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

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)*: **NCS1912335405**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.729277** Longitude **-107.956459** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Val Verde Plant**	Site Type **Natural Gas Processing Plant**
Date Release Discovered: **4/18/2019**	Serial Number *(if applicable)*: **NA**

Unit Letter	Section	Township	Range	County
A	**14**	**29N**	**11W**	**San Juan**

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls):	Volume Recovered (bbls):
☐ Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
☒ Other (describe)	Volume/Weight Released (provide units): **5-7 Barrels of Amine/Water Mix**	Volume/Weight Recovered (provide units) **None**

Cause of Release: On April 18, 2019, an operator observed that the Train 7 amine carbon bed secondary containment was full. In addition, an estimated five to seven barrels of an amine/water mix overflow the containment onto the ground. All released fluids remained on the plant property. Enterprise recovered the standing liquids as much as practicable. From April to September 2019, Enterprise completed the remediation. The final excavation measure approximately 101 feet long by 42 feet wide by 2.5 feet deep. Approximately 20 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

Form C-141 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 items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Jon E. Fields Title: Director, Environmental

Signature: Jon E. Fields Date: 11/05/2020

email: jefields@eprod.com Telephone: (713) 381-6684

OCD Only

Received by: Date:

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

Closure Approved by: Nelson Velez Date: 05/19/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

CLOSURE REPORT

Property:

Val Verde Plant Train 7 Release (April 2019)
NE ¼, S14 T29N R11W
San Juan County, New Mexico

December 4, 2019
Ensolum Project No. 05A1226054

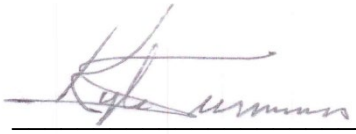
Prepared for:

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

Prepared by:

Chad D'Aponti
Field Environmental Scientist

Ranee Deechilly
Environmental Scientist



Kyle Summers, CPG
Sr. Project Manager

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ENSOLUM

CLOSURE REPORT

Val Verde Plant Train 7 Release (April 2019)
NE ¼, S14 T29N R11W
San Juan County, New Mexico

Ensolum Project No. 05A1226054

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Val Verde Plant Train 7 Release (April 2019) (Site)
Location:	36.729291° North, 107.956439° West Northeast (NE) ¼ of Section 14, Township 29 North, Range 11 West San Juan County, New Mexico
Property:	Private Land (Enterprise)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

During April 2019, a release from the Val Verde Plant Train 7 carbon vessel was identified by Enterprise personnel. The resulting release was characterized by liquids within the concrete containment and discoloration at the ground surface adjacent to the containment. A flow path traveled south from the carbon vessel skid and containment. Enterprise removed the liquids from the containment and subsequently initiated activities to remediate petroleum hydrocarbon impact resulting from the 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 closure activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria.

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to oil and gas release sites, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* which establishes investigation and abatement action requirements for oil and gas release sites subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Enterprise, the general site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site.

- Numerous points of diversions (POD) were identified within a one-half mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database. A nearby monitoring well network located in the Blanco Plant South Flare Pit and D Plant Area includes 11 registered groundwater monitoring wells and several unpermitted monitoring wells. Records for the 11 registered

groundwater monitoring wells do not indicate water depth, however, based on data from previous monitoring events, the nearest monitoring well (unpermitted) is located approximately 593 feet southwest of the Site with a depth to water of approximately 35 feet below grade surface (bgs). The records are not clear, but there appears to be an out-of-service industrial water well located at the facility (SJ-00007 - approximately 450 feet northeast of the release area according to the original permit submittal). No depth to water is listed for SJ-0007, but the total depth of the well is 752 feet.

- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution or church.
- No springs, or private domestic fresh-water wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.
- With the possible exception of the out-of-service facility well (SJ-00007), no fresh-water wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- The Site is not located within an unstable area.
- The Site is not located within a 100-year floodplain.

Based on the identified siting criteria, cleanup goals for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release		
Constituent	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015	100 mg/kg
BTEX	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

3.0 SOIL REMEDIATION ACTIVITIES

During April 2019, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities West States Energy Contractors, Inc., provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

To remediate the impact from the release, the area was scraped utilizing heavy equipment and hand tools. The final scraped excavation measured approximately 101 feet long and 42 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 30 inches bgs.

The lithology encountered during the completion of remediation activities consisted primarily of semi-consolidated silty sand and gravel.

A total of approximately 20 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.** The remaining 100 cubic yards of petroleum hydrocarbon affected soils identified on the C-138 are from an adjacent on-Site release that is currently being remediated, as well as from general Site housekeeping activities from the 2019 calendar year. The excavation was backfilled with imported fill and resurfaced with gravel to provide a suitable driving surface.

Figure 3 is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

4.0 SOIL SAMPLING PROGRAM

Ensolum field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system to guide excavation extents.

Ensolum's soil sampling program included the collection of 20 composite soil samples (FP-1 through FP-20), comprised of five (5) aliquots each, from the excavation for laboratory analysis. A clean shovel was utilized to obtain fresh aliquots from each area of the excavation. The New Mexico EMNRD OCD provided verbal approval to proceed with the sampling events. A New Mexico EMNRD OCD representative was not on-Site during the sampling activities.

First Sampling Event
On April 24, 2019, the release composite soil samples FP-1 through FP-9 (all at depths of 1'' bgs) were collected from the scraped release area. Analytical results from composite soil samples FP-2, FP-4, FP-6, FP-7, FP-8, and FP-9 indicated New Mexico EMNRD OCD closure standard exceedances. In response to the data exceedances, the area was further scraped/excavated to remove petroleum hydrocarbon impact. Soils associated with composite soil samples FP-2, FP-4, FP-6, FP-7, FP-8, and FP-9 were removed by scraping/excavation.

Second Sampling Event
On June 26, 2019, after the area had been further scraped/excavated, a second sampling event was performed. Composite soil samples FP-10 through FP-16 (all at depths of 2" bgs) were collected from the scraped/excavated area to replace composite soil samples FP-2, FP-4, FP-6, FP-7, FP-8, and FP-9 which had exhibited closure standard exceedances and were removed by scraping/excavation and were ultimately transported to the landfarm for disposal/remediation. Subsequent analytical results from composite soil sample FP-11 indicated a New Mexico EMNRD OCD closure standard exceedance.

Third Sampling Event
The area of the release represented by composite soil sample FP-11 was further scraped/excavated, and on August 7, 2019 composite soil sample FP-17 (3") was collected from the scraped/excavated area to replace composite soil sample FP-11. Soils associated with composite sample FP-11 were removed by scraping/excavation and were ultimately transported to the landfarm for disposal/remediation. Subsequent analytical results for composite soil sample FP-17 still indicated a New Mexico EMNRD OCD closure standard exceedance.

Fourth Sampling Event
The area of the release represented by composite soil sample FP-17 was further scraped/excavated (with a total depth now ranging from 9'' to 24'' bgs) and on August 28, 2019 composite soil sample FP-18 was collected from the floor and sidewalls of the deepened excavation to replace previous composite soil sample FP-17. Soils associated with composite sample FP-17 were removed by scraping/excavation and were ultimately transported to the landfarm for disposal/remediation. Subsequent analytical results for composite soil sample FP-18 indicated a New Mexico EMNRD OCD closure standard exceedance.

Fifth Sampling Event
The area of the release represented by composite soil sample FP-18 was further excavated (with a total depth ranging from 14" to 30" bgs) and on September 10, 2019 composite soil samples FP-19 and FP-20 were collected from the floor and sidewalls of the excavation to replace composite soil sample FP-18. Soils associated with composite sample FP-18 were removed by scraping/excavation and were ultimately transported to the landfarm for disposal/remediation.

Soil 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.

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021, 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, and chlorides using EPA Method #300.0.

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

6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results associated with the composite soil samples (FP-1, FP-3, FP-5, FP-10, FP-12 through FP-16, FP-19, and FP-20) to the applicable New Mexico EMNRD OCD closure criteria. In the event that the laboratory did not quantify a result for BTEX or chloride, Ensolum compared the laboratory supplied practical quantitation limits (PQLs) or reporting limits (RLs) to the New Mexico EMNRD OCD closure criteria. Due to the high PQLs/RLs associated with the TPH MRO range when using EPA SW-846 Method #8015, Ensolum only compared the quantified results to the New Mexico EMNRD OCD closure criteria. Soils associated with composite soil samples FP-2, FP-4, FP-6, FP-7, FP-8, FP-9, FP-11, FP-17, and FP-18 were transported to Envirotech landfarm for disposal/remediation and are not included in the following discussion.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate benzene is not present in concentrations greater than the laboratory PQLs/RLs,

which are less than the New Mexico EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site, indicate total BTEX is not present in concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for composite soil samples FP-14, FP-15, and FP-16 collected from soils remaining at the Site, indicate combined TPH GRO/DRO/MRO concentrations ranging from less than the PQL/RL to 84 mg/kg (FP-14 and FP-16), which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site, indicate chloride is not present in concentrations greater than laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg for chlorides.

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

7.0 RECLAMATION AND RE-VEGETATION

Enterprise backfilled the excavation with imported fill and resurfaced it with gravel to provide a suitable driving surface.

8.0 FINDINGS AND RECOMMENDATION

During April 2019, a release from the Val Verde Train 7 carbon vessel was identified by Enterprise personnel. The resulting release was characterized by liquids within the concrete containment and discoloration at the ground surface adjacent to the containment. A flow path traveled south from the carbon vessel skid and containment. Enterprise removed the liquids from the containment and subsequently initiated activities to remediate petroleum hydrocarbon impact resulting from the release.

- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria using the New Mexico EMNRD OCD's NMAC 19.15.29 *Releases* as guidance.

- A total of 20 composite soil samples were collected from the walls and floor of the final excavation and stockpiled soils for laboratory analysis. Based on soil laboratory analytical results, soils remaining in place do not exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria.

- A total of approximately 20 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The remaining 100 cubic yards of petroleum hydrocarbon affected soils identified on the C-138 are from an adjacent on-Site release that is currently being remediated, as well as from general Site housekeeping activities from the 2019 calendar year. The excavation was backfilled with imported fill and resurfaced with gravel to provide a suitable driving surface.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

Ensolum'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. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties).

9.2 Additional Limitations

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 Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings, and recommendations are based solely upon data available to Ensolum at the time of these services.

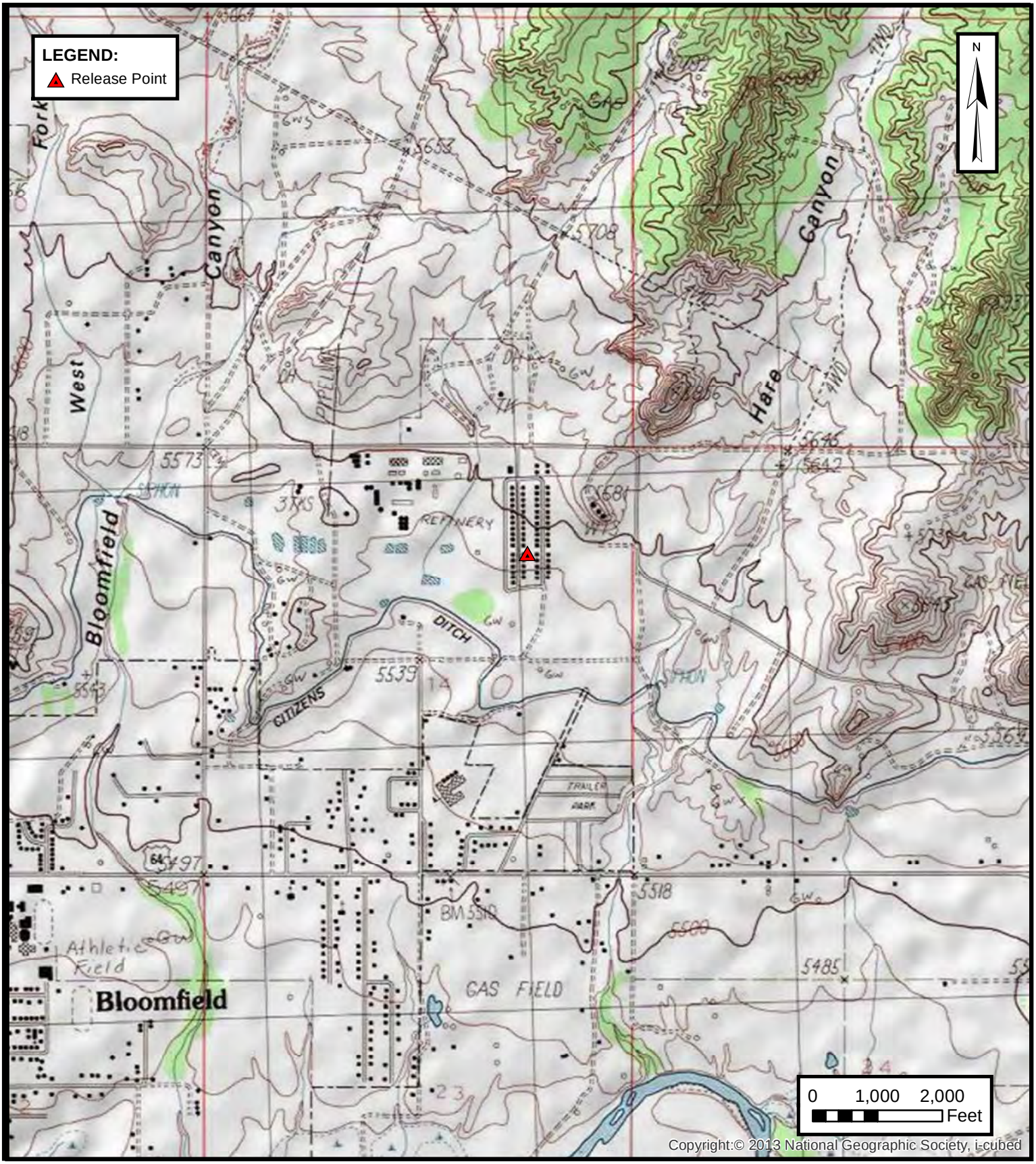
9.3 Reliance

This report has been prepared for the exclusive use of Enterprise Products Operating LLC, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization Enterprise Products Operating LLC and Ensolum. 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 Closure Report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

ENSOLUM

APPENDIX A

Figures



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Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
VAL VERDE PLANT TRAIN 7 RELEASE
NE ¼, S14 T29N R11W, San Juan County, New Mexico
36.729291° N, 107.956439° W

PROJECT NUMBER: 05A1226054

FIGURE
1

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Environmental & Hydrogeologic Consultants

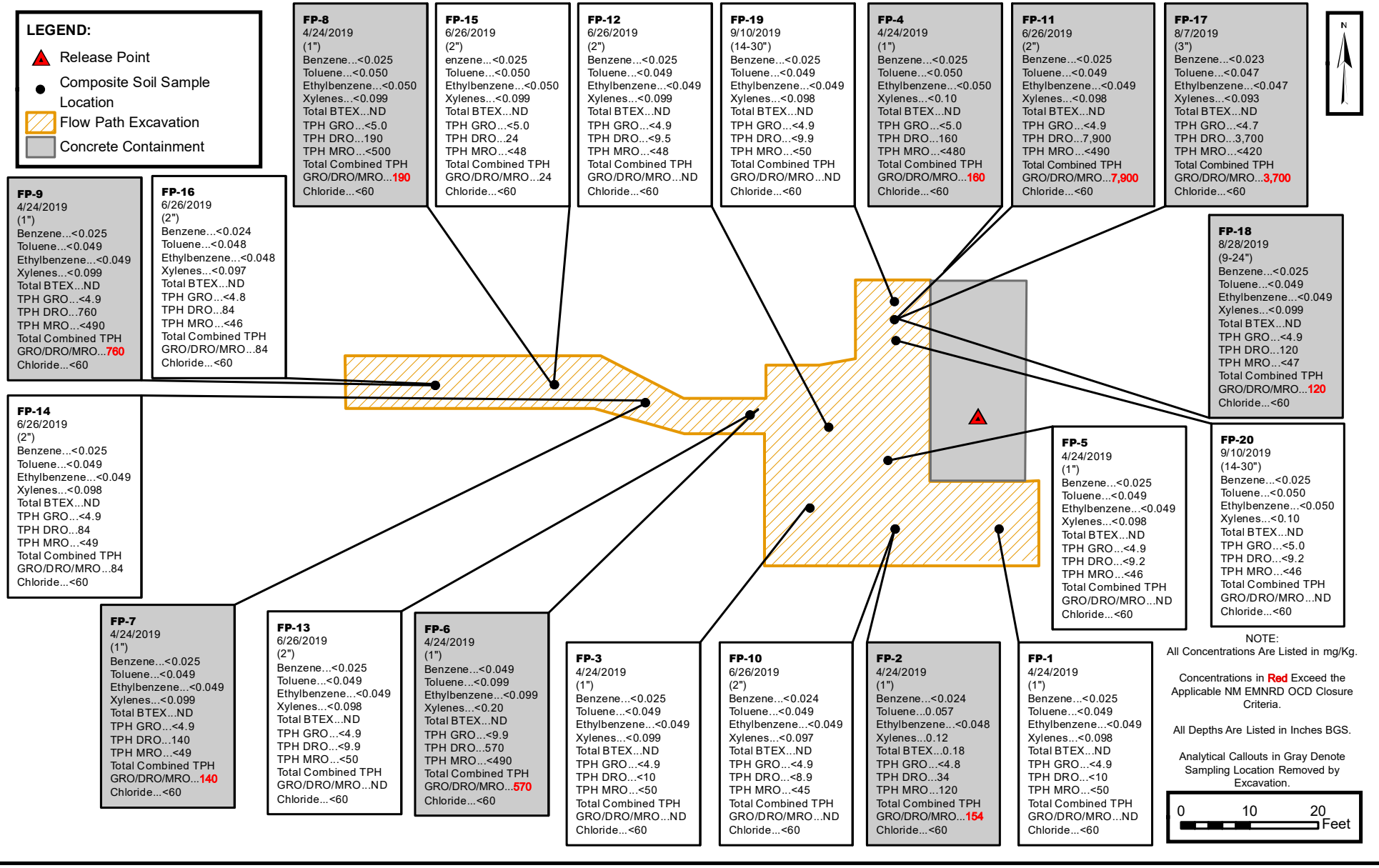
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
VAL VERDE PLANT TRAIN 7 RELEASE
NE ¼, S14 T29N R11W, San Juan County, New Mexico
36.729291° N, 107.956439° W

PROJECT NUMBER: 05A1226054

FIGURE

2



ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
VAL VERDE PLANT TRAIN 7 RELEASE
NE ¼, S14 T29N R11W, San Juan County, New Mexico
36.729291° N, 107.956439° W

PROJECT NUMBER: 05A1226054

FIGURE
3

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APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

State of New Mexico
Energy Minerals and Natural Resources 97057-1053
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

2. Originating Site:
Val Verde Plant

3. Location of Material (Street Address, City, State or ULSTR):
Unit B Sec 14 T 29N R 11W; 36.73073, -107.955920 Nov. 2019

4. Source and Description of Waste:
Source: Amine Spill Cleanup activities.
Description: Hydrocarbon/Amine impacted soil associated with an amine leak.
Estimated Volume 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 120 (yd³) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long (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 (Thomas Long) 11-19-19, representative for Enterprise Products Operating authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: West States Energy Contractors Doug Foutz

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-0011
Address of Facility: Hill Top, NM
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other
Waste Acceptance Status:
☒ APPROVED ☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Enviro Manager DATE: 11/24/19

SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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APPENDIX C

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Val Verde Plant Train 7 Release
Ensolum Project No. 05A1226054

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Photograph 1 Photograph Description: View of the initial scraped/excavated area, facing west.	
Photograph 2 Photograph Description: View of the initial scraped/excavated area, facing south.	
Photograph 3 Photograph Description: View of the initial scraped/excavated area, facing north.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Val Verde Plant Train 7 Release
Ensolum Project No. 05A1226054

ENSOLUM

Photograph 4 Photograph Description: View of the final scraped/excavated area and part of the carbon vessel skid/concrete containment, facing west.	
Photograph 5 Photograph Description: View of the final scraped/excavated area, facing southeast.	
Photograph 6 Photograph Description: View of the final scraped/excavated area, facing north.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Val Verde Plant Train 7 Release
Ensolum Project No. 05A1226054

ENSOLUM

Photograph 7 Photograph Description: View of the final scraped/excavated area, facing northwest.	
Photograph 8 Photograph Description: View of the final scraped/excavated area, facing northeast.	

ENSOLUM

APPENDIX D

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Val Verde Plant Train 7 Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (inches)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria				10	NE	NE	NE	50				100	600
Soil Samples Removed by Excavation													
FP-2	4.24.19	C	1	<0.024	0.057	<0.048	0.12	0.18	<4.8	34	120	**154**	<60
FP-4	4.24.19	C	1	<0.025	<0.050	<0.050	<0.10	ND	<5.0	160	<480	**160**	<60
FP-6	4.24.19	C	1	<0.049	<0.099	<0.099	<0.20	ND	<9.9	570	<490	**570**	<60
FP-7	4.24.19	C	1	<0.025	<0.049	<0.049	<0.099	ND	<4.9	140	<49	**140**	<60
FP-8	4.24.19	C	1	<0.025	<0.050	<0.050	<0.099	ND	<5.0	190	<500	**190**	<60
FP-9	4.24.19	C	1	<0.025	<0.049	<0.049	<0.099	ND	<4.9	760	<490	**760**	<60
FP-11	6.26.19	C	2	<0.025	<0.049	<0.049	<0.098	ND	<4.9	7,900	<490	**7,900**	<60
FP-17	8.07.19	C	3	<0.023	<0.047	<0.047	<0.093	ND	<4.7	3,700	<420	**3,700**	<60
FP-18	8.28.19	C	9 to 24	<0.025	<0.049	<0.049	<0.099	ND	<4.9	120	<47	**120**	<60
Composite Soil Samples													
FP-1	4.24.19	C	1	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<10	<50	ND	<60
FP-3	4.24.19	C	1	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<10	<50	ND	<60
FP-5	4.24.19	C	1	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.2	<46	ND	<60
FP-10	6.26.19	C	2	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<8.9	<45	ND	<60
FP-12	6.26.19	C	2	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.5	<48	ND	<60
FP-13	6.26.19	C	2	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<50	ND	<60
FP-14	6.26.19	C	2	<0.025	<0.049	<0.049	<0.098	ND	<4.9	84	<49	84	<60
FP-15	6.26.19	C	2	<0.025	<0.050	<0.050	<0.099	ND	<5.0	24	<48	24	<60
FP-16	6.26.19	C	2	<0.024	<0.048	<0.048	<0.097	ND	<4.8	84	<46	84	<60
FP-19	9.10.19	C	14 to 30	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<50	ND	<60
FP-20	9.10.19	C	14 to 30	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.2	<46	ND	<60

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

ND = Not Detected above the Practical Quantitation Limits or Reporting Limits

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbon

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

ENSOLUM

APPENDIX E

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 01, 2019

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Val Verde Train 7 OrderNo.: 1904C04

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/25/2019 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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-1
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:00:00 AM
Lab ID: 1904C04-001 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 3:17:53 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/30/2019 12:09:40 PM	44544
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/30/2019 12:09:40 PM	44544
Surr: DNOP	114	70-130		%Rec	1	4/30/2019 12:09:40 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 4:43:27 PM	44536
Surr: BFB	88.4	73.8-119		%Rec	1	4/26/2019 4:43:27 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 4:43:27 PM	44536
Toluene	ND	0.049		mg/Kg	1	4/26/2019 4:43:27 PM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 4:43:27 PM	44536
Xylenes, Total	ND	0.098		mg/Kg	1	4/26/2019 4:43:27 PM	44536
Surr: 4-Bromofluorobenzene	86.7	80-120		%Rec	1	4/26/2019 4:43:27 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-2
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:05:00 AM
Lab ID: 1904C04-002 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 3:30:17 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	34	9.5		mg/Kg	1	4/30/2019 12:34:00 PM	44544
Motor Oil Range Organics (MRO)	120	48		mg/Kg	1	4/30/2019 12:34:00 PM	44544
Surr: DNOP	130	70-130		%Rec	1	4/30/2019 12:34:00 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/26/2019 5:53:31 PM	44536
Surr: BFB	88.1	73.8-119		%Rec	1	4/26/2019 5:53:31 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/26/2019 5:53:31 PM	44536
Toluene	0.057	0.048		mg/Kg	1	4/26/2019 5:53:31 PM	44536
Ethylbenzene	ND	0.048		mg/Kg	1	4/26/2019 5:53:31 PM	44536
Xylenes, Total	0.12	0.096		mg/Kg	1	4/26/2019 5:53:31 PM	44536
Surr: 4-Bromofluorobenzene	86.3	80-120		%Rec	1	4/26/2019 5:53:31 PM	44536

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

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
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-3
Project: Val Verde Train 7
Collection Date: 4/24/2019 9:10:00 AM
Lab ID: 1904C04-003 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 3:42:41 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/26/2019 7:20:03 PM	44544
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/26/2019 7:20:03 PM	44544
Surr: DNOP	121	70-130		%Rec	1	4/26/2019 7:20:03 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 7:03:58 PM	44536
Surr: BFB	87.4	73.8-119		%Rec	1	4/26/2019 7:03:58 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 7:03:58 PM	44536
Toluene	ND	0.049		mg/Kg	1	4/26/2019 7:03:58 PM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 7:03:58 PM	44536
Xylenes, Total	ND	0.099		mg/Kg	1	4/26/2019 7:03:58 PM	44536
Surr: 4-Bromofluorobenzene	85.9	80-120		%Rec	1	4/26/2019 7:03:58 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-4
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:15:00 AM
Lab ID: 1904C04-004 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 3:55:05 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	160	96		mg/Kg	10	4/26/2019 4:04:35 PM	44544
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	4/26/2019 4:04:35 PM	44544
Surr: DNOP	0	70-130	S	%Rec	10	4/26/2019 4:04:35 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/26/2019 7:27:13 PM	44536
Surr: BFB	94.9	73.8-119		%Rec	1	4/26/2019 7:27:13 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 7:27:13 PM	44536
Toluene	ND	0.050		mg/Kg	1	4/26/2019 7:27:13 PM	44536
Ethylbenzene	ND	0.050		mg/Kg	1	4/26/2019 7:27:13 PM	44536
Xylenes, Total	ND	0.10		mg/Kg	1	4/26/2019 7:27:13 PM	44536
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	4/26/2019 7:27:13 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-5
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:20:00 AM
Lab ID: 1904C04-005 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 4:32:19 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/30/2019 1:22:42 PM	44544
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/30/2019 1:22:42 PM	44544
Surr: DNOP	110	70-130		%Rec	1	4/30/2019 1:22:42 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 7:50:32 PM	44536
Surr: BFB	90.4	73.8-119		%Rec	1	4/26/2019 7:50:32 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 7:50:32 PM	44536
Toluene	ND	0.049		mg/Kg	1	4/26/2019 7:50:32 PM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 7:50:32 PM	44536
Xylenes, Total	ND	0.098		mg/Kg	1	4/26/2019 7:50:32 PM	44536
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	4/26/2019 7:50:32 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-6
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:25:00 AM
Lab ID: 1904C04-006 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	ND	60		mg/Kg	20	4/28/2019 5:09:33 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	570	98		mg/Kg	10	4/26/2019 4:53:15 PM	44544
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/26/2019 4:53:15 PM	44544
Surr: DNOP	0	70-130	S	%Rec	10	4/26/2019 4:53:15 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	9.9	D	mg/Kg	2	4/26/2019 8:13:52 PM	44536
Surr: BFB	102	73.8-119	D	%Rec	2	4/26/2019 8:13:52 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.049	D	mg/Kg	2	4/26/2019 8:13:52 PM	44536
Toluene	ND	0.099	D	mg/Kg	2	4/26/2019 8:13:52 PM	44536
Ethylbenzene	ND	0.099	D	mg/Kg	2	4/26/2019 8:13:52 PM	44536
Xylenes, Total	ND	0.20	D	mg/Kg	2	4/26/2019 8:13:52 PM	44536
Surr: 4-Bromofluorobenzene	90.7	80-120	D	%Rec	2	4/26/2019 8:13:52 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-7
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:30:00 AM
Lab ID: 1904C04-007 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 5:21:57 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	140	9.7		mg/Kg	1	4/29/2019 10:14:35 AM	44544
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/29/2019 10:14:35 AM	44544
Surr: DNOP	103	70-130		%Rec	1	4/29/2019 10:14:35 AM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 8:37:15 PM	44536
Surr: BFB	88.2	73.8-119		%Rec	1	4/26/2019 8:37:15 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 8:37:15 PM	44536
Toluene	ND	0.049		mg/Kg	1	4/26/2019 8:37:15 PM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 8:37:15 PM	44536
Xylenes, Total	ND	0.099		mg/Kg	1	4/26/2019 8:37:15 PM	44536
Surr: 4-Bromofluorobenzene	87.8	80-120		%Rec	1	4/26/2019 8:37:15 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-8
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:35:00 AM
Lab ID: 1904C04-008 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 5:34:21 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	190	99		mg/Kg	10	4/26/2019 5:41:58 PM	44544
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	4/26/2019 5:41:58 PM	44544
Surr: DNOP	0	70-130	S	%Rec	10	4/26/2019 5:41:58 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/26/2019 9:23:59 PM	44536
Surr: BFB	89.9	73.8-119		%Rec	1	4/26/2019 9:23:59 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 9:23:59 PM	44536
Toluene	ND	0.050		mg/Kg	1	4/26/2019 9:23:59 PM	44536
Ethylbenzene	ND	0.050		mg/Kg	1	4/26/2019 9:23:59 PM	44536
Xylenes, Total	ND	0.099		mg/Kg	1	4/26/2019 9:23:59 PM	44536
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	4/26/2019 9:23:59 PM	44536

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

Qualifiers:

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

Analytical Report
Lab Order **1904C04**
Date Reported: **5/1/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-9
Project: Val Verde Train 7 **Collection Date:** 4/24/2019 9:40:00 AM
Lab ID: 1904C04-009 **Matrix:** SOIL **Received Date:** 4/25/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/28/2019 5:46:46 PM	44582
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	760	99		mg/Kg	10	4/26/2019 6:06:23 PM	44544
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	4/26/2019 6:06:23 PM	44544
Surr: DNOP		-		%Rec	10	4/26/2019 6:06:23 PM	44544
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/26/2019 9:47:22 PM	44536
Surr: BFB	87.7	73.8-119		%Rec	1	4/26/2019 9:47:22 PM	44536
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/26/2019 9:47:22 PM	44536
Toluene	ND	0.049		mg/Kg	1	4/26/2019 9:47:22 PM	44536
Ethylbenzene	ND	0.049		mg/Kg	1	4/26/2019 9:47:22 PM	44536
Xylenes, Total	ND	0.099		mg/Kg	1	4/26/2019 9:47:22 PM	44536
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	4/26/2019 9:47:22 PM	44536

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C04**
01-May-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-44582**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44582**	RunNo: **59494**							
Prep Date: **4/28/2019**	Analysis Date: **4/28/2019**	SeqNo: **2004472**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44582**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44582**	RunNo: **59494**							
Prep Date: **4/28/2019**	Analysis Date: **4/28/2019**	SeqNo: **2004473**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C04**

01-May-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **LCS-44544**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44544**	RunNo: **59449**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2002781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	63.9	124			
Surr: DNOP	4.8		5.000		96.9	70	130			

Sample ID: **MB-44544**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44544**	RunNo: **59449**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2002782** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	14		10.00		144	70	130			S

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C04**
01-May-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-44536**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003356** 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	870		1000		86.9	73.8	119			

Sample ID: **LCS-44536**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

Sample ID: **1904C04-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FP-1**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.68	0	101	69.1	142			
Surr: BFB	950		987.2		96.2	73.8	119			

Sample ID: **1904C04-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FP-1**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.53	0	101	69.1	142	0.868	20	
Surr: BFB	1000		981.4		101	73.8	119	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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904C04**
01-May-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-44536**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.2	80	120			

Sample ID: **LCS-44536**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003390** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.3	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

Sample ID: **1904C04-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FP-2**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003393** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9901	0.01925	95.2	63.9	127			
Toluene	1.0	0.050	0.9901	0.05669	97.4	69.9	131			
Ethylbenzene	0.98	0.050	0.9901	0.01319	97.2	71	132			
Xylenes, Total	3.0	0.099	2.970	0.1218	96.0	71.8	131			
Surr: 4-Bromofluorobenzene	0.87		0.9901		88.3	80	120			

Sample ID: **1904C04-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FP-2**	Batch ID: **44536**	RunNo: **59464**
Prep Date: **4/25/2019**	Analysis Date: **4/26/2019**	SeqNo: **2003394** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9901	0.01925	96.8	63.9	127	1.59	20	
Toluene	1.1	0.050	0.9901	0.05669	101	69.9	131	3.06	20	
Ethylbenzene	0.99	0.050	0.9901	0.01319	98.2	71	132	1.06	20	
Xylenes, Total	3.0	0.099	2.970	0.1218	96.8	71.8	131	0.746	20	
Surr: 4-Bromofluorobenzene	0.89		0.9901		89.8	80	120	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
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: ENSOLUM AZTEC Work Order Number: 1904C04 RcptNo: 1

Received By: Anne Thorne 4/25/2019 8:10:00 AM

Completed By: Anne Thorne 4/25/2019 9:08:10 AM

Reviewed By: ENM 4/25/19

Labeled by: DAD 4/25/19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 4/25/19

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suite A
Aztec NM

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5-1-19
☒ Standard ☐ Rush

Project Name: Val Verde Train 7

Project #:

Project Manager: K Summers

Sampler: C Raponti
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904C04	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride 300
4/23/19	900	S	FP-1	1 4oz Jar		001	X	X									X
	905		FP-2			002											
	910		FP-3			003											
	915		FP-4			004											
	920		FP-5			005											
	925		FP-6			006											
	930		FP-7			007											
	935		FP-8			008											
	940		FP-9			009											

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4-24-19	1316		Mustu Walt		4/24/19	1316
4/24/19	1920	Mustu Walt			04/25/19	0810

Remarks: pm Tom Long
Pay Key TC25719

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 09, 2019

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Val Verde Train 7 OrderNo.: 1906E90

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 6/27/2019 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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-10
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:30:00 AM
Lab ID: 1906E90-001 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	ND	60		mg/Kg	20	7/1/2019 8:02:35 PM	45938
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	7/5/2019 12:45:59 PM	45908
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/5/2019 12:45:59 PM	45908
Surr: DNOP	70.4	70-130		%Rec	1	7/5/2019 12:45:59 PM	45908
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2019 4:34:14 PM	45910
Surr: BFB	100	73.8-119		%Rec	1	7/1/2019 4:34:14 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	7/1/2019 4:34:14 PM	45910
Toluene	ND	0.049		mg/Kg	1	7/1/2019 4:34:14 PM	45910
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2019 4:34:14 PM	45910
Xylenes, Total	ND	0.097		mg/Kg	1	7/1/2019 4:34:14 PM	45910
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	7/1/2019 4:34:14 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-11
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:35:00 AM
Lab ID: 1906E90-002 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	ND	60		mg/Kg	20	7/1/2019 8:48:07 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	7900	98		mg/Kg	10	7/1/2019 12:38:15 PM	45917
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	7/1/2019 12:38:15 PM	45917
Surr: DNOP	0	70-130	S	%Rec	10	7/1/2019 12:38:15 PM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2019 9:50:46 PM	45910
Surr: BFB	94.4	73.8-119		%Rec	1	7/1/2019 9:50:46 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	7/1/2019 9:50:46 PM	45910
Toluene	ND	0.049		mg/Kg	1	7/1/2019 9:50:46 PM	45910
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2019 9:50:46 PM	45910
Xylenes, Total	ND	0.098		mg/Kg	1	7/1/2019 9:50:46 PM	45910
Surr: 4-Bromofluorobenzene	83.5	80-120		%Rec	1	7/1/2019 9:50:46 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-12
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:40:00 AM
Lab ID: 1906E90-003 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	7/1/2019 9:00:31 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/3/2019 2:34:44 PM	45917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/3/2019 2:34:44 PM	45917
Surr: DNOP	90.4	70-130		%Rec	1	7/3/2019 2:34:44 PM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2019 4:56:54 PM	45910
Surr: BFB	99.1	73.8-119		%Rec	1	7/1/2019 4:56:54 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/1/2019 4:56:54 PM	45910
Toluene	ND	0.049		mg/Kg	1	7/1/2019 4:56:54 PM	45910
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2019 4:56:54 PM	45910
Xylenes, Total	ND	0.099		mg/Kg	1	7/1/2019 4:56:54 PM	45910
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	7/1/2019 4:56:54 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-13
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:45:00 AM
Lab ID: 1906E90-004 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	ND	60		mg/Kg	20	7/1/2019 9:37:46 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/2/2019 3:50:00 AM	45917
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/2/2019 3:50:00 AM	45917
Surr: DNOP	80.7	70-130		%Rec	1	7/2/2019 3:50:00 AM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2019 5:19:34 PM	45910
Surr: BFB	99.8	73.8-119		%Rec	1	7/1/2019 5:19:34 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	7/1/2019 5:19:34 PM	45910
Toluene	ND	0.049		mg/Kg	1	7/1/2019 5:19:34 PM	45910
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2019 5:19:34 PM	45910
Xylenes, Total	ND	0.098		mg/Kg	1	7/1/2019 5:19:34 PM	45910
Surr: 4-Bromofluorobenzene	94.3	80-120		%Rec	1	7/1/2019 5:19:34 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-14
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:50:00 AM
Lab ID: 1906E90-005 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	ND	60		mg/Kg	20	7/1/2019 9:50:10 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	84	9.7		mg/Kg	1	7/2/2019 4:14:37 AM	45917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/2/2019 4:14:37 AM	45917
Surr: DNOP	77.5	70-130		%Rec	1	7/2/2019 4:14:37 AM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/1/2019 5:42:13 PM	45910
Surr: BFB	101	73.8-119		%Rec	1	7/1/2019 5:42:13 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	7/1/2019 5:42:13 PM	45910
Toluene	ND	0.049		mg/Kg	1	7/1/2019 5:42:13 PM	45910
Ethylbenzene	ND	0.049		mg/Kg	1	7/1/2019 5:42:13 PM	45910
Xylenes, Total	ND	0.098		mg/Kg	1	7/1/2019 5:42:13 PM	45910
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	7/1/2019 5:42:13 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-15
Project: Val Verde Train 7
Collection Date: 6/26/2019 9:55:00 AM
Lab ID: 1906E90-006 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	7/1/2019 10:02:35 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	24	9.6		mg/Kg	1	7/2/2019 4:39:09 AM	45917
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/2/2019 4:39:09 AM	45917
Surr: DNOP	84.6	70-130		%Rec	1	7/2/2019 4:39:09 AM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2019 10:13:42 PM	45910
Surr: BFB	98.5	73.8-119		%Rec	1	7/1/2019 10:13:42 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/1/2019 10:13:42 PM	45910
Toluene	ND	0.050		mg/Kg	1	7/1/2019 10:13:42 PM	45910
Ethylbenzene	ND	0.050		mg/Kg	1	7/1/2019 10:13:42 PM	45910
Xylenes, Total	ND	0.099		mg/Kg	1	7/1/2019 10:13:42 PM	45910
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	7/1/2019 10:13:42 PM	45910

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

Qualifiers:

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

Analytical Report
Lab Order **1906E90**
Date Reported: **7/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-16
Project: Val Verde Train 7
Collection Date: 6/26/2019 10:00:00 AM
Lab ID: 1906E90-007 **Matrix:** SOIL **Received Date:** 6/27/2019 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	7/1/2019 10:15:00 PM	45943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	84	9.2		mg/Kg	1	7/2/2019 5:03:41 AM	45917
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/2/2019 5:03:41 AM	45917
Surr: DNOP	97.2	70-130		%Rec	1	7/2/2019 5:03:41 AM	45917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/1/2019 10:36:27 PM	45910
Surr: BFB	106	73.8-119		%Rec	1	7/1/2019 10:36:27 PM	45910
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/1/2019 10:36:27 PM	45910
Toluene	ND	0.048		mg/Kg	1	7/1/2019 10:36:27 PM	45910
Ethylbenzene	ND	0.048		mg/Kg	1	7/1/2019 10:36:27 PM	45910
Xylenes, Total	ND	0.097		mg/Kg	1	7/1/2019 10:36:27 PM	45910
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	7/1/2019 10:36:27 PM	45910

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1906E90**
09-Jul-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-45943**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **45943**	RunNo: **61068**							
Prep Date: **7/1/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068978**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-45943**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **45943**	RunNo: **61068**							
Prep Date: **7/1/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068979**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Sample ID: **MB-45938**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **45938**	RunNo: **61084**							
Prep Date: **7/1/2019**	Analysis Date: **7/1/2019**	SeqNo: **2069059**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-45938**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **45938**	RunNo: **61084**							
Prep Date: **7/1/2019**	Analysis Date: **7/1/2019**	SeqNo: **2069060**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.6	90	110			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1906E90**
09-Jul-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-45908**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **45908**	RunNo: **61050**
Prep Date: **6/28/2019**	Analysis Date: **6/29/2019**	SeqNo: **2067249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.9	70	130			

Sample ID: **LCS-45908**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **45908**	RunNo: **61050**
Prep Date: **6/28/2019**	Analysis Date: **6/29/2019**	SeqNo: **2067252** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.0	63.9	124			
Surr: DNOP	4.3		5.000		85.5	70	130			

Sample ID: **LCS-45917**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **45917**	RunNo: **61059**
Prep Date: **6/29/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068167** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.1	63.9	124			
Surr: DNOP	4.7		5.000		94.3	70	130			

Sample ID: **MB-45917**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **45917**	RunNo: **61059**
Prep Date: **6/29/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068168** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		95.0	70	130			

Sample ID: **MB-45975**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **45975**	RunNo: **61135**
Prep Date: **7/2/2019**	Analysis Date: **7/3/2019**	SeqNo: **2072210** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		84.8	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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1906E90**
09-Jul-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **LCS-45975** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **45975** RunNo: **61135**
Prep Date: **7/2/2019** Analysis Date: **7/3/2019** SeqNo: **2072212** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.7	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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1906E90**

09-Jul-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-45910**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **45910**	RunNo: **61078**
Prep Date: **6/28/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068536** 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	950		1000		95.5	73.8	119			

Sample ID: **LCS-45910**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **45910**	RunNo: **61078**
Prep Date: **6/28/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.5	80.1	123			
Surr: BFB	1100		1000		110	73.8	119			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1906E90**
09-Jul-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-45910**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **45910**	RunNo: **61078**
Prep Date: **6/28/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068566** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		91.5	80	120			

Sample ID: **LCS-45910**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **45910**	RunNo: **61078**
Prep Date: **6/28/2019**	Analysis Date: **7/1/2019**	SeqNo: **2068567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

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
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **ENSOLUM AZTEC** Work Order Number: **1906E90** RcptNo: **1**

Received By: **Thom Maybee** **6/27/2019 8:25:00 AM**

Completed By: **Leah Baca** **6/27/2019 9:37:09 AM** Leah SBaca

Reviewed By: DAD 6/27/19

Chain of Custody

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

Log In

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

TO 6/27/19

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			
2	0.6	Good	Yes			
3	0.8	Good	Yes			
4	5.7	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6006 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolum.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Val Verde Train 7

Project #: see notes

Project Manager: KSummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 4 2+02 = 2.6 / 0.1+0.2 = 0.6

Cooler Temp (including CF): 0.6 (+0.2) = 0.8 / 5.5 (+0.2) = 5.7 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1906E90	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	chlorides
6/26/19	930	S	FP-10	1 4oz Jar	cool	-001	X	X									X
6/26/19	935	S	FP-11	1 4oz Jar	cool	-002	X	X									X
6/26/19	940	S	FP-12	1 4oz Jar	cool	-003	X	X									X
6/26/19	945	S	FP-13	1 4oz Jar	cool	-004	X	X									X
6/26/19	950	S	FP-14	1 4oz Jar	cool	-005	X	X									X
6/26/19	955	S	FP-15	1 4oz Jar	cool	-006	X	X									X
6/26/19	1000	S	FP-16	1 4oz Jar	cool	-007	X	X									X

NTS

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/26/19	1332	RDeechilly	Mustin Walter		6/26/19	1332
6/26/19	1840	Mustin Walter		Courier	6-27-19	8.25

Remarks: PM - Tom Long (EPROD)
Pay Key - TC25719

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 14, 2019

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

RE: Val Verde Train 7 OrderNo.: 1908424

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/8/2019 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

Analytical Report
Lab Order **1908424**
Date Reported: **8/14/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-17
Project: Val Verde Train 7
Collection Date: 8/7/2019 9:30:00 AM
Lab ID: 1908424-001 **Matrix:** SOIL **Received Date:** 8/8/2019 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	8/13/2019 4:43:22 PM	46757
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	3700	85		mg/Kg	10	8/13/2019 7:51:02 PM	46728
Motor Oil Range Organics (MRO)	ND	420		mg/Kg	10	8/13/2019 7:51:02 PM	46728
Surr: DNOP	0	70-130	S	%Rec	10	8/13/2019 7:51:02 PM	46728
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/10/2019 11:14:11 AM	46708
Surr: BFB	99.5	77.4-118		%Rec	1	8/10/2019 11:14:11 AM	46708
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	8/10/2019 11:14:11 AM	46708
Toluene	ND	0.047		mg/Kg	1	8/10/2019 11:14:11 AM	46708
Ethylbenzene	ND	0.047		mg/Kg	1	8/10/2019 11:14:11 AM	46708
Xylenes, Total	ND	0.093		mg/Kg	1	8/10/2019 11:14:11 AM	46708
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	8/10/2019 11:14:11 AM	46708

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908424**

14-Aug-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-46757**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **46757**	RunNo: **62096**							
Prep Date: **8/13/2019**	Analysis Date: **8/13/2019**	SeqNo: **2108091**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-46757**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **46757**	RunNo: **62096**							
Prep Date: **8/13/2019**	Analysis Date: **8/13/2019**	SeqNo: **2108092**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.0	90	110			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908424**

14-Aug-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **LCS-46750**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **46750**	RunNo: **62090**
Prep Date: **8/13/2019**	Analysis Date: **8/13/2019**	SeqNo: **2107006** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.3	70	130			

Sample ID: **MB-46750**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **46750**	RunNo: **62090**
Prep Date: **8/13/2019**	Analysis Date: **8/13/2019**	SeqNo: **2107007** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		104	70	130			

Sample ID: **LCS-46728**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **46728**	RunNo: **62090**
Prep Date: **8/12/2019**	Analysis Date: **8/13/2019**	SeqNo: **2108302** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.8	63.9	124			
Surr: DNOP	4.3		5.000		85.1	70	130			

Sample ID: **MB-46728**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **46728**	RunNo: **62090**
Prep Date: **8/12/2019**	Analysis Date: **8/13/2019**	SeqNo: **2108305** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		97.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908424**

14-Aug-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-46708**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **46708**	RunNo: **62045**
Prep Date: **8/9/2019**	Analysis Date: **8/10/2019**	SeqNo: **2105176** 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	990		1000		99.2	77.4	118			

Sample ID: **LCS-46708**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **46708**	RunNo: **62045**
Prep Date: **8/9/2019**	Analysis Date: **8/10/2019**	SeqNo: **2105177** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.4	80	120			
Surr: BFB	1200		1000		116	77.4	118			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908424**

14-Aug-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-46708** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **46708** RunNo: **62045**

Prep Date: **8/9/2019** Analysis Date: **8/10/2019** SeqNo: **2105203** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.2	80	120			

Sample ID: **LCS-46708** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **46708** RunNo: **62045**

Prep Date: **8/9/2019** Analysis Date: **8/10/2019** SeqNo: **2105204** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.6	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: **1908424-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **FP-17** Batch ID: **46708** RunNo: **62045**

Prep Date: **8/9/2019** Analysis Date: **8/10/2019** SeqNo: **2105207** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.023	0.9174	0	96.7	63.9	127			
Toluene	0.96	0.046	0.9174	0	104	69.9	131			
Ethylbenzene	1.0	0.046	0.9174	0	109	71	132			
Xylenes, Total	3.0	0.092	2.752	0	110	71.8	131			
Surr: 4-Bromofluorobenzene	0.88		0.9174		96.1	80	120			

Sample ID: **1908424-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **FP-17** Batch ID: **46708** RunNo: **62045**

Prep Date: **8/9/2019** Analysis Date: **8/10/2019** SeqNo: **2105208** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9615	0	98.7	63.9	127	6.69	20	
Toluene	1.0	0.048	0.9615	0	106	69.9	131	6.45	20	
Ethylbenzene	1.1	0.048	0.9615	0	111	71	132	5.94	20	
Xylenes, Total	3.2	0.096	2.885	0	111	71.8	131	5.66	20	
Surr: 4-Bromofluorobenzene	0.94		0.9615		97.6	80	120	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
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **ENSOLUM AZTEC** Work Order Number: **1908424** RcptNo: **1**

Received By: Daniel M. **8/8/2019 8:00:00 AM**

Completed By: **Erin Melendrez** **8/8/2019 9:11:36 AM**

Reviewed By: 8/9/19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: YG 8/9/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Yes			
2	1.4	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6006 S. Rio Grande Suite A

Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolumcom

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: Val Verde Train 7

Project #: 3eenees

Project Manager: KSummers

Sampler: RDeechilly

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 4.3-0.1=4.2/5.0.1=5.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No 1908424	BTEX / ~~MTBE / TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
8/7/19	930	S	FP-17	1x4oz Jar	cool	-001	X	X									X

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
8/7/19	1515				8/7/19	1515
8/7/19	1810			Courier	8/8/19	8:00

Remarks: PM - Tom Long (EPROD)
Pay Key - TC25719

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 05, 2019

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Val Verde Train 7 OrderNo.: 1908H37

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/29/2019 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

Analytical Report
Lab Order **1908H37**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-18
Project: Val Verde Train 7
Collection Date: 8/28/2019 9:35:00 AM
Lab ID: 1908H37-001 **Matrix:** SOIL **Received Date:** 8/29/2019 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	9/3/2019 12:16:04 PM	47221
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	120	9.3		mg/Kg	1	9/3/2019 8:47:32 PM	47187
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/3/2019 8:47:32 PM	47187
Surr: DNOP	108	70-130		%Rec	1	9/3/2019 8:47:32 PM	47187
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/30/2019 1:13:53 PM	47173
Surr: BFB	94.0	77.4-118		%Rec	1	8/30/2019 1:13:53 PM	47173
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	8/30/2019 1:13:53 PM	47173
Toluene	ND	0.049		mg/Kg	1	8/30/2019 1:13:53 PM	47173
Ethylbenzene	ND	0.049		mg/Kg	1	8/30/2019 1:13:53 PM	47173
Xylenes, Total	ND	0.099		mg/Kg	1	8/30/2019 1:13:53 PM	47173
Surr: 4-Bromofluorobenzene	94.1	80-120		%Rec	1	8/30/2019 1:13:53 PM	47173

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908H37**

05-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-47221**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **47221**	RunNo: **62605**
Prep Date: **9/3/2019**	Analysis Date: **9/3/2019**	SeqNo: **2131826** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-47221**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **47221**	RunNo: **62605**
Prep Date: **9/3/2019**	Analysis Date: **9/3/2019**	SeqNo: **2131827** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908H37**

05-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **LCS-47187** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **47187** RunNo: **62625**

Prep Date: **8/30/2019** Analysis Date: **9/3/2019** SeqNo: **2131974** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	63.9	124			
Surr: DNOP	4.8		5.000		95.3	70	130			

Sample ID: **MB-47187** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **47187** RunNo: **62625**

Prep Date: **8/30/2019** Analysis Date: **9/3/2019** SeqNo: **2131975** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		116	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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908H37**

05-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-47173**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **47173**	RunNo: **62566**
Prep Date: **8/29/2019**	Analysis Date: **8/30/2019**	SeqNo: **2129020** 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	910		1000		90.9	77.4	118			

Sample ID: **LCS-47173**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **47173**	RunNo: **62566**
Prep Date: **8/29/2019**	Analysis Date: **8/30/2019**	SeqNo: **2129021** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	86.0	80	120			
Surr: BFB	1000		1000		100	77.4	118			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908H37**

05-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-47173** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **47173** RunNo: **62566**

Prep Date: **8/29/2019** Analysis Date: **8/30/2019** SeqNo: **2129059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	80	120			

Sample ID: **LCS-47173** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **47173** RunNo: **62566**

Prep Date: **8/29/2019** Analysis Date: **8/30/2019** SeqNo: **2129060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.3	80	120			

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
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: ENSOLUM AZTEC Work Order Number: 1908H37 RcptNo: 1

Received By: Desiree Dominguez ~~8/28/2019 12:40:00 PM~~ 8/29/19 8:15AM YC 8/29/19

Completed By: Yazmine Garduno 8/29/2019 9:16:04 AM

Reviewed By: JC 8/29/19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: DAD 8/29/19

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good				

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6065 Rio Grande Suite A

Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 3-DAY

☐ Standard ☒ Rush

Project Name: Val Verde Train 7

Project #: see notes

Project Manager: ksummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.0 - 0.0 = 3.0c

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1908H37	BTEX / ~~MTBE / TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
8/28/19	935	S	FP-18	1x4oz Jar	cool	-001	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
8/28/19	1240		Christian Waeles		8/28/19	1240
8/28/19	1902	Christian Waeles		Courier	8/29/19	8:15

Remarks: PM - Tom Long (EPROD)
PWS Key - TC25719

3-DAY Turnaround

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 20, 2019

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Val Verde Train 7 OrderNo.: 1909535

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/11/2019 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

Analytical Report
Lab Order **1909535**
Date Reported: **9/20/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-19
Project: Val Verde Train 7
Collection Date: 9/10/2019 1:20:00 PM
Lab ID: 1909535-001 **Matrix:** SOIL **Received Date:** 9/11/2019 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	9/18/2019 9:57:24 AM	47536
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/13/2019 4:14:34 PM	47446
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/13/2019 4:14:34 PM	47446
Surr: DNOP	96.3	70-130		%Rec	1	9/13/2019 4:14:34 PM	47446
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2019 10:41:27 PM	47421
Surr: BFB	108	77.4-118		%Rec	1	9/12/2019 10:41:27 PM	47421
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/12/2019 10:41:27 PM	47421
Toluene	ND	0.049		mg/Kg	1	9/12/2019 10:41:27 PM	47421
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2019 10:41:27 PM	47421
Xylenes, Total	ND	0.098		mg/Kg	1	9/12/2019 10:41:27 PM	47421
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	9/12/2019 10:41:27 PM	47421

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

Qualifiers:

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

Analytical Report
Lab Order **1909535**
Date Reported: **9/20/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: FP-20
Project: Val Verde Train 7
Collection Date: 9/10/2019 1:25:00 PM
Lab ID: 1909535-002 **Matrix:** SOIL **Received Date:** 9/11/2019 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	9/18/2019 12:26:19 PM	47536
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/18/2019 11:58:52 AM	47528
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/18/2019 11:58:52 AM	47528
Surr: DNOP	96.4	70-130		%Rec	1	9/18/2019 11:58:52 AM	47528
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2019 11:04:26 PM	47421
Surr: BFB	103	77.4-118		%Rec	1	9/12/2019 11:04:26 PM	47421
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/12/2019 11:04:26 PM	47421
Toluene	ND	0.050		mg/Kg	1	9/12/2019 11:04:26 PM	47421
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2019 11:04:26 PM	47421
Xylenes, Total	ND	0.10		mg/Kg	1	9/12/2019 11:04:26 PM	47421
Surr: 4-Bromofluorobenzene	92.5	80-120		%Rec	1	9/12/2019 11:04:26 PM	47421

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1909535**

20-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-47536**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **47536**	RunNo: **63022**
Prep Date: **9/17/2019**	Analysis Date: **9/18/2019**	SeqNo: **2149060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-47536**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **47536**	RunNo: **63022**
Prep Date: **9/17/2019**	Analysis Date: **9/18/2019**	SeqNo: **2149061** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	90	110			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1909535**

20-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **LCS-47446**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **47446**	RunNo: **62893**
Prep Date: **9/12/2019**	Analysis Date: **9/13/2019**	SeqNo: **2143741** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	117	63.9	124			
Surr: DNOP	5.6		5.000		112	70	130			

Sample ID: **MB-47446**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **47446**	RunNo: **62893**
Prep Date: **9/12/2019**	Analysis Date: **9/13/2019**	SeqNo: **2143742** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		118	70	130			

Sample ID: **MB-47528**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **47528**	RunNo: **63012**
Prep Date: **9/17/2019**	Analysis Date: **9/18/2019**	SeqNo: **2148617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		115	70	130			

Sample ID: **LCS-47528**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **47528**	RunNo: **63007**
Prep Date: **9/17/2019**	Analysis Date: **9/18/2019**	SeqNo: **2148618** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	63	10	50.00	0	127	63.9	124			S
Surr: DNOP	6.7		5.000		133	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical 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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1909535**
20-Sep-19

Client: ENSOLUM
Project: Val Verde Train 7

Sample ID: **MB-47421**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **47421**	RunNo: **62879**
Prep Date: **9/11/2019**	Analysis Date: **9/12/2019**	SeqNo: **2142846** 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	960		1000		96.4	77.4	118			

Sample ID: **LCS-47421**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **47421**	RunNo: **62879**
Prep Date: **9/11/2019**	Analysis Date: **9/12/2019**	SeqNo: **2142847** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.3	80	120			
Surr: BFB	1200		1000		118	77.4	118			S

Sample ID: **MB-47445**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **47445**	RunNo: **62922**
Prep Date: **9/12/2019**	Analysis Date: **9/13/2019**	SeqNo: **2144336** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.3	77.4	118			

Sample ID: **LCS-47445**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **47445**	RunNo: **62922**
Prep Date: **9/12/2019**	Analysis Date: **9/13/2019**	SeqNo: **2144337** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	77.4	118			

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
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1909535**

20-Sep-19

Client: ENSOLUM

Project: Val Verde Train 7

Sample ID: **MB-47421**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **47421**	RunNo: **62879**
Prep Date: **9/11/2019**	Analysis Date: **9/12/2019**	SeqNo: **2142874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.0	80	120			

Sample ID: **LCS-47421**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **47421**	RunNo: **62879**
Prep Date: **9/11/2019**	Analysis Date: **9/12/2019**	SeqNo: **2142875** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	80	120			
Toluene	0.99	0.050	1.000	0	99.2	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	80	120			

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
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: ENSOLUM AZTEC Work Order Number: 1909535 RcptNo: 1

Received By: **Leah Baca** 9/11/2019 9:50:00 AM Leah Baca

Completed By: **Anne Thorne** 9/11/2019 10:35:15 AM Anne Thorne

Reviewed By: JO 9/11/19

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: ~~AT~~ 09/11/19

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks: Custody seals intact on sal jar ~~AT~~ 09/11/19

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6006 S. Rio Grande Suite A
Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Val Verde Train 7

Project #: See notes

Project Manager: Ksummers

Sampler: RDeechilly
On Ice: ☑ Yes ☐ No
# of Coolers: (1)
Cooler Temp(including CF): 5.5 + 0.2 = 5.7 C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1909535	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
9/10/19	1320	S	FP-19	1x4oz Jar	cool	001	X	X									X
9/10/19	1325	S	FP-20	1x4oz Jar	cool	002	X	X									X

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
9/10/19	1441				9/10/19	1441
9/10/19	1756			Courier	9/11/19	0950

Remarks: PM - Tom Long (EPROD)
PayKey - TC 35719

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	241602
	Action Number: 11083
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	5/19/2022