1533	1.1645	1.1843	Ave		1.1820				3.5		15.0			
2-Chlorotoluene	1.2136 1.0639	1.1133 1.0546	1.1414	1.0387	1.0501	Ave		1.0965				5.8		15.0			
4-Chlorotoluene	3.0296 2.5751	2.4596 2.6109	2.5894	2.4788	2.5185	Ave		2.6089				7.4		15.0			
1,3,5-Trimethylbenzene	3.3238 3.4331	3.0723 3.5510	3.1541	3.1444	3.2485	Ave		3.2753				5.2		15.0			
tert-Butylbenzene	2.9996 3.0958	2.8533 3.1770	3.0033	2.8822	3.0135	Ave		3.0035				3.7		15.0			
1,2,4-Trimethylbenzene	3.3499 3.5317	2.9582 3.6711	3.3420	3.2730	3.3182	Ave		3.3492				6.6		15.0			
sec-Butylbenzene	4.1551 4.2533	3.8921 4.3356	4.1851	3.9945	4.1365	Ave		4.1360				3.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzyl chloride	0.7461 0.8223	0.7079 0.8305	0.7368	0.7193	0.7206	Ave		0.7548				6.7		15.0			
1,3-Dichlorobenzene	1.9905 1.9621	1.8439 2.0170	1.7839	1.8387	1.8416	Ave		1.8968				4.8		15.0			
4-Isopropyltoluene	3.9269 4.2627	3.7429 4.5450	3.8652	3.7653	3.9160	Ave		4.0034				7.3		15.0			
1,4-Dichlorobenzene	2.2527 2.0070	2.0627 2.1480	2.0108	1.9189	1.8702	Ave		2.0386				6.4		15.0			
1,2,3-Trimethylbenzene	3.3621 3.4493	3.0297 3.4772	3.1981	3.1485	3.2603	Ave		3.2750				5.0		15.0			
1,2-Dichlorobenzene	1.7108 1.5258	1.6855 1.5258	1.4743	1.5043	1.4479	Ave		1.5535				6.6		15.0			
n-Butylbenzene	2.8946 3.0564	2.6070 3.1267	2.7160	2.7138	2.8891	Ave		2.8577				6.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1431 0.0660	0.1090 0.0628	0.0801	0.0666	0.0622	Lin2	0.0421	0.0610							0.9960		0.9900
1,3,5-Trichlorobenzene	1.2358 1.0602	1.0402 1.0723	1.0462	1.0431	1.0047	Ave		1.0718				7.0		15.0			
1,2,4-Trichlorobenzene	0.5617 0.5538	0.5902 0.5304	0.5102	0.5042	0.5025	Ave		0.5361				6.3		15.0			
Naphthalene	0.6843 0.6469	0.5948 0.6215	0.6022	0.5689	0.5555	Ave		0.6106				7.3		15.0			
Hexachlorobutadiene	0.2295 0.1596	0.1936 0.1515	0.1767	0.1621	0.1607	Lin2	0.0374	0.1555							1.0000		0.9900
1,2,3-Trichlorobenzene	0.3083 0.2182	0.2118 0.1949	0.2358	0.2181	0.1968	Lin1	0.0482	0.1996							0.9970		0.9900
Dibromofluoromethane	0.3417 0.2690	0.2581 0.2730	0.2840	0.2629	0.2596	Ave		0.2783				10.5		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2941 0.1676	0.2138 0.1687	0.1824	0.1609	0.1595	Lin2	0.0659	0.1560							0.9960		0.9900
Toluene-d8 (Surr)	3.1618 2.7690	2.8471 2.7149	2.8619	2.7369	2.7741	Ave		2.8380				5.4		15.0			
4-Bromofluorobenzene	1.2322 0.8274	0.9121 0.7860	0.9048	0.8052	0.8021	Lin2	0.2090	0.7802							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-277761/2	A29001.d
Level 2	IC 600-277761/3	A29002.d
Level 3	IC 600-277761/4	A29003.d
Level 4	IC 600-277761/5	A29004.d
Level 5	ICIS 600-277761/6	A29005.d
Level 6	IC 600-277761/7	A29006.d
Level 7	IC 600-277761/8	A29007.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5370 255846	12771 703791	26527	62919	128251	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	7772 256851	13564 786896	28124	66567	137613	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	6109 240481	11339 741106	24544	61423	120314	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Butadiene	FB	Ave	10904 324121	14034 965103	30525	78162	155499	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylene oxide	FB	Ave	4103 141974	6095 401424	11241	28898	64294	5.00 200	10.0 500	20.0	50.0	100
Bromomethane	FB	Lin2	1558 125308	5113 404532	10611	26689	60923	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Ave	2919 116637	5651 345277	12583	29582	58123	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	7962 280508	13458 865209	27953	68685	149102	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	756 31167	1292 84998	2126	6513	12231	2.50 100	5.00 250	10.0	25.0	50.0
Trichlorofluoromethane	FB	Ave	6705 349051	15949 1000520	34702	84254	173199	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acetonitrile	FB	Ave	1806 98502	4796 262836	7251	16291	40414	5.00 200	10.0 500	20.0	50.0	100
Isopropyl alcohol	FB	Lin1	1014 40846	2337 113770	2940	8574	16184	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	2191 37523	2551 97571	3307	8857	16343	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	2568 109656	4751 300077	8836	23580	48745	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Lin1	2405 71980	3290 198751	5440	12920	26879	5.00 200	10.0 500	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1-Dichloroethene	FB	Ave	5428 220678	10850 608566	18617	46251	97362	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	4509 218916	9298 623095	16830	44380	85172	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Lin1	3678 306378	6918 908728	16023	52216	126106	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	17754 203874	20376 558410	21030	48807	94345	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	3579 141404	5152 409991	10816	29250	54964	1.00 40.0	2.00 100	4.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	5645 213515	8536 571302	15946	43829	96203	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	3067 121037	5007 316364	10036	25631	55744	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	17410 579926	26284 1538393	51532	129167	266975	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	5979 243120	9792 680610	20157	50047	109210	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	8404 338572	15413 905428	27347	73004	143778	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	9027 361336	15834 1011222	30235	77895	163315	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	2166 93568	3464 255108	6040	17488	34511	5.00 200	10.0 500	20.0	50.0	100
Vinyl acetate	FB	Ave	8499 448209	15597 1268875	31537	89237	182577	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	8160 418657	14097 1260773	28891	77112	172664	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	6831 359300	12210 1025348	26100	71176	150233	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	17363 839689	30731 2522143	59895	157101	335119	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Lin	102 17106	393 47965	433	846	5737	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	2027 106434	3481 311225	8319	22985	42435	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	5288 248294	9838 693898	21411	52566	110854	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	2878 157611	4700 431781	9581	29423	60286	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	2582 104905	4309 285843	8018	22149	45168	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	10720 508162	19872 1484003	38530	100360	206175	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	9035 376560	16131 1112577	28660	79568	162013	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Lin	965 72002	5706 248683	5742	15869	32476	12.5 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	8688 339360	14655 935889	28415	73436	154390	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	1144 42646	1275 110475	3589	8790	20627	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	4243 170962	7865 448826	13451	35950	72719	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	8762 391335	16369 1067963	31561	79260	167760	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Lin	446 39235	796 119399	2597	6621	13614	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	6162 278406	10215 750171	21841	55138	119499	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	6950 334708	12466 857457	26632	66819	144600	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	9763 362781	14545 986925	28667	75213	161040	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	21602 851521	33572 2421915	67961	171826	375848	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	8046 351857	15466 961505	26529	76034	150575	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	15134 652397	24461 1678400	50041	133873	280028	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	3494 151741	5066 412487	9209	29318	64257	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	6060 334928	11735 900944	24759	66388	143217	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Lin1	2414 74703	3101 205532	6341	17002	32789	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	4415 182022	7771 513235	13577	36730	75836	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Lin1	1395 52526	1792 153119	3532	9563	20172	1.00 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	7298 293525	11712 832014	23241	59177	128831	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	5260 238628	9764 652645	18825	50342	103620	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Lin1	2835 178915	4504 480817	11249	34050	74437	1.00 40.0	2.00 100	4.00	10.0	20.0
1,4-Dioxane	FB	Lin2	569 10060	693 22924	952	2197	4137	10.0 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBNZ d5	Qua	201 6842	359 22863	492	1081	2190	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Ave	6596 349757	12826 914059	25325	70079	149112	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBNZ d5	Ave	5492 237670	9431 658488	19088	48472	104939	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	3280 145421	5363 395357	9124	28686	60360	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	3862 166237	7093 452748	12196	35176	68887	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBNZ d5	Lin2	3356 106602	4905 280526	8441	22535	44968	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBNZ d5	Ave	2354 108672	4030 302081	7789	21332	42895	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBNZ d5	Ave	12322 531619	20414 1487020	41664	110454	232843	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBNZ d5	Ave	3782 167272	7807 441164	12730	34955	72658	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBNZ d5	Lin1	996 92199	2994 252827	5006	14834	37071	1.00 40.0	2.00 100	4.00	10.0	20.0
Dibromochloromethane	CBNZ d5	Ave	4082 164587	7041 459468	13073	34692	72392	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butyl acetate	CBNZ d5	Ave	2382 133559	3986 355418	10125	25525	52677	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBNZ d5	Ave	2740 105058	4815 284772	9355	23796	45859	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBNZ d5	Ave	4011 188629	7483 538766	15876	38510	80893	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBNZ d5	Ave	4346 200098	7601 558890	16235	40620	87742	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5525 218215	8659 625901	18950	46503	97004	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBNZ d5	Ave	16848 642213	28663 1863371	54531	137338	285372	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBNZ d5	Ave	7721 351533	15525 986249	29672	73584	153620	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBNZ d5	Ave	16416 774215	30783 2272026	60967	158477	334989	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Bromoform	DCBd 4	Lin2	2395 77998	3464 212529	6143	16621	34466	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Styrene	CBNZ d5	Ave	12468 638489	22796 1847866	45610	124670	268444	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexanone	CBNZ d5	Ave	2692 102498	4708 287761	7545	19876	40461	25.0 1000	50.0 2500	100	250	500
o-Xylene	CBNZ d5	Ave	10208 435636	17745 1246274	34283	89012	189849	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	3224 125357	5989 371473	9645	24603	51453	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	538 26276	1267 74944	1573	5134	10470	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCBd 4	Lin2	1354 34696	2084 94407	3349	7462	14970	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCBd 4	Ave	24049 1136888	41902 3379056	87126	223450	500584	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCBd 4	Ave	6505 259674	10012 744141	19475	53288	107675	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCBd 4	Ave	6959 343817	12411 994264	25028	67307	148388	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCBd 4	Ave	6786 301962	12340 876353	24770	60038	131568	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCBd 4	Ave	16940 730858	27262 2169682	56192	143277	315545	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	18585 974365	34053 2950891	68445	181746	407009	0.500 20.0	1.00 50.0	2.00	5.00	10.0
tert-Butylbenzene	DCBd 4	Ave	16772 878640	31625 2640075	65173	166591	377568	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	18731 1002347	32788 3050675	72524	189179	415743	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCBd 4	Ave	23233 1207151	43139 3602866	90819	230881	518276	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCBd 4	Ave	4172 233391	7846 690157	15990	41577	90283	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCBd 4	Ave	11130 556869	20437 1676170	38711	106277	230740	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCBd 4	Ave	21957 1209810	41485 3776876	83877	217638	490648	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCBd 4	Ave	12596 569602	22863 1784986	43636	110911	234325	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCBd 4	Ave	18799 978969	33580 2889541	69400	181984	408493	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 277761

SDG No.: _____

Instrument ID: CHVOAMS07 GC Column: DB-VRX 60 ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/17/2019 09:37 Calibration End Date: 10/17/2019 12:04 Calibration ID: 16917

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichlorobenzene	DCBd 4	Ave	9566 433030	18682 1267942	31993	86952	181416	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butylbenzene	DCBd 4	Ave	16185 867460	28895 2598260	58940	156857	361988	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin2	800 18744	1208 52170	1739	3847	7793	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	6910 300897	11529 891077	22703	60294	125877	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	3141 157187	6542 440736	11071	29142	62960	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCBd 4	Ave	3826 183610	6593 516480	13068	32880	69601	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCBd 4	Lin2	1283 45288	2146 125926	3834	9367	20134	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	1724 61916	2347 161935	5117	12607	24663	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	5528 193328	7875 532846	16978	40837	84491	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Lin2	4759 120449	6523 329176	10903	24986	51904	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBNZ d5	Ave	18002 752850	30697 2197093	60370	150379	318435	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCBd 4	Lin2	6890 234819	10110 653136	19634	46541	100503	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: ICV 600-277761/10 Calibration Date: 10/17/2019 14:31
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A29009B.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3871	0.4217		10.9	10.0	8.9	50.0
Chloromethane	Ave	0.4296	0.4578	0.1000	10.7	10.0	6.6	30.0
Vinyl chloride	Ave	0.3770	0.4191		11.1	10.0	11.2	30.0
Butadiene	Ave	0.5101	0.5356		10.5	10.0	5.0	50.0
Ethylene oxide	Ave	0.0204	0.0198		97.2	100	-2.8	50.0
Bromomethane	Lin2		0.2240		11.8	10.0	18.3	30.0
Chloroethane	Ave	0.1835	0.1931		10.5	10.0	5.2	30.0
Dichlorofluoromethane	Ave	0.4478	0.4767		10.7	10.0	6.5	30.0
Acrolein	Ave	0.0083	0.0085		51.0	50.0	1.9	50.0
Trichlorofluoromethane	Ave	0.5129	0.5754		11.2	10.0	12.2	30.0
Acetonitrile	Ave	0.0127	0.0132		104	100	3.8	30.0
Isopropyl alcohol	Lin1		0.0052		92.0	100	-8.0	50.0
Acetone	Lin1		0.0263		19.9	20.0	-0.3	50.0
Ethyl ether	Ave	0.1529	0.1595		10.4	10.0	4.3	50.0
t-Butanol	Lin1		0.0089		90.0	100	-10.0	30.0
1,1-Dichloroethene	Ave	0.3169	0.3404		10.7	10.0	7.4	30.0
Acrylonitrile	Ave	0.0291	0.0283		97.3	100	-2.7	50.0
Iodomethane	Lin1		0.4272		9.99	10.0	-0.1	30.0
Methylene Chloride	Lin1		0.3182		10.5	10.0	4.7	50.0
Methyl acetate	Ave	0.0954	0.0826		17.3	20.0	-13.4	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2947	0.3212		10.9	10.0	9.0	30.0
3-Chloro-1-propene	Ave	0.1698	0.1843		10.9	10.0	8.5	30.0
Carbon disulfide	Ave	0.8638	0.9013		10.4	10.0	4.3	30.0
trans-1,2-Dichloroethene	Ave	0.3389	0.3724		11.0	10.0	9.9	30.0
Methyl tert-butyl ether	Ave	0.4755	0.4637		9.75	10.0	-2.5	30.0
1,1-Dichloroethane	Ave	0.5153	0.5386	0.1000	10.5	10.0	4.5	30.0
Propionitrile	Ave	0.0118	0.0119		100	100	0.2	30.0
Vinyl acetate	Ave	0.2838	0.3045		21.5	20.0	7.3	50.0
2-Chloro-1,3-butadiene	Ave	0.5293	0.5692		10.8	10.0	7.5	30.0
Hexane	Ave	0.4577	0.5002		10.9	10.0	9.3	30.0
Isopropyl ether	Ave	1.083	1.112		10.3	10.0	2.6	30.0
2-Butanone (MEK)	Lin		0.0121		22.4	20.0	12.2	50.0
Methacrylonitrile	Ave	0.0138	0.0133		96.7	100	-3.3	30.0
cis-1,2-Dichloroethene	Ave	0.3411	0.3654		10.7	10.0	7.1	30.0
Ethyl acetate	Ave	0.0934	0.0901		19.3	20.0	-3.6	30.0
Chlorobromomethane	Ave	0.1441	0.1466		10.2	10.0	1.7	30.0
Tert-butyl ethyl ether	Ave	0.6722	0.6860		10.2	10.0	2.1	30.0
Chloroform	Ave	0.5244	0.5458		10.4	10.0	4.1	30.0
Isobutyl alcohol	Lin		0.0040		222	250	-11.4	50.0
2,2-Dichloropropane	Ave	0.4845	0.5087		10.5	10.0	5.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Lab Sample ID: ICV 600-277761/10 Calibration Date: 10/17/2019 14:31

Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37

GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04

Lab File ID: A29009B.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0292	0.0312		21.4	20.0	7.0	30.0
1,2-Dichloroethane	Ave	0.2382	0.2339		9.82	10.0	-1.8	30.0
1,1,1-Trichloroethane	Ave	0.5319	0.5692		10.7	10.0	7.0	30.0
1,1-Dichloropropene	Ave	0.3678	0.4020		10.9	10.0	9.3	30.0
Cyclohexane	Ave	0.4376	0.4853		11.1	10.0	10.9	50.0
Carbon tetrachloride	Ave	0.5070	0.5308		10.5	10.0	4.7	30.0
Benzene	Ave	1.180	1.239		10.5	10.0	5.0	30.0
Tert-amyl methyl ether	Ave	0.4832	0.4869		10.1	10.0	0.8	30.0
Isooctane	Ave	0.8663	0.9072		10.5	10.0	4.7	30.0
Ethyl acrylate	Ave	0.1921	0.1747		9.10	10.0	-9.0	30.0
n-Heptane	Ave	0.4241	0.4603		10.9	10.0	8.6	30.0
Dibromomethane	Lin1		0.1001		9.51	10.0	-4.9	30.0
1,2-Dichloropropane	Ave	0.2486	0.2578		10.4	10.0	3.7	30.0
2-Nitropropane	Lin1		0.0316		17.2	20.0	-13.9	30.0
Trichloroethene	Ave	0.4050	0.4471		11.0	10.0	10.4	30.0
Bromodichloromethane	Ave	0.3241	0.3231		9.97	10.0	-0.3	30.0
Methyl methacrylate	Lin1		0.1034		17.4	20.0	-13.1	50.0
1,4-Dioxane	Lin2		0.0006		180	200	-9.9	50.0
2-Chloroethyl vinyl ether	Qua		0.0141		24.7	20.0	23.4	30.0
Methylcyclohexane	Ave	0.4451	0.5194		11.7	10.0	16.7	30.0
cis-1,3-Dichloropropene	Ave	0.8898	0.9500		10.7	10.0	6.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0933	0.0921		19.8	20.0	-1.2	50.0
trans-1,3-Dichloropropene	Ave	0.6179	0.6781		11.0	10.0	9.7	30.0
1,1,2-Trichloroethane	Lin2		0.4425		11.7	10.0	17.2	30.0
Ethyl methacrylate	Ave	0.3845	0.4163		10.8	10.0	8.3	50.0
Toluene	Ave	1.981	2.332		11.8	10.0	17.8	30.0
1,3-Dichloropropane	Ave	0.6316	0.6594		10.4	10.0	4.4	30.0
2-Hexanone	Lin1		0.1757		22.4	20.0	12.0	50.0
Dibromochloromethane	Ave	0.6321	0.6835		10.8	10.0	8.1	30.0
n-Butyl acetate	Ave	0.4460	0.4562		10.2	10.0	2.3	30.0
1,2-Dibromoethane	Ave	0.4203	0.4319		10.3	10.0	2.8	30.0
Tetrachloroethene	Ave	0.7023	0.8663		12.3	10.0	23.4	30.0
1-Chlorohexane	Ave	0.7383	0.8261		11.2	10.0	11.9	30.0
1,1,1,2-Tetrachloroethane	Ave	0.8485	0.9422		11.1	10.0	11.0	30.0
Chlorobenzene	Ave	2.550	2.807	0.3000	11.0	10.0	10.1	30.0
Ethylbenzene	Ave	1.342	1.536		11.5	10.0	14.5	30.0
m-Xylene & p-Xylene	Ave	2.869	3.370		11.7	10.0	17.4	30.0
Bromoform	Lin2		0.2986	0.1000	11.2	10.0	12.0	30.0
Styrene	Ave	2.244	2.642		11.8	10.0	17.8	30.0
Cyclohexanone	Ave	0.0078	0.0079		507	500	1.4	30.0
o-Xylene	Ave	1.640	1.862		11.4	10.0	13.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: ICV 600-277761/10 Calibration Date: 10/17/2019 14:31
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A29009B.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Ave	0.4695	0.4580	0.3000	9.75	10.0	-2.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.0912	0.0917		10.1	10.0	0.6	50.0
1,2,3-Trichloropropane	Lin2		0.1337		10.9	10.0	8.8	30.0
Isopropylbenzene	Ave	4.004	4.581		11.4	10.0	14.4	30.0
Bromobenzene	Ave	0.9366	1.030		11.0	10.0	10.0	30.0
N-Propylbenzene	Ave	1.182	1.426		12.1	10.0	20.6	30.0
2-Chlorotoluene	Ave	1.097	1.224		11.2	10.0	11.6	30.0
4-Chlorotoluene	Ave	2.609	2.927		11.2	10.0	12.2	30.0
1,3,5-Trimethylbenzene	Ave	3.275	3.840		11.7	10.0	17.2	30.0
tert-Butylbenzene	Ave	3.004	3.537		11.8	10.0	17.8	30.0
1,2,4-Trimethylbenzene	Ave	3.349	3.894		11.6	10.0	16.3	30.0
sec-Butylbenzene	Ave	4.136	4.810		11.6	10.0	16.3	30.0
Benzyl chloride	Ave	0.7548	0.7768		10.3	10.0	2.9	30.0
1,3-Dichlorobenzene	Ave	1.897	2.088		11.0	10.0	10.1	30.0
4-Isopropyltoluene	Ave	4.003	4.616		11.5	10.0	15.3	30.0
1,4-Dichlorobenzene	Ave	2.039	2.166		10.6	10.0	6.3	30.0
1,2,3-Trimethylbenzene	Ave	3.275	3.634		11.1	10.0	11.0	30.0
1,2-Dichlorobenzene	Ave	1.553	1.623		10.5	10.0	4.5	30.0
n-Butylbenzene	Ave	2.858	3.362		11.8	10.0	17.7	30.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0720		11.1	10.0	11.1	30.0
1,3,5-Trichlorobenzene	Ave	1.072	1.159		10.8	10.0	8.1	30.0
1,2,4-Trichlorobenzene	Ave	0.5361	0.6189		11.5	10.0	15.4	30.0
Naphthalene	Ave	0.6106	0.7490		12.3	10.0	22.7	30.0
Hexachlorobutadiene	Lin2		0.2002		12.6	10.0	26.3	30.0
1,2,3-Trichlorobenzene	Lin1		0.2629		12.9	10.0	29.3	30.0
Dibromofluoromethane	Ave	0.2783	0.2589		11.6	12.5	-7.0	30.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.1476		11.4	12.5	-8.7	30.0
Toluene-d8 (Surr)	Ave	2.838	3.077		13.6	12.5	8.4	30.0
4-Bromofluorobenzene	Lin2		0.9523		15.0	12.5	19.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279189/2 Calibration Date: 11/01/2019 08:34
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30501.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3871	0.3338		8.62	10.0	-13.8	35.0
Chloromethane	Ave	0.4296	0.3462	0.1000	8.06	10.0	-19.4	35.0
Vinyl chloride	Ave	0.3770	0.3730		9.89	10.0	-1.1	20.0
Butadiene	Ave	0.5101	0.4834		9.48	10.0	-5.2	35.0
Ethylene oxide	Ave	0.0204	0.0139		68.0	100	-32.0	35.0
Bromomethane	Lin2		0.1401		7.49	10.0	-25.2	35.0
Chloroethane	Ave	0.1835	0.1765		9.62	10.0	-3.8	35.0
Dichlorofluoromethane	Ave	0.4478	0.4471		9.99	10.0	-0.2	35.0
Acrolein	Ave	0.0083	0.0052		31.0	50.0	-38.0	50.0
Acetonitrile	Ave	0.0127	0.0086		67.6	100	-32.4	50.0
Trichlorofluoromethane	Ave	0.5129	0.5434		10.6	10.0	5.9	35.0
Isopropyl alcohol	Lin1		0.0033		58.4	100	-41.6	50.0
Acetone	Lin1		0.0217		16.2	20.0	-18.8	50.0
Ethyl ether	Ave	0.1529	0.1144		7.49	10.0	-25.2	35.0
t-Butanol	Lin1		0.0058		58.9	100	-41.1*	35.0
1,1-Dichloroethene	Ave	0.3169	0.3526		11.1	10.0	11.3	20.0
Acrylonitrile	Ave	0.0291	0.0204		70.0	100	-30.0	50.0
Iodomethane	Lin1		0.4555		10.6	10.0	6.2	35.0
Methylene Chloride	Lin1		0.2565		8.18	10.0	-18.2	50.0
Methyl acetate	Ave	0.0954	0.0625		13.1	20.0	-34.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2947	0.3458		11.7	10.0	17.3	35.0
3-Chloro-1-propene	Ave	0.1698	0.1836		10.8	10.0	8.1	35.0
Carbon disulfide	Ave	0.8638	0.9578		11.1	10.0	10.9	35.0
trans-1,2-Dichloroethene	Ave	0.3389	0.3669		10.8	10.0	8.3	35.0
Methyl tert-butyl ether	Ave	0.4755	0.3101		6.52	10.0	-34.8	35.0
1,1-Dichloroethane	Ave	0.5153	0.5099	0.1000	9.90	10.0	-1.0	35.0
Propionitrile	Ave	0.0118	0.0073		61.4	100	-38.6*	35.0
Vinyl acetate	Ave	0.2838	0.1957		13.8	20.0	-31.0	50.0
2-Chloro-1,3-butadiene	Ave	0.5293	0.5766		10.9	10.0	8.9	35.0
Hexane	Ave	0.4577	0.5449		11.9	10.0	19.0	35.0
Isopropyl ether	Ave	1.083	0.8485		7.83	10.0	-21.7	35.0
2-Butanone (MEK)	Lin		0.0084		16.6	20.0	-17.0	50.0
Methacrylonitrile	Ave	0.0138	0.0097		70.3	100	-29.7	35.0
cis-1,2-Dichloroethene	Ave	0.3411	0.3314		9.72	10.0	-2.8	35.0
Ethyl acetate	Ave	0.0934	0.0573		12.3	20.0	-38.7*	35.0
Chlorobromomethane	Ave	0.1441	0.1146		7.95	10.0	-20.5	35.0
Tert-butyl ethyl ether	Ave	0.6722	0.4727		7.03	10.0	-29.7	35.0
Chloroform	Ave	0.5244	0.4988		9.51	10.0	-4.9	20.0
Isobutyl alcohol	Lin		0.0021		129	250	-48.6	50.0
2,2-Dichloropropane	Ave	0.4845	0.5063		10.5	10.0	4.5	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279189/2 Calibration Date: 11/01/2019 08:34
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30501.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0292	0.0172		11.8	20.0	-41.0*	35.0
1,2-Dichloroethane	Ave	0.2382	0.1842		7.73	10.0	-22.7	35.0
1,1,1-Trichloroethane	Ave	0.5319	0.5662		10.6	10.0	6.4	35.0
1,1-Dichloropropene	Ave	0.3678	0.4032		11.0	10.0	9.6	35.0
Cyclohexane	Ave	0.4376	0.5175		11.8	10.0	18.3	35.0
Carbon tetrachloride	Ave	0.5070	0.5403		10.7	10.0	6.6	35.0
Benzene	Ave	1.180	1.166		9.88	10.0	-1.2	35.0
Tert-amyl methyl ether	Ave	0.4832	0.3273		6.77	10.0	-32.3	35.0
Isooctane	Ave	0.8663	1.041		12.0	10.0	20.2	35.0
Ethyl acrylate	Ave	0.1921	0.1466		7.63	10.0	-23.7	35.0
n-Heptane	Ave	0.4241	0.5084		12.0	10.0	19.9	35.0
Dibromomethane	Lin1		0.0760		7.19	10.0	-28.1	35.0
1,2-Dichloropropane	Ave	0.2486	0.2234		8.99	10.0	-10.1	20.0
2-Nitropropane	Lin1		0.0208		11.4	20.0	-42.8*	35.0
Trichloroethene	Ave	0.4050	0.4282		10.6	10.0	5.7	35.0
Bromodichloromethane	Ave	0.3241	0.2767		8.54	10.0	-14.6	35.0
Methyl methacrylate	Lin1		0.0731		12.4	20.0	-37.8	50.0
1,4-Dioxane	Lin2		0.0005		147	200	-26.6	50.0
2-Chloroethyl vinyl ether	Qua		0.0063		11.5	20.0	-42.6*	35.0
Methylcyclohexane	Ave	0.4451	0.5343		12.0	10.0	20.0	35.0
cis-1,3-Dichloropropene	Ave	0.8898	0.7735		8.69	10.0	-13.1	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0933	0.0583		12.5	20.0	-37.5	50.0
trans-1,3-Dichloropropene	Ave	0.6179	0.5011		8.11	10.0	-18.9	35.0
1,1,2-Trichloroethane	Lin2		0.3187		8.36	10.0	-16.4	35.0
Ethyl methacrylate	Ave	0.3845	0.2861		7.44	10.0	-25.6	50.0
Toluene	Ave	1.981	2.201		11.1	10.0	11.1	20.0
1,3-Dichloropropane	Ave	0.6316	0.5064		8.02	10.0	-19.8	35.0
2-Hexanone	Lin1		0.0934		12.2	20.0	-39.2	50.0
Dibromochloromethane	Ave	0.6321	0.4924		7.79	10.0	-22.1	35.0
n-Butyl acetate	Ave	0.4460	0.2770		6.21	10.0	-37.9*	35.0
1,2-Dibromoethane	Ave	0.4203	0.3222		7.67	10.0	-23.3	35.0
Tetrachloroethene	Ave	0.7023	0.8132		11.6	10.0	15.8	35.0
1-Chlorohexane	Ave	0.7383	0.8643		11.7	10.0	17.1	35.0
1,1,1,2-Tetrachloroethane	Ave	0.8485	0.7647		9.01	10.0	-9.9	35.0
Chlorobenzene	Ave	2.550	2.502	0.3000	9.81	10.0	-1.9	35.0
Ethylbenzene	Ave	1.342	1.516		11.3	10.0	13.0	20.0
m-Xylene & p-Xylene	Ave	2.869	3.228		11.3	10.0	12.5	35.0
Bromoform	Lin2		0.2310	0.1000	8.60	10.0	-14.1	35.0
Styrene	Ave	2.244	2.259		10.1	10.0	0.7	35.0
Cyclohexanone	Ave	0.0078	0.0055		356	500	-28.8	35.0
o-Xylene	Ave	1.640	1.726		10.5	10.0	5.3	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279189/2 Calibration Date: 11/01/2019 08:34
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30501.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Ave	0.4695	0.3324	0.3000	7.08	10.0	-29.2	35.0
trans-1,4-Dichloro-2-butene	Ave	0.0912	0.0675		7.40	10.0	-26.0	50.0
1,2,3-Trichloropropane	Lin2		0.1032		8.28	10.0	-17.2	35.0
Isopropylbenzene	Ave	4.004	4.874		12.2	10.0	21.7	35.0
Bromobenzene	Ave	0.9366	0.8736		9.33	10.0	-6.7	35.0
N-Propylbenzene	Ave	1.182	1.492		12.6	10.0	26.2	35.0
2-Chlorotoluene	Ave	1.097	1.209		11.0	10.0	10.3	35.0
4-Chlorotoluene	Ave	2.609	2.817		10.8	10.0	8.0	35.0
1,3,5-Trimethylbenzene	Ave	3.275	3.943		12.0	10.0	20.4	35.0
tert-Butylbenzene	Ave	3.004	3.710		12.4	10.0	23.5	35.0
1,2,4-Trimethylbenzene	Ave	3.349	3.815		11.4	10.0	13.9	35.0
sec-Butylbenzene	Ave	4.136	5.123		12.4	10.0	23.9	35.0
Benzyl chloride	Ave	0.7548	0.5268		6.98	10.0	-30.2	35.0
1,3-Dichlorobenzene	Ave	1.897	1.890		9.97	10.0	-0.4	35.0
4-Isopropyltoluene	Ave	4.003	4.835		12.1	10.0	20.8	35.0
1,4-Dichlorobenzene	Ave	2.039	1.836		9.01	10.0	-9.9	35.0
1,2,3-Trimethylbenzene	Ave	3.275	3.261		9.96	10.0	-0.4	35.0
1,2-Dichlorobenzene	Ave	1.553	1.303		8.39	10.0	-16.2	35.0
n-Butylbenzene	Ave	2.858	3.464		12.1	10.0	21.2	35.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0368		5.35	10.0	-46.5*	35.0
1,3,5-Trichlorobenzene	Ave	1.072	0.9166		8.55	10.0	-14.5	35.0
1,2,4-Trichlorobenzene	Ave	0.5361	0.3339		6.23	10.0	-37.7*	35.0
Naphthalene	Ave	0.6106	0.3971		6.50	10.0	-35.0	35.0
Hexachlorobutadiene	Lin2		0.1933		12.2	10.0	21.9	35.0
1,2,3-Trichlorobenzene	Lin1		0.0804		3.79	10.0	-62.1*	35.0
Dibromofluoromethane	Ave	0.2783	0.2462		8.85	10.0	-11.5	35.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.1230		7.46	10.0	-25.4	35.0
Toluene-d8 (Surr)	Ave	2.838	2.904		10.2	10.0	2.3	35.0
4-Bromofluorobenzene	Lin2		0.8273		10.3	10.0	3.4	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279297/2 Calibration Date: 11/04/2019 08:32
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30801.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3871	0.2967		7.66	10.0	-23.4	35.0
Chloromethane	Ave	0.4296	0.3459	0.1000	8.05	10.0	-19.5	35.0
Vinyl chloride	Ave	0.3770	0.3887		10.3	10.0	3.1	20.0
Butadiene	Ave	0.5101	0.5111		10.0	10.0	0.2	35.0
Ethylene oxide	Ave	0.0204	0.0186		91.0	100	-9.0	35.0
Bromomethane	Lin2		0.1071		5.77	10.0	-42.3*	35.0
Chloroethane	Ave	0.1835	0.1745		9.51	10.0	-4.9	35.0
Dichlorofluoromethane	Ave	0.4478	0.4368		9.75	10.0	-2.5	35.0
Acrolein	Ave	0.0083	0.0065		39.2	50.0	-21.6	50.0
Trichlorofluoromethane	Ave	0.5129	0.5314		10.4	10.0	3.6	35.0
Acetonitrile	Ave	0.0127	0.0117		92.1	100	-8.0	50.0
Isopropyl alcohol	Lin1		0.0051		90.0	100	-10.0	50.0
Acetone	Lin1		0.0321		24.7	20.0	23.6	50.0
Ethyl ether	Ave	0.1529	0.1500		9.81	10.0	-1.9	35.0
t-Butanol	Lin1		0.0092		93.6	100	-6.4	35.0
1,1-Dichloroethene	Ave	0.3169	0.3332		10.5	10.0	5.1	20.0
Acrylonitrile	Ave	0.0291	0.0272		93.4	100	-6.6	50.0
Iodomethane	Lin1		0.3608		8.51	10.0	-14.9	35.0
Methylene Chloride	Lin1		0.2891		9.39	10.0	-6.1	50.0
Methyl acetate	Ave	0.0954	0.0886		18.6	20.0	-7.1	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2947	0.3397		11.5	10.0	15.3	35.0
3-Chloro-1-propene	Ave	0.1698	0.1695		9.98	10.0	-0.2	35.0
Carbon disulfide	Ave	0.8638	0.8750		10.1	10.0	1.3	35.0
trans-1,2-Dichloroethene	Ave	0.3389	0.3505		10.3	10.0	3.4	35.0
Methyl tert-butyl ether	Ave	0.4755	0.4335		9.12	10.0	-8.8	35.0
1,1-Dichloroethane	Ave	0.5153	0.4961	0.1000	9.63	10.0	-3.7	35.0
Propionitrile	Ave	0.0118	0.0107		90.2	100	-9.8	35.0
Vinyl acetate	Ave	0.2838	0.2638		18.6	20.0	-7.1	50.0
2-Chloro-1,3-butadiene	Ave	0.5293	0.5530		10.5	10.0	4.5	35.0
Hexane	Ave	0.4577	0.5087		11.1	10.0	11.1	35.0
Isopropyl ether	Ave	1.083	1.016		9.38	10.0	-6.2	35.0
2-Butanone (MEK)	Lin		0.0115		21.5	20.0	7.6	50.0
Methacrylonitrile	Ave	0.0138	0.0128		93.1	100	-6.9	35.0
cis-1,2-Dichloroethene	Ave	0.3411	0.3473		10.2	10.0	1.8	35.0
Ethyl acetate	Ave	0.0934	0.0921		19.7	20.0	-1.3	35.0
Chlorobromomethane	Ave	0.1441	0.1411		9.79	10.0	-2.1	35.0
Tert-butyl ethyl ether	Ave	0.6722	0.6239		9.28	10.0	-7.2	35.0
Chloroform	Ave	0.5244	0.5054		9.64	10.0	-3.6	20.0
Isobutyl alcohol	Lin		0.0036		204	250	-18.4	50.0
2,2-Dichloropropane	Ave	0.4845	0.4802		9.91	10.0	-0.9	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279297/2 Calibration Date: 11/04/2019 08:32
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30801.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0292	0.0264		18.1	20.0	-9.5	35.0
1,2-Dichloroethane	Ave	0.2382	0.2102		8.82	10.0	-11.8	35.0
1,1,1-Trichloroethane	Ave	0.5319	0.5416		10.2	10.0	1.8	35.0
1,1-Dichloropropene	Ave	0.3678	0.3889		10.6	10.0	5.7	35.0
Cyclohexane	Ave	0.4376	0.4924		11.3	10.0	12.5	35.0
Carbon tetrachloride	Ave	0.5070	0.5213		10.3	10.0	2.8	35.0
Benzene	Ave	1.180	1.155		9.79	10.0	-2.1	35.0
Tert-amyl methyl ether	Ave	0.4832	0.4439		9.19	10.0	-8.1	35.0
Isooctane	Ave	0.8663	0.9381		10.8	10.0	8.3	35.0
Ethyl acrylate	Ave	0.1921	0.1844		9.60	10.0	-4.0	35.0
n-Heptane	Ave	0.4241	0.4810		11.3	10.0	13.4	35.0
Dibromomethane	Lin1		0.0950		9.02	10.0	-9.9	35.0
1,2-Dichloropropane	Ave	0.2486	0.2297		9.24	10.0	-7.6	20.0
2-Nitropropane	Lin1		0.0302		16.5	20.0	-17.7	35.0
Trichloroethene	Ave	0.4050	0.4165		10.3	10.0	2.8	35.0
Bromodichloromethane	Ave	0.3241	0.3048		9.40	10.0	-6.0	35.0
Methyl methacrylate	Lin1		0.1017		17.1	20.0	-14.5	50.0
1,4-Dioxane	Lin2		0.0007		211	200	5.7	50.0
2-Chloroethyl vinyl ether	Qua		0.0138		24.2	20.0	21.1	35.0
Methylcyclohexane	Ave	0.4451	0.5103		11.5	10.0	14.6	35.0
cis-1,3-Dichloropropene	Ave	0.8898	0.8527		9.58	10.0	-4.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0933	0.0870		18.7	20.0	-6.8	50.0
trans-1,3-Dichloropropene	Ave	0.6179	0.5821		9.42	10.0	-5.8	35.0
1,1,2-Trichloroethane	Lin2		0.3625		9.55	10.0	-4.5	35.0
Ethyl methacrylate	Ave	0.3845	0.3583		9.32	10.0	-6.8	50.0
Toluene	Ave	1.981	2.052		10.4	10.0	3.6	20.0
1,3-Dichloropropane	Ave	0.6316	0.5719		9.05	10.0	-9.5	35.0
2-Hexanone	Lin1		0.1509		19.3	20.0	-3.4	50.0
Dibromochloromethane	Ave	0.6321	0.5983		9.47	10.0	-5.3	35.0
n-Butyl acetate	Ave	0.4460	0.4187		9.39	10.0	-6.1	35.0
1,2-Dibromoethane	Ave	0.4203	0.3818		9.08	10.0	-9.2	35.0
Tetrachloroethene	Ave	0.7023	0.7816		11.1	10.0	11.3	35.0
1-Chlorohexane	Ave	0.7383	0.7614		10.3	10.0	3.1	35.0
1,1,1,2-Tetrachloroethane	Ave	0.8485	0.8414		9.92	10.0	-0.8	35.0
Chlorobenzene	Ave	2.550	2.422	0.3000	9.50	10.0	-5.0	35.0
Ethylbenzene	Ave	1.342	1.366		10.2	10.0	1.8	20.0
m-Xylene & p-Xylene	Ave	2.869	2.844		9.91	10.0	-0.9	35.0
Bromoform	Lin2		0.2547	0.1000	9.51	10.0	-4.9	35.0
Styrene	Ave	2.244	2.273		10.1	10.0	1.3	35.0
Cyclohexanone	Ave	0.0078	0.0083		536	500	7.3	35.0
o-Xylene	Ave	1.640	1.604		9.78	10.0	-2.2	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279297/2 Calibration Date: 11/04/2019 08:32
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30801.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2,2-Tetrachloroethane	Ave	0.4695	0.3885	0.3000	8.28	10.0	-17.2	35.0
trans-1,4-Dichloro-2-butene	Ave	0.0912	0.0717		7.86	10.0	-21.4	50.0
1,2,3-Trichloropropane	Lin2		0.1154		9.32	10.0	-6.8	35.0
Isopropylbenzene	Ave	4.004	3.818		9.53	10.0	-4.7	35.0
Bromobenzene	Ave	0.9366	0.8527		9.10	10.0	-9.0	35.0
N-Propylbenzene	Ave	1.182	1.210		10.2	10.0	2.3	35.0
2-Chlorotoluene	Ave	1.097	1.041		9.50	10.0	-5.1	35.0
4-Chlorotoluene	Ave	2.609	2.442		9.36	10.0	-6.4	35.0
1,3,5-Trimethylbenzene	Ave	3.275	3.220		9.83	10.0	-1.7	35.0
tert-Butylbenzene	Ave	3.004	2.944		9.80	10.0	-2.0	35.0
1,2,4-Trimethylbenzene	Ave	3.349	3.265		9.75	10.0	-2.5	35.0
sec-Butylbenzene	Ave	4.136	4.049		9.79	10.0	-2.1	35.0
Benzyl chloride	Ave	0.7548	0.6714		8.90	10.0	-11.1	35.0
1,3-Dichlorobenzene	Ave	1.897	1.766		9.31	10.0	-6.9	35.0
4-Isopropyltoluene	Ave	4.003	3.962		9.90	10.0	-1.0	35.0
1,4-Dichlorobenzene	Ave	2.039	1.851		9.08	10.0	-9.2	35.0
1,2,3-Trimethylbenzene	Ave	3.275	3.061		9.35	10.0	-6.5	35.0
1,2-Dichlorobenzene	Ave	1.553	1.367		8.80	10.0	-12.0	35.0
n-Butylbenzene	Ave	2.858	2.837		9.93	10.0	-0.7	35.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0609		9.30	10.0	-7.0	35.0
1,3,5-Trichlorobenzene	Ave	1.072	1.007		9.40	10.0	-6.0	35.0
1,2,4-Trichlorobenzene	Ave	0.5361	0.5441		10.2	10.0	1.5	35.0
Naphthalene	Ave	0.6106	1.155		18.9	10.0	89.2*	35.0
Hexachlorobutadiene	Lin2		0.1654		10.4	10.0	3.9	35.0
1,2,3-Trichlorobenzene	Lin1		0.2356		11.6	10.0	15.6	35.0
Dibromofluoromethane	Ave	0.2783	0.2570		9.23	10.0	-7.7	35.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.1517		9.30	10.0	-7.0	35.0
Toluene-d8 (Surr)	Ave	2.838	2.732		9.63	10.0	-3.7	35.0
4-Bromofluorobenzene	Lin2		0.7572		9.44	10.0	-5.6	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Lab Sample ID: CCVIS 600-279414/2 Calibration Date: 11/05/2019 09:09

Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37

GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04

Lab File ID: A30901.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3871	0.3193		8.25	10.0	-17.5	35.0
Chloromethane	Ave	0.4296	0.3807	0.1000	8.86	10.0	-11.4	35.0
Vinyl chloride	Ave	0.3770	0.4208		11.2	10.0	11.6	20.0
Butadiene	Ave	0.5101	0.6322		12.4	10.0	23.9	35.0
Ethylene oxide	Ave	0.0204	0.0186		91.0	100	-9.0	35.0
Bromomethane	Lin2		0.1178		6.33	10.0	-36.7*	35.0
Chloroethane	Ave	0.1835	0.2009		11.0	10.0	9.5	35.0
Dichlorofluoromethane	Ave	0.4478	0.4927		11.0	10.0	10.0	35.0
Acrolein	Ave	0.0083	0.0069		41.3	50.0	-17.5	50.0
Acetonitrile	Ave	0.0127	0.0113		88.9	100	-11.1	50.0
Trichlorofluoromethane	Ave	0.5129	0.6314		12.3	10.0	23.1	35.0
Isopropyl alcohol	Lin1		0.0052		91.1	100	-8.9	50.0
Acetone	Lin1		0.0267		20.3	20.0	1.6	50.0
Ethyl ether	Ave	0.1529	0.1471		9.62	10.0	-3.8	35.0
t-Butanol	Lin1		0.0096		97.3	100	-2.7	35.0
1,1-Dichloroethene	Ave	0.3169	0.3799		12.0	10.0	19.9	20.0
Acrylonitrile	Ave	0.0291	0.0271		93.2	100	-6.8	50.0
Iodomethane	Lin1		0.3604		8.50	10.0	-15.0	35.0
Methylene Chloride	Lin1		0.3042		9.95	10.0	-0.5	50.0
Methyl acetate	Ave	0.0954	0.0844		17.7	20.0	-11.5	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2947	0.3755		12.7	10.0	27.4	35.0
3-Chloro-1-propene	Ave	0.1698	0.1854		10.9	10.0	9.2	35.0
Carbon disulfide	Ave	0.8638	0.999		11.6	10.0	15.6	35.0
trans-1,2-Dichloroethene	Ave	0.3389	0.3827		11.3	10.0	12.9	35.0
Methyl tert-butyl ether	Ave	0.4755	0.4406		9.27	10.0	-7.3	35.0
Propionitrile	Ave	0.0118	0.0108		91.4	100	-8.6	35.0
1,1-Dichloroethane	Ave	0.5153	0.5629	0.1000	10.9	10.0	9.3	35.0
Vinyl acetate	Ave	0.2838	0.2651		18.7	20.0	-6.6	50.0
2-Chloro-1,3-butadiene	Ave	0.5293	0.6307		11.9	10.0	19.2	35.0
Hexane	Ave	0.4577	0.5649		12.3	10.0	23.4	35.0
Isopropyl ether	Ave	1.083	1.118		10.3	10.0	3.2	35.0
2-Butanone (MEK)	Lin		0.0112		21.1	20.0	5.5	50.0
Methacrylonitrile	Ave	0.0138	0.0122		88.5	100	-11.5	35.0
cis-1,2-Dichloroethene	Ave	0.3411	0.3795		11.1	10.0	11.3	35.0
Ethyl acetate	Ave	0.0934	0.0860		18.4	20.0	-7.9	35.0
Chlorobromomethane	Ave	0.1441	0.1413		9.80	10.0	-2.0	35.0
Tert-butyl ethyl ether	Ave	0.6722	0.6698		9.96	10.0	-0.4	35.0
Chloroform	Ave	0.5244	0.5597		10.7	10.0	6.7	20.0
Isobutyl alcohol	Lin		0.0044		241	250	-3.5	50.0
2,2-Dichloropropane	Ave	0.4845	0.5314		11.0	10.0	9.7	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279414/2 Calibration Date: 11/05/2019 09:09
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30901.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0292	0.0262		17.9	20.0	-10.3	35.0
1,2-Dichloroethane	Ave	0.2382	0.2162		9.07	10.0	-9.3	35.0
1,1,1-Trichloroethane	Ave	0.5319	0.6085		11.4	10.0	14.4	35.0
1,1-Dichloropropene	Ave	0.3678	0.4460		12.1	10.0	21.2	35.0
Cyclohexane	Ave	0.4376	0.5379		12.3	10.0	22.9	35.0
Carbon tetrachloride	Ave	0.5070	0.5717		11.3	10.0	12.8	35.0
Benzene	Ave	1.180	1.291		11.0	10.0	9.5	35.0
Tert-amyl methyl ether	Ave	0.4832	0.4665		9.66	10.0	-3.5	35.0
Isooctane	Ave	0.8663	1.072		12.4	10.0	23.8	35.0
Ethyl acrylate	Ave	0.1921	0.1870		9.73	10.0	-2.7	35.0
n-Heptane	Ave	0.4241	0.5049		11.9	10.0	19.1	35.0
Dibromomethane	Lin1		0.0941		8.94	10.0	-10.6	35.0
1,2-Dichloropropane	Ave	0.2486	0.2533		10.2	10.0	1.9	20.0
2-Nitropropane	Lin1		0.0294		16.0	20.0	-19.9	35.0
Trichloroethene	Ave	0.4050	0.4619		11.4	10.0	14.0	35.0
Bromodichloromethane	Ave	0.3241	0.3251		10.0	10.0	0.3	35.0
Methyl methacrylate	Lin1		0.0983		16.6	20.0	-17.2	50.0
1,4-Dioxane	Lin2		0.0005		150	200	-25.1	50.0
2-Chloroethyl vinyl ether	Qua		0.0103		18.4	20.0	-8.3	35.0
Methylcyclohexane	Ave	0.4451	0.5554		12.5	10.0	24.8	35.0
cis-1,3-Dichloropropene	Ave	0.8898	0.9153		10.3	10.0	2.9	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0933	0.0876		18.8	20.0	-6.2	50.0
trans-1,3-Dichloropropene	Ave	0.6179	0.6022		9.75	10.0	-2.6	35.0
1,1,2-Trichloroethane	Lin2		0.3879		10.2	10.0	2.4	35.0
Ethyl methacrylate	Ave	0.3845	0.3679		9.57	10.0	-4.3	50.0
Toluene	Ave	1.981	2.326		11.7	10.0	17.4	20.0
1,3-Dichloropropane	Ave	0.6316	0.5991		9.49	10.0	-5.1	35.0
2-Hexanone	Lin1		0.1497		19.2	20.0	-4.2	50.0
Dibromochloromethane	Ave	0.6321	0.6169		9.76	10.0	-2.4	35.0
n-Butyl acetate	Ave	0.4460	0.4334		9.72	10.0	-2.8	35.0
1,2-Dibromoethane	Ave	0.4203	0.3867		9.20	10.0	-8.0	35.0
Tetrachloroethene	Ave	0.7023	0.8697		12.4	10.0	23.8	35.0
1-Chlorohexane	Ave	0.7383	0.8754		11.9	10.0	18.6	35.0
1,1,1,2-Tetrachloroethane	Ave	0.8485	0.8757		10.3	10.0	3.2	35.0
Chlorobenzene	Ave	2.550	2.684	0.3000	10.5	10.0	5.2	35.0
Ethylbenzene	Ave	1.342	1.541		11.5	10.0	14.8	20.0
m-Xylene & p-Xylene	Ave	2.869	3.212		11.2	10.0	11.9	35.0
Bromoform	Lin2		0.2675	0.1000	10.0	10.0	0.0	35.0
Styrene	Ave	2.244	2.448		10.9	10.0	9.1	35.0
Cyclohexanone	Ave	0.0078	0.0079		510	500	2.0	35.0
1,1,2,2-Tetrachloroethane	Ave	0.4695	0.4093	0.3000	8.72	10.0	-12.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 600-279414/2 Calibration Date: 11/05/2019 09:09
 Instrument ID: CHVOAMS07 Calib Start Date: 10/17/2019 09:37
 GC Column: DB-VRX 60 ID: 0.25 (mm) Calib End Date: 10/17/2019 12:04
 Lab File ID: A30901.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Ave	1.640	1.780		10.9	10.0	8.6	35.0
trans-1,4-Dichloro-2-butene	Ave	0.0912	0.0832		9.12	10.0	-8.8	50.0
1,2,3-Trichloropropane	Lin2		0.1113		8.96	10.0	-10.4	35.0
Isopropylbenzene	Ave	4.004	4.478		11.2	10.0	11.8	35.0
Bromobenzene	Ave	0.9366	0.9260		9.89	10.0	-1.1	35.0
N-Propylbenzene	Ave	1.182	1.399		11.8	10.0	18.4	35.0
2-Chlorotoluene	Ave	1.097	1.177		10.7	10.0	7.3	35.0
4-Chlorotoluene	Ave	2.609	2.768		10.6	10.0	6.1	35.0
1,3,5-Trimethylbenzene	Ave	3.275	3.739		11.4	10.0	14.2	35.0
tert-Butylbenzene	Ave	3.004	3.452		11.5	10.0	14.9	35.0
1,2,4-Trimethylbenzene	Ave	3.349	3.733		11.2	10.0	11.5	35.0
sec-Butylbenzene	Ave	4.136	4.760		11.5	10.0	15.1	35.0
Benzyl chloride	Ave	0.7548	0.6773		8.97	10.0	-10.3	35.0
1,3-Dichlorobenzene	Ave	1.897	2.020		10.7	10.0	6.5	35.0
4-Isopropyltoluene	Ave	4.003	4.599		11.5	10.0	14.9	35.0
1,4-Dichlorobenzene	Ave	2.039	2.040		10.0	10.0	0.0	35.0
1,2,3-Trimethylbenzene	Ave	3.275	3.410		10.4	10.0	4.1	35.0
1,2-Dichlorobenzene	Ave	1.553	1.496		9.63	10.0	-3.7	35.0
n-Butylbenzene	Ave	2.858	3.255		11.4	10.0	13.9	35.0
1,2-Dibromo-3-Chloropropane	Lin2		0.0663		10.2	10.0	1.9	35.0
1,3,5-Trichlorobenzene	Ave	1.072	1.085		10.1	10.0	1.3	35.0
1,2,4-Trichlorobenzene	Ave	0.5361	0.5436		10.1	10.0	1.4	35.0
Naphthalene	Ave	0.6106	0.5764		9.44	10.0	-5.6	35.0
Hexachlorobutadiene	Lin2		0.1932		12.2	10.0	21.8	35.0
1,2,3-Trichlorobenzene	Lin1		0.2318		11.4	10.0	13.7	35.0
Dibromofluoromethane	Ave	0.2783	0.2850		10.2	10.0	2.4	35.0
1,2-Dichloroethane-d4 (Surr)	Lin2		0.1548		9.50	10.0	-5.0	35.0
Toluene-d8 (Surr)	Ave	2.838	3.085		10.9	10.0	8.7	35.0
4-Bromofluorobenzene	Lin2		0.8616		10.8	10.0	7.8	35.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-279189/6
 Matrix: Water Lab File ID: A30505.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 10:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		50-134
460-00-4	4-Bromofluorobenzene	128		67-139
1868-53-7	Dibromofluoromethane	88		62-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-279297/6
 Matrix: Water Lab File ID: A30805.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 10:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		50-134
460-00-4	4-Bromofluorobenzene	129		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 600-279414/6
 Matrix: Water Lab File ID: A30905.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 11:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.000168	U	0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.000192	U	0.00100	0.000192
71-43-2	Benzene	0.000176	U	0.00100	0.000176
91-20-3	Naphthalene	0.000129	U	0.00200	0.000129
127-18-4	Tetrachloroethene	0.000333	U	0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134
460-00-4	4-Bromofluorobenzene	125		67-139
1868-53-7	Dibromofluoromethane	94		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-279189/3
 Matrix: Water Lab File ID: A30502.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 09:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01012		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01041		0.00100	0.000192
71-43-2	Benzene	0.01042		0.00100	0.000176
91-20-3	Naphthalene	0.008346		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01271		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	84		62-130
2037-26-5	Toluene-d8 (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-279297/3
 Matrix: Water Lab File ID: A30802.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 09:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009861		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009945		0.00100	0.000192
71-43-2	Benzene	0.01011		0.00100	0.000176
127-18-4	Tetrachloroethene	0.01231		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		50-134
460-00-4	4-Bromofluorobenzene	118		67-139
1868-53-7	Dibromofluoromethane	90		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 600-279414/3
 Matrix: Water Lab File ID: A30902.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 09:54
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01038		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01038		0.00100	0.000192
71-43-2	Benzene	0.01057		0.00100	0.000176
91-20-3	Naphthalene	0.01226		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01231		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		50-134
460-00-4	4-Bromofluorobenzene	119		67-139
1868-53-7	Dibromofluoromethane	96		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-279189/4
 Matrix: Water Lab File ID: A30503a.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 10:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009687		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009293		0.00100	0.000192
71-43-2	Benzene	0.009905		0.00100	0.000176
91-20-3	Naphthalene	0.007494		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01167		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		50-134
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	91		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-279297/4
 Matrix: Water Lab File ID: A30803.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/04/2019 09:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279297 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009516		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.009406		0.00100	0.000192
71-43-2	Benzene	0.009735		0.00100	0.000176
127-18-4	Tetrachloroethene	0.01168		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		50-134
460-00-4	4-Bromofluorobenzene	121		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 600-279414/4
 Matrix: Water Lab File ID: A30903.d
 Analysis Method: 8260B Date Collected: _____
 Sample wt/vol: 20 (mL) Date Analyzed: 11/05/2019 10:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279414 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01025		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01046		0.00100	0.000192
71-43-2	Benzene	0.01079		0.00100	0.000176
91-20-3	Naphthalene	0.01400		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01200		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		50-134
460-00-4	4-Bromofluorobenzene	123		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW28-102919 MS Lab Sample ID: 600-194999-12 MS
 Matrix: Water Lab File ID: A30510.d
 Analysis Method: 8260B Date Collected: 10/29/2019 11:15
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 12:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01454		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01921		0.00100	0.000192
71-43-2	Benzene	0.009915		0.00100	0.000176
91-20-3	Naphthalene	0.01097		0.00200	0.000129
127-18-4	Tetrachloroethene	0.03042		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	94		62-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW34-102919 MS Lab Sample ID: 600-194999-15 MS
 Matrix: Water Lab File ID: A30512.d
 Analysis Method: 8260B Date Collected: 10/29/2019 13:17
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 13:37
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009147		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.006369		0.00100	0.000192
71-43-2	Benzene	0.009160		0.00100	0.000176
91-20-3	Naphthalene	0.01287		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01215		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	122		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW28-102919 MSD Lab Sample ID: 600-194999-12 MSD
 Matrix: Water Lab File ID: A30511.d
 Analysis Method: 8260B Date Collected: 10/29/2019 11:15
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 13:13
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.01380		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.01877		0.00100	0.000192
71-43-2	Benzene	0.009215		0.00100	0.000176
91-20-3	Naphthalene	0.01180		0.00200	0.000129
127-18-4	Tetrachloroethene	0.02864		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		50-134
460-00-4	4-Bromofluorobenzene	116		67-139
1868-53-7	Dibromofluoromethane	97		62-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Client Sample ID: Artesia-MW34-102919 MSD Lab Sample ID: 600-194999-15 MSD
 Matrix: Water Lab File ID: A30513.d
 Analysis Method: 8260B Date Collected: 10/29/2019 13:17
 Sample wt/vol: 20 (mL) Date Analyzed: 11/01/2019 14:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-VRX 60 ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 279189 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-34-3	1,1-Dichloroethane	0.009379		0.00100	0.000168
75-35-4	1,1-Dichloroethene	0.006394		0.00100	0.000192
71-43-2	Benzene	0.009334		0.00100	0.000176
91-20-3	Naphthalene	0.01322		0.00200	0.000129
127-18-4	Tetrachloroethene	0.01183		0.00100	0.000333

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134
460-00-4	4-Bromofluorobenzene	122		67-139
1868-53-7	Dibromofluoromethane	99		62-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 10/17/2019 09:07

Analysis Batch Number: 277761

End Date: 10/17/2019 19:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-277761/1		10/17/2019 09:07	1	A29000.d	DB-VRX 60 0.25 (mm)
IC 600-277761/2		10/17/2019 09:37	1	A29001.d	DB-VRX 60 0.25 (mm)
IC 600-277761/3		10/17/2019 10:01	1	A29002.d	DB-VRX 60 0.25 (mm)
IC 600-277761/4		10/17/2019 10:27	1	A29003.d	DB-VRX 60 0.25 (mm)
IC 600-277761/5		10/17/2019 10:51	1	A29004.d	DB-VRX 60 0.25 (mm)
ICIS 600-277761/6		10/17/2019 11:15	1	A29005.d	DB-VRX 60 0.25 (mm)
IC 600-277761/7		10/17/2019 11:40	1	A29006.d	DB-VRX 60 0.25 (mm)
IC 600-277761/8		10/17/2019 12:04	1	A29007.d	DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 14:07	1		DB-VRX 60 0.25 (mm)
ICV 600-277761/10		10/17/2019 14:31	1	A29009B.d	DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 14:31	1		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 15:50	1		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 16:15	40		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 16:39	200		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 17:03	1000		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 17:27	20		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 17:52	50		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 18:16	100		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 18:41	100		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 19:05	50		DB-VRX 60 0.25 (mm)
ZZZZZ		10/17/2019 19:30	2000		DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 11/01/2019 08:08

Analysis Batch Number: 279189

End Date: 11/01/2019 20:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-279189/1		11/01/2019 08:08	1	A30500.d	DB-VRX 60 0.25 (mm)
CCVIS 600-279189/2		11/01/2019 08:34	1	A30501.d	DB-VRX 60 0.25 (mm)
LCS 600-279189/3		11/01/2019 09:17	1	A30502.d	DB-VRX 60 0.25 (mm)
MB 600-279189/6		11/01/2019 10:27	1	A30505.d	DB-VRX 60 0.25 (mm)
LCSD 600-279189/4		11/01/2019 10:50	1	A30503a.d	DB-VRX 60 0.25 (mm)
ZZZZZ		11/01/2019 11:14	5		DB-VRX 60 0.25 (mm)
600-194999-12		11/01/2019 11:38	1	A30507.d	DB-VRX 60 0.25 (mm)
600-194999-15		11/01/2019 12:01	1	A30508.d	DB-VRX 60 0.25 (mm)
ZZZZZ		11/01/2019 12:25	1		DB-VRX 60 0.25 (mm)
600-194999-12 MS		11/01/2019 12:49	1	A30510.d	DB-VRX 60 0.25 (mm)
600-194999-12 MSD		11/01/2019 13:13	1	A30511.d	DB-VRX 60 0.25 (mm)
600-194999-15 MS		11/01/2019 13:37	1	A30512.d	DB-VRX 60 0.25 (mm)
600-194999-15 MSD		11/01/2019 14:01	1	A30513.d	DB-VRX 60 0.25 (mm)
ZZZZZ		11/01/2019 14:25	25		DB-VRX 60 0.25 (mm)
600-194999-1		11/01/2019 14:50	1	A30515.d	DB-VRX 60 0.25 (mm)
600-194999-2		11/01/2019 15:14	1	A30516.d	DB-VRX 60 0.25 (mm)
600-194999-3		11/01/2019 15:38	1	A30517.d	DB-VRX 60 0.25 (mm)
600-194999-4		11/01/2019 16:02	1	A30518.d	DB-VRX 60 0.25 (mm)
600-194999-5		11/01/2019 16:26	1	A30519.d	DB-VRX 60 0.25 (mm)
600-194999-6		11/01/2019 16:51	1	A30520.d	DB-VRX 60 0.25 (mm)
600-194999-7		11/01/2019 17:15	1	A30521.d	DB-VRX 60 0.25 (mm)
600-194999-8		11/01/2019 17:39	1	A30522.d	DB-VRX 60 0.25 (mm)
600-194999-9		11/01/2019 18:03	1	A30523.d	DB-VRX 60 0.25 (mm)
600-194999-10		11/01/2019 18:28	1	A30524.d	DB-VRX 60 0.25 (mm)
600-194999-11		11/01/2019 18:53	1	A30525.d	DB-VRX 60 0.25 (mm)
600-194999-13		11/01/2019 19:18	1	A30526.d	DB-VRX 60 0.25 (mm)
600-194999-14		11/01/2019 19:43	1	A30527.d	DB-VRX 60 0.25 (mm)
600-194999-16		11/01/2019 20:08	1	A30528.d	DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 11/04/2019 07:58

Analysis Batch Number: 279297

End Date: 11/04/2019 18:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-279297/1		11/04/2019 07:58	1	A30800.d	DB-VRX 60 0.25 (mm)
CCVIS 600-279297/2		11/04/2019 08:32	1	A30801.d	DB-VRX 60 0.25 (mm)
LCS 600-279297/3		11/04/2019 09:17	1	A30802.d	DB-VRX 60 0.25 (mm)
LCSD 600-279297/4		11/04/2019 09:41	1	A30803.d	DB-VRX 60 0.25 (mm)
MB 600-279297/6		11/04/2019 10:29	1	A30805.d	DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 10:53	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 11:17	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 11:40	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 12:04	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 12:28	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 12:52	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 13:16	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 13:40	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 14:04	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 14:28	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 14:52	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 15:16	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 15:40	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 16:04	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 16:27	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 16:51	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 17:15	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/04/2019 17:39	1		DB-VRX 60 0.25 (mm)
600-194999-6 DL		11/04/2019 18:03	5	A30824.d	DB-VRX 60 0.25 (mm)
600-194999-17		11/04/2019 18:27	1	A30825.d	DB-VRX 60 0.25 (mm)
600-194999-17 DL		11/04/2019 18:51	10	A30826.d	DB-VRX 60 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.:

Instrument ID: CHVOAMS07

Start Date: 11/05/2019 08:10

Analysis Batch Number: 279414

End Date: 11/05/2019 19:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-279414/1		11/05/2019 08:10	1	A30900.d	DB-VRX 60 0.25 (mm)
CCVIS 600-279414/2		11/05/2019 09:09	1	A30901.d	DB-VRX 60 0.25 (mm)
LCS 600-279414/3		11/05/2019 09:54	1	A30902.d	DB-VRX 60 0.25 (mm)
LCSD 600-279414/4		11/05/2019 10:18	1	A30903.d	DB-VRX 60 0.25 (mm)
MB 600-279414/6		11/05/2019 11:07	1	A30905.d	DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 11:31	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 11:55	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 12:19	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 12:43	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 13:07	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 13:32	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 13:56	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 14:20	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 14:44	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 15:08	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 15:32	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 15:56	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 16:20	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 16:44	1		DB-VRX 60 0.25 (mm)
ZZZZZ		11/05/2019 17:09	1		DB-VRX 60 0.25 (mm)
600-194999-19		11/05/2019 17:33	1	A30921.d	DB-VRX 60 0.25 (mm)
600-194999-20		11/05/2019 17:57	1	A30922.d	DB-VRX 60 0.25 (mm)
600-194999-21		11/05/2019 18:21	1	A30923.d	DB-VRX 60 0.25 (mm)
600-194999-18		11/05/2019 18:45	1	A30924.d	DB-VRX 60 0.25 (mm)
600-194999-17		11/05/2019 19:09	1	A30925.d	DB-VRX 60 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 277761 Batch Start Date: 10/17/19 09:07 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BFB 00293	EOxideLcs 00162	EOxideStd 00162	VOAIS50PPM 00262
BFB 600-277761/1		8260B		20 mL	20 mL	2 uL			
IC 600-277761/2		8260B		20 mL	20 mL			0.2 uL	5 uL
IC 600-277761/3		8260B		20 mL	20 mL			0.4 uL	5 uL
IC 600-277761/4		8260B		20 mL	20 mL			0.8 uL	5 uL
IC 600-277761/5		8260B		20 mL	20 mL			2 uL	5 uL
ICIS 600-277761/6		8260B		20 mL	20 mL			4 uL	5 uL
IC 600-277761/7		8260B		20 mL	20 mL			8 uL	5 uL
IC 600-277761/8		8260B		20 mL	20 mL			20 uL	5 uL
ICV 600-277761/10		8260B		20 mL	20 mL		4 uL		5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOALCSGASPT 00348	VOALCSPT2 00150	VOASS50PPM 00300	VOASTDGASPT 00348	VOASTDPT2 00150	
BFB 600-277761/1		8260B							
IC 600-277761/2		8260B					0.2 uL	0.2 uL	
IC 600-277761/3		8260B					0.4 uL	0.4 uL	
IC 600-277761/4		8260B					0.8 uL	0.8 uL	
IC 600-277761/5		8260B					2 uL	2 uL	
ICIS 600-277761/6		8260B					4 uL	4 uL	
IC 600-277761/7		8260B					8 uL	8 uL	
IC 600-277761/8		8260B					20 uL	20 uL	
ICV 600-277761/10		8260B		4 uL	4 uL	5 uL			

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279189 Batch Start Date: 11/01/19 08:08 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00294	EOxideLcs 00163	EOxideStd 00163
BFB 600-279189/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-279189/2		8260B		20 mL	20 mL				4 uL
LCS 600-279189/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-279189/4		8260B		20 mL	20 mL			4 uL	
MB 600-279189/6		8260B		20 mL	20 mL				
600-194999-C-12	Artesia-MW28-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-15	Artesia-MW34-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-12 MS	Artesia-MW28-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-12 MSD	Artesia-MW28-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-15 MS	Artesia-MW34-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-D-15 MSD	Artesia-MW34-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-1	Artesia-Outlet-1 02919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-2	Artesia-MW30-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-3	Artesia-MD30-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-4	Artesia-MW32-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-5	Artesia-MW36-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-6	Artesia-MW12-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-7	Artesia-MW17C-10 2919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-8	Artesia-MW11-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-9	Artesia-MD11-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-10	Artesia-MW29-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-11	Artesia-MW35-102 919	8260B	T	20 mL	20 mL	2 SU			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279189 Batch Start Date: 11/01/19 08:08 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00294	EOxideLcs 00163	EOxideStd 00163
600-194999-C-13	Artesia-MW25-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-14	Artesia-MW31-102 92019	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-16	Artesia-MW37-102 92019	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00263	VOALCSGASPT 00350	VOALCSPT2 00151	VOASS50PPM 00301	VOASTDGASPT 00350	VOASTDPT2 00151
BFB 600-279189/1		8260B							
CCVIS 600-279189/2		8260B		5 uL				4 uL	4 uL
LCS 600-279189/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCS 600-279189/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-279189/6		8260B		5 uL			5 uL		
600-194999-C-12	Artesia-MW28-102 92019	8260B	T	5 uL			5 uL		
600-194999-C-15	Artesia-MW34-102 92019	8260B	T	5 uL			5 uL		
600-194999-B-12 MS	Artesia-MW28-102 92019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-194999-B-12 MSD	Artesia-MW28-102 92019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-194999-C-15 MS	Artesia-MW34-102 92019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-194999-D-15 MSD	Artesia-MW34-102 92019	8260B	T	5 uL	4 uL	4 uL	5 uL		
600-194999-C-1	Artesia-Outlet-1 02919	8260B	T	5 uL			5 uL		
600-194999-C-2	Artesia-MW30-102 919	8260B	T	5 uL			5 uL		
600-194999-C-3	Artesia-MD30-102 919	8260B	T	5 uL			5 uL		
600-194999-C-4	Artesia-MW32-102 919	8260B	T	5 uL			5 uL		
600-194999-C-5	Artesia-MW36-102 919	8260B	T	5 uL			5 uL		
600-194999-C-6	Artesia-MW12-102 919	8260B	T	5 uL			5 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279189 Batch Start Date: 11/01/19 08:08 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00263	VOALCSGASPT 00350	VOALCSPT2 00151	VOASS50PPM 00301	VOASTDGASPT 00350	VOASTDPT2 00151
600-194999-C-7	Artesia-MW17C-10 2919	8260B	T	5 uL			5 uL		
600-194999-C-8	Artesia-MW11-102 919	8260B	T	5 uL			5 uL		
600-194999-C-9	Artesia-MD11-102 919	8260B	T	5 uL			5 uL		
600-194999-C-10	Artesia-MW29-102 92019	8260B	T	5 uL			5 uL		
600-194999-B-11	Artesia-MW35-102 919	8260B	T	5 uL			5 uL		
600-194999-C-13	Artesia-MW25-102 92019	8260B	T	5 uL			5 uL		
600-194999-C-14	Artesia-MW31-102 92019	8260B	T	5 uL			5 uL		
600-194999-C-16	Artesia-MW37-102 92019	8260B	T	5 uL			5 uL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279297 Batch Start Date: 11/04/19 07:58 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00294	EOxideLcs 00163	EOxideStd 00163
BFB 600-279297/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-279297/2		8260B		20 mL	20 mL				4 uL
LCS 600-279297/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-279297/4		8260B		20 mL	20 mL			4 uL	
MB 600-279297/6		8260B		20 mL	20 mL				
600-194999-D-6	Artesia-MW12-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-17	Artesia-MW38-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-17	Artesia-MW38-102 919	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00263	VOALCSGASPT 00350	VOALCSPT2 00151	VOASS50PPM 00301	VOASTDGASPT 00350	VOASTDPT2 00151
BFB 600-279297/1		8260B							
CCVIS 600-279297/2		8260B		5 uL				4 uL	4 uL
LCS 600-279297/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCSD 600-279297/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-279297/6		8260B		5 uL			5 uL		
600-194999-D-6	Artesia-MW12-102 919	8260B	T	5 uL			5 uL		
600-194999-C-17	Artesia-MW38-102 919	8260B	T	5 uL			5 uL		
600-194999-C-17	Artesia-MW38-102 919	8260B	T	5 uL			5 uL		

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279297 Batch Start Date: 11/04/19 07:58 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279414 Batch Start Date: 11/05/19 08:10 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	BFB 00294	EOxideLcs 00163	EOxideStd 00163
BFB 600-279414/1		8260B		20 mL	20 mL		2 uL		
CCVIS 600-279414/2		8260B		20 mL	20 mL				4 uL
LCS 600-279414/3		8260B		20 mL	20 mL			4 uL	
LCSD 600-279414/4		8260B		20 mL	20 mL			4 uL	
MB 600-279414/6		8260B		20 mL	20 mL				
600-194999-C-19	Artesia-Inlet-10 2919	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-20	Artesia-MID-1029 19	8260B	T	20 mL	20 mL	2 SU			
600-194999-C-21	Artesia-MW-22-10 2919	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-18	Artesia-TB01-102 919	8260B	T	20 mL	20 mL	2 SU			
600-194999-B-17	Artesia-MW38-102 919	8260B	T	20 mL	20 mL	2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Basis	VOAIS50PPM 00263	VOALCSGASPT 00350	VOALCSPT2 00151	VOASS50PPM 00301	VOASTDGASPT 00350	VOASTDPT2 00151
BFB 600-279414/1		8260B							
CCVIS 600-279414/2		8260B		5 uL				4 uL	4 uL
LCS 600-279414/3		8260B		5 uL	4 uL	4 uL	5 uL		
LCSD 600-279414/4		8260B		5 uL	4 uL	4 uL	5 uL		
MB 600-279414/6		8260B		5 uL			5 uL		
600-194999-C-19	Artesia-Inlet-10 2919	8260B	T	5 uL			5 uL		
600-194999-B-20	Artesia-MID-1029 19	8260B	T	5 uL			5 uL		
600-194999-C-21	Artesia-MW-22-10 2919	8260B	T	5 uL			5 uL		
600-194999-B-18	Artesia-TB01-102 919	8260B	T	5 uL			5 uL		
600-194999-B-17	Artesia-MW38-102 919	8260B	T	5 uL			5 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8260B

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GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279414 Batch Start Date: 11/05/19 08:10 Batch Analyst: Shen, WeiBatch Method: 8260B Batch End Date: _____

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 300.0

Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: 111219-600-0032213-007.d
Lab ID: LCS 600-280102/7 Client ID: _____

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Sulfate	20.0	19.73	99	90-110	

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: 111219-600-0032213-021.d
Lab ID: 600-194999-17 MS Client ID: Artesia-MW38-102919 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Sulfate	1000	927	2653	173	80-120	F1

Column to be used to flag recovery and RPD values

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: 111219-600-0032213-022.d
Lab ID: 600-194999-17 MSD Client ID: Artesia-MW38-102919 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Sulfate	1000	2632	170	1	20	80-120	F1

Column to be used to flag recovery and RPD values

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Lab File ID: 111219-600-0032213-006.d Lab Sample ID: MB 600-280102/6
 Matrix: Water Date Extracted: _____
 Instrument ID: CHWC17(IC) Date Analyzed: 11/12/2019 05:30
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 600-280102/5	111219-600-0032213-005.d	11/12/2019 05:19
	LCS 600-280102/7	111219-600-0032213-007.d	11/12/2019 05:41
Artesia-MW36-102919	600-194999-5	111219-600-0032213-012.d	11/12/2019 13:32
Artesia-MW12-102919	600-194999-6	111219-600-0032213-013.d	11/12/2019 13:43
Artesia-MW17C-102919	600-194999-7	111219-600-0032213-014.d	11/12/2019 13:53
Artesia-MW11-102919	600-194999-8	111219-600-0032213-015.d	11/12/2019 14:04
	CCB 600-280102/17	111219-600-0032213-017.d	11/12/2019 14:26
Artesia-MD11-102919	600-194999-9	111219-600-0032213-018.d	11/12/2019 14:36
Artesia-MW37-102919	600-194999-16	111219-600-0032213-019.d	11/12/2019 14:47
Artesia-MW38-102919	600-194999-17	111219-600-0032213-020.d	11/12/2019 14:58
Artesia-MW38-102919 MS	600-194999-17 MS	111219-600-0032213-021.d	11/12/2019 15:09
Artesia-MW38-102919 MSD	600-194999-17 MSD	111219-600-0032213-022.d	11/12/2019 15:20
	CCB 600-280102/29	111219-600-0032213-029.d	11/12/2019 16:35

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW36-102919 Lab Sample ID: 600-194999-5
Matrix: Water Lab File ID: 111219-600-0032213-012.d
Analysis Method: 300.0 Date Collected: 10/29/2019 11:33
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 13:32
Con. Extract Vol.: _____ Dilution Factor: 250
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	738		125	23.9

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW12-102919 Lab Sample ID: 600-194999-6
Matrix: Water Lab File ID: 111219-600-0032213-013.d
Analysis Method: 300.0 Date Collected: 10/29/2019 12:23
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 13:43
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2150		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW17C-102919 Lab Sample ID: 600-194999-7
Matrix: Water Lab File ID: 111219-600-0032213-014.d
Analysis Method: 300.0 Date Collected: 10/29/2019 13:00
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 13:53
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1290		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW11-102919 Lab Sample ID: 600-194999-8
Matrix: Water Lab File ID: 111219-600-0032213-015.d
Analysis Method: 300.0 Date Collected: 10/29/2019 16:15
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 14:04
Con. Extract Vol.: _____ Dilution Factor: 200
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	1330		100	19.1

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MD11-102919 Lab Sample ID: 600-194999-9
Matrix: Water Lab File ID: 111219-600-0032213-018.d
Analysis Method: 300.0 Date Collected: 10/29/2019 16:15
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 14:36
Con. Extract Vol.: _____ Dilution Factor: 200
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	911		100	19.1

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW37-102919 Lab Sample ID: 600-194999-16
Matrix: Water Lab File ID: 111219-600-0032213-019.d
Analysis Method: 300.0 Date Collected: 10/29/2019 15:08
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 14:47
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2570		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW38-102919 Lab Sample ID: 600-194999-17
Matrix: Water Lab File ID: 111219-600-0032213-020.d
Analysis Method: 300.0 Date Collected: 10/29/2019 14:20
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 14:58
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	927	F1	50.0	9.57

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 278508

SDG No.: _____

Instrument ID: CHWC17(IC) GC Column: AS22 ID: 2 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2019 13:38 Calibration End Date: 10/24/2019 14:43 Calibration ID: 16960

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-278508/5	CAL102419-600-0031875-005.d
Level 2	IC 600-278508/6	CAL102419-600-0031875-006.d
Level 3	IC 600-278508/7	CAL102419-600-0031875-007.d
Level 4	IC 600-278508/8	CAL102419-600-0031875-008.d
Level 5	IC 600-278508/9	CAL102419-600-0031875-009.d
Level 6	IC 600-278508/10	CAL102419-600-0031875-010.d
Level 7	IC 600-278508/11	CAL102419-600-0031875-011.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Fluoride	2.224	2.214	2.211	2.217	2.221	2.227	2.224				2.074 - 2.374	2.220
Chloride	3.097	3.100	3.094	3.100	3.107	3.121	3.137				2.961 - 3.261	3.108
Bromide	4.431	4.430	4.417	4.414	4.421	4.421	4.417				4.247 - 4.547	4.422
Sulfate	7.037	7.044	7.044	7.064	7.081	7.114	7.174				6.961 - 7.261	7.080

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 278508

SDG No.: _____

Instrument ID: CHWC17(IC) GC Column: AS22 ID: 2 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2019 13:38 Calibration End Date: 10/24/2019 14:43 Calibration ID: 16960

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-278508/5	CAL102419-600-0031875-005.d
Level 2	IC 600-278508/6	CAL102419-600-0031875-006.d
Level 3	IC 600-278508/7	CAL102419-600-0031875-007.d
Level 4	IC 600-278508/8	CAL102419-600-0031875-008.d
Level 5	IC 600-278508/9	CAL102419-600-0031875-009.d
Level 6	IC 600-278508/10	CAL102419-600-0031875-010.d
Level 7	IC 600-278508/11	CAL102419-600-0031875-011.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Fluoride	14230210 49765186	26634834 51999313	37788096 53281964	47243454	Lin1	-10158391	53098764.1							0.9980		0.9900
Chloride	35248003 42028772	32975730 45255267	37369404 47674306	42536517	Lin1	-9435144.2	46338107.7							0.9980		0.9900
Bromide	14662775 13886804	13222382 14462901	13386009 13388690	14759792	Lin1	64105.4346	13885239.7							0.9980		0.9900
Sulfate	27315898 28098513	24441819 30458265	26935872 32903835	26971345	Lin1	-5299865.8	31473208.6							0.9960		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1 Analy Batch No.: 278508

SDG No.: _____

Instrument ID: CHWC17(IC) GC Column: AS22 ID: 2 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2019 13:38 Calibration End Date: 10/24/2019 14:43 Calibration ID: 16960

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-278508/5	CAL102419-600-0031875-005.d
Level 2	IC 600-278508/6	CAL102419-600-0031875-006.d
Level 3	IC 600-278508/7	CAL102419-600-0031875-007.d
Level 4	IC 600-278508/8	CAL102419-600-0031875-008.d
Level 5	IC 600-278508/9	CAL102419-600-0031875-009.d
Level 6	IC 600-278508/10	CAL102419-600-0031875-010.d
Level 7	IC 600-278508/11	CAL102419-600-0031875-011.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Fluoride	Lin1	2846042 389994850	13317417 532819640	37788096	94486907	248825932	0.200 7.50	0.500 10.0	1.00	2.00	5.00
Chloride	Lin1	14099201 905105344	32975730 1906972252	74738807	212682586	420287718	0.400 20.0	1.00 40.0	2.00	5.00	10.0
Bromide	Lin1	2932555 108471759	6611191 133886899	13386009	29519583	69434021	0.200 7.50	0.500 10.0	1.00	2.00	5.00
Sulfate	Lin1	10926359 609165306	24441819 1316153403	53871743	134856727	280985134	0.400 20.0	1.00 40.0	2.00	5.00	10.0

Curve Type Legend:

Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/4 Calibration Date: 11/12/2019 05:08
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-004.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		55285633		7.64	7.50	1.8	10.0
Chloride	Lin1		45001489		19.7	20.0	-1.5	10.0
Bromide	Lin1		13142102		7.25	7.50	-3.3	10.0
Sulfate	Lin1		30733954		19.8	20.0	-0.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/4 Calibration Date: 11/12/2019 05:08
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-004.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.21	2.05	2.35
Chloride	3.05	2.89	3.19
Bromide	4.25	4.11	4.41
Sulfate	6.75	6.53	6.83

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/16 Calibration Date: 11/12/2019 14:15
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-016.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		56425574		7.79	7.50	3.9	10.0
Chloride	Lin1		44859978		19.6	20.0	-1.8	10.0
Bromide	Lin1		13218837		7.29	7.50	-2.8	10.0
Sulfate	Lin1		30595774		19.7	20.0	-1.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/16 Calibration Date: 11/12/2019 14:15
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-016.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.20	2.05	2.35
Chloride	3.03	2.89	3.19
Bromide	4.21	4.11	4.41
Sulfate	6.72	6.53	6.83

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/28 Calibration Date: 11/12/2019 16:24
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-028.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin1		56325438		7.78	7.50	3.7	10.0
Chloride	Lin1		44668839		19.6	20.0	-2.3	10.0
Bromide	Lin1		14231635		7.85	7.50	4.7	10.0
Sulfate	Lin1		30543585		19.7	20.0	-1.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Lab Sample ID: CCV 600-280102/28 Calibration Date: 11/12/2019 16:24
Instrument ID: CHWC17(IC) Calib Start Date: 10/24/2019 13:38
GC Column: AS22 ID: 2.00 (mm) Calib End Date: 10/24/2019 14:43
Lab File ID: 111219-600-0032213-028.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	2.20	2.05	2.35
Chloride	3.03	2.89	3.19
Bromide	4.21	4.11	4.41
Sulfate	6.71	6.53	6.83

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 600-280102/6
Matrix: Water Lab File ID: 111219-600-0032213-006.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 05:30
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-280102/5
Matrix: Water Lab File ID: 111219-600-0032213-005.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 05:19
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.1872	J	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-280102/17
Matrix: Water Lab File ID: 111219-600-0032213-017.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 14:26
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: CCB 600-280102/29
Matrix: Water Lab File ID: 111219-600-0032213-029.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 16:35
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	0.0957	U	0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: LCS 600-280102/7
Matrix: Water Lab File ID: 111219-600-0032213-007.d
Analysis Method: 300.0 Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 05:41
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	19.73		0.500	0.0957

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW38-102919 MS Lab Sample ID: 600-194999-17 MS
Matrix: Water Lab File ID: 111219-600-0032213-021.d
Analysis Method: 300.0 Date Collected: 10/29/2019 14:20
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 15:09
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2653		50.0	9.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG No.: _____
Client Sample ID: Artesia-MW38-102919 MSD Lab Sample ID: 600-194999-17 MSD
Matrix: Water Lab File ID: 111219-600-0032213-022.d
Analysis Method: 300.0 Date Collected: 10/29/2019 14:20
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2019 15:20
Con. Extract Vol.: _____ Dilution Factor: 100
Injection Volume: 1 (uL) GC Column: AS22 ID: 2 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 280102 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	2632		50.0	9.57

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Start Date: 10/24/2019 13:27Analysis Batch Number: 278508 End Date: 10/24/2019 15:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 600-278508/4		10/24/2019 13:27	1		AS22 2 (mm)
IC 600-278508/5		10/24/2019 13:38	1	CAL102419-600-0 031875-005.d	AS22 2 (mm)
IC 600-278508/6		10/24/2019 13:49	1	CAL102419-600-0 031875-006.d	AS22 2 (mm)
IC 600-278508/7		10/24/2019 14:00	1	CAL102419-600-0 031875-007.d	AS22 2 (mm)
IC 600-278508/8		10/24/2019 14:11	1	CAL102419-600-0 031875-008.d	AS22 2 (mm)
IC 600-278508/9		10/24/2019 14:21	1	CAL102419-600-0 031875-009.d	AS22 2 (mm)
IC 600-278508/10		10/24/2019 14:32	1	CAL102419-600-0 031875-010.d	AS22 2 (mm)
IC 600-278508/11		10/24/2019 14:43	1	CAL102419-600-0 031875-011.d	AS22 2 (mm)
ICV 600-278508/12		10/24/2019 14:54	1		AS22 2 (mm)
ICB 600-278508/13		10/24/2019 15:04	1		AS22 2 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.:

Instrument ID: CHWC17(IC)

Start Date: 11/12/2019 05:08

Analysis Batch Number: 280102

End Date: 11/12/2019 19:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 600-280102/4		11/12/2019 05:08	1	111219-600-0032 213-004.d	AS22 2 (mm)
CCB 600-280102/5		11/12/2019 05:19	1	111219-600-0032 213-005.d	AS22 2 (mm)
MB 600-280102/6		11/12/2019 05:30	1	111219-600-0032 213-006.d	AS22 2 (mm)
LCS 600-280102/7		11/12/2019 05:41	1	111219-600-0032 213-007.d	AS22 2 (mm)
ZZZZZ		11/12/2019 12:49	100		AS22 2 (mm)
ZZZZZ		11/12/2019 13:00	100		AS22 2 (mm)
ZZZZZ		11/12/2019 13:10	100		AS22 2 (mm)
ZZZZZ		11/12/2019 13:21	1		AS22 2 (mm)
600-194999-5		11/12/2019 13:32	250	111219-600-0032 213-012.d	AS22 2 (mm)
600-194999-6		11/12/2019 13:43	100	111219-600-0032 213-013.d	AS22 2 (mm)
600-194999-7		11/12/2019 13:53	100	111219-600-0032 213-014.d	AS22 2 (mm)
600-194999-8		11/12/2019 14:04	200	111219-600-0032 213-015.d	AS22 2 (mm)
CCV 600-280102/16		11/12/2019 14:15	1	111219-600-0032 213-016.d	AS22 2 (mm)
CCB 600-280102/17		11/12/2019 14:26	1	111219-600-0032 213-017.d	AS22 2 (mm)
600-194999-9		11/12/2019 14:36	200	111219-600-0032 213-018.d	AS22 2 (mm)
600-194999-16		11/12/2019 14:47	100	111219-600-0032 213-019.d	AS22 2 (mm)
600-194999-17		11/12/2019 14:58	100	111219-600-0032 213-020.d	AS22 2 (mm)
600-194999-17 MS		11/12/2019 15:09	100	111219-600-0032 213-021.d	AS22 2 (mm)
600-194999-17 MSD		11/12/2019 15:20	100	111219-600-0032 213-022.d	AS22 2 (mm)
ZZZZZ		11/12/2019 15:30	1		AS22 2 (mm)
ZZZZZ		11/12/2019 15:41	200		AS22 2 (mm)
ZZZZZ		11/12/2019 15:52	200		AS22 2 (mm)
ZZZZZ		11/12/2019 16:03	20		AS22 2 (mm)
ZZZZZ		11/12/2019 16:14	20		AS22 2 (mm)
CCV 600-280102/28		11/12/2019 16:24	1	111219-600-0032 213-028.d	AS22 2 (mm)
CCB 600-280102/29		11/12/2019 16:35	1	111219-600-0032 213-029.d	AS22 2 (mm)
ZZZZZ		11/12/2019 16:46	1		AS22 2 (mm)
ZZZZZ		11/12/2019 16:57	20		AS22 2 (mm)
ZZZZZ		11/12/2019 17:08	50		AS22 2 (mm)
ZZZZZ		11/12/2019 17:19	500		AS22 2 (mm)
ZZZZZ		11/12/2019 17:29	1		AS22 2 (mm)
ZZZZZ		11/12/2019 17:40	1		AS22 2 (mm)
ZZZZZ		11/12/2019 17:51	1		AS22 2 (mm)
ZZZZZ		11/12/2019 18:02	1		AS22 2 (mm)
ZZZZZ		11/12/2019 18:12	1		AS22 2 (mm)
ZZZZZ		11/12/2019 18:23	1		AS22 2 (mm)
CCV 600-280102/40		11/12/2019 18:34	1		AS22 2 (mm)
CCB 600-280102/41		11/12/2019 18:45	1		AS22 2 (mm)

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Instrument ID: CHWC17(IC) Start Date: 11/12/2019 05:08Analysis Batch Number: 280102 End Date: 11/12/2019 19:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		11/12/2019 18:55	1		AS22 2 (mm)
ZZZZZ		11/12/2019 19:06	100		AS22 2 (mm)
ZZZZZ		11/12/2019 19:17	100		AS22 2 (mm)
CCV 600-280102/45		11/12/2019 19:28	1		AS22 2 (mm)
CCB 600-280102/46		11/12/2019 19:38	1		AS22 2 (mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 280102 Batch Start Date: 11/12/19 05:08 Batch Analyst: Reach, Shrey KBatch Method: 300.0 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CCV 00114	ICSMS 00118	ICSMS 00119	ICV/LCS 00108	
CCV 600-280102/4		300.0		5 mL	5 mL				
CCB 600-280102/5		300.0		5 mL					
MB 600-280102/6		300.0		5 mL					
LCS 600-280102/7		300.0		5 mL				5 mL	
600-194999-A-5	Artesia-MW36-102 919	300.0	T	5 mL					
600-194999-A-6	Artesia-MW12-102 919	300.0	T	5 mL					
600-194999-A-7	Artesia-MW17C-10 2919	300.0	T	5 mL					
600-194999-A-8	Artesia-MW11-102 919	300.0	T	5 mL					
CCV 600-280102/16		300.0		5 mL	5 mL				
CCB 600-280102/17		300.0		5 mL					
600-194999-A-9	Artesia-MD11-102 919	300.0	T	5 mL					
600-194999-A-16	Artesia-MW37-102 919	300.0	T	5 mL					
600-194999-A-17	Artesia-MW38-102 919	300.0	T	5 mL					
600-194999-A-17 MS	Artesia-MW38-102 919	300.0	T	5 mL		0.25 mL	0.25 mL		
600-194999-A-17 MSD	Artesia-MW38-102 919	300.0	T	5 mL		0.25 mL	0.25 mL		
CCV 600-280102/28		300.0		5 mL	5 mL				
CCB 600-280102/29		300.0		5 mL					

Batch Notes	
Eluent 1 ID	190808
Filter ID	16988990

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

300.0

Page 1 of 2

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 280102 Batch Start Date: 11/12/19 05:08 Batch Analyst: Reach, Shrey KBatch Method: 300.0 Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

300.0

Page 2 of 2

METALS

COVER PAGE
METALS

Lab Name: Eurofins TestAmerica, Houston

Job Number: 600-194999-1

SDG No.:

Project: Dowell - Artesia 10/29/19

Client Sample ID	Lab Sample ID
Artesia-Outlet-102919	600-194999-1
Artesia-MW30-102919	600-194999-2
Artesia-MD30-102919	600-194999-3
Artesia-MW32-102919	600-194999-4
Artesia-MW29-102919	600-194999-10
Artesia-MW28-102919	600-194999-12
Artesia-MW25-102919	600-194999-13
Artesia-MW31-102919	600-194999-14
Artesia-MW34-102919	600-194999-15
Artesia-Inlet-102919	600-194999-19
Artesia-MID-102919	600-194999-20
Artesia-MW-22-102919	600-194999-21

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-Outlet-102919 Lab Sample ID: 600-194999-1
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 08:25
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	3.64	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW30-102919

Lab Sample ID: 600-194999-2

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG ID.:

Matrix: Water

Date Sampled: 10/29/2019 09:05

Reporting Basis: WET

Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	8.87	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MD30-102919 Lab Sample ID: 600-194999-3
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 09:10
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	7.11	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW32-102919 Lab Sample ID: 600-194999-4
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 09:25
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	4.14	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW29-102919 Lab Sample ID: 600-194999-10
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 10:19
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.793	1.00	0.250	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW28-102919

Lab Sample ID: 600-194999-12

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG ID.:

Matrix: Water

Date Sampled: 10/29/2019 11:15

Reporting Basis: WET

Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	1.25	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW25-102919 Lab Sample ID: 600-194999-13
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 11:51
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	138	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW31-102919 Lab Sample ID: 600-194999-14
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 12:45
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	81.7	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW34-102919 Lab Sample ID: 600-194999-15
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 13:17
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	1.08	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-Inlet-102919 Lab Sample ID: 600-194999-19
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 08:10
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	3.51	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MID-102919 Lab Sample ID: 600-194999-20
Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
SDG ID.: _____
Matrix: Water Date Sampled: 10/29/2019 08:20
Reporting Basis: WET Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	3.25	1.00	0.250	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: Artesia-MW-22-102919

Lab Sample ID: 600-194999-21

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG ID.:

Matrix: Water

Date Sampled: 10/29/2019 12:12

Reporting Basis: WET

Date Received: 10/31/2019 10:34

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-96-5	Manganese, Dissolved	0.683	1.00	0.250	ug/L	J		1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

ICV Source: METICPMSICV_00013 Concentration Units: ug/L

CCV Source: METICPMSCAL4_00009

Analyte	ICV 600-280165/8 11/12/2019 13:47				CCV 600-280165/53 11/12/2019 16:09				CCV 600-280165/66 11/12/2019 16:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	257.8		250	103	249.2		250	100	246.7		250	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

ICV Source: METICPMSICV_00013 Concentration Units: ug/L

CCV Source: METICPMSCAL4_00009

Analyte	CCV 600-280165/79 11/12/2019 17:30				CCV 600-280165/92 11/12/2019 18:11				CCV 600-280165/104 11/12/2019 18:49			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese, Dissolved	243.3		250	97	246.6		250	99	245.6		250	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	ICB 600-280165/10 11/12/2019 13:53		CCB 600-280165/55 11/12/2019 16:15		CCB 600-280165/68 11/12/2019 16:56		CCB 600-280165/81 11/12/2019 17:37	
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	1.00	0.250	U	0.250	U	0.250	U	0.250	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Concentration Units: ug/L

Analyte	RL	CCB 600-280165/94 11/12/2019 18:17		CCB 600-280165/106 11/12/2019 18:55					
		Found	C	Found	C	Found	C	Found	C
Manganese, Dissolved	1.00	0.250	U	0.250	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Concentration Units: ug/L Lab Sample ID: MB 600-279566/1-A

Instrument Code: ICPMS7800 Batch No.: 280165

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.250	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Concentration Units: ug/L Lab Sample ID: MB 600-279592/1-A

Instrument Code: ICPMS7800 Batch No.: 280165

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.250	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Concentration Units: ug/L Lab Sample ID: MB 600-279977/1-A

Instrument Code: ICPMS7800 Batch No.: 280165

CAS No.	Analyte	Concentration	C	Q	Method
7439-96-5	Manganese, Dissolved	0.250	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Lab Sample ID: ICSA 600-280165/11

Instrument ID: ICPMS7800

Lab File ID: 011ICSA.d

ICS Source: METICPMSICSA_00007

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese, Dissolved		0.0570	
<i>Aluminum</i>	<i>10000</i>	<i>9821</i>	<i>98</i>
<i>Antimony</i>		<i>0.148</i>	
<i>Arsenic</i>		<i>0.0420</i>	
<i>Barium</i>		<i>0.238</i>	
<i>Beryllium</i>		<i>0.0100</i>	
<i>Boron</i>		<i>2.25</i>	
<i>Cadmium</i>		<i>0.0460</i>	
<i>Calcium</i>	<i>10000</i>	<i>9699</i>	<i>97</i>
<i>Chromium</i>		<i>0.722</i>	
<i>Cobalt</i>		<i>0.0280</i>	
<i>Copper</i>		<i>-0.562</i>	
<i>Iron</i>	<i>10000</i>	<i>10018</i>	<i>100</i>
<i>Lead</i>		<i>0.0310</i>	
<i>Lithium</i>		<i>1.21</i>	
<i>Magnesium</i>	<i>10000</i>	<i>9859</i>	<i>99</i>
<i>Molybdenum</i>	<i>200</i>	<i>204</i>	<i>102</i>
<i>Nickel</i>		<i>0.201</i>	
<i>Potassium</i>	<i>10000</i>	<i>9924</i>	<i>99</i>
<i>Selenium</i>		<i>0.367</i>	
<i>Silver</i>		<i>0.144</i>	
<i>Sodium</i>	<i>10000</i>	<i>9887</i>	<i>99</i>
<i>Strontium</i>		<i>0.218</i>	
<i>Thallium</i>		<i>0.0240</i>	
<i>Tin</i>		<i>0.327</i>	
<i>Titanium</i>	<i>200</i>	<i>198</i>	<i>99</i>
<i>Vanadium</i>		<i>-0.0180</i>	
<i>Zinc</i>		<i>5.35</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Lab Sample ID: ICSAB 600-280165/12

Instrument ID: ICPMS7800

Lab File ID: 012ICSB.d

ICS Source: METICPMSICSAB_00007

Concentration Units: ug/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Manganese, Dissolved	100	101	101
<i>Aluminum</i>	<i>10000</i>	<i>10044</i>	<i>100</i>
<i>Antimony</i>	<i>50.0</i>	<i>51.1</i>	<i>102</i>
<i>Arsenic</i>	<i>100</i>	<i>103</i>	<i>103</i>
<i>Barium</i>	<i>100</i>	<i>103</i>	<i>103</i>
<i>Beryllium</i>	<i>100</i>	<i>96.7</i>	<i>97</i>
<i>Boron</i>		<i>1.89</i>	
<i>Cadmium</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Calcium</i>	<i>10000</i>	<i>9933</i>	<i>99</i>
<i>Chromium</i>	<i>100</i>	<i>99.5</i>	<i>100</i>
<i>Cobalt</i>	<i>100</i>	<i>103</i>	<i>103</i>
<i>Copper</i>	<i>100</i>	<i>103</i>	<i>103</i>
<i>Iron</i>	<i>10000</i>	<i>10042</i>	<i>100</i>
<i>Lead</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Lithium</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Magnesium</i>	<i>10000</i>	<i>10109</i>	<i>101</i>
<i>Molybdenum</i>	<i>200</i>	<i>207</i>	<i>103</i>
<i>Nickel</i>	<i>100</i>	<i>101</i>	<i>101</i>
<i>Potassium</i>	<i>10000</i>	<i>10068</i>	<i>101</i>
<i>Selenium</i>	<i>100</i>	<i>100</i>	<i>100</i>
<i>Silver</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Sodium</i>	<i>10000</i>	<i>10149</i>	<i>101</i>
<i>Strontium</i>	<i>100</i>	<i>101</i>	<i>101</i>
<i>Thallium</i>	<i>50.0</i>	<i>50.7</i>	<i>101</i>
<i>Tin</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Titanium</i>	<i>200</i>	<i>202</i>	<i>101</i>
<i>Vanadium</i>	<i>100</i>	<i>102</i>	<i>102</i>
<i>Zinc</i>	<i>100</i>	<i>104</i>	<i>104</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: Artesia-Outlet-102919 MS

Lab ID: 600-194999-1 MS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

% Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	100.5	3.64	100	97	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: Artesia-MW34-102919 MS

Lab ID: 600-194999-15 MS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

% Solids: _____

Analyte	SSR C	Sample Result (SR) C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Manganese, Dissolved	96.02	1.08	100	95	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: Artesia-Outlet-102919 MSD

Lab ID: 600-194999-1 MSD

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	99.54	100	96	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: Artesia-MW34-102919 MSD

Lab ID: 600-194999-15 MSD

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Matrix: Water

Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Manganese, Dissolved	95.85	100	95	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

6-IN
DUPLICATES
METALS - DISSOLVED

Client ID: Artesia-Outlet-102919 DU

Lab ID: 600-194999-1 DU

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

% Solids for Sample: _____

% Solids for Duplicate: _____

Matrix: Water

Concentration Units: ug/L

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	Method
Manganese, Dissolved	1.00	3.64	3.953	8		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 600-279566/2-A

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

Sample Matrix: Water

LCS Source: ICPMSCALMIX1S_00006

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	100	98.75		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 600-279592/2-A

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

Sample Matrix: Water

LCS Source: ICPMSCALMIX1S_00006

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	100	95.57		96	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 600-279977/2-A

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

Sample Matrix: Water

LCS Source: ICPMSCALMIX1S_00006

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Manganese, Dissolved	100	97.59		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 600-194999-15

SDG No:

Lab Name: Eurofins TestAmerica, Houston

Job No: 600-194999-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C		Serial Dilution Result (S) C		% Difference	Q	Method
Manganese, Dissolved	1.08		1.25	U	NC		6020A
Manganese, Dissolved	1.09		1.25	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Houston

Job Number: 600-194999-1

SDG Number: _____

Matrix: Water

Instrument ID: ICPMS7800

Method: 6020A

MDL Date: 06/04/2019 16:28

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Manganese, Dissolved		1	0.25

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: Eurofins TestAmerica, Houston Job Number: 600-194999-1
SDG Number: _____
Matrix: Water Instrument ID: ICPMS7800
Method: 6020A XMDL Date: 06/04/2019 16:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Manganese, Dissolved		1	0.25

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No: 600-194999-1

SDG No.: _____

Instrument ID: ICPMS7800

Date: 08/06/2019 15:10

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Manganese, Dissolved		1000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 600-279566/1-A	11/06/2019 09:00	279566		50	50
LCS 600-279566/2-A	11/06/2019 09:00	279566		50	50
600-194999-1	11/06/2019 09:00	279566		50	50
600-194999-1 DU	11/06/2019 09:00	279566		50	50
600-194999-1 MS	11/06/2019 09:00	279566		50	50
600-194999-1 MSD	11/06/2019 09:00	279566		50	50
600-194999-2	11/06/2019 09:00	279566		50	50
600-194999-3	11/06/2019 09:00	279566		50	50
600-194999-4	11/06/2019 09:00	279566		50	50
600-194999-10	11/06/2019 09:00	279566		50	50
600-194999-12	11/06/2019 09:00	279566		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 600-279592/1-A	11/06/2019 11:18	279592		50	50
LCS 600-279592/2-A	11/06/2019 11:18	279592		50	50
600-194999-13	11/06/2019 11:18	279592		50	50
600-194999-14	11/06/2019 11:18	279592		50	50
600-194999-15	11/06/2019 11:18	279592		50	50
600-194999-15 MS	11/06/2019 11:18	279592		50	50
600-194999-15 MSD	11/06/2019 11:18	279592		50	50
600-194999-19	11/06/2019 11:18	279592		50	50
600-194999-20	11/06/2019 11:18	279592		50	50
600-194999-21	11/06/2019 11:18	279592		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 600-279977/1-A	11/11/2019 09:55	279977		50	50
LCS 600-279977/2-A	11/11/2019 09:55	279977		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Instrument ID: ICPMS7800

Analysis Method: 6020A

Start Date: 11/12/2019 13:24

End Date: 11/12/2019 19:08

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
RINSE 600-280165/1			13:24																										
IC 600-280165/2	1		13:27	X																									
IC 600-280165/3	1		13:30	X																									
IC 600-280165/4	1		13:34	X																									
IC 600-280165/5	1		13:37	X																									
IC 600-280165/6	1		13:40	X																									
IC 600-280165/7	1		13:44	X																									
ICV 600-280165/8	1		13:47	X																									
ICVL 600-280165/9	1		13:50	X																									
ICB 600-280165/10	1		13:53	X																									
ICSA 600-280165/11	1		13:56	X																									
ICSAB 600-280165/12	1		13:59	X																									
RINSE 600-280165/13			14:03																										
RINSE 600-280165/14			14:06																										
CCV 600-280165/15			14:09																										
CCVL 600-280165/16			14:12																										
CCB 600-280165/17			14:15																										
ZZZZZZ			14:18																										
ZZZZZZ			14:22																										
ZZZZZZ			14:25																										
ZZZZZZ			14:28																										
ZZZZZZ			14:31																										
ZZZZZZ			14:34																										
ZZZZZZ			14:37																										
ZZZZZZ			14:41																										
ZZZZZZ			14:44																										
ZZZZZZ			14:47																										
CCV 600-280165/28			14:50																										
CCVL 600-280165/29			14:53																										
CCB 600-280165/30			14:56																										
ZZZZZZ			14:59																										
ZZZZZZ			15:03																										
ZZZZZZ			15:06																										
ZZZZZZ			15:09																										
ZZZZZZ			15:12																										
ZZZZZZ			15:15																										
ZZZZZZ			15:18																										
ZZZZZZ			15:22																										
ZZZZZZ			15:25																										
ZZZZZZ			15:28																										
CCV 600-280165/41			15:31																										
CCVL 600-280165/42			15:34																										

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

Instrument ID: ICPMS7800

Analysis Method: 6020A

Start Date: 11/12/2019 13:24

End Date: 11/12/2019 19:08

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
CCB 600-280165/43			15:37																										
ZZZZZZ			15:40																										
ZZZZZZ			15:44																										
ZZZZZZ			15:47																										
ZZZZZZ			15:50																										
ZZZZZZ			15:53																										
CCV 600-280165/49			15:56																										
CCVL 600-280165/50			15:59																										
CCB 600-280165/51			16:03																										
ZZZZZZ			16:06																										
CCV 600-280165/53	1		16:09	X																									
CCVL 600-280165/54	1		16:12	X																									
CCB 600-280165/55	1		16:15	X																									
MB 600-279566/1-A	1	T	16:18	X																									
LCS 600-279566/2-A	1	T	16:21	X																									
600-194999-1	1	D	16:25	X																									
600-194999-1 DU	1	D	16:28	X																									
600-194999-1 MS	1	D	16:31	X																									
600-194999-1 MSD	1	D	16:34	X																									
600-194999-2	1	D	16:37	X																									
600-194999-3	1	D	16:40	X																									
600-194999-4	1	D	16:43	X																									
600-194999-10	1	D	16:46	X																									
CCV 600-280165/66	1		16:50	X																									
CCVL 600-280165/67	1		16:53	X																									
CCB 600-280165/68	1		16:56	X																									
600-194999-12	1	D	16:59	X																									
MB 600-279592/1-A	1	T	17:02	X																									
LCS 600-279592/2-A	1	T	17:05	X																									
600-194999-13	1	D	17:09	X																									
600-194999-14	1	D	17:12	X																									
600-194999-15	1	D	17:15	X																									
600-194999-15 MS	1	D	17:18	X																									
600-194999-15 MSD	1	D	17:21	X																									
600-194999-19	1	D	17:24	X																									
600-194999-20	1	D	17:27	X																									
CCV 600-280165/79	1		17:30	X																									
CCVL 600-280165/80	1		17:34	X																									
CCB 600-280165/81	1		17:37	X																									
600-194999-21	1	D	17:40	X																									
600-194999-15 SD	5	D	17:43	X																					</				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1
 SDG No.: _____
 Instrument ID: ICPMS7800 Analysis Method: 6020A
 Start Date: 11/12/2019 13:24 End Date: 11/12/2019 19:08

Lab Sample Id	D/F	T y p e	Time	Analytes																									
				M n																									
LCS 600-279977/2-A	1	T	17:49	X																									
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			17:59																										
ZZZZZZ			18:02																										
ZZZZZZ			18:05																										
ZZZZZZ			18:08																										
CCV 600-280165/92	1		18:11	X																									
CCVL 600-280165/93	1		18:14	X																									
CCB 600-280165/94	1		18:17	X																									
ZZZZZZ			18:21																										
ZZZZZZ			18:24																										
ZZZZZZ			18:27																										
ZZZZZZ			18:30																										
ZZZZZZ			18:33																										
ZZZZZZ			18:36																										
ZZZZZZ			18:39																										
ZZZZZZ			18:43																										
600-194999-15 SD	5	D	18:46	X																									
CCV 600-280165/104	1		18:49	X																									
CCVL 600-280165/105	1		18:52	X																									
CCB 600-280165/106	1		18:55	X																									
RINSE 600-280165/107			18:58																										
RINSE 600-280165/108			19:01																										
RINSE 600-280165/109			19:05																										
RINSE 600-280165/110			19:08																										

Prep Types: _____
 D = Dissolved
 T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Houston

Job No.: 600-194999-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS7800

Start Date: 11/12/2019 End Date: 11/12/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge	Q	Element Ge	Q
IC 600-280165/2	13:27	100		100		100		100		100	
IC 600-280165/3	13:30	100		99		100		99		99	
IC 600-280165/4	13:34	101		98		99		98		99	
IC 600-280165/5	13:37	103		99		97		98		99	
IC 600-280165/6	13:40	96		96		96		95		96	
IC 600-280165/7	13:44	95		93		95		93		94	
ICV 600-280165/8	13:47	98		93		96		94		94	
ICVL 600-280165/9	13:50	101		94		97		93		95	
ICB 600-280165/10	13:53	102		94		97		93		94	
ICSA 600-280165/11	13:56	98		95		96		93		95	
ICSAB 600-280165/12	13:59	100		93		96		92		93	
CCV 600-280165/53	16:09	101		93		94		90		91	
CCVL 600-280165/54	16:12	106		92		94		89		91	
CCB 600-280165/55	16:15	106		93		94		90		91	
MB 600-279566/1-A	16:18	107		94		94		90		92	
LCS 600-279566/2-A	16:21	104		93		95		89		92	
600-194999-1	16:25	97		92		93		86		88	
600-194999-1 DU	16:28	93		89		90		86		87	
600-194999-1 MS	16:31	88		89		90		85		87	
600-194999-1 MSD	16:34	86		89		86		84		86	
600-194999-2	16:37	86		88		87		85		85	
600-194999-3	16:40	83		89		87		85		85	
600-194999-4	16:43	82		87		85		84		86	
600-194999-10	16:46	85		87		87		84		86	
CCV 600-280165/66	16:50	94		90		92		91		91	
CCVL 600-280165/67	16:53	100		95		96		94		95	
CCB 600-280165/68	16:56	106		96		100		94		96	
600-194999-12	16:59	96		93		95		88		89	
MB 600-279592/1-A	17:02	105		97		99		95		96	
LCS 600-279592/2-A	17:05	105		97		99		94		97	
600-194999-13	17:09	96		93		94		89		91	
600-194999-14	17:12	89		94		93		90		90	
600-194999-15	17:15	89		90		91		87		89	
600-194999-15 MS	17:18	85		90		89		88		89	
600-194999-15 MSD	17:21	83		89		89		87		86	
600-194999-19	17:24	86		90		89		86		86	
600-194999-20	17:27	85		91		88		86		88	
CCV 600-280165/79	17:30	94		94		94		92		93	
CCVL 600-280165/80	17:34	101		97		102		95		97	
CCB 600-280165/81	17:37	107		98		103		96		98	
600-194999-21	17:40	96		92		95		89		90	
600-194999-15 SD	17:43	100		95		101		94		95	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS7800 Start Date: 11/12/2019 End Date: 11/12/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/2	Q	Element Sc/3	Q	Element Ge	Q	Element Ge	Q
MB 600-279977/1-A	17:46	108		99		101		96		96	
LCS 600-279977/2-A	17:49	109		95		101		96		95	
600-194999-1	17:52	96		92		99		91		91	
600-194999-2	17:56	91		91		93		89		89	
600-194999-3	17:59	87		88		88		86		88	
600-194999-4	18:02	84		88		87		85		87	
600-194999-10	18:05	82		87		87		84		85	
600-194999-12	18:08	85		88		88		85		86	
CCV 600-280165/92	18:11	95		92		95		90		92	
CCVL 600-280165/93	18:14	105		97		102		96		98	
CCB 600-280165/94	18:17	110		98		107		96		97	
600-194999-13	18:21	94		92		96		89		90	
600-194999-14	18:24	91		92		95		89		90	
600-194999-15	18:27	89		92		94		88		90	
600-194999-15 MS	18:30	85		89		93		87		88	
600-194999-15 MSD	18:33	86		91		91		87		88	
600-194999-19	18:36	85		89		90		86		88	
600-194999-20	18:39	87		90		91		86		88	
600-194999-21	18:43	86		86		90		85		84	
600-194999-15 SD	18:46	96		95		100		93		94	
CCV 600-280165/104	18:49	100		92		99		92		93	
CCVL 600-280165/105	18:52	106		98		106		96		98	
CCB 600-280165/106	18:55	113		98		106		97		97	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS7800 Start Date: 11/12/2019 End Date: 11/12/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Bi/2	Q	Element Bi/3	Q	Element	Q	Element	Q
IC 600-280165/2	13:27	100		100		100					
IC 600-280165/3	13:30	97		99		99					
IC 600-280165/4	13:34	97		99		98					
IC 600-280165/5	13:37	98		99		98					
IC 600-280165/6	13:40	96		95		96					
IC 600-280165/7	13:44	95		94		96					
ICV 600-280165/8	13:47	94		94		97					
ICVL 600-280165/9	13:50	95		95		98					
ICB 600-280165/10	13:53	93		95		97					
ICSA 600-280165/11	13:56	93		94		96					
ICSAB 600-280165/12	13:59	93		91		97					
CCV 600-280165/53	16:09	89		89		93					
CCVL 600-280165/54	16:12	90		90		95					
CCB 600-280165/55	16:15	92		89		95					
MB 600-279566/1-A	16:18	90		91		95					
LCS 600-279566/2-A	16:21	90		91		94					
600-194999-1	16:25	88		81		88					
600-194999-1 DU	16:28	87		81		89					
600-194999-1 MS	16:31	84		81		88					
600-194999-1 MSD	16:34	85		78		87					
600-194999-2	16:37	83		78		88					
600-194999-3	16:40	84		79		88					
600-194999-4	16:43	83		79		90					
600-194999-10	16:46	84		78		90					
CCV 600-280165/66	16:50	87		89		100					
CCVL 600-280165/67	16:53	90		92		100					
CCB 600-280165/68	16:56	90		91		101					
600-194999-12	16:59	85		82		88					
MB 600-279592/1-A	17:02	91		92		98					
LCS 600-279592/2-A	17:05	91		89		99					
600-194999-13	17:09	86		81		89					
600-194999-14	17:12	86		82		90					
600-194999-15	17:15	84		81		91					
600-194999-15 MS	17:18	84		81		88					
600-194999-15 MSD	17:21	82		79		89					
600-194999-19	17:24	84		79		90					
600-194999-20	17:27	83		79		89					
CCV 600-280165/79	17:30	88		87		97					
CCVL 600-280165/80	17:34	90		91		99					
CCB 600-280165/81	17:37	92		91		99					
600-194999-21	17:40	87		81		88					
600-194999-15 SD	17:43	88		87		96					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

ICP-MS Instrument ID: ICPMS7800 Start Date: 11/12/2019 End Date: 11/12/2019

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Bi/2	Q	Element Bi/3	Q	Element	Q	Element	Q
MB 600-279977/1-A	17:46	89		90		97					
LCS 600-279977/2-A	17:49	91		90		98					
600-194999-1	17:52	86		82		90					
600-194999-2	17:56	85		80		87					
600-194999-3	17:59	83		78		88					
600-194999-4	18:02	83		80		89					
600-194999-10	18:05	82		76		87					
600-194999-12	18:08	82		78		88					
CCV 600-280165/92	18:11	85		87		97					
CCVL 600-280165/93	18:14	90		91		99					
CCB 600-280165/94	18:17	91		91		98					
600-194999-13	18:21	86		80		88					
600-194999-14	18:24	85		80		88					
600-194999-15	18:27	85		81		88					
600-194999-15 MS	18:30	83		79		89					
600-194999-15 MSD	18:33	84		80		89					
600-194999-19	18:36	83		79		88					
600-194999-20	18:39	84		78		87					
600-194999-21	18:43	82		77		86					
600-194999-15 SD	18:46	87		86		94					
CCV 600-280165/104	18:49	88		86		94					
CCVL 600-280165/105	18:52	91		92		97					
CCB 600-280165/106	18:55	90		89		95					

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279566 Batch Start Date: 11/06/19 09:00 Batch Analyst: Lige, Derrick C

Batch Method: 3010A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICPMSCALMIX1S 00006	ICPMSCALMIX2S 00003	ICPMSCALMIX3S 00004
MB 600-279566/1		3010A, 6020A			50 mL	50 mL			
LCS 600-279566/2		3010A, 6020A			50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-1	Artesia-Outlet-1 02919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-1 DU	Artesia-Outlet-1 02919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-1 MS	Artesia-Outlet-1 02919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-1 MSD	Artesia-Outlet-1 02919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-2	Artesia-MW30-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-3	Artesia-MD30-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-4	Artesia-MW32-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-10	Artesia-MW29-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-12	Artesia-MW28-102 919	3010A, 6020A	D	<2	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICPMSCALMIX4S 00004	METHCL 00283	METHNO3 00334			
MB 600-279566/1		3010A, 6020A			0.5 mL	2.5 mL			
LCS 600-279566/2		3010A, 6020A		25 uL	0.5 mL	2.5 mL			
600-194999-A-1	Artesia-Outlet-1 02919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-1 DU	Artesia-Outlet-1 02919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-1 MS	Artesia-Outlet-1 02919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-1 MSD	Artesia-Outlet-1 02919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-2	Artesia-MW30-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-3	Artesia-MD30-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-4	Artesia-MW32-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020A

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279566 Batch Start Date: 11/06/19 09:00 Batch Analyst: Lige, Derrick CBatch Method: 3010A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICPMSCALMIX4S 00004	METHCL 00283	METHNO3 00334			
600-194999-A-10	Artesia-MW29-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-12	Artesia-MW28-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			

Batch Notes	
Hot Block ID	#2
Oven, Bath or Block Temperature 1	94.6 Degrees C
pH Paper ID	HC991818
Pipette ID	M3A
Thermometer ID	# 615
Digestion Tube/Cup ID	# 1904119
Uncorrected Temperature	94 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279592 Batch Start Date: 11/06/19 11:18 Batch Analyst: Lige, Derrick C

Batch Method: 3010A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICPMSCALMIX1S 00006	ICPMSCALMIX2S 00003	ICPMSCALMIX3S 00004
MB 600-279592/1		3010A, 6020A			50 mL	50 mL			
LCS 600-279592/2		3010A, 6020A			50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-13	Artesia-MW25-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-14	Artesia-MW31-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-15	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-15 MS	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-15 MSD	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-19	Artesia-Inlet-10 2919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-20	Artesia-MID-1029 19	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-21	Artesia-MW-22-10 2919	3010A, 6020A	D	<2	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICPMSCALMIX4S 00004	METHCL 00283	METHNO3 00334			
MB 600-279592/1		3010A, 6020A			0.5 mL	2.5 mL			
LCS 600-279592/2		3010A, 6020A		25 uL	0.5 mL	2.5 mL			
600-194999-A-13	Artesia-MW25-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-14	Artesia-MW31-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-15	Artesia-MW34-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-15 MS	Artesia-MW34-102 919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-15 MSD	Artesia-MW34-102 919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-19	Artesia-Inlet-10 2919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-20	Artesia-MID-1029 19	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-21	Artesia-MW-22-10 2919	3010A, 6020A	D		0.5 mL	2.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020A

Page 1 of 2

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279592 Batch Start Date: 11/06/19 11:18 Batch Analyst: Lige, Derrick CBatch Method: 3010A Batch End Date: _____

Batch Notes	
Hot Block ID	#2
Oven, Bath or Block Temperature 1	94.6 Degrees C
pH Paper ID	HC991818
Pipette ID	M3A
Thermometer ID	# 615
Digestion Tube/Cup ID	# 1904119
Uncorrected Temperature	94 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279977 Batch Start Date: 11/11/19 09:55 Batch Analyst: Lige, Derrick C

Batch Method: 3010A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	ICPMSCALMIX1S 00006	ICPMSCALMIX2S 00003	ICPMSCALMIX3S 00004
MB 600-279977/1		3010A, 6020A			50 mL	50 mL			
LCS 600-279977/2		3010A, 6020A			50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-1	Artesia-Outlet-1 02919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-2	Artesia-MW30-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-3	Artesia-MD30-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-4	Artesia-MW32-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-10	Artesia-MW29-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-12	Artesia-MW28-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-13	Artesia-MW25-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-14	Artesia-MW31-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-15	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-15 MS	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-15 MSD	Artesia-MW34-102 919	3010A, 6020A	D	<2	50 mL	50 mL	50 uL	25 uL	25 uL
600-194999-A-19	Artesia-Inlet-10 2919	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-20	Artesia-MID-1029 19	3010A, 6020A	D	<2	50 mL	50 mL			
600-194999-A-21	Artesia-MW-22-10 2919	3010A, 6020A	D	<2	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICPMSCALMIX4S 00004	METHCL 00284	METHNO3 00336			
MB 600-279977/1		3010A, 6020A			0.5 mL	2.5 mL			
LCS 600-279977/2		3010A, 6020A		25 uL	0.5 mL	2.5 mL			
600-194999-A-1	Artesia-Outlet-1 02919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-2	Artesia-MW30-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020A

METALS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Houston Job No.: 600-194999-1

SDG No.: _____

Batch Number: 279977 Batch Start Date: 11/11/19 09:55 Batch Analyst: Lige, Derrick CBatch Method: 3010A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	ICPMSCALMIX4S 00004	METHCL 00284	METHNO3 00336			
600-194999-A-3	Artesia-MD30-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-4	Artesia-MW32-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-10	Artesia-MW29-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-12	Artesia-MW28-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-13	Artesia-MW25-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-14	Artesia-MW31-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-15	Artesia-MW34-102 919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-15 MS	Artesia-MW34-102 919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-15 MSD	Artesia-MW34-102 919	3010A, 6020A	D	25 uL	0.5 mL	2.5 mL			
600-194999-A-19	Artesia-Inlet-10 2919	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-20	Artesia-MID-1029 19	3010A, 6020A	D		0.5 mL	2.5 mL			
600-194999-A-21	Artesia-MW-22-10 2919	3010A, 6020A	D		0.5 mL	2.5 mL			

Batch Notes	
Hot Block ID	#2
Oven, Bath or Block Temperature 1	95.4 Degrees C
pH Paper ID	HC991818
Pipette ID	M3A
Thermometer ID	# 587
Digestion Tube/Cup ID	# 1904119
Uncorrected Temperature	95 Celsius

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

6020A

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Shipping and Receiving Documents

Chain of Custody Record

Chain of Custody Record

Client Information Client Contact: John Ynfante Company: Jacobs Engineering Group, Inc. Address: 14701 St. Mary's Lane Suite 300 City: Houston State: TX, Zip: 77079 Phone: 713 690 4444 Email: John.Ynfante@jacobs.com Project Name: Dowell - Artesia Groundwater Site:		Lab PM: McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamericainc.com Phone: 713 690 1800 Sample: Tursberg Date: 05/05/19		Carrier Tracking No(s): 1677 1047 0347 1677 1047 0347 COC No: 600-71885-19714.1 Page: 2 of 2 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): 5 PO #: D3151100 CS.TPE.AR.19-05-02 WO #: D3151100 CS.TPE.AR.19-05-02 Project #: 60004334 SSOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Arniclor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Identification Sample ID: Artesia-MW29-10292019 Artesia-MW35-10292019 Artesia-MW28-10292019 Artesia-MW25-10292019 Artesia-MW31-10292019 Artesia-MW34-10292019 Artesia-MW37-10292019 Artesia-MW38-10292019 Artesia-TB01-10292019 Artesia-10292019 Artesia-M10-10292019		Sample Date 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19 10/29/19		Sample Time 1019 1038 1115 1151 1245 1317 1509 1420 0805 0810 0820	
Matrix (Water, Solid, Organic, Inorganic, etc.) Water Water Water Water Water Water Water Water Water Water		Preservation Code: A N A D N A N A N A N		Field Filtered Sample (Yes or No) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	
Perform MS/MSD (Yes or No) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes		826B_LL-nap, benzene, PCE, 1,1-DCE, and 1,1-DCA 6020 - Manganese, Dissolved-Field Filter 300_ORGFM_28D - 300.0 - Anions, IC (Sulfate) 826B_LL - PCE and 1,1-DCE only		Total Number of Containers 4 3 10 4 4 12 4 4 3 4 4	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by:		Date: 10/30/19		Company: Jacobs	
Relinquished by:		Date: 10/30/19		Company: Jacobs	
Relinquished by:		Date: 10/30/19		Company: Jacobs	
Custody Seals Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Loc: 600

1949'99

Environment Testing
TestAmerica

Eurofins TestAmerica Houston

Sample Receipt Checklist

19 OCT 31 10:34

JOB NUMBER:

9019
4

Date/Time Received:

CLIENT:

JACOBS

UNPACKED BY:

CARRIER/DRIVER:

FedEx

Custody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
03917	Y / N	Y / N	0.6	678	-0.3	0.3
0401	Y / N	Y / N	0.7	670	+0.1	0.8
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YESBase samples are > pH 12: ☐ YES ☐ NO

Acid preserved are < pH 2:

☒ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES

DATE & TIME PUT IN FREEZER: _____

pH paper Lot #

Heagans 18

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 600-194999-1

Login Number: 194999

List Number: 1

Creator: Taylor, Jacquelyn R

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3, 0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.