<u>District I</u> 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

			Resp	onsil	ble Party	y			
Responsible	Party: Ente	rprise Field Ser	vices, LLC		OGRID: 1	51618			
Contact Nam	e: Thomas	Long			Contact Telephone: 505-599-2286				
Contact emai	0 00 1				Incident #	(assigned by OCD): NVF18128333301			
Contact mail: 87401	ing address:	614 Reilly Ave,	Farmington, N	M-FG	Pooor	ODOOOO6/ NMOCD			
			Location	of R	elease So	ource OCT 29 2018			
Latitude 36.7	30065		Longitude	<u>-107.95</u>	55320	(NAD 83 in decimal degrees to 5 decimal places)			
Site Name Va	I Verde Pl	ant			Site Type:	Natural Gas Treatment Facility			
Date Release	Discovered:	4/30/2018 @ 5:45	p.m.		Serial Num	nber (if applicable): N/A			
Unit Letter Section Township Range County					ntv				
A	14	29N	11W		San Juan				
Surface Owner			Nature and	l Vol	ume of I	Field Services, LLC Release pustification for the volumes provided below)			
Crude Oil		Volume Release				Volume Recovered (bbls)			
Produced	Water	Volume Release	d (bbls)			Volume Recovered (bbls)			
		Is the concentrat	ion of dissolved cl >10,000 mg/l?	hloride	in the	☐ Yes ☐ No			
Condensa	te	Volume Release	d (bbls):			Volume Recovered (bbls):			
☐ Natural G	as	Volume Release	d (Mcf):		Volume Recovered (Mcf):				
Other: Wa		Estimated 120 B				Volume/Weight Recovered (provide units): NONE			
ejected from t Remediation	the knockou activities we	t tank vent stack or re completed on A	nto the ground sur ugust 29, 2108. Th	face. A he cont	n estimated aminant ma	approximately 50% water and 50% amine) solution was d 120 barrels of Water/Amine solution were released. ass was removed by mechanical excavation. The final 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.

Form C-141 Page 2

State of New Mexico Oil Conservation Division

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	ng items must be included in the	closure report.							
A scaled site and sampling diagram as described in 19.15.2	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 con and regulations all operators are required to report and/or file ce may endanger public health or the environment. The acceptance should their operations have failed to adequately investigate and human health or the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or regrestore, reclaim, and re-vegetate the impacted surface area to the accordance with 19.15.29.13 NMAC including notification to the Printed Name: Jon E. Fields Signature:	ertain release notifications and perion of a C-141 report by the OCD do remediate contamination that post of a C-141 report does not relieve gulations. The responsible party are conditions that existed prior to the	form corrective actions for releases which bees not relieve the operator of liability see a threat to groundwater, surface water, the the operator of responsibility for acknowledges they must substantially the release or their final land use in wegetation are complete.							
email: jefields@eprod.com	Telephone: <u>(713) 381-6684</u>	OCT 29 2018							
		DISTRICT 1111							
OCD Only Received by: VOVSS FOLUS	Date: 10/29	118							
Closure approval by the OCD does not relieve the responsible paremediate contamination that poses a threat to groundwater, surfaparty of compliance with any other federal, state, or local laws a	ace water, human health, or the env	ions have failed to adequately investigate and vironment nor does not relieve the responsible							
Closure Approved by:	Date: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2019							



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 NMOCD

OCT 29 2018

DISTRICT III

Prepared by:

Ranee Deechilly Project Scientist

Kyle Summers, CPG

Branch Manager / Senior Geologist

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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.



Rankin	g Criteria		Ranking Score
	<50 feet	20	
Depth to Groundwater	50 to 99 feet	10	20
	>100 feet	0	10-10
Wellhead Protection Area • <1,000 feet from a water	Yes	20	0
source, or; <200 feet from private domestic water source.	No	0	· ·
Distance to Curfoce Water	<200 feet	20	
Distance to Surface Water Body	200 to 1,000 feet	10	10
Body	>1,000 feet	0	via size)
Total Rar	nking Score		30

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.

Soil Sampling Program 3.2

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

Enterprise Field Services, LLC Corrective Action Report Val Verde Plant Amine and Water Release (April 2018) October 9, 2018



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

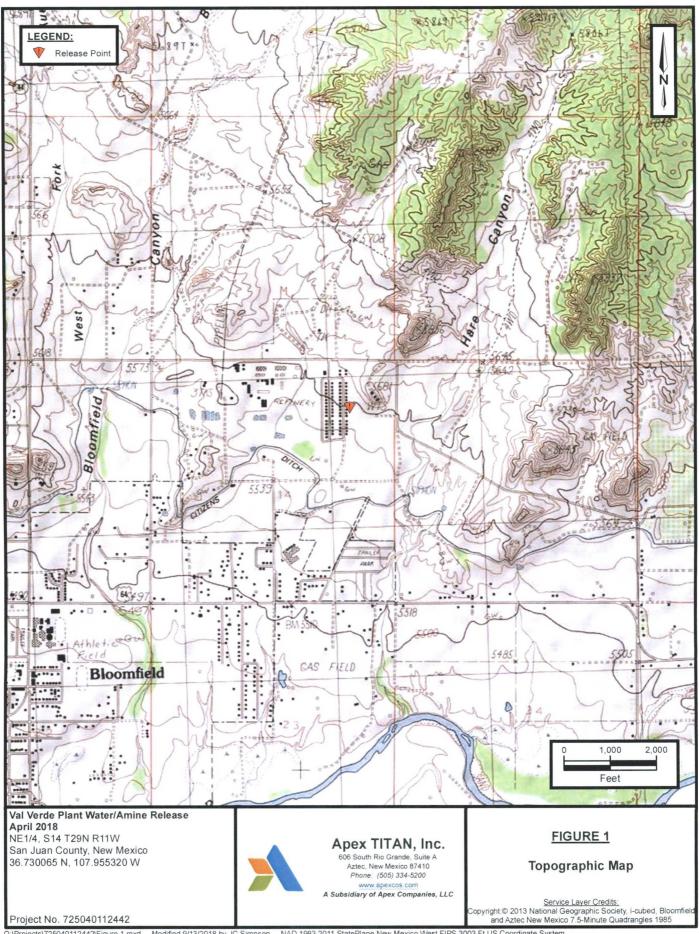




TABLE 1 Val Verde Plant Water/Amine Release (April 2018) SOIL ANALYTICAL SUMMARY

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)
		Natural Resources sion, Closure Crite	THE RESIDENCE OF STREET STREET, STREET				100
		Compos	ite Soil Samples	Removed by Scrap	oing/Excavation		
S-2	6.12.18	С	2	<5.0	2,400	<480	2,400 ~
S-3	6.12.18	С	2	<4.6	200	<47	200 -
S-4	6.12.18	С	2	<4.7	3,900	<510	3,900
S-5	6.12.18	С	2	<4.8	840	<48	840
S-6	6.12.18	С	2	<5.0	420	<50	420
S-8	6.12.18	С	0 to 2	<4.8	1,400	<460	1,400
S-9	6.12.18	С	0 to 2	<4.6	2,700	<460	2,700
S-10	6.12.18	С	0 to 2	<4.8	1,600	<470	1,600
S-11	6.12.18	С	0 to 2	<4.9	550	<45	550 -
S-12	6.12.18	С	0 to 2	<4.7	310	<48	310
S-14	6.12.18	С	0 to 2	<4.9	110	<49	110
S-18	7.09.18	С	2	<5.0	140	<50	140
S-21	7.09.18	С	3	<4.7	100	<50	100
S-22	7.09.18	С	3	<4.9	810	<50	810
S-23	7.09.18	С	3	<4.9	530	<50	530 _
S-24	7.09.18	С	3	<4.6	170	<50	170 _
S-26	7.09.18	С	2.5	<4.6	150	<50	150
S-29	8.03.18	С	4	<4.9	220	<48	220
S-30	8.03.18	С	4	<4.8	180	<49	180
			Compos	site Soil Samples	NEW AND THE	Mark Services	
S-1	6.12.18	С	2	<4.9	48	<47	48
S-7	6.12.18	С	0 to 2	<4.7	82	<47	82
S-13	6.12.18	С	0 to 2	<4.7	73	<47	73
S-15	6.12.18	С	0 to 2	<4.7	33	<45	33
S-16	6.12.18	С	0 to 2	<5.0	<10	<50	ND
S-17	7.09.18	С	2	<4.6	<9.8	<49	ND
S-19	7.09.18	С	2	<4.8	<10	<50	ND .
S-20	7.09.18	С	3	<4.6	44	<50	44
S-25	7.09.18	С	2.5	<4.7	<9.9	<49	ND
S-27	7.09.18	С	0 to 2.5	<4.9	36	<50	36
S-28	8.03.18	С	4	<4.8	29	<49	29
S-31	8.03.18	С	4	<4.8	<9.8	<49	ND -
S-32	8.03.18	С	3	<4.9	23	<50	23
S-33	8.03.18	С	3	<4.9	29	<48	29
S-34	8.29.18	С	5	<4.8	29	<49	29
S-35	8.29.18	С	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

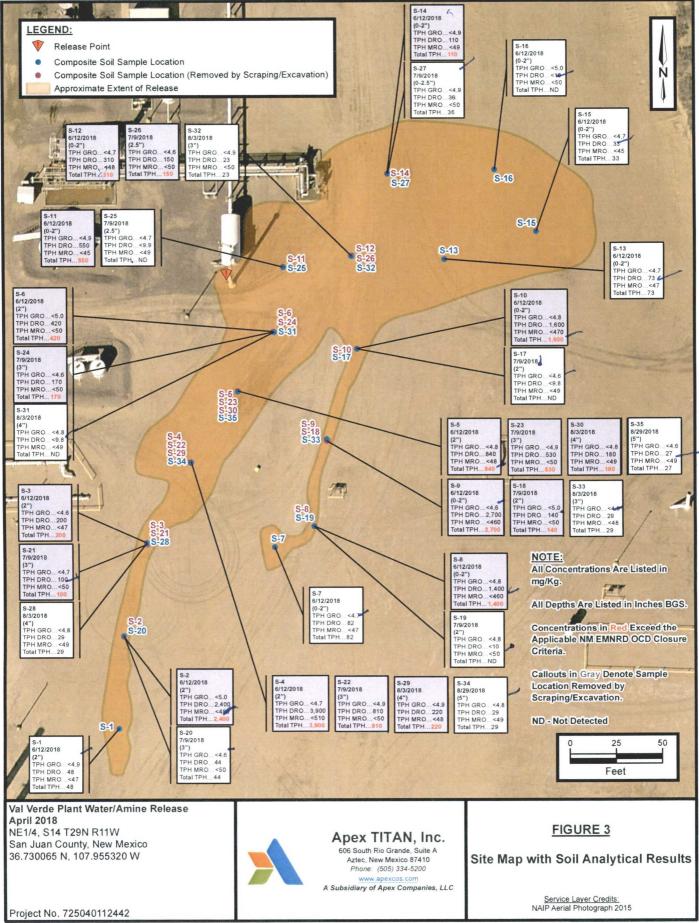
mg/kg = milligram per kilogram

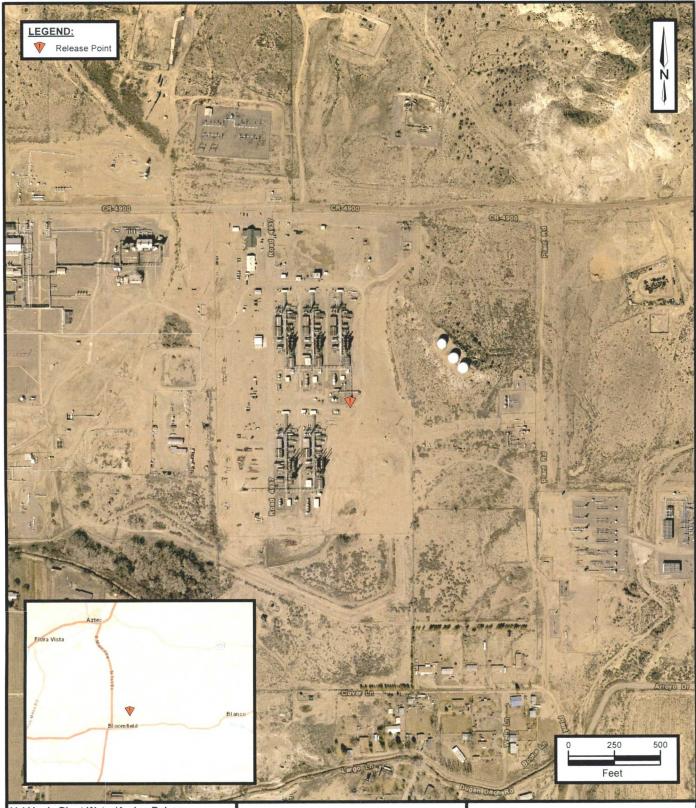
GRO = Gasoline Range Organics

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



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

www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Service Layer Credits

Esri, HERE, Garmin, © OpenStreetMap contributors, Sources: Esri, HERE, DeLorne,
USGS, Intermap, INCREMENT, NRCan, Esri, Japan, METI, Esri, China (Hong Kong),
sri Korea, Esri (Thaliand), Mapmylndia, NGCC, © OpenStreetMap contributors, and th
GIS User Community, NAIP Aenal Phoblograph 2015



APPENDIX B

Executed C-138 Solid Waste Acceptance Form

District 1
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

ABUDENT TOKALITATION TO THE TO ACCEPT BOLLD 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 yd3 bbls Known Volume (to be entered by the operator at the end of the haul) 360 yd3/ bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long, 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 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,
5. Transporter: Nelson Revegetation, West States, 1482
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:
■ DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Greg Crantice TITLE: Environmental Mangerdate: 9/10/18
SIGNATURE: TELEPHONE NO.: 505-632-0615 Surface Waste Management Facility Authorized Agent



APPENDIX C

Photographic Documentation



Photograph 1

View of the flow path, facing southwest.



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.





SITE PHOTOGRAPHS

Val Verde Water/Amine Release (April 2018)

Photograph 7

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





APPENDIX D

Table



Appendix E

Laboratory Data Sheets & Chain of Custody Documentation



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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORG		Analyst	том			
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
EPA METHOD 8015D: GASOLINE RANGE				Analyst	NSB	
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.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 19 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
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.

- * 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 Quanitative 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 Page 2 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-3

Project: Val Verde Plant Water Amine

Lab ID: 1806741-003 Collection Date: 6/12/2018 9:50:00 AM Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG		Analyst	TOM			
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 19 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Val Verde Plant Water Amine

Lab ID: 1806741-004

Client Sample ID: S-4

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	том
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
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

Matrix: SOIL

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

- 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 Quanitative 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 Page 4 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst	: том
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- 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 Quanitative 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 Page 5 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst	том
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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.

- * 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 Quanitative 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 Page 6 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 7 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-8

Project: Val Verde Plant Water Amine Collection Date: 6/12/2018 10:40:00 AM

Lab ID: 1806741-008 **Matrix:** SOIL **Received Date:** 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
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.

- * 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 Quanitative 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 Page 8 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
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.

- * 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 Quanitative 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 Page 9 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-10

 Project:
 Val Verde Plant Water Amine
 Collection Date: 6/12/2018 11:00:00 AM

 Lab ID:
 1806741-010
 Matrix: SOIL
 Received Date: 6/13/2018 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst	том
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
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
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.

- * 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 Quanitative 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 Page 10 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 11 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS					Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- 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 Quanitative 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 Page 12 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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 Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 13 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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

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

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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

Matrix: SOIL

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

- * 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 Quanitative 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 Page 14 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	: TOM
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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

Matrix: SOIL

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

- * 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 Quanitative 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 Page 15 of 19
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1806741

Date Reported: 6/19/2018

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 Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: том
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 16 of 19
- 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.

ND

10

50

10.00

WO#: **1806741**

19-Jun-18

Client: APEX TITAN

Motor Oil Range Organics (MRO)

Surr: DNOP

Project: Val Verde Plant Water Amine

Sample ID LCS-38686	SampType: Lo	cs	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics				
Client ID: LCSS	Batch ID: 38	Batch ID: 38686				RunNo: 52007						
Prep Date: 6/14/2018	Analysis Date: 6	/15/2018	SeqNo: 1701226			Units: mg/K	(g					
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 MB-38686	SampType: M	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics				
Client ID: PBS	Batch ID: 38	3686	F	RunNo: 5	2007							
Prep Date: 6/14/2018	Analysis Date: 6	5/15/2018	5	SeqNo: 1	701227	Units: mg/K	(g					
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	ND 10											

Sample ID 1806741-001AMS	SampType: MS			Tes	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: S-1	Batch	ID: 38	686	RunNo: 52005							
Prep Date: 6/14/2018	Analysis D	ate: 6/	15/2018	S	SeqNo: 1	702174	Units: mg/Kg				
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				

99.6

70

130

Sample ID 1806741-001AMSD	SampType: I	MSD	Test	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: S-1	Batch ID:	38686	R	RunNo: 5	2005				
Prep Date: 6/14/2018	Analysis Date:	6/15/2018	S	SeqNo: 1	702175	Units: mg/h	(g		
Analyte	Result PQI	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 LCS-38703	SampType: LCS	TestCode: EPA Metho	e: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 38703	RunNo: 52042						
Prep Date: 6/15/2018	Analysis Date: 6/18/2018	SeqNo: 1702796	02796 Units: %Rec					
Analyte	Result PQL SPK val	ue SPK Ref Val %REC LowLimit	t HighLimit %RPD R	PDLimit Qual				
Surr: DNOP	5.1 5.0	00 101 70	130					

Sample ID MB-38703	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 38703	RunNo: 52042
Prep Date: 6/15/2018	Analysis Date: 6/18/2018	SeqNo: 1702797 Units: %Rec
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 Quanitative 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

Page 17 of 19

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.

WO#:

1806741

19-Jun-18

Client: APEX TITAN

Project: Val Verde Plant Water Amine

Sample ID MB-38703 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 38703 RunNo: 52042

Prep Date: 6/15/2018 Analysis Date: 6/18/2018 SeqNo: 1702797 Units: %Rec

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 Quanitative 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

Page 18 of 19

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.

WO#:

1806741 19-Jun-18

Client: APEX TITAN

Project: Val Verde Plant Water Amine

Sample ID MB-38670 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 38670 RunNo: 51984 Prep Date: Analysis Date: 6/14/2018 SeqNo: 1700038 6/13/2018 Units: mg/Kg PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Gasoline Range Organics (GRO) ND 5.0 800 1000 80.3 15 Surr: BFB 316 Sample ID LCS-38670 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: Batch ID: 38670 LCSS RunNo: 51984 Analysis Date: 6/14/2018 SeqNo: 1700039 Prep Date: 6/13/2018 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC I owl imit HighLimit %RPD **RPDLimit** Qual Analyte Gasoline Range Organics (GRO) 28 5.0 25.00 0 75.9 112 131 Surr: BFB 1000 1000 999 316 Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: G52014 RunNo: 52014 Prep Date: Analysis Date: 6/15/2018 SeqNo: 1701576 Units: %Rec SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result POI HighLimit Qual Surr: BFB 830 1000 82.8 15 316 Sample ID 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: Batch ID: **G52014** RunNo: 52014 Prep Date: Analysis Date: 6/15/2018 SeqNo: 1701577 Units: %Rec Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 990 1000 Surr: BFB 99 4 15 316 Sample ID MB-38679 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PRS Batch ID: 38679 RunNo: 52014 Prep Date: 6/14/2018 Analysis Date: 6/15/2018 SeqNo: 1701592 Units: mg/Kg PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 810 1000 80.8 15 316 Sample ID LCS-38679 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 38679 RunNo: 52014 Prep Date: 6/14/2018 Analysis Date: 6/15/2018 SeqNo: 1701593 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Qualifiers:

Surr: BFB

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Gasoline Range Organics (GRO)

H Holding times for preparation or analysis exceeded

29

1000

5.0

25.00

1000

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range

115

100

J Analyte detected below quantitation limits

Page 19 of 19

P Sample pH Not In Range

0

- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

75.9

15

131

316



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:	18067	41		RcptNo:	1
Received By:	Anne Thorne	6/13/2018 7:00:00 AM		an	u Sh	_	
Completed By:	Anne Thorne	6/13/2018 8:14:47 AM		an	u An	_	
Reviewed By:	Lb: 5B 06	13/18					
Chain of Cus							
1. Is Chain of Co	ustody complete?		Yes E	✓ No	0	Not Present	
2. How was the	sample delivered?		Courie	r			
Log In		*					
	npt made to cool the sai	mples?	Yes	No	o 🗌	NA 🗆	
4. Were all samp	oles received at a tempo	erature of >0° C to 6.0°C	Yes 1	No		NA 🗆	
5. Sample(s) in p	proper container(s)?		Yes 5	Z No	o 🗌		
6. Sufficient sam	ple volume for indicate	d test(s)?	Yes 🖸	No.			
7. Are samples (except VOA and ONG)	properly preserved?	Yes 🛂	No			
8. Was preserva	tive added to bottles?		Yes	No.	V	NA 🗆	/
9. VOA vials hav	re zero headspace?		Yes [No		No VOA Vials	200
10. Were any san	mple containers receive	d broken?	Yes [No.		# of preserved	1.3
	ork match bottle labels? ancies on chain of custo		Yes 🔽	No		bottles checked for pH:	>12 unless noted)
12. Are matrices of	correctly identified on C	hain of Custody?	Yes 🔻	N o		Adjusted?	<u> </u>
	t analyses were request		Yes 💌	_		- (0	
	ng times able to be met ustomer for authorizatio		Yes V	No		Checked by:	
	ing (if applicable)						
	otified of all discrepancie		Yes	□ No	o 🗆	NA 🗹	
Person	Notified:	Date			-		
By Who	om:	Via:	eMail	Phone	Fax	☐ In Person	
Regardi	ing:						*
Client Ir	nstructions:		w-120711125 - 222				
16. Additional res	marks:						
CUSTO	DOY SEALS INTACT OF	N SOIL JARS/at 6/13/18					
17. Cooler Infor	The state of the s	pro property and a second			PRO 11 0 40 1		
Coaler No			ieal Date	Signed	Ву		
1'	1.3 Good	Yes				l .	

							(CHAIN OF CUSTODY RECORD
	14	all Easy	connun	ta l		ANALYSIS		/ / Lab use only
7	Laboratory:				u	REQUESTED /		/ / / Due Date:
APEX					1	W		23/5/55/2
	Address: 49							Temp. of coolers when received (C°):
Office Location	Albuques Contact:	gill; N	114 8 +1	107		.9/	/ / / / /	
LODO STZIO Grande Shite A						3/ /		
Aztecinim 87410	Phone:					7 /		/ Page of ~
Project Manager K.Summers	PO/SO#:		see ne	16.3		7 /		
Sampler's Name	Sampler's Signatur	e 0 0				3/	/ / / / /	
Raner Deechilly &	24th	Ty				Campoacy to any Hall		/ /
Proj. No. Project Name			No/Type of C	Containers				
725040112442 Val Verde Plan	1-Water A	mire				17 / /		
Matrix Date Time O r Identifying Ma	rks of Sample(s)	Depth End Depth	VOA 1LL:	250 ml Glass	P/0			Lab Sample ID (Lab Use Only)
3 6/4/18 930 X S-)			Ì		X		1806741-001
S 9/12/18 940 X S-	2			1		X		702
5 0/12/18 950 X S-	3			į		\langle		703
5 6/12/18 1000 × S-	4			1		X		704
	5			1		X		705
5 6/12/18 1010 × 5-	io			-		\checkmark		706
S 6/12/18 1030 X S-	1			(X		707
5 Gizlig 1040 X S-	8			1		7		-08
5 6/12/18 1030 X S- 5 6/12/18 1100 X S-	9			t		4		769
3 6/12/18 1100 X S-				1		X		7010
Turn around time ☑ Normal ☐ 25% Rush ☐		0% Rush						
B13 601 WINSHIS 14	Time: Reseived	by: (Signat)	ire)	Dat	e: //8	Time: NOTE	s: PM-7	om Long y-TC 25719
Relinquished by (Signature) Date:	Time: Received	by: (Signatu	ire)	Dat	6: 13/18	Time: 0700	Pay ke	y-TC25719
		by: (Signatu	ure)	Dat		Time:	Non AP	E - N34996
	E	h (0'	>			Time		
Relinquished by (Signature) Date:	Time: Received	by: (Signatu	ire)	Dat	θ:	Time:		
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / C	S - Soil SD - Solid or Glass 1 Liter		A - Air Ba			coal tube SL - sluc	lge O - Oil	

						CHAIN OF CUSTODY RECORD
	Hall En	vironmentel	ANALY	rsis / /		Lab use only
	Laboratory: Analy	sis Laborati	REQUI	ESTED / /		Due Date:
IAPEX	Address: 4901 Ha			4	/ / /	2:3-4-18= 13 Temp. of coolers
Office Location				\$ / /	/ / /	/ / Temp. of coolers when received (C°):
10068 Rio Grande, Suite A	Albuquerque, 1 Contact: A; ‡	Freeman		8 /		1 2 3 4 5
Azterinim 87410	Phone: 505-3			1 /		Page Rof 2
Project Manager K. Swmmas	PO/SO#:Se			2	/ / /	
Sampler's Name	Sampler's Signature		5	<i>≯ </i>		/ / /
Rance Deechilly Proj. No. Project Name	Krahl	In the second	60	Ampad pa	////	
		No/Type of Containers	#		/ / /	
725040112442 Val Verde Pla					/ / /	/ /
Matrix Date Time O r Identifying Ma	rks of Sample(s)	VOA A/G 1Lt.	9 /	////		Lab Sample ID (Lab Use Only)
S 6/12/18 10 10 x S-	1)	1	X			1806741011
S 6/12/18 1120 X 8-		i	X			7/2
		1	1			713
S 6/12/18/1140 X S-			X			714
S 6/12/18/1130 X S- S 6/12/18/1140 X S- S 6/12/18/1150 X S-			1			7015
5 6/12/18 1200 1 5-			X			016
0 9/4/10 1200 4 3						816
	MAS					
Turn around time Normal 25% Rush	150% Rush					
Relinquished by (Signature) Date:	Time: Redeived by: (Signal	auture) Dat	Time:	NOTES:	PM-	Tom long Key-+ C 25719
	Time: / Received by: (Signa	ature) Dar			Pay	Key-+125719
	Time: Received by: (Signa		7 9	-		IFE - N34996
Relinquished by (Signature) Date:	Time: Received by: (Signa	ature) Dat	e: Time:	_		
Tremiquisited by (Signature) Date.	meceived by, (Signa	Da	. inne.			
Matrix WW - Wastewater W - Water S Container VOA - 40 ml vial A/G - Amber / O	S - Soil SD - Solid L - Liquic r Glass 1 Liter 250 ml -		- Charcoal tube O - Plastic or other	SL - sludge er	O - Oil	



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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1807337

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Val Verde Plant Water/Amine

Lab ID: 1807337-001

Client Sample ID: S-17

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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

Matrix: SOIL

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

- * 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 Quanitative 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 Page 1 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 13 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Val Verde Plant Water/Amine

Lab ID: 1807337-003

Matrix: SOIL

Client Sample ID: S-19

Collection Date: 7/9/2018 9:25:00 AM

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

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
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.

- * 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 Quanitative 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 Page 3 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Val Verde Plant Water/Amine

Lab ID: 1807337-004

Client Sample ID: S-20

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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

Matrix: SOIL

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

- 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 Quanitative 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 Page 4 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Client Sample ID: S-21

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

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
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 5 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: S-22

Project: Va

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 Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 6 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

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 Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- 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 Quanitative 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 Page 7 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

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 Qu	ial Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 8 of 13
- Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

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
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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. 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 Page 9 of 13

ND Not Detected at the Reporting Limit Sample pH Not In Range P

PQL Practical Quanitative Limit Reporting Detection Limit % Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

7/11/2018 7:42:47 PM

7/11/2018 7:42:47 PM

39120

39120

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

EPA METHOD 8015D: GASOLINE RANGE

Client Sample ID: S-26

Project:

Surr: DNOP

Surr: BFB

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

Analyses

Val Verde Plant Water/Amine

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

Lab ID: 1807337-010 Matrix: SOIL

ND

92.1

4.6

15-316

Result **PQL Qual Units DF** Date Analyzed Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: Irm 150 10 mg/Kg 7/14/2018 4:17:41 PM 39125 50 7/14/2018 4:17:41 PM ND mg/Kg 39125 1 115 70-130 %Rec 7/14/2018 4:17:41 PM 39125 Analyst: NSB

mg/Kg

%Rec

1

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 10 of 13 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1807337

Date Reported: 7/17/2018

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

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

Analyses	Result	PQL	Qual Uni	s DI	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analys	t: Irm
Diesel Range Organics (DRO)	36	9.9	mg/l	(g 1	7/14/2018 4:39:56 PM	39125
Motor Oil Range Organics (MRO)	ND	50	mg/l	(g 1	7/14/2018 4:39:56 PM	39125
Surr: DNOP	109	70-130	%Re	ec 1	7/14/2018 4:39:56 PM	39125
EPA METHOD 8015D: GASOLINE RANGE					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/l	(g 1	7/11/2018 8:06:07 PM	39120
Surr: BFB	93.2	15-316	%Re	ec 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.

- * 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 Quanitative 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 Page 11 of 13
- 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.

WO#: **1807337**

17-Jul-18

Client: APEX TITAN

Project: Val Verde Plant Water/Amine

Sample ID MB-39125	SampT	SampType: MBLK TestCode: EPA Method 80						esel Rang	e Organics	
Client ID: PBS	Batch	h ID: 39	125	R	RunNo: 5	2618				
Prep Date: 7/10/2018	Analysis D	Date: 7/	11/2018	S	SeqNo: 1	726901	Units: mg/K	(g		
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	2	86.0	70	130			
Sample ID LCS-39125	Sampl	Type: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics						
				-	–					

Sample ID LCS-39125	SampTy	SampType: LCS TestCode: EPA Metho					8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 391	125	R	unNo: 5	2618				
Prep Date: 7/10/2018	Analysis Da	ite: 7/	11/2018	S	eqNo: 1	726902	Units: mg/F	(g		
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 Quanitative 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

Page 12 of 13

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.

WO#:

1807337

17-Jul-18

Client: APEX TITAN

Project: Val Verde Plant Water/Amine

Sample ID MB-39120 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 39120 RunNo: 52630

Prep Date: 7/10/2018 Analysis Date: 7/11/2018 SeqNo: 1727168 Units: mg/Kg

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 LCS-39120 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 39120 RunNo: 52630

Prep Date: 7/10/2018 Analysis Date: 7/11/2018 SeqNo: 1727169 Units: mg/Kg

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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 13 of 13

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 AZTEC	Work Order Number	1807337		RcptNo:	1
Received By:	Isaiah Ortiz	7/10/2018 7:25:00 AM		ICA	-	
Completed By:	Isaiah Ortiz	7/10/2018 7:41:55 AM		ICA	-	
Reviewed By:	TO 7/10	118 7/10/14				
Chain of Cus	stody					
1. Is Chain of C	sustody complete?		Yes 🗸	No 🗌	Not Present	
2. How was the	sample delivered?		Courier			
Log In				1		
-	npt made to cool the sa	amples?	Yes 🗸	No 🗌	NA 🗆	
4. Were all sam	ples received at a temp	perature of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
5. Sample(s) in	proper container(s)?		Yes 🗹	No 🗌		
6. Sufficient san	nple volume for indicate	ed test(s)?	Yes 🗹	No 🗌		
7. Are samples	(except VOA and ONG) properly preserved?	Yes 🗸	No 🗌		
8. Was preserve	ative added to bottles?		Yes	No 🗹	NA \square	
9. VOA vials hav	ve zero headspace?		Yes	No 🗆	No VOA Vials	
10. Were any sai	mple containers receive	ed broken?	Yes	No 🗸	# of preserved	118
	ork match bottle labels ancies on chain of cus		Yes 🗸	No 🗆	bottles checked for pH:	>12 unless noted)
12. Are matrices	correctly identified on (Chain of Custody?	Yes 🗹	No 🗆	Adjusted	
13. Is it clear wha	at analyses were reque	sted?	Yes 🗸	No 🗆	()	
	ing times able to be me		Yes 🗸	No 🗌	Checked by:	
	customer for authorizati					
Special Hand	ling (if applicable	2			_	
15. Was client no	otified of all discrepand	ies with this order?	Yes 🗌	No 🗌	NA 🗸	7
Person	Notified:	Date:	entress statement of the statement PCS	nanco de trataga de care a		
By Wh	om:	Via: [eMail _	Phone Fax	In Person	
Regard			and the second section of the second section of			
Client I	nstructions:	France of Control of State of	entropy and a state of the stat			
16. Additional re	emarks:					
17. Cooler Info	rmation					
Cooler No	Temp % Condit	ion Seal Intact Seal No 5	Seal Date	Signed By		

								CHAIN OF (CUSTODY RECORD
	Ho	Ill Envi	ronne	rtai	- 1	ANALYSIS	/////		Lab use only
	Laboratory: 🗡		150 0000			REQUESTED	/ / / / /		Due Date:
APEX	Address: 49					: /	' / / / /		
Office Location	Albuqueg				_	N		/ / / /	Temp. of coolers when received (C°): 0.3
606 8 200 Grande Suite A	Contact:	A. Engl	man		-	u		/ / /	1 2 3 4 5
AzteCINM 87410		05-3		775	-	28	/ / / / /		Page of 2
Project ManagerK.Summer	PO/SO#:				-1	7			ago
	Sampler's Signature				=	ad /		/ / /	
	and fells	0	lin			TPH CRUPE INTO SOS			
Proj. No. Project Name			No/Type of (Containers		# /	/ / / / /	/ /	
725040112442 Val Verde Plant					_	# / /		/ /	
Matrix Date Time C G r Identifying Mar	rks of Sample(s)	Depth End Depth	VOA 1LL:	250 ml Glass Jar	P/0			Lab Sa	ample ID (Lab Use Only)
S 7/9/18 915 X S-1	7					X		180733	57 -001
S 7/9/18 920 X S-1	8			1		X			-003
5 7918 925 X 5-1)		X			-003
5 7/9/18 930 X S-2				1	1	X			-004
5 7/9/18 935 X S-2)		/			-0045
S 7/9/18 940 X 5-2				1		2			
S 7/9/18 945 X S-a					1				-0076 -0087
5 7/9/18 950 V S2				1		<u> </u>			-009 8
S 7/9/18 955 X S-2						7			-010 9
5 7/9/18 1000 Y B-2				1	1	X			-ON 10
Turn around time Normal □ 25% Rush □	50% Rush 🔲 100	% Rush				,,			OIK 10
The 13	Time: Received to	y: (Signatu	re)	7015	/	Time: NOT	FIVE -	Tom Long)
Relinquished by (Signature) Date: T	ime: Received b	y: (Signatu		Date:	1	Time:	Pay ke	Y-TCas	719
Religiquished by (Signature) Date: T	Time: Aeceived to	y: (Signatu	30(0/î∶∕ re)	7/10 Date:	1 (07:25 Time:	NUMAPEN 34	1996	
D. Francis Land D. (Giranton)	*			5		T			
Relinquished by (Signature) Date: T	Time: Received b	y: (Signatu	re)	Date:		Time:			
Matrix WW - Wastewater W - Water S Container VOA - 40 ml vial A/G - Amber / Or	6 - Soil SD - Solid	L - Liquid	A - Air Ba			oal tube SL - s	udge O - Oil		

							CHAIN OF CUSTODY RECORD
×	Laboratory: A		ironme	,	2	ANALYS REQUES	STED / / / / Due Date:
APEX	Address: 490						Town standard
Office Location	_ Albuques						Temp. of coolers when received (C°): O.3
1006 S Rio Counte, Suite A	Contact:	A Fre	eman				2 1 2 3 4 5
Aztecinim 87410	Phone: 50	5-34	5-297	5			9
Project Manager K Summers	PO/SO#:					(₹
Sampler's Name	Sampler's Signature		/			3	
Rance Deechily (DAponti C) Proj. No. Project Name	Pudley	1	0			#	Temp. of coolers when received (C°): O.3 1 2 3 4 5 Page 2 of 2
Proj. No. Project Name			No/Type of C	Containers		A	
725040112442 Valverde Plan	1-Water/Am	ine		T	_	'/	
Matrix Date Time C G o r Identifying Ma	rks of Sample(s)	End Depth	VOA 1LL	250 ml Glass	P/0		Lab Sample ID (Lab Use Only)
5 7/9/18 1005 X 5-2	7			1		\times	1807337 - 0011
							20 7/0/18
	1000						
	1000				\vdash		
		-			-		
Turn around time Normal 25% Rush		% Rush			_		
Relinquished by (Signature) Date: 1	Time: Redeiwed b	y: (Signati	ure)	Date 7/9	e:	Time:	NOTES: PM-Tem Long
	Time: / Received b	w/ (Signate	ure)	Dat		\3 a2 Time:	NOTES: PM-Tem Long Pay Key- TC25-719
Mistribale 7/9/18 18	10 / 1.Ox	*	courin	7/10	18	07:25	1625 719
Relinquished by (Signature)	Time: Received b	y: (Siğnatı	ure)	Date	e:	Time:	NO.1 APE - N34996
Relinquished by (Signature) Date:	Time: Received b	y: (Signati	ure)	Date	e:	Time:	
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / C	S - Soil SD - Solid	L - Liquid 250 ml - G	A - Air Ba			coal tube astic or other_	SL - sludge O - Oif



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

OrderNo.: 1808317

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

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 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,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1808317

Date Reported: 8/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Apex Titan, Inc.

Client Sample ID: S-28

Project: Val Verde Plant - Water Amine

Collection Date: 8/3/2018 9:30:00 AM

Lab ID: 1808317-001

Matrix: SOIL

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

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
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.

- * 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 Quanitative 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 Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808317

Date Reported: 8/13/2018

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
EPA METHOD 8015D MOD: GASOLINE RA	ANGE				Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE (ORGANICS				Analyst	: Irm
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.

- 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 Quanitative 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 Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808317

Date Reported: 8/13/2018

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

17-003 Matrix: SOIL

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE I	RANGE				Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: Irm
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.

- * 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 Quanitative 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 Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808317

Date Reported: 8/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Apex Titan, Inc.

Client Sample ID: S-31

Project: V

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 Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RA	ANGE				Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: Irm
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.

- * 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 Quanitative 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 Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808317

Date Reported: 8/13/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Apex Titan, Inc. Client Sample ID: S-32

 Project:
 Val Verde Plant - Water Amine
 Collection Date: 8/3/2018 9:50:00 AM

 Lab ID:
 1808317-005
 Matrix: SOIL
 Received Date: 8/4/2018 10:15:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	: Irm
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.

- 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 Quanitative 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 Page 5 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808317

Date Reported: 8/13/2018

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
EPA METHOD 8015D MOD: GASOLINE RA	ANGE				Analyst	: AG
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
EPA METHOD 8015M/D: DIESEL RANGE O	DRGANICS				Analyst	: Irm
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.

- * 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 Quanitative 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 Page 6 of 8
- 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.

WO#: 180

1808317 13-Aug-18

Client:

Apex Titan, Inc.

Project:

Val Verde Plant - Water Amine

Sample ID MB-39660	SampT	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch	n ID: 390	660	R	unNo: 5	3282					
Prep Date: 8/8/2018	Analysis D	ate: 8/	9/2018	S	eqNo: 1	756836	Units: mg/K	g			
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 LCS-39660	SampType	e: LC	S	Test	Code: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batch ID	396	660	R	unNo: 5	3282				
Prep Date: 8/8/2018	Analysis Date	e: 8/ 1	10/2018	S	eqNo: 1	756837	Units: mg/K	g		
Analyte	Result F	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 Quanitative 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

Page 7 of 8

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.

WO#:

1808317

13-Aug-18

Client:

Apex Titan, Inc.

Project: Val Verde Plant - Water Amine

Sample ID Ics-39659 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range
Client ID: LCSS Batch ID: 39659 RunNo: 53327

Prep Date: 8/8/2018 Analysis Date: 8/10/2018 SeqNo: 1756042 Units: mg/Kg

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

TestCode: EPA Method 8015D Mod: Gasoline Range Sample ID mb-39659 SampType: MBLK Client ID: **PBS** Batch ID: 39659 RunNo: 53327 Prep Date: 8/8/2018 Analysis Date: 8/10/2018 SeqNo: 1756043 Units: mg/Kg 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 Quanitative 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

Page 8 of 8

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 N	ame:	APEX Tita	n	Work Ord	er Number:	1808317			RcptNo:	1	
Received Complete Reviewe	ed By:	Erin Mele Ashley G		8/4/2018 10 8/7/2018 10	:01:54 AM	abel:	ed b	MA F		08/07/1	§
	ain of C		blete?			Yes Courier		7·	Not Present		
Log In 3. Was a		npt made to	cool the samp	les?		Yes 🗹	No		NA 🗆		
4. Were	all sam	oles received	i at a tempera	ture of >0° C to 6.	0°C	Yes 🗹	No		NA 🗆		
5. Sampl	le(s) in	proper conta	iner(s)?			Yes 🗸	No				
			for indicated to	est(s)?		Yes ✓ Yes ✓	No No				
8. Was p	reserva	tive added to	bottles?			Yes	No	V	NA 🗆		
		e zero head	space? ers received b	roken?		Yes Yes	No No	□	No VOA Vials # of preserved	XX	
		ork match bo	ttle labels? ain of custody)		Yes 🗹	No		bottles checked for pH: (<2 or	>12 junies noted)	
				n of Custody?		Yes 🗹	No		Adjusted?	981	
13. Is it cle	ear wha	t analyses w	ere requested	?		Yes 🗸	No		AF	7	
			e to be met? authorization.)			Yes 🗸	No		Checked by:		
Special I	Handi	ing (if ap	olicable)					/			
15. Was o	client no	otified of all o	iscrepancies	with this order?		Yes	No		NA 🗹		
	By Who				Date Via:	eMail	Phone	Fax	In Person		
16. Additi	ional re	marks:		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a wy man i many a	er a carrier		I	
17. Coole	er Infor	and comments are	Condition	Seal Intact Se	al No. I e	eal Date	Signed	By	I		
1	OIC: NO	4.6	Good	Yes Yes	a) 140 5	ear Date	aigned	Бу			
2		4.4	Good	Yes							
3		1.1	Good	Yes				*************			

				CHAIN OF CUSTODY RECORD
	Hall En	vironmental	ANALYSIS	/
3	Laboratory: Analys		REQUESTED /	/ / / / Due Date:
APEX	Address: 4901 Ha		TPH GROUPED INICO SOLS	
			- 4	Temp. of coolers when received (C°):
Office Location	Albuqueique, N	101 87109	9	1 2 3 4 5
606 SRio Grande, SuiteA	Contact: A Fr		- 77 /	
Azterina 87410	Phone:		3	/ / / Pageof_/
Project Manager K.Summers	PO/SO#:	2 notes		() () () () () () () () () ()
Sampler's Name	Sampler's Signature		2/	(coolerz: 4.7-0.3(cf)=4,k
Rance Deechilly .	Princhill	7		// coolers:1.4-0.369=1.1
Proj. No. Project Name		No/Type of Containers		(Cooler4: 1.1-0.3(cf)=0.5
725040112442 Val Verde Plant	- Water/Amine		1 / / /	/ / / / ENM S/AIND
Matrix Date Time C G I Identifying Ma	Start Depth Depth	VOA 1Lt. 250 ml Glass Jar		Lab Sample ID (Lab Use Only)
S 83/18 930 X S-2	28	i	\times	1808317-001
S 8/3/18 935 X S-2	29	i	$ \langle$	-002
			\langle	-003
5 8318 945 V 5-			1	-004
	32		1	-005
S 8 3 18 955 X S-			12	-000
) 13 8 13 1	25			334
	N/DC			
	NB			
Turn around time Normal 25% Rush	□ 50% Rush □ 100% Rush			
Relinquished by (Signature) Date: 81314	Time: Pedelived by (Signa	ature) Date:	Time: NOTES	PM-Tom Long Pay Kay- TC25719 Non AFE- N34996
Relinquished by (Signature) Date:	Time: Received by: (Signature)	ature) 8/4/18 Date:	Time:	Pay Ka1- TC25719
	Time: Received by: (Signa	ature) Date:	1015 Time:	Non AFE - N34996
/			110117112	
Relinquished by (Signature) Date:	Time: Received by: (Signa	ature) Date:	Time:	
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / 0	S - Soil SD - Solid L - Liqui or Glass 1 Liter 250 ml -		arcoal tube SL - slud	ge O - Oil



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: 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.: 1808I74

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 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1808174

Date Reported: 9/11/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Val Verde Plant - Water/Amine

Lab ID: 1808I74-001

Client Sample ID: S-34

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

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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

Matrix: SOIL

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

- 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 Quanitative 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 Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1808174

Date Reported: 9/11/2018

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:

1808I74-002

Matrix: SOIL

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

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: Irm
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
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
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.

- * 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 Quanitative 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 Page 2 of 5
- 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.

WO#:

1808174

11-Sep-18

Client:

APEX TITAN

Project:	Val Verde	e Plant -	Water/	Amine							
Sample ID	MB-40111	Samp	Type: N	/BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Bato	h ID: 4	0111	F	RunNo: 5	3915				
Prep Date:	9/4/2018	Analysis	Date:	9/5/2018	S	SeqNo: 1	780862	Units: %Re	С		
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	LCS-40111	Samp	Type: L	.cs	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Bato	h ID: 4	0111	F	RunNo: 5	3915				
Prep Date:	9/4/2018	Analysis	Date:	9/5/2018	5	SeqNo: 1	780884	Units: %Re	С		
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	MB-40136	Samp	Type: N	/BLK	Tes	tCode: E	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	PBS	Bato	ch ID: 4	0136	F	RunNo: 5	3915				
Prep Date:	9/4/2018	Analysis	Date:	9/6/2018	5	SeqNo: 1	780995	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	ND	1								
Surr: DNOP	ge Organics (MRO)	ND 10	5	10.00		104	50.6	138			
	LCS-40136		Type: L					8015M/D: Di	esel Range	e Organics	
Client ID:			ch ID: 4			RunNo: 5		Ll=:t=:			
	9/4/2018	Analysis				SeqNo: 1		Units: mg/k			
Analyte	Organias (DDO)	Result 54	PQL 1		SPK Ref Val	%REC 107	LowLimit 70	HighLimit 130	%RPD	RPDLimit	Qual
Surr: DNOP	Organics (DRO)	5.3	'	5.000	U	107	50.6	138			
Sample ID	1808I74-001AMS	Samn	Type: N	AS.	Tes	tCode: E	PA Method	8015M/D: Di	osol Pang	o Organice	
Client ID:			ch ID: 4			RunNo: 5		00131170.01	eser rang	e Organics	
	9/4/2018	Analysis				SeqNo: 1		Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
_	Organics (DRO)	88	1		28.54	119	53.5	126			
Surr: DNOP		5.5		4.975		110	50.6	138			
Sample ID	1808I74-001AMSD	Samp	Type: N	MSD	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	S-34	Bato	ch ID: 4	0136	F	RunNo: 5	3915				
Prep Date:	9/4/2018	Analysis	Date:	9/6/2018	5	SeqNo: 1	781599	Units: mg/k	(g		
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

Diesel Range Organics (DRO)

H Holding times for preparation or analysis exceeded

100

9.8

48.97

28.54

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

53.5

126

13.3

E Value above quantitation range

146

J Analyte detected below quantitation limits

Page 3 of 5

21.7

S

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.

WO#: **1808I74**

11-Sep-18

Client: APEX TITAN

Project: Val Verde Plant - Water/Amine

Sample ID 1808I74-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **\$-34** Batch ID: **40136** RunNo: **53915**

Prep Date: 9/4/2018 Analysis Date: 9/6/2018 SeqNo: 1781599 Units: mg/Kg

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 Quanitative 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

Page 4 of 5

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.

WO#:

1808174 11-Sep-18

Client:

APEX TITAN

Sample ID I	MB-40113	SampTy	pe: ME	BLK	Test	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	ID: 40	113	R	unNo: 5	3917				
Prep Date:	9/4/2018	Analysis Da	te: 9/	5/2018	S	eqNo: 1	780256	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Surr: BFB	Organics (GRO)	ND 960	5.0	1000		95.7	15	316			
Sample ID I	LCS-40113	SampTy	pe: LC	S	Test	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: I	LCSS	Batch	ID: 40	113	R	tunNo: 5	3917				
Prep Date:	9/4/2018	Analysis Da	te: 9/	5/2018	S	eqNo: 1	780257	Units: mg/k	(g		
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	1808174-001AMS	SampTy	pe: MS	3	Test	Code: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	S-34	Batch	ID: 40	113	R	tunNo: 5	3917				
Prep Date:	9/4/2018	Analysis Da	te: 9/	5/2018	S	eqNo: 1	780259	Units: mg/F	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
0	Organics (GRO)	27	5.0	24.83	0	108	77.8	128			
Surr: BFB		1100		993.0		107	15	316			
	1808174-001AMSD			993.0	Tesi	107	15	316 8015D: Gas	oline Rang	e	
Sample ID	1808174-001AMSD S-34	SampTy		993.0 SD		107	15 PA Method		oline Rang	e	
Sample ID	S-34	SampTy	/pe: MS	993.0 SD 113	R	107 tCode: EF	15 PA Method 3917			e	
Sample ID Client ID:	S-34	SampTy Batch	/pe: MS	993.0 6D 113 5/2018	R	tCode: El	15 PA Method 3917	8015D: Gaso		e RPDLimit	Qual
Sample ID Client ID: SPrep Date:	S-34	SampTy Batch Analysis Da	/pe: MS	993.0 6D 113 5/2018	R	tCode: El	15 PA Method 3917 780260	8015D: Gaso	(g		Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits J

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P Sample pH Not In Range

RL Reporting Detection Limit

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.con

Sample Log-In Check List

Client Name: APEX AZTEC	Work Order Nu	mber: 1808l74		RcptNo:	1
Received By: Anne Thorne Completed By: Ashley Gallegos	8/30/2018 7:00:0 8/31/2018 11:13:	40 AM	ane Ha	-	abilis
Reviewed By: ENH	813V18 1	_abelec	yd k	De C	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 sample	s?	Yes 🗹	No 🗆	NA 🗆	
4. Were all samples received at a temperature	re 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 tes	it(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) prop	perly 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 bro	oken?	Yes	No 🗹	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗸	No 🗆	bottles checked for pH:	12 unless noted
12. Are matrices correctly identified on Chain	of Custody?	Yes 🗹	No 🗌	Adjusted?	1911
13. Is it clear what analyses were requested?		Yes 🗸	No 📙		201
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No 🗆	Thecked by:	
Special Handling (if applicable)					
15. Was client notified of all discrepancies with	th this order?	Yes	No 🗌	NA 🗹	
Person Notified:	Da	ate [UNICEDAL DE ASSESSABA DE CASA DE LA CASA DE CASA DECASA DE CASA DE CAS		
By Whom:	Via	a: eMail	Phone Fax	☐ In Person	
Regarding:		CONTRACT AND THE STREET CONTRACT OF THE STREE			
Client Instructions:		AND THE RECEIVED AND AND AND AND AND AND AND AND AND AN	N. E. S.		
16. Additional remarks:	Company of the Compan				
Cooler Information Cooler No Temp °C Condition 1 1.1 Good	Seal Intact Seal No	Seal Date	Signed By		

					CHAIN OF CUSTODY RECORD
-4	Hall E	ANALYSIS /	Lab use only		
7	Laboratory: Ancul			REQUESTED	/ / / / Due Date:
APEX	Address: 490	•	,	1	
	Albuquerque		Tem to and part men	Temp. of coolers when received (C°):	
Office Location			0-1] 4	12 3 4 5
1006 S Rio Grande, SuiteA	Contact:	Treeman]] /	
Azter, NM 87410	Phone:			\ \delta \	/ / / / Pagel of
Project Manager K.Summers	PO/SO#:	ee notes	······	9/	
Sampler's Name	Sampler's Signature	7 0		2/ /	
Range Deechilly	Rual	<u> </u>		9//	
Proj. No. Project Name		No/Type of Contain	ners	# / /	
725040112442 Val Verde Plan				7//	
Matrix Date Time C G r Identifying Ma	rks of Sample(s)	VOA VOA 1LL.	Glass Jar P/O		Lab Sample ID (Lab Use Only)
S 8/29/18 1015 X S-34			1	×	1808174-001
S 8/29/18/1020 X 5-35	/		1	X	-102
			-		
	Ade				
	VP				
	150% Rush □ 100% Rush				
	Time: Requived by: (Sign	nature)	Date: 8/29/16	Time: NOTES	PM-Tom Long Pay Key - TC 25719
Relinquished by (Signature) Date:	Firme: Received by: (Sign	nature)	Date:	Time:	Pay Key - TC 25719
The wife of the state of the st	Time: Received by: (Sign	Contract of the contract of th	Date:	Time:	NOD AFE - N34996
					3177
Relinquished by (Signature) Date:	Time: Received by: (Sign	nature)	Date:	Time:	
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / O		uid A - Air Bag		coal tube SL - sludg	e O - Oil