

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

PEN V0006-1500061

Responsible Party: <b>Enterprise Field Services, LLC</b>	OGRID: <b>151618</b>
Contact Name: <b>Thomas Long</b>	Contact Telephone: <b>505-599-2286</b>
Contact email: <b>tjlong@eprod.com</b>	Incident # (assigned by OCD): <b>NVF18128333301</b>
Contact mailing address: <b>614 Reilly Ave, Farmington, NM 87401</b>	

NMOCD

### Location of Release Source

OCT 29 2018

Latitude 36.730065 Longitude -107.955320 (NAD 83 in decimal degrees to 5 decimal places)

DISTRICT III

Site Name <b>Val Verde Plant</b>	Site Type: <b>Natural Gas Treatment Facility</b>
Date Release Discovered: <b>4/30/2018 @ 5:45 p.m.</b>	Serial Number (if applicable): <b>N/A</b>

Unit Letter	Section	Township	Range	County
<b>A</b>	<b>14</b>	<b>29N</b>	<b>11W</b>	<b>San Juan</b>

Surface Owner:  State  Federal  Tribal  Private (Name: Enterprise Field Services, LLC)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls):	Volume Recovered (bbls):
<input type="checkbox"/> Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
<input checked="" type="checkbox"/> Other: <b>Water/Amine Solution</b>	Volume/Weight Released (provide units): <b>Estimated 120 BBLs</b>	Volume/Weight Recovered (provide units): <b>NONE</b>

**Cause of Release:** On April 30, 2018, during startup of Train 4 a Water/Amine (approximately 50% water and 50% amine) solution was ejected from the knockout tank vent stack onto the ground surface. An estimated 120 barrels of Water/Amine solution were released. Remediation activities were completed on August 29, 2108. The contaminant mass was removed by mechanical excavation. The final excavation dimensions measured approximately 332 feet long ranging from 6 to 90 feet wide by approximately 0.5 feet deep. Approximately 185 cubic yards of hydrocarbon impacted soil were excavated and stockpile on a plastic liner with other hydrocarbon impacted material associated with other remediation projects at the facility. The excavated soil was transported to a New Mexico Oil Conservation Division approved land farm facility in September 2018. A third party closure report is included with this "Final." C-141.

Incident ID	
District RP	
Facility ID	
Application ID	

### Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jon E. Fields

Title: Director, Field Environmental

Signature: *Jon E. Fields*

Date: 10/25/18

email: jefields@eprod.com

Telephone: (713) 381-6684

**NMOCD**  
**OCT 29 2018**  
**DISTRICT 111**

**OCD Only**

Received by: *Vanessa Fields*

Date: 10/29/18

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: *Vanessa Fields*

Date: 11/9/2018

Printed Name: Vanessa Fields

Title: Environmental Specialist



## CORRECTIVE ACTION REPORT

Property:

**Val Verde Plant Amine and Water Release (April 2018)  
NE ¼, S14 T29N R11W  
San Juan County, New Mexico**

October 9, 2018  
Apex Project No. 725040112442

Prepared for:

**Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, NM 87401  
Attn: Mr. Thomas Long**



Prepared by:

A handwritten signature in blue ink, appearing to read 'Rane Deechilly', written over a horizontal line.

Rane Deechilly  
Project Scientist

A handwritten signature in blue ink, appearing to read 'Kyle Summers', written over a horizontal line.

Kyle Summers, CPG  
Branch Manager / Senior Geologist

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Chain of Custody Documentation

## CORRECTIVE ACTION REPORT

### Val Verde Plant Amine and Water Release (April 2018)

NE ¼, S14 T29N R11W  
San Juan County, New Mexico

Apex Project No. 725040112442

## 1.0 INTRODUCTION

### 1.1 Site Description & Background

The Val Verde Plant amine and water release site, referred to hereinafter as the “Site”, is located within the Enterprise Field Services, LLC (Enterprise) Val Verde Plant facility in the northeast (NE ¼) of Section 14, Township 29 North, Range 11 West, in San Juan County, New Mexico (36.730065N, 107.955320W). The Site is located on private land controlled by Enterprise. The surroundings are predominately characterized by petroleum gathering, processing, and sales facilities.

A release of amine and water from a knock out tank occurred on April 30, 2018. Approximately 120 barrels (bbls) of amine and water were released from the tank and flowed south over the ground surface. Overspray from the release affected approximately 0.25 acres to the east of the knock out tank. During June 2018, Enterprise initiated scraping/excavation activities to remediate impact resulting from the amine and water release.

A **Topographic Map** depicting the location of the Site is included as **Figure 1**, and a **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

### 1.2 Project Objective

The primary objective of the corrective action was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) closure criteria (which were applicable at the time of this release and corrective action) using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

## 2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* (which were applicable at the time of this release occurred and corrective action was initiated), Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the implementation of corrective action activities and information available from the New Mexico Office of the State Engineer (OSE) to determine the appropriate “ranking” for the Site. The ranking criteria and associated scoring are provided in the following table.



Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	<b>20</b>
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	<b>0</b>
	No	0	
Distance to Surface Water Body	<200 feet	20	<b>10</b>
	200 to 1,000 feet	10	
	>1,000 feet	0	
<b>Total Ranking Score</b>			<b>30</b>

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 30. The ranking is based on the following information:

- Numerous wells are identified within a mile radius of the Site on the OSE Water Right Reporting System (WRRS) database. The nearest water well (SJ 03164) with a recorded depth to water is located approximately 0.4 miles south of the Site, at a lower elevation, with a depth to water of 56 feet below grade surface (bgs). However, based on data from a groundwater monitoring network located approximately 1,300 feet west of the Site, the depth to groundwater in the vicinity of the Site is anticipated to be less than 50 feet bgs, resulting in a ranking score of "20" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking score of "0".
- Hare Canyon Arroyo is located approximately 1,610 feet east of the Site. An irrigation ditch is located approximately 1,531 feet south of the Site and a small ephemeral wash, which is identified as a "blue line" on the United States Geological Survey topographic map, is located approximately 1,191 feet west of the Site. This information supports a distance to surface water ranking score of "0".

### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

During June 2018, Enterprise initiated scraping/excavation activities to remediate impact resulting from the amine and water release. During the earthwork activities, West States Energy Contactors Inc., provided heavy equipment and labor support, and Apex provided environmental consulting support.

The extent of the total flow path measured approximately 332 feet in length and six (6) to 90 feet in width, with a maximum depth of approximately five (5) inches. The overspray area measured approximately 120 feet long and 112 feet wide

A total of approximately 185 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix B**. This C-138 also includes soils from nearby releases that occurred at the facility (addressed in

separate reports). The excavation was backfilled with imported fill and resurfaced with gravel to provide a suitable driving/parking area.

**Figures 3** indicates the approximate soil sample locations in relation to the flow path (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

### 3.2 Soil Sampling Program

Apex's soil sampling program included the collection of 35 composite soil samples (S-1 through S-35) from the excavation/overspray for laboratory analysis between June 2018 and August 2018. Soil associated with composite soil samples S-2 through S-12, S-14, S-18, S-21 through S-26, S-29, and S-30 exhibited COC concentrations above the applicable New Mexico EMNRD OCD standard and were removed by scraping/excavation and transported to Envirotech landfarm for disposal/remediation.

Each composite sample was comprised of five (5) aliquots collected at approximately 10-foot increments along the flow path.

A New Mexico EMNRD OCD was on-Site during the August 29, 2018 sampling event.

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico, under proper chain-of-custody procedures.

### 3.3 Soil Laboratory Analytical Methods

In accordance with the New Mexico EMNRD OCD recommendations to Enterprise, the composite soil samples were analyzed only for total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO) and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015.

Laboratory analytical results are summarized in **Table 1**, included in **Appendix D**. The executed chain-of-custody form and laboratory data sheets are provided in **Appendix E**.

## 4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases at the time of this corrective action, the New Mexico EMNRD OCD utilized the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the New Mexico EMNRD OCD rules, specifically New Mexico Administrative Code 19.15.29 *Release Notification*. These guidance documents established investigation and abatement action requirements for sites subject to reporting and/or corrective action.

### 4.1 Soil Samples

Apex compared the TPH concentrations or laboratory practical quantitation limits (PQLs) associated with the composite soil samples (S-1, S-7, S-13, S-15 through S-17, S-19, S-20, S-25, S-27, S-28, S-31 through S-35) to the New Mexico EMNRD OCD closure criteria. Soil associated with composite soil samples S-2 through S-12, S-14, S-18, S-21 through S-26, S-29, and S-30 were removed by scraping/excavation and transported to the Envirotech landfarm near Angel Peak for disposal/remediation and are not included in the following discussion.

- The laboratory analyses of the composite soil samples collected from soils remaining in place indicate combined TPH GRO/DRO/MRO concentrations ranging from below the laboratory PQLs to 82 mg/kg (S-7), which are below the New Mexico EMNRD OCD closure criteria of 100 mg/kg.

Laboratory analytical results are summarized in **Table 1** in **Appendix D**.

## 5.0 FINDINGS AND RECOMMENDATIONS

The Val Verde Plant amine and water release site is located within the Enterprise Val Verde Plant facility in the NE ¼ of Section 14, Township 29 North, Range 11 West, in San Juan County, New Mexico. The Site is located on private land controlled by Enterprise. The area surrounding the release site is predominately characterized by petroleum gathering, processing, and sales facilities.

A release of amine and water from a knock out tank occurred on April 30, 2018. Approximately 120 bbls of amine and water were released from the pump and flowed south over the ground surface. Overspray from the release affected approximately 0.25 acres to the east of the knock out tank. During June 2018, Enterprise initiated scraping/excavation activities to remediate impact resulting from the amine and water release.

- The primary objective of the corrective action was to reduce COC concentrations in the on-Site soils to below the New Mexico EMNRD OCD closure criteria using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- Prior to backfilling, 35 composite samples soil samples were collected from the excavation for laboratory analyses. Based on soil analytical results, soils remaining in place do not exhibit concentrations of COCs that are detectable by EPA SW-846 Method #8015 above the New Mexico EMNRD OCD closure criteria.
- A total of approximately 185 cubic yards of soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and resurfaced with gravel.

## 6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed or described herein. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those

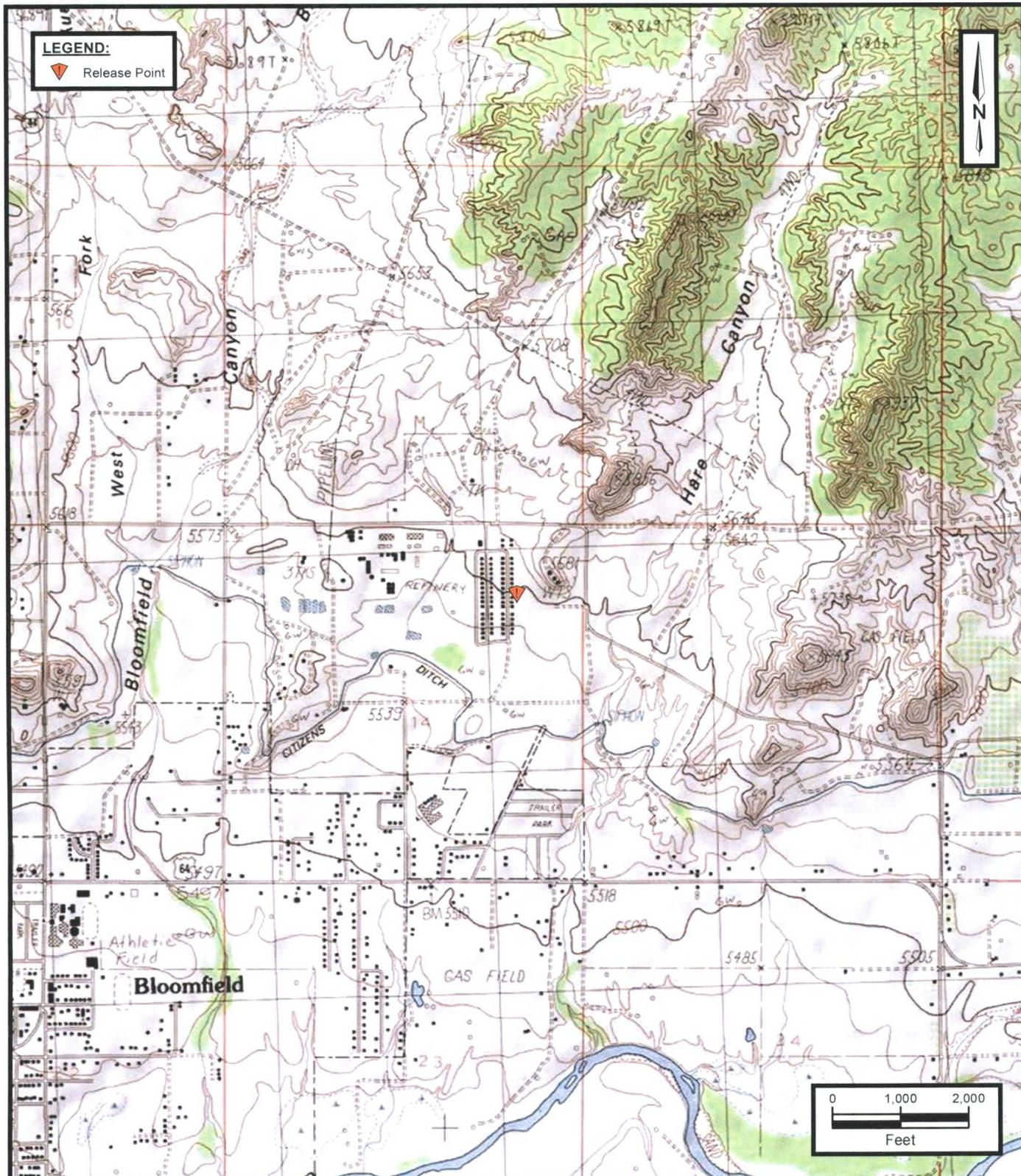


encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

APPENDIX A  
Figures

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Val Verde Plant Water/Amine Release  
 April 2018  
 NE1/4, S14 T29N R11W  
 San Juan County, New Mexico  
 36.730065 N, 107.955320 W

Project No. 725040112442



**Apex TITAN, Inc.**

606 South Rio Grande, Suite A  
 Aztec, New Mexico 87410  
 Phone: (505) 334-5200

www.apexcos.com  
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**FIGURE 1**

**Topographic Map**

Service Layer Credits:

Copyright © 2013 National Geographic Society, i-cubed, Bloomfield and Aztec New Mexico 7.5-Minute Quadrangles 1985

**TABLE 1**  
**Val Verde Plant Water/Amine Release (April 2018)**  
**SOIL ANALYTICAL SUMMARY**

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample (inches)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Closure Criteria							100
<b>Composite Soil Samples Removed by Scraping/Excavation</b>							
S-2	6.12.18	C	2	<5.0	2,400	<480	<b>2,400</b>
S-3	6.12.18	C	2	<4.6	200	<47	<b>200</b>
S-4	6.12.18	C	2	<4.7	3,900	<510	<b>3,900</b>
S-5	6.12.18	C	2	<4.8	840	<48	<b>840</b>
S-6	6.12.18	C	2	<5.0	420	<50	<b>420</b>
S-8	6.12.18	C	0 to 2	<4.8	1,400	<460	<b>1,400</b>
S-9	6.12.18	C	0 to 2	<4.6	2,700	<460	<b>2,700</b>
S-10	6.12.18	C	0 to 2	<4.8	1,600	<470	<b>1,600</b>
S-11	6.12.18	C	0 to 2	<4.9	550	<45	<b>550</b>
S-12	6.12.18	C	0 to 2	<4.7	310	<48	<b>310</b>
S-14	6.12.18	C	0 to 2	<4.9	110	<49	<b>110</b>
S-18	7.09.18	C	2	<5.0	140	<50	<b>140</b>
S-21	7.09.18	C	3	<4.7	100	<50	<b>100</b>
S-22	7.09.18	C	3	<4.9	810	<50	<b>810</b>
S-23	7.09.18	C	3	<4.9	530	<50	<b>530</b>
S-24	7.09.18	C	3	<4.6	170	<50	<b>170</b>
S-26	7.09.18	C	2.5	<4.6	150	<50	<b>150</b>
S-29	8.03.18	C	4	<4.9	220	<48	<b>220</b>
S-30	8.03.18	C	4	<4.8	180	<49	<b>180</b>
<b>Composite Soil Samples</b>							
S-1	6.12.18	C	2	<4.9	48	<47	48
S-7	6.12.18	C	0 to 2	<4.7	82	<47	82
S-13	6.12.18	C	0 to 2	<4.7	73	<47	73
S-15	6.12.18	C	0 to 2	<4.7	33	<45	33
S-16	6.12.18	C	0 to 2	<5.0	<10	<50	ND
S-17	7.09.18	C	2	<4.6	<9.8	<49	ND
S-19	7.09.18	C	2	<4.8	<10	<50	ND
S-20	7.09.18	C	3	<4.6	44	<50	44
S-25	7.09.18	C	2.5	<4.7	<9.9	<49	ND
S-27	7.09.18	C	0 to 2.5	<4.9	36	<50	36
S-28	8.03.18	C	4	<4.8	29	<49	29
S-31	8.03.18	C	4	<4.8	<9.8	<49	ND
S-32	8.03.18	C	3	<4.9	23	<50	23
S-33	8.03.18	C	3	<4.9	29	<48	29
S-34	8.29.18	C	5	<4.8	29	<49	29
S-35	8.29.18	C	5	<4.6	27	<49	27

Note: Concentrations in bold and yellow exceed the applicable NM EMNRD OCD Closure Criteria

ND = Not Detected above the laboratory Practical Quantitation Limits

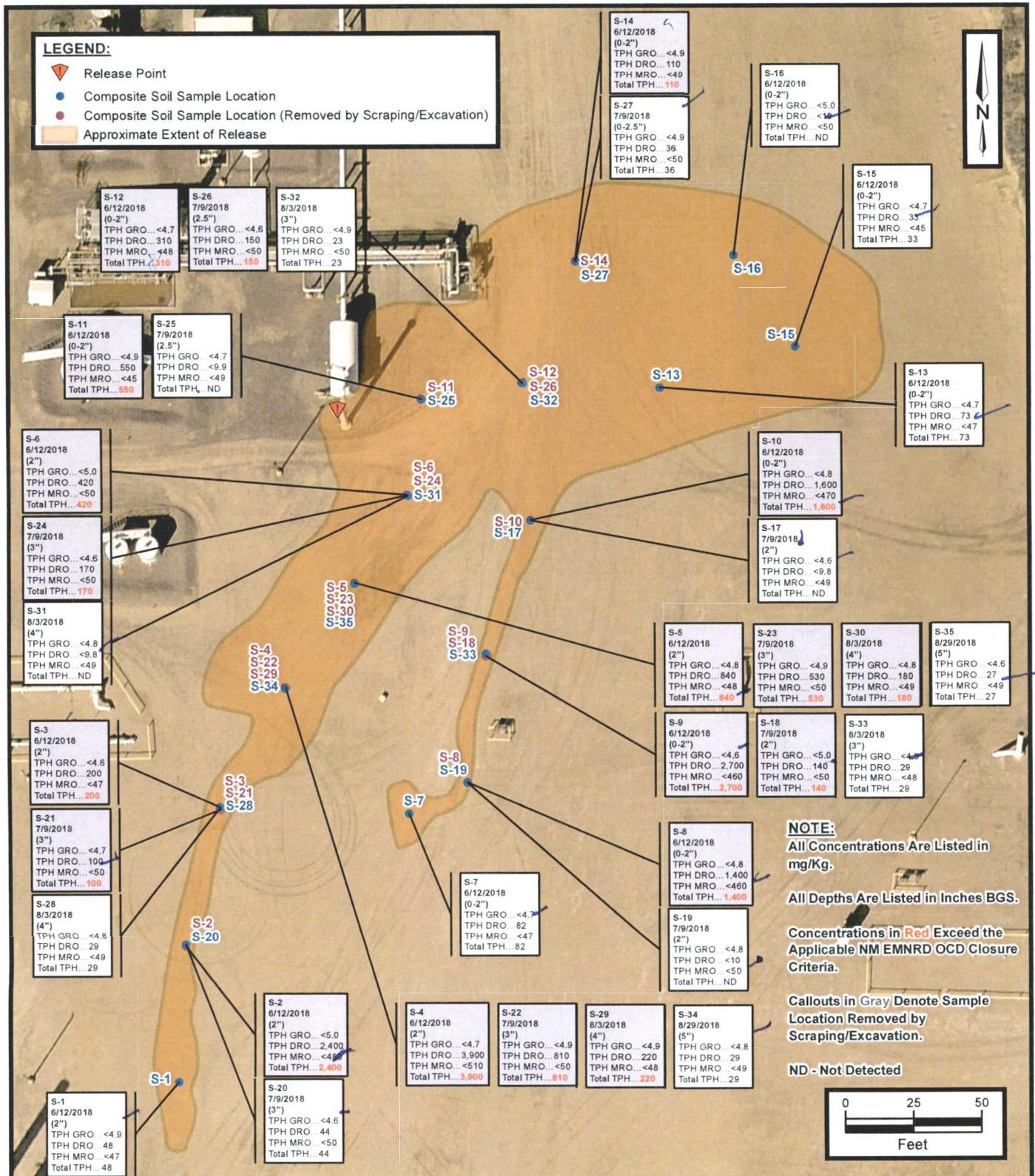
mg/kg = milligram per kilogram

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

TPH = Total Petroleum Hydrocarbon



Val Verde Plant Water/Amine Release  
 April 2018  
 NE1/4, S14 T29N R11W  
 San Juan County, New Mexico  
 36.730065 N, 107.955320 W



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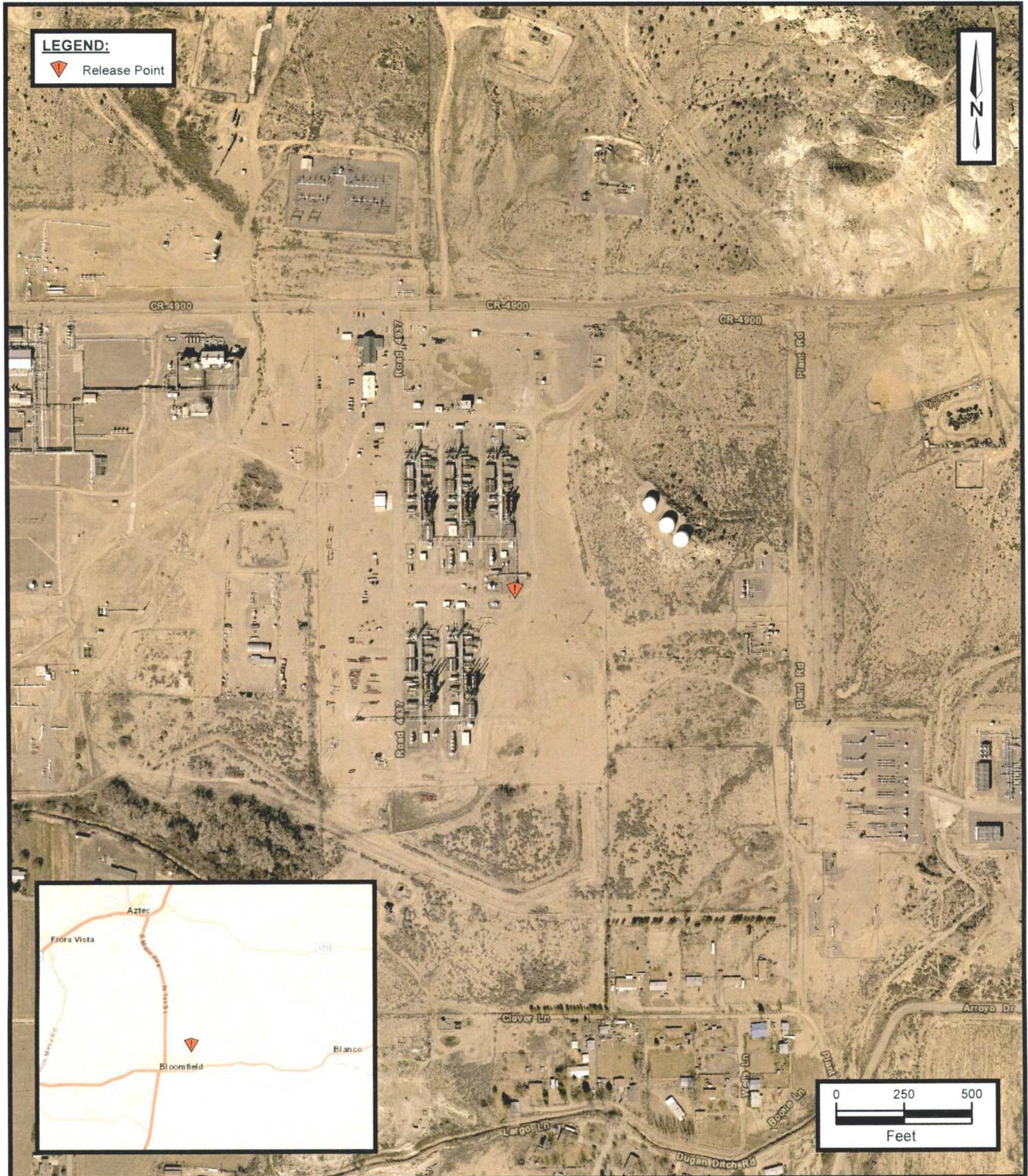
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**FIGURE 3**

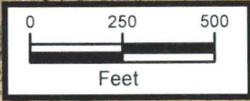
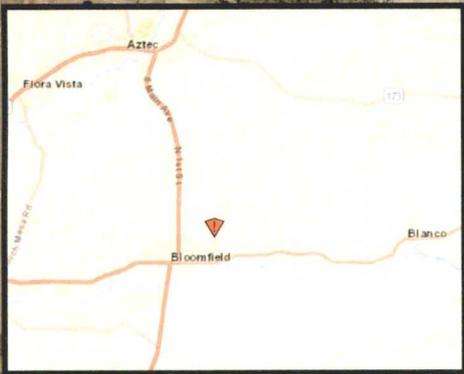
**Site Map with Soil Analytical Results**

Service Layer Credits:  
 NAIP Aerial Photograph 2015

Project No. 725040112442



**LEGEND:**  
 Release Point



**Val Verde Plant Water/Amine Release**  
**April 2018**  
 NE1/4, S14 T29N R11W  
 San Juan County, New Mexico  
 36.730065 N, 107.955320 W



**Apex TITAN, Inc.**

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**FIGURE 2**

**Site Vicinity Map**

Service Layer Credits

Esri, HERE, Garmin, © OpenStreetMap contributors, Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, NAIIP Aerial Photograph 2015

Project No. 725040112442

APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

97057-0943  
Form C-138  
Revised 08/01/11  
\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

### REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**  
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. **Originating Site:**  
Val Verde Plant

3. **Location of Material (Street Address, City, State or ULSTR):**  
Unit B Sec 14 T 29N R 11W Sep. 2018

4. **Source and Description of Waste:**  
Source: Hydrocarbon/Amine/Water impacted soil associated equipment failures.  
Description: Hydrocarbon/Amine impacted soil associated with remediation activities from equipment failures.  
Estimated Volume 30 (yd<sup>3</sup>) bbls Known Volume (to be entered by the operator at the end of the haul) 360 (yd<sup>3</sup>) bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**  
I, Thomas Long <sup>Thomas Long</sup>, representative or authorized agent for Enterprise Products Operating do hereby  
**Generator Signature**  
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988  
regulatory determination, the above described waste is: (Check the appropriate classification)  
 RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-  
exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load  
 RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by  
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,  
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check  
the appropriate items)  
 MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**  
I, Thomas Long <sup>Thomas Long</sup> 8-30-18, representative for Enterprise Products Operating authorize Envirotech, Inc. to complete  
**Generator Signature**  
the required testing/sign the Generator Waste Testing Certification.  
I, <sup>Greg Crabtree</sup>, representative for Envirotech, Inc. do hereby certify that  
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples  
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results  
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of  
19.15.36 NMAC.

5. **Transporter:** ~~Nelson Revegetation~~, West States, HBL  
 **OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility \* Permit #: NM01-0011  
Address of Facility: Hill Top, NM  
Method of Treatment and/or Disposal:  
 Evaporation  Injection  Treating Plant  Landfarm  Landfill  Other

**Waste Acceptance Status:**  
 APPROVED  DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 9/10/18  
SIGNATURE: [Signature] TELEPHONE NO.: 505-632-0615  
Surface Waste Management Facility Authorized Agent

APPENDIX C  
Photographic Documentation

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**Photograph 1**

View of the flow path, facing south-west.

**Photograph 2**

View of the flow path, facing east.

**Photograph 3**

View of the overspray area, facing northeast.



**Photograph 4**

View of the final scraped/excavated flow path, facing southwest.



**Photograph 5**

View of the final scraped/excavated flow path, facing southwest.



**Photograph 6**

View of the final scraped/excavated flow path, facing northwest.



**Photograph 7**

View of the final scraped/excavated flow path, facing north.



## APPENDIX D

### Table

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Appendix E  
Laboratory Data Sheets  
& Chain of Custody Documentation

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 19, 2018

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: Val Verde Plant Water Amine

OrderNo.: 1806741

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 16 sample(s) on 6/13/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-1  
 Project: Val Verde Plant Water Amine Collection Date: 6/12/2018 9:30:00 AM  
 Lab ID: 1806741-001 Matrix: SOIL Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	48	9.4		mg/Kg	1	6/15/2018 1:26:22 PM	38686
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/15/2018 1:26:22 PM	38686
Surr: DNOP	87.8	70-130		%Rec	1	6/15/2018 1:26:22 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2018 12:48:37 AM	38670
Surr: BFB	84.6	15-316		%Rec	1	6/15/2018 12:48:37 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN **Client Sample ID:** S-2  
**Project:** Val Verde Plant Water Amine **Collection Date:** 6/12/2018 9:40:00 AM  
**Lab ID:** 1806741-002 **Matrix:** SOIL **Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	2400	97		mg/Kg	10	6/19/2018 2:09:02 AM	38686
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	6/19/2018 2:09:02 AM	38686
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 2:09:02 AM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/15/2018 1:11:58 AM	38670
Surr: BFB	85.6	15-316		%Rec	1	6/15/2018 1:11:58 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b> * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quantitative Limit S % Recovery outside of range due to dilution or matrix	B Analyte detected in the associated Method Blank E Value above quantitation range J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Detection Limit W Sample container temperature is out of limit as specified
---	--

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN **Client Sample ID:** S-3  
**Project:** Val Verde Plant Water Amine **Collection Date:** 6/12/2018 9:50:00 AM  
**Lab ID:** 1806741-003 **Matrix:** SOIL **Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	200	9.3		mg/Kg	1	6/15/2018 3:40:46 PM	38686
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/15/2018 3:40:46 PM	38686
Surr: DNOP	100	70-130		%Rec	1	6/15/2018 3:40:46 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/15/2018 1:35:12 AM	38670
Surr: BFB	85.3	15-316		%Rec	1	6/15/2018 1:35:12 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-4

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 10:00:00 AM

**Lab ID:** 1806741-004

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	3900	100		mg/Kg	10	6/19/2018 2:33:11 AM	38686
Motor Oil Range Organics (MRO)	ND	510		mg/Kg	10	6/19/2018 2:33:11 AM	38686
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 2:33:11 AM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/15/2018 1:58:25 AM	38670
Surr: BFB	84.8	15-316		%Rec	1	6/15/2018 1:58:25 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-5

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 10:10:00 AM

**Lab ID:** 1806741-005

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	840	9.6		mg/Kg	1	6/15/2018 4:29:25 PM	38686
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/15/2018 4:29:25 PM	38686
Surr: DNOP	105	70-130		%Rec	1	6/15/2018 4:29:25 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/15/2018 2:21:36 AM	38670
Surr: BFB	87.6	15-316		%Rec	1	6/15/2018 2:21:36 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-6

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 10:20:00 AM

**Lab ID:** 1806741-006

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	420	10		mg/Kg	1	6/15/2018 4:53:47 PM	38686
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/15/2018 4:53:47 PM	38686
Surr: DNOP	105	70-130		%Rec	1	6/15/2018 4:53:47 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/15/2018 2:44:52 AM	38670
Surr: BFB	85.7	15-316		%Rec	1	6/15/2018 2:44:52 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b> * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quantitative Limit S % Recovery outside of range due to dilution or matrix	B Analyte detected in the associated Method Blank E Value above quantitation range J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Detection Limit W Sample container temperature is out of limit as specified
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**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-7

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 10:30:00 AM

**Lab ID:** 1806741-007

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	82	9.5		mg/Kg	1	6/15/2018 5:18:02 PM	38686
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/15/2018 5:18:02 PM	38686
Surr: DNOP	103	70-130		%Rec	1	6/15/2018 5:18:02 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/15/2018 3:08:07 AM	38670
Surr: BFB	83.9	15-316		%Rec	1	6/15/2018 3:08:07 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

<b>CLIENT:</b> APEX TITAN	<b>Client Sample ID:</b> S-8
<b>Project:</b> Val Verde Plant Water Amine	<b>Collection Date:</b> 6/12/2018 10:40:00 AM
<b>Lab ID:</b> 1806741-008 <b>Matrix:</b> SOIL	<b>Received Date:</b> 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1400	92		mg/Kg	10	6/19/2018 2:57:25 AM	38686
Motor Oil Range Organics (MRO)	ND	460		mg/Kg	10	6/19/2018 2:57:25 AM	38686
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 2:57:25 AM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/15/2018 3:31:23 AM	38670
Surr: BFB	89.7	15-316		%Rec	1	6/15/2018 3:31:23 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quantitative Limit S % Recovery outside of range due to dilution or matrix	B Analyte detected in the associated Method Blank E Value above quantitation range J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Detection Limit W Sample container temperature is out of limit as specified
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**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-9

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 10:50:00 AM

**Lab ID:** 1806741-009

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	2700	91		mg/Kg	10	6/19/2018 3:21:42 AM	38686
Motor Oil Range Organics (MRO)	ND	460		mg/Kg	10	6/19/2018 3:21:42 AM	38686
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 3:21:42 AM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/15/2018 3:54:38 AM	38670
Surr: BFB	88.1	15-316		%Rec	1	6/15/2018 3:54:38 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

<b>CLIENT:</b> APEX TITAN	<b>Client Sample ID:</b> S-10
<b>Project:</b> Val Verde Plant Water Amine	<b>Collection Date:</b> 6/12/2018 11:00:00 AM
<b>Lab ID:</b> 1806741-010	<b>Matrix:</b> SOIL
	<b>Received Date:</b> 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	1600	93		mg/Kg	10	6/19/2018 3:46:02 AM	38686
Motor Oil Range Organics (MRO)	ND	470		mg/Kg	10	6/19/2018 3:46:02 AM	38686
Surr: DNOP	0	70-130	S	%Rec	10	6/19/2018 3:46:02 AM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/15/2018 4:17:54 AM	38670
Surr: BFB	86.7	15-316		%Rec	1	6/15/2018 4:17:54 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit PQL Practical Quantitative Limit S % Recovery outside of range due to dilution or matrix	B Analyte detected in the associated Method Blank E Value above quantitation range J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Detection Limit W Sample container temperature is out of limit as specified
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**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-11

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 11:10:00 AM

**Lab ID:** 1806741-011

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	550	9.0		mg/Kg	1	6/15/2018 6:55:27 PM	38686
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/15/2018 6:55:27 PM	38686
Surr: DNOP	107	70-130		%Rec	1	6/15/2018 6:55:27 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2018 4:41:11 AM	38670
Surr: BFB	85.7	15-316		%Rec	1	6/15/2018 4:41:11 AM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-12  
 Project: Val Verde Plant Water Amine Collection Date: 6/12/2018 11:20:00 AM  
 Lab ID: 1806741-012 Matrix: SOIL Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	310	9.7		mg/Kg	1	6/15/2018 7:19:55 PM	38686
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/15/2018 7:19:55 PM	38686
Surr: DNOP	104	70-130		%Rec	1	6/15/2018 7:19:55 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/15/2018 3:05:19 PM	38670
Surr: BFB	85.4	15-316		%Rec	1	6/15/2018 3:05:19 PM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-13

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 11:30:00 AM

**Lab ID:** 1806741-013

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	73	9.4		mg/Kg	1	6/15/2018 7:44:21 PM	38686
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/15/2018 7:44:21 PM	38686
Surr: DNOP	97.5	70-130		%Rec	1	6/15/2018 7:44:21 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/15/2018 3:29:01 PM	38670
Surr: BFB	83.7	15-316		%Rec	1	6/15/2018 3:29:01 PM	38670

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p><b>Qualifiers:</b></p> <ul style="list-style-type: none"> <li>* Value exceeds Maximum Contaminant Level.</li> <li>D Sample Diluted Due to Matrix</li> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>PQL Practical Quantitative Limit</li> <li>S % Recovery outside of range due to dilution or matrix</li> </ul>	<ul style="list-style-type: none"> <li>B Analyte detected in the associated Method Blank</li> <li>E Value above quantitation range</li> <li>J Analyte detected below quantitation limits</li> <li>P Sample pH Not In Range</li> <li>RL Reporting Detection Limit</li> <li>W Sample container temperature is out of limit as specified</li> </ul>
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**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-14

**Project:** Val Verde Plant Water Amine

**Collection Date:** 6/12/2018 11:40:00 AM

**Lab ID:** 1806741-014

**Matrix:** SOIL

**Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	110	9.8		mg/Kg	1	6/15/2018 8:08:47 PM	38686
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/15/2018 8:08:47 PM	38686
Surr: DNOP	100	70-130		%Rec	1	6/15/2018 8:08:47 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/15/2018 3:52:40 PM	38679
Surr: BFB	84.6	15-316		%Rec	1	6/15/2018 3:52:40 PM	38679

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-15  
 Project: Val Verde Plant Water Amine Collection Date: 6/12/2018 11:50:00 AM  
 Lab ID: 1806741-015 Matrix: SOIL Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	33	9.0		mg/Kg	1	6/15/2018 8:33:01 PM	38686
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/15/2018 8:33:01 PM	38686
Surr: DNOP	92.8	70-130		%Rec	1	6/15/2018 8:33:01 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/15/2018 4:16:18 PM	38679
Surr: BFB	82.8	15-316		%Rec	1	6/15/2018 4:16:18 PM	38679

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-16  
 Project: Val Verde Plant Water Amine Collection Date: 6/12/2018 12:00:00 PM  
 Lab ID: 1806741-016 Matrix: SOIL Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/15/2018 8:57:22 PM	38686
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/15/2018 8:57:22 PM	38686
Surr: DNOP	92.4	70-130		%Rec	1	6/15/2018 8:57:22 PM	38686
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/15/2018 4:40:01 PM	38679
Surr: BFB	81.6	15-316		%Rec	1	6/15/2018 4:40:01 PM	38679

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1806741

19-Jun-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant Water Amine

Sample ID	<b>LCS-38686</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>38686</b>	RunNo:	<b>52007</b>					
Prep Date:	<b>6/14/2018</b>	Analysis Date:	<b>6/15/2018</b>	SeqNo:	<b>1701226</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.2	70	130			
Surr: DNOP	4.8		5.000		97.0	70	130			

Sample ID	<b>MB-38686</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>38686</b>	RunNo:	<b>52007</b>					
Prep Date:	<b>6/14/2018</b>	Analysis Date:	<b>6/15/2018</b>	SeqNo:	<b>1701227</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		99.6	70	130			

Sample ID	<b>1806741-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>38686</b>	RunNo:	<b>52005</b>					
Prep Date:	<b>6/14/2018</b>	Analysis Date:	<b>6/15/2018</b>	SeqNo:	<b>1702174</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	76	9.2	46.17	47.89	60.6	62	120			S
Surr: DNOP	3.9		4.617		84.9	70	130			

Sample ID	<b>1806741-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>S-1</b>	Batch ID:	<b>38686</b>	RunNo:	<b>52005</b>					
Prep Date:	<b>6/14/2018</b>	Analysis Date:	<b>6/15/2018</b>	SeqNo:	<b>1702175</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	9.1	45.70	47.89	46.5	62	120	9.25	20	S
Surr: DNOP	3.7		4.570		80.6	70	130	0	0	

Sample ID	<b>LCS-38703</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>38703</b>	RunNo:	<b>52042</b>					
Prep Date:	<b>6/15/2018</b>	Analysis Date:	<b>6/18/2018</b>	SeqNo:	<b>1702796</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		101	70	130			

Sample ID	<b>MB-38703</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>38703</b>	RunNo:	<b>52042</b>					
Prep Date:	<b>6/15/2018</b>	Analysis Date:	<b>6/18/2018</b>	SeqNo:	<b>1702797</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1806741

19-Jun-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant Water Amine

Sample ID	<b>MB-38703</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>38703</b>	RunNo:	<b>52042</b>					
Prep Date:	<b>6/15/2018</b>	Analysis Date:	<b>6/18/2018</b>	SeqNo:	<b>1702797</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		120	70	130			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1806741

19-Jun-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant Water Amine

Sample ID <b>MB-38670</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>38670</b>	RunNo: <b>51984</b>								
Prep Date: <b>6/13/2018</b>	Analysis Date: <b>6/14/2018</b>	SeqNo: <b>1700038</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	800		1000		80.3	15	316			

Sample ID <b>LCS-38670</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>38670</b>	RunNo: <b>51984</b>								
Prep Date: <b>6/13/2018</b>	Analysis Date: <b>6/14/2018</b>	SeqNo: <b>1700039</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	75.9	131			
Surr: BFB	1000		1000		99.9	15	316			

Sample ID <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>G52014</b>	RunNo: <b>52014</b>								
Prep Date:	Analysis Date: <b>6/15/2018</b>	SeqNo: <b>1701576</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	830		1000		82.8	15	316			

Sample ID <b>2.5UG GRO LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>G52014</b>	RunNo: <b>52014</b>								
Prep Date:	Analysis Date: <b>6/15/2018</b>	SeqNo: <b>1701577</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.4	15	316			

Sample ID <b>MB-38679</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>38679</b>	RunNo: <b>52014</b>								
Prep Date: <b>6/14/2018</b>	Analysis Date: <b>6/15/2018</b>	SeqNo: <b>1701592</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	810		1000		80.8	15	316			

Sample ID <b>LCS-38679</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>38679</b>	RunNo: <b>52014</b>								
Prep Date: <b>6/14/2018</b>	Analysis Date: <b>6/15/2018</b>	SeqNo: <b>1701593</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	75.9	131			
Surr: BFB	1000		1000		100	15	316			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Sample Log-In Check List**

Client Name: APEX AZTEC

Work Order Number: 1806741

RcptNo: 1

Received By: Anne Thorne 6/13/2018 7:00:00 AM

*Anne Thorne*

Completed By: Anne Thorne 6/13/2018 8:14:47 AM

*Anne Thorne*

Reviewed By: ENM  
 Lb: SB 06/13/18

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Courier

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA   
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 5. Sample(s) in proper container(s)? Yes  No   
 6. Sufficient sample volume for indicated test(s)? Yes  No   
 7. Are samples (except VOA and ONG) properly preserved? Yes  No   
 8. Was preservative added to bottles? Yes  No  NA   
 9. VOA vials have zero headspace? Yes  No  No VOA Vials   
 10. Were any sample containers received broken? Yes  No   
 11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 12. Are matrices correctly identified on Chain of Custody? Yes  No   
 13. Is it clear what analyses were requested? Yes  No   
 14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: *SB*

*SB 06/13/18*

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

CUSTODY SEALS INTACT ON SOIL JARS/at 6/13/18

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

CHAIN OF CUSTODY RECORD

 <b>APEX</b>		Hall Environmental Laboratory: <u>Analysis Laboratory</u>		ANALYSIS REQUESTED (Diagonal lines)										Lab use only Due Date:			
		Office Location <u>606 S Rio Grande, Suite A</u> <u>Aztec, NM 87410</u>												Address: <u>4901 Hawkins NE</u> <u>Albuquerque, NM 87109</u>		Contact: <u>A Freeman</u>	
Project Manager <u>K Summers</u>		PO/SO #: <u>See notes</u>		TPH 600/1200/MRO 5015										Page <u>1</u> of <u>2</u>			
Sampler's Name: <u>Ranee Deechilly</u>														Sampler's Signature: <u>[Signature]</u>			
Proj. No.: <u>72504011242</u>		Project Name: <u>Val Verde Plant - Water Amine</u>				No/Type of Containers											
Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)				
S	6/12/18	930	X		S-1							X	1806741-001				
S	6/12/18	940	X		S-2							X	202				
S	6/12/18	950	X		S-3							X	203				
S	6/12/18	1000	X		S-4							X	204				
S	6/12/18	1010	X		S-5							X	205				
S	6/12/18	1020	X		S-6							X	206				
S	6/12/18	1030	X		S-7							X	207				
S	6/12/18	1040	X		S-8							X	208				
S	6/12/18	1050	X		S-9							X	209				
S	6/12/18	1100	X		S-10							X	210				
Turn around time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush																	
Relinquished by (Signature): <u>[Signature]</u>			Date: <u>6/12/18</u> Time: <u>1447</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>6/12/18</u> Time: <u>1447</u>		NOTES: PM - Tom Long Pay key - TC 25719 Non APE - N34996							
Relinquished by (Signature): <u>[Signature]</u>			Date: <u>6/12/18</u> Time: <u>1854</u>		Received by (Signature): <u>[Signature]</u>			Date: <u>6/13/18</u> Time: <u>0700</u>									
Relinquished by (Signature):			Date:		Received by (Signature):			Date:									
Relinquished by (Signature):			Date:		Received by (Signature):			Date:									

Matrix Container    WW - Wastewater    W - Water    S - Soil    SD - Solid    L - Liquid    A - Air Bag    C - Charcoal tube    SL - sludge    O - Oil  
 VOA - 40 ml vial    A/G - Amber / Or Glass 1 Liter    250 ml - Glass wide mouth    P/O - Plastic or other

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location 606 S Rio Grande, Suite A Aztec, NM 87410 Project Manager <u>R. Summers</u>		Hall Environmental Laboratory: <u>Analysis Laboratory</u> Address: <u>4901 Hawkins NE</u> <u>Albuquerque, NM 87109</u> Contact: <u>A. Freeman</u> Phone: <u>505-345-3975</u> PO/SO #: <u>See notes</u>		ANALYSIS REQUESTED  TITAN 606 S RIO GRANDE/MPD SOILS		Lab use only Due Date:  2.3-11-18 = 13 Temp. of coolers when received (C°): 1   2   3   4   5 Page <u>R</u> of <u>2</u>							
		Sampler's Name: <u>Ranee Deechilly</u> Sampler's Signature: <u>[Signature]</u>											
Proj. No. <u>725040112442</u>		Project Name: <u>Val Verde Plant - Water/Amine</u>		No/Type of Containers									
Matrix	Date	Time	Cold	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	6/12/18	1110	X		S-11							X	1806741011
S	6/12/18	1120	X		S-12							X	012
S	6/12/18	1130	X		S-13							X	013
S	6/12/18	1140	X		S-14							X	014
S	6/12/18	1150	X		S-15							X	015
S	6/12/18	1200	X		S-16							X	016
[Large diagonal line with 'NPS' handwritten in the middle]													
Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush													
Relinquished by (Signature): <u>[Signature]</u>		Date: <u>6/12/18</u> Time: <u>1447</u>		Received by (Signature): <u>[Signature]</u>		Date: <u>6/12/18</u> Time: <u>1447</u>		NOTES: PM - Tom Long Pay Key - # C 25719 Non APE - N34996					
Relinquished by (Signature): <u>[Signature]</u>		Date: <u>6/12/18</u> Time: <u>1854</u>		Received by (Signature): <u>[Signature]</u>		Date: <u>06/13/18</u> Time: <u>0700</u>							
Relinquished by (Signature):		Date:   Time:		Received by (Signature):		Date:   Time:							
Relinquished by (Signature):		Date:   Time:		Received by (Signature):		Date:   Time:							

Matrix Container  
 WW - Wastewater  
 W - Water  
 S - Soil  
 SD - Solid  
 L - Liquid  
 A - Air Bag  
 C - Charcoal tube  
 SL - sludge  
 O - Oil  
 VOA - 40 ml vial  
 A/G - Amber / Or Glass 1 Liter  
 250 ml - Glass wide mouth  
 P/O - Plastic or other



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

July 17, 2018

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: Val Verde Plant Water/Amine

OrderNo.: 1807337

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 7/10/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-17

**Project:** Val Verde Plant Water/Amine

**Collection Date:** 7/9/2018 9:15:00 AM

**Lab ID:** 1807337-001

**Matrix:** SOIL

**Received Date:** 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/11/2018 2:40:50 PM	39125
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/11/2018 2:40:50 PM	39125
Surr: DNOP	92.1	70-130		%Rec	1	7/11/2018 2:40:50 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/11/2018 1:03:04 PM	39120
Surr: BFB	94.4	15-316		%Rec	1	7/11/2018 1:03:04 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-18

**Project:** Val Verde Plant Water/Amine

**Collection Date:** 7/9/2018 9:20:00 AM

**Lab ID:** 1807337-002

**Matrix:** SOIL

**Received Date:** 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	140	10		mg/Kg	1	7/11/2018 3:05:38 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 3:05:38 PM	39125
Surr: DNOP	105	70-130		%Rec	1	7/11/2018 3:05:38 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/11/2018 1:26:38 PM	39120
Surr: BFB	93.2	15-316		%Rec	1	7/11/2018 1:26:38 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-19  
 Project: Val Verde Plant Water/Amine Collection Date: 7/9/2018 9:25:00 AM  
 Lab ID: 1807337-003 Matrix: SOIL Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2018 3:55:15 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 3:55:15 PM	39125
Surr: DNOP	97.2	70-130		%Rec	1	7/11/2018 3:55:15 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/11/2018 1:50:10 PM	39120
Surr: BFB	96.2	15-316		%Rec	1	7/11/2018 1:50:10 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-20

**Project:** Val Verde Plant Water/Amine

**Collection Date:** 7/9/2018 9:30:00 AM

**Lab ID:** 1807337-004

**Matrix:** SOIL

**Received Date:** 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	44	9.9		mg/Kg	1	7/11/2018 4:20:06 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 4:20:06 PM	39125
Surr: DNOP	94.0	70-130		%Rec	1	7/11/2018 4:20:06 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/11/2018 2:13:45 PM	39120
Surr: BFB	102	15-316		%Rec	1	7/11/2018 2:13:45 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-21

**Project:** Val Verde Plant Water/Amine

**Collection Date:** 7/9/2018 9:35:00 AM

**Lab ID:** 1807337-005

**Matrix:** SOIL

**Received Date:** 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>Irm</b>
Diesel Range Organics (DRO)	100	10		mg/Kg	1	7/11/2018 4:45:00 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 4:45:00 PM	39125
Surr: DNOP	97.6	70-130		%Rec	1	7/11/2018 4:45:00 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/11/2018 2:37:23 PM	39120
Surr: BFB	102	15-316		%Rec	1	7/11/2018 2:37:23 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN **Client Sample ID:** S-22  
**Project:** Val Verde Plant Water/Amine **Collection Date:** 7/9/2018 9:40:00 AM  
**Lab ID:** 1807337-006 **Matrix:** SOIL **Received Date:** 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	810	10		mg/Kg	1	7/11/2018 5:09:51 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 5:09:51 PM	39125
Surr: DNOP	107	70-130		%Rec	1	7/11/2018 5:09:51 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/11/2018 3:00:58 PM	39120
Surr: BFB	106	15-316		%Rec	1	7/11/2018 3:00:58 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-23  
 Project: Val Verde Plant Water/Amine Collection Date: 7/9/2018 9:45:00 AM  
 Lab ID: 1807337-007 Matrix: SOIL Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	530	10		mg/Kg	1	7/11/2018 5:34:34 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/11/2018 5:34:34 PM	39125
Surr: DNOP	105	70-130		%Rec	1	7/11/2018 5:34:34 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/11/2018 3:24:29 PM	39120
Surr: BFB	103	15-316		%Rec	1	7/11/2018 3:24:29 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-24  
 Project: Val Verde Plant Water/Amine Collection Date: 7/9/2018 9:50:00 AM  
 Lab ID: 1807337-008 Matrix: SOIL Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	170	10		mg/Kg	1	7/14/2018 3:33:05 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/14/2018 3:33:05 PM	39125
Surr: DNOP	104	70-130		%Rec	1	7/14/2018 3:33:05 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/11/2018 3:48:05 PM	39120
Surr: BFB	98.1	15-316		%Rec	1	7/11/2018 3:48:05 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-25  
 Project: Val Verde Plant Water/Amine Collection Date: 7/9/2018 9:55:00 AM  
 Lab ID: 1807337-009 Matrix: SOIL Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/14/2018 3:55:24 PM	39125
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/14/2018 3:55:24 PM	39125
Surr: DNOP	104	70-130		%Rec	1	7/14/2018 3:55:24 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/11/2018 7:19:25 PM	39120
Surr: BFB	93.4	15-316		%Rec	1	7/11/2018 7:19:25 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1807337

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-26

Project: Val Verde Plant Water/Amine

Collection Date: 7/9/2018 10:00:00 AM

Lab ID: 1807337-010

Matrix: SOIL

Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	150	10		mg/Kg	1	7/14/2018 4:17:41 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/14/2018 4:17:41 PM	39125
Surr: DNOP	115	70-130		%Rec	1	7/14/2018 4:17:41 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/11/2018 7:42:47 PM	39120
Surr: BFB	92.1	15-316		%Rec	1	7/11/2018 7:42:47 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-27  
 Project: Val Verde Plant Water/Amine Collection Date: 7/9/2018 10:05:00 AM  
 Lab ID: 1807337-011 Matrix: SOIL Received Date: 7/10/2018 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	36	9.9		mg/Kg	1	7/14/2018 4:39:56 PM	39125
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/14/2018 4:39:56 PM	39125
Surr: DNOP	109	70-130		%Rec	1	7/14/2018 4:39:56 PM	39125
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/11/2018 8:06:07 PM	39120
Surr: BFB	93.2	15-316		%Rec	1	7/11/2018 8:06:07 PM	39120

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807337

17-Jul-18

Client: APEX TITAN  
Project: Val Verde Plant Water/Amine

Sample ID	MB-39125	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	39125	RunNo:	52618					
Prep Date:	7/10/2018	Analysis Date:	7/11/2018	SeqNo:	1726901	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.0	70	130			

Sample ID	LCS-39125	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	39125	RunNo:	52618					
Prep Date:	7/10/2018	Analysis Date:	7/11/2018	SeqNo:	1726902	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	70	130			
Surr: DNOP	4.1		5.000		82.3	70	130			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1807337  
17-Jul-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant Water/Amine

Sample ID: <b>MB-39120</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>39120</b>	RunNo: <b>52630</b>								
Prep Date: <b>7/10/2018</b>	Analysis Date: <b>7/11/2018</b>	SeqNo: <b>1727168</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		93.5	15	316			

Sample ID: <b>LCS-39120</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>39120</b>	RunNo: <b>52630</b>								
Prep Date: <b>7/10/2018</b>	Analysis Date: <b>7/11/2018</b>	SeqNo: <b>1727169</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.7	75.9	131			
Surr: BFB	1000		1000		105	15	316			

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                            |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits                |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                                    |
| PQL Practical Quantitative Limit                        | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1807337

RcptNo: 1

Received By: **Isaiah Ortiz** 7/10/2018 7:25:00 AM

~~IO~~

Completed By: **Isaiah Ortiz** 7/10/2018 7:41:55 AM

~~IO~~

Reviewed By: **IO** 7/10/18  
 LB: ENM 7/10/18

**Chain of Custody**

- 1. Is Chain of Custody complete? Yes  No  Not Present
- 2. How was the sample delivered? Courier

**Log In**

- 3. Was an attempt made to cool the samples? Yes  No  NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 5. Sample(s) in proper container(s)? Yes  No
- 6. Sufficient sample volume for indicated test(s)? Yes  No
- 7. Are samples (except VOA and ONG) properly preserved? Yes  No
- 8. Was preservative added to bottles? Yes  No  NA
- 9. VOA vials have zero headspace? Yes  No  No VOA Vials
- 10. Were any sample containers received broken? Yes  No
- 11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody? Yes  No
- 13. Is it clear what analyses were requested? Yes  No
- 14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: ENM 7/10/18  
 (<26 >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

- 15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Yes			

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location 606 S Rio Grande Suite A Aztec, NM 8740		Laboratory: <u>Hall Environmental Analysis Laboratory</u> Address: <u>4901 Hawkins NE</u> <u>Albuquerque, NM 87109</u> Contact: <u>A. Freeman</u> Phone: <u>505-345-3975</u> PO/SO #: <u>See notes</u>		ANALYSIS REQUESTED TPT (P/P/D/P/M/P/S)										Lab use only Due Date:																																																																																																																																																																			
		Project Manager: <u>K. Sumner</u>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="5">Temp. of coolers when received (C°): <u>0.3</u></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> <tr> <td colspan="5">Page <u>1</u> of <u>2</u></td> </tr> </table>										Temp. of coolers when received (C°): <u>0.3</u>					1	2	3	4	5	Page <u>1</u> of <u>2</u>																																																																																																																																																									
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Sampler's Name: <u>Ranee Deechilly CD Aperti</u> Sampler's Signature: <u>[Signature]</u>		Project No.: <u>72504011242</u> Project Name: <u>Val Verde Plant - Water/Amine</u> No/Type of Containers:		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Matrix</th> <th>Date</th> <th>Time</th> <th>Comp</th> <th>Grab</th> <th>Identifying Marks of Sample(s)</th> <th>Start Depth</th> <th>End Depth</th> <th>VOA</th> <th>AG 1L</th> <th>250 ml</th> <th>Glass Jar</th> <th>P/O</th> <th>Lab Sample ID (Lab Use Only)</th> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>915</td> <td>X</td> <td></td> <td>S-17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>1807337 -001</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>920</td> <td>X</td> <td></td> <td>S-18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-002</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>925</td> <td>X</td> <td></td> <td>S-19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-003</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>930</td> <td>X</td> <td></td> <td>S-20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-004</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>935</td> <td>X</td> <td></td> <td>S-21</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-005</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>940</td> <td>X</td> <td></td> <td>S-22</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-006</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>945</td> <td>X</td> <td></td> <td>S-23</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-007</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>950</td> <td>X</td> <td></td> <td>S-24</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-008</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>955</td> <td>X</td> <td></td> <td>S-25</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-009</td> </tr> <tr> <td>S</td> <td>7/9/18</td> <td>1000</td> <td>X</td> <td></td> <td>S-26</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>-010</td> </tr> </table>										Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)	S	7/9/18	915	X		S-17								X	1807337 -001	S	7/9/18	920	X		S-18								X	-002	S	7/9/18	925	X		S-19								X	-003	S	7/9/18	930	X		S-20								X	-004	S	7/9/18	935	X		S-21								X	-005	S	7/9/18	940	X		S-22								X	-006	S	7/9/18	945	X		S-23								X	-007	S	7/9/18	950	X		S-24								X	-008	S	7/9/18	955	X		S-25								X	-009	S	7/9/18	1000	X		S-26								X	-010
Matrix	Date	Time	Comp											Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)																																																																																																																																																										
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Turn around time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush		Relinquished by (Signature): <u>[Signature]</u> Date: <u>7/9/18</u> Time: <u>1322</u> Relinquished by (Signature): <u>[Signature]</u> Date: <u>7/9/18</u> Time: <u>1814</u> Relinquished by (Signature): _____ Date: _____ Time: _____ Relinquished by (Signature): _____ Date: _____ Time: _____		Received by (Signature): <u>[Signature]</u> Date: <u>7/9/18</u> Time: <u>1322</u> Received by (Signature): <u>[Signature]</u> Date: <u>7/10/19</u> Time: <u>07:25</u> Received by (Signature): _____ Date: _____ Time: _____ Received by (Signature): _____ Date: _____ Time: _____		NOTES: PM - Tom Long Pay Key - TC25719 NNAFEN 349916																																																																																																																																																																											

Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, A/G - Amber / Or Glass 1 Liter, S - Soil, SD - Solid, L - Liquid, A - Air Bag, 250 ml - Glass wide mouth, C - Charcoal tube, SL - sludge, O - Oil, P/O - Plastic or other

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location 606 S Rio Grande, Suite A Aztec, NM 87410 Project Manager <u>K Summers</u>		Laboratory: <u>Hall Environmental Analysis Laboratory</u> Address: <u>4901 Hawkins NE</u> <u>Albuquerque, NM 87109</u> Contact: <u>A. Freeman</u> Phone: <u>505-345-2975</u> PO/SO #: <u>See notes</u>		ANALYSIS REQUESTED <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">TPH, GPD, PDA, MPO, SO<sub>4</sub>S</div>		Lab use only Due Date: _____  Temp. of coolers when received (C°): <u>0.3</u> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> Page <u>2</u> of <u>2</u>							
		Sampler's Name: <u>Rancee Decchilly</u> ID: <u>Apont</u> Sampler's Signature: <u>[Signature]</u>											
Proj. No.: <u>725040112442</u>		Project Name: <u>Nal Verde Plant - Water / Amine</u>		No/Type of Containers: _____									
Matrix	Date	Time	COED	G	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	7/9/18	1005	X		S-27								X 1807337 - 0011 IO 7/10/18
<div style="font-size: 2em; opacity: 0.5; transform: rotate(-30deg); pointer-events: none;">NO'S</div>													
Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush													
Relinquished by (Signature): <u>[Signature]</u>		Date: <u>7/9/18</u>	Time: <u>1322</u>	Received by (Signature): <u>[Signature]</u>		Date: <u>7/9/18</u>	Time: <u>1322</u>	NOTES: PM - Tom Long Pay Key - TC25719 Non APE - N34996					
Relinquished by (Signature): <u>[Signature]</u>		Date: <u>7/9/18</u>	Time: <u>1810</u>	Received by (Signature): <u>[Signature]</u>		Date: <u>7/10/18</u>	Time: <u>07:25</u>						
Relinquished by (Signature): _____		Date: _____	Time: _____	Received by (Signature): _____		Date: _____	Time: _____						
Relinquished by (Signature): _____		Date: _____	Time: _____	Received by (Signature): _____		Date: _____	Time: _____						

Matrix Container: WW - Wastewater, VOA - 40 ml vial  
 W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - sludge, O - Oil  
 A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 13, 2018

Kyle Summers

Apex Titan, Inc.

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (214) 350-5469

FAX (214) 350-2914

RE: Val Verde Plant - Water Amine

OrderNo.: 1808317

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/4/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

<b>CLIENT:</b> Apex Titan, Inc.	<b>Client Sample ID:</b> S-28
<b>Project:</b> Val Verde Plant - Water Amine	<b>Collection Date:</b> 8/3/2018 9:30:00 AM
<b>Lab ID:</b> 1808317-001 <b>Matrix:</b> SOIL	<b>Received Date:</b> 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/10/2018 5:49:29 AM	39659
Surr: BFB	116	70-130		%Rec	1	8/10/2018 5:49:29 AM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	29	9.8		mg/Kg	1	8/10/2018 2:18:26 AM	39660
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/10/2018 2:18:26 AM	39660
Surr: DNOP	86.2	50.6-138		%Rec	1	8/10/2018 2:18:26 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	<ul style="list-style-type: none"> <li>* Value exceeds Maximum Contaminant Level.</li> <li>D Sample Diluted Due to Matrix</li> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>PQL Practical Quantitative Limit</li> <li>S % Recovery outside of range due to dilution or matrix</li> </ul>	<ul style="list-style-type: none"> <li>B Analyte detected in the associated Method Blank</li> <li>E Value above quantitation range</li> <li>J Analyte detected below quantitation limits</li> <li>P Sample pH Not In Range</li> <li>RL Reporting Detection Limit</li> <li>W Sample container temperature is out of limit as specified</li> </ul>	Page 1 of 8
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Apex Titan, Inc.

Client Sample ID: S-29

Project: Val Verde Plant - Water Amine

Collection Date: 8/3/2018 9:35:00 AM

Lab ID: 1808317-002

Matrix: SOIL

Received Date: 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/10/2018 6:12:41 AM	39659
Surr: BFB	114	70-130		%Rec	1	8/10/2018 6:12:41 AM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	220	9.7		mg/Kg	1	8/10/2018 2:43:07 AM	39660
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/10/2018 2:43:07 AM	39660
Surr: DNOP	90.4	50.6-138		%Rec	1	8/10/2018 2:43:07 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Apex Titan, Inc.

**Client Sample ID:** S-30

**Project:** Val Verde Plant - Water Amine

**Collection Date:** 8/3/2018 9:40:00 AM

**Lab ID:** 1808317-003

**Matrix:** SOIL

**Received Date:** 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/10/2018 11:11:23 PM	39659
Surr: BFB	115	70-130		%Rec	1	8/10/2018 11:11:23 PM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	180	9.8		mg/Kg	1	8/11/2018 2:36:01 AM	39660
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/11/2018 2:36:01 AM	39660
Surr: DNOP	102	50.6-138		%Rec	1	8/11/2018 2:36:01 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Apex Titan, Inc. **Client Sample ID:** S-31  
**Project:** Val Verde Plant - Water Amine **Collection Date:** 8/3/2018 9:45:00 AM  
**Lab ID:** 1808317-004 **Matrix:** SOIL **Received Date:** 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/10/2018 11:34:33 PM	39659
Surr: BFB	115	70-130		%Rec	1	8/10/2018 11:34:33 PM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/10/2018 3:32:36 AM	39660
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/10/2018 3:32:36 AM	39660
Surr: DNOP	85.3	50.6-138		%Rec	1	8/10/2018 3:32:36 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

<b>CLIENT:</b> Apex Titan, Inc.	<b>Client Sample ID:</b> S-32
<b>Project:</b> Val Verde Plant - Water Amine	<b>Collection Date:</b> 8/3/2018 9:50:00 AM
<b>Lab ID:</b> 1808317-005 <b>Matrix:</b> SOIL	<b>Received Date:</b> 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/10/2018 11:57:28 PM	39659
Surr: BFB	114	70-130		%Rec	1	8/10/2018 11:57:28 PM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>lrm</b>
Diesel Range Organics (DRO)	23	10		mg/Kg	1	8/10/2018 3:57:22 AM	39660
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/10/2018 3:57:22 AM	39660
Surr: DNOP	87.0	50.6-138		%Rec	1	8/10/2018 3:57:22 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	<ul style="list-style-type: none"> <li>* Value exceeds Maximum Contaminant Level.</li> <li>D Sample Diluted Due to Matrix</li> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>PQL Practical Quantitative Limit</li> <li>S % Recovery outside of range due to dilution or matrix</li> </ul>	<ul style="list-style-type: none"> <li>B Analyte detected in the associated Method Blank</li> <li>E Value above quantitation range</li> <li>J Analyte detected below quantitation limits</li> <li>P Sample pH Not In Range</li> <li>RL Reporting Detection Limit</li> <li>W Sample container temperature is out of limit as specified</li> </ul>	Page 5 of 8
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**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Apex Titan, Inc.

**Client Sample ID:** S-33

**Project:** Val Verde Plant - Water Amine

**Collection Date:** 8/3/2018 9:55:00 AM

**Lab ID:** 1808317-006

**Matrix:** SOIL

**Received Date:** 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>AG</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/11/2018 12:20:37 AM	39659
Surr: BFB	112	70-130		%Rec	1	8/11/2018 12:20:37 AM	39659
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	29	9.6		mg/Kg	1	8/10/2018 4:22:02 AM	39660
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/10/2018 4:22:02 AM	39660
Surr: DNOP	82.3	50.6-138		%Rec	1	8/10/2018 4:22:02 AM	39660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1808317

13-Aug-18

**Client:** Apex Titan, Inc.  
**Project:** Val Verde Plant - Water Amine

Sample ID: <b>MB-39660</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>39660</b>	RunNo: <b>53282</b>								
Prep Date: <b>8/8/2018</b>	Analysis Date: <b>8/9/2018</b>	SeqNo: <b>1756836</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.8	50.6	138			

Sample ID: <b>LCS-39660</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>39660</b>	RunNo: <b>53282</b>								
Prep Date: <b>8/8/2018</b>	Analysis Date: <b>8/10/2018</b>	SeqNo: <b>1756837</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	47	10	50.00	0	94.4	70	130			
Surr: DNOP	4.1		5.000		81.3	50.6	138			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1808317

13-Aug-18

**Client:** Apex Titan, Inc.  
**Project:** Val Verde Plant - Water Amine

Sample ID: <b>ics-39659</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>39659</b>	RunNo: <b>53327</b>								
Prep Date: <b>8/8/2018</b>	Analysis Date: <b>8/10/2018</b>	SeqNo: <b>1756042</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	540		500.0		108	70	130			

Sample ID: <b>mb-39659</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>39659</b>	RunNo: <b>53327</b>								
Prep Date: <b>8/8/2018</b>	Analysis Date: <b>8/10/2018</b>	SeqNo: <b>1756043</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	580		500.0		115	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: APEX Titan

Work Order Number: 1808317

RcptNo: 1

Received By: Erin Melendrez

8/4/2018 10:15:00 AM

Completed By: Ashley Gallegos

8/7/2018 10:01:54 AM

Reviewed By: *DF 8/7/2018*

*UAG*  
*ASG*  
 Labeled by: JAS 08/07/18

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Courier

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA   
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 5. Sample(s) in proper container(s)? Yes  No   
 6. Sufficient sample volume for indicated test(s)? Yes  No   
 7. Are samples (except VOA and ONG) properly preserved? Yes  No   
 8. Was preservative added to bottles? Yes  No  NA   
 9. VOA vials have zero headspace? Yes  No  No VOA Vials   
 10. Were any sample containers received broken? Yes  No   
 11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 12. Are matrices correctly identified on Chain of Custody? Yes  No   
 13. Is it clear what analyses were requested? Yes  No   
 14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: JAS 08/07/18

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Yes			
2	4.4	Good	Yes			
3	1.1	Good	Yes			
4	0.8	Good	Yes			

CHAIN OF CUSTODY RECORD

**APEX**  
 Office Location  
 606 S Rio Grande, Suite A  
 Aztec, NM 87410  
 Project Manager K. Summers

Hall Environmental  
 Laboratory: Analysis Laboratory  
 Address: 4901 Hawkins NE  
Albuquerque, NM 87109  
 Contact: A. Freeman  
 Phone: 505-345-3475  
 PO/ISO #: See notes

ANALYSIS REQUESTED

TPH GRO/DRO/MPRO SOILS

Lab use only  
 Due Date:  
 Temp. of coolers when received (C°):  
 1 2 3 4 5

Page 1 of 1  
 Cooler 1: 4.9-0.3 (CF)=1.4  
 Cooler 2: 4.7-0.3 (CF)=4.4  
 Cooler 3: 1.4-0.3 (CF)=1.1  
 Cooler 4: 1.1-0.3 (CF)=0.8  
 ENM 8/4/18

Sampler's Name: Ranee Deechilly  
 Sampler's Signature: R. Deechilly

Proj. No. 725040112442  
 Project Name Val Verde Plant - Water/Amine  
 No/Type of Containers

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/3/18	930	X		S-28						1	X	1808317-001
S	8/3/18	935	X		S-29						1	X	-002
S	8/3/18	940	X		S-30						1	X	-003
S	8/3/18	945	X		S-31						1	X	-004
S	8/3/18	950	X		S-32						1	X	-005
S	8/3/18	955	X		S-33						1	X	-006
<del>NFS</del>													

Turn around time  Normal  25% Rush  50% Rush  100% Rush

Relinquished by (Signature): <u>R. Deechilly</u>	Date: <u>8/3/18</u>	Time: <u>1343</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>8/3/18</u>	Time: <u>1343</u>
Relinquished by (Signature): <u>[Signature]</u>	Date: <u>8/3/18</u>	Time: <u>1810</u>	Received by (Signature): <u>[Signature]</u>	Date: <u>8/4/18</u>	Time: <u>1015</u>
Relinquished by (Signature):	Date:	Time:	Received by (Signature):	Date:	Time:
Relinquished by (Signature):	Date:	Time:	Received by (Signature):	Date:	Time:

NOTES:  
 PM - Tom Long  
 Pay Kay - TC 25719  
 Non APE - N34996

Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - sludge, O - Oil, A/G - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other



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TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 11, 2018

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: Val Verde Plant - Water/Amine

OrderNo.: 1808174

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/30/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

**Analytical Report**  
 Lab Order **1808174**  
 Date Reported: **9/11/2018**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-34

**Project:** Val Verde Plant - Water/Amine

**Collection Date:** 8/29/2018 10:15:00 AM

**Lab ID:** 1808174-001

**Matrix:** SOIL

**Received Date:** 8/30/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	29	9.7		mg/Kg	1	9/6/2018 2:19:19 AM	40136
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 2:19:19 AM	40136
Surr: DNOP	111	50.6-138		%Rec	1	9/6/2018 2:19:19 AM	40136
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2018 2:38:07 PM	40113
Surr: BFB	96.4	15-316		%Rec	1	9/5/2018 2:38:07 PM	40113

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** S-35

**Project:** Val Verde Plant - Water/Amine

**Collection Date:** 8/29/2018 10:20:00 AM

**Lab ID:** 1808174-002

**Matrix:** SOIL

**Received Date:** 8/30/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>irm</b>
Diesel Range Organics (DRO)	27	9.9		mg/Kg	1	9/6/2018 3:25:12 AM	40136
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2018 3:25:12 AM	40136
Surr: DNOP	113	50.6-138		%Rec	1	9/6/2018 3:25:12 AM	40136
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2018 3:48:22 PM	40113
Surr: BFB	93.9	15-316		%Rec	1	9/5/2018 3:48:22 PM	40113

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1808174

11-Sep-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant - Water/Amine

Sample ID	<b>MB-40111</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>40111</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/5/2018</b>	SeqNo:	<b>1780862</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		110	50.6	138			

Sample ID	<b>LCS-40111</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>40111</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/5/2018</b>	SeqNo:	<b>1780884</b>	Units:	<b>%Rec</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		113	50.6	138			

Sample ID	<b>MB-40136</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>40136</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/6/2018</b>	SeqNo:	<b>1780995</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	50.6	138			

Sample ID	<b>LCS-40136</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>40136</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/6/2018</b>	SeqNo:	<b>1780996</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	70	130			
Surr: DNOP	5.3		5.000		106	50.6	138			

Sample ID	<b>1808174-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>S-34</b>	Batch ID:	<b>40136</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/6/2018</b>	SeqNo:	<b>1781598</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	88	10	49.75	28.54	119	53.5	126			
Surr: DNOP	5.5		4.975		110	50.6	138			

Sample ID	<b>1808174-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>S-34</b>	Batch ID:	<b>40136</b>	RunNo:	<b>53915</b>					
Prep Date:	<b>9/4/2018</b>	Analysis Date:	<b>9/6/2018</b>	SeqNo:	<b>1781599</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	9.8	48.97	28.54	146	53.5	126	13.3	21.7	S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1808174

11-Sep-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant - Water/Amine

Sample ID: <b>1808174-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S-34</b>	Batch ID: <b>40136</b>	RunNo: <b>53915</b>								
Prep Date: <b>9/4/2018</b>	Analysis Date: <b>9/6/2018</b>	SeqNo: <b>1781599</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		4.897		112	50.6	138	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1808174

11-Sep-18

**Client:** APEX TITAN  
**Project:** Val Verde Plant - Water/Amine

Sample ID <b>MB-40113</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>40113</b>	RunNo: <b>53917</b>								
Prep Date: <b>9/4/2018</b>	Analysis Date: <b>9/5/2018</b>	SeqNo: <b>1780256</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.7	15	316			

Sample ID <b>LCS-40113</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>40113</b>	RunNo: <b>53917</b>								
Prep Date: <b>9/4/2018</b>	Analysis Date: <b>9/5/2018</b>	SeqNo: <b>1780257</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	75.9	131			
Surr: BFB	1000		1000		104	15	316			

Sample ID <b>1808174-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S-34</b>	Batch ID: <b>40113</b>	RunNo: <b>53917</b>								
Prep Date: <b>9/4/2018</b>	Analysis Date: <b>9/5/2018</b>	SeqNo: <b>1780259</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.83	0	108	77.8	128			
Surr: BFB	1100		993.0		107	15	316			

Sample ID <b>1808174-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S-34</b>	Batch ID: <b>40113</b>	RunNo: <b>53917</b>								
Prep Date: <b>9/4/2018</b>	Analysis Date: <b>9/5/2018</b>	SeqNo: <b>1780260</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	23.79	0	109	77.8	128	2.95	20	
Surr: BFB	1000		951.5		109	15	316	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87105  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **APEX AZTEC**

Work Order Number: **1808174**

RcptNo: **1**

Received By: **Anne Thorne**

**8/30/2018 7:00:00 AM**

*Anne Thorne*

Completed By: **Ashley Gallegos**

**8/31/2018 11:13:40 AM**

*Ashley Gallegos*

Reviewed By: **ENM**

**8/31/18 Labeled by: *[Signature]* 08/31/18**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

### Log In

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: *[Signature]*  
 (<2 or >12 unless noted)  
 Adjusted? *[Signature]*  
 Checked by: *[Signature]* 08/31/18

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

