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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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)*: **NCS1911539620**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.853298** Longitude **-107.690996** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Sandstone Compressor Station**	Site Type **Natural Compressor Station**
Date Release Discovered: **4/2/2019**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
I	**32**	**31N**	**8W**	**San Juan**

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name*: Nick Jaramillo)

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): **3-5 Barrels of Glycol/Water Mix/Lube Oil**	Volume/Weight Recovered (provide units)

Cause of Release: On April 2, 2019, a glycol/water/lube oil mix was observed coming from the compressor skid at Sandstone Compressor Station. Enterprise began removing the impacted soil utilizing hand tools. On April 24, 2019, Enterprise completed the initial remediation. The final excavation dimensions measured approximately 85 feet long by 28 feet wide and six (6) feet deep. Approximately 100 cubic yards of hydrocarbon impacted soil were excavated and 130 barrels of hydrocarbon impacted soil were hydro-excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. Additional remediation by excavating was not possible due to the presence of permanent structures. During August 2019, a limited site assessment was performed utilizing a hollow stem auger/air coring drilling rig. No subsurface contamination was identified from the limited site assessment activities. Enterprise requests a deferment of additional remediation activities until facility decommissioning. A third party closure/ limited site assessment report is included with this "Final C-141."

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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District RP	
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Application ID	

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.

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

Signature: Jon E. Fields Date: 8/7/2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

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

Signature: Jon E. Fields Date: 8/7/2020

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

OCD Only

Received by: Date:

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Nelson Velez Date: 03/25/2022

ENSOLUM

LIMITED ENVIRONMENTAL SITE INVESTIGATION REPORT AND REMEDIATION PLAN

Property:

Sandstone Compressor Station
SE ¼, S32 T31N R8W
San Juan County, New Mexico

November 27, 2019
Updated May 19, 2020
Ensolum Project No. 05A1226053

Prepared for:

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

Prepared by:

Ranee Deechilly
Environmental Scientist

Chad D'Aponti
Field Environmental Scientist

Kyle Summers, CPG
Sr. Project Manager

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ENSOLUM

LIMITED ENVIRONMENTAL SITE INVESTIGATION REPORT AND REMEDIATION PLAN

Sandstone Compressor Station
SE ¼, S32 T31N R8W
San Juan County, New Mexico

Ensolum Project No. 05A1226053

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Sandstone Compressor Station (Site)
Location:	36.853298° North, 107.690996° West Southeast (SE) ¼ of Section 32, Township 31 North, Range 8 West San Juan County, New Mexico
Property:	New Mexico State Land Office (SLO)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

During April 2019, a release of hydrocarbon liquids potentially containing glycol, water, and/or lubricating oil occurred from a valve located on a compressor at the Sandstone Compressor Station. On April 4, 2019, Enterprise initiated activities to remediate and evaluate the 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 initial objective of the remediation activities was to reduce constituent of concern (COC) concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria. After determining that further excavation would risk the integrity of the compressor pad and associated appurtenances, the remediation activities were halted. The primary objective of the limited environmental site investigation (LESI) was to assess and characterize the release Site.

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 releases, 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. Supporting documentation and figures associated with the following bullets are provided in **Appendix B**.

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No water wells were identified within a 0.5 mile radius of the Site in the OSE WRRS database (**Figure A**, **Appendix B**). Three (3) PODs (SJ 00012, SJ 00198, and SJ 04261 POD1 to POD8) were identified in the OSE database or using the OSE online map search between 0.5 and two (2) miles of the Site. Records for water well SJ 00198, located approximately 0.75 miles southwest of the Site and at a lower elevation (6,035 feet) than the Site (6,354 feet) do not indicate a depth to water. Records for water well SJ 00012, located approximately 1.75 miles northwest of the Site and at a higher elevation (6,548 feet) than the Site, indicate a depth to water of approximately 475 feet below grade surface (bgs). A monitoring well network (SJ 04261) associated with the Pritchard #2A oil/gas production well location, which is located approximately 1.6 miles southwest of the Site and at a lower elevation (5,960 feet) than the Site, includes eight (8) permitted groundwater monitoring wells with average depths to water of approximately 80 feet bgs (according to New Mexico EMNRD OCD records (*2016 Annual Groundwater Report*, LT Environmental, Inc. (LTE), April, 2017)).

- The record for the nearest cathodic protection well (State Com AL #36F (Sec 32 T31N R8W)), located approximately 500 feet west of the Site, indicates a depth to water of approximately 100 feet bgs (**Figure B**, **Appendix B**).

- The Site is located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or significant watercourse. An ephemeral wash that is not identified as a “blue line” but is identified as a first order tributary by the New Mexico EMNRD OCD is located approximately 240 feet southeast of the release area (**Figure C**, **Appendix B**).

- 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 (**Figure D**, **Appendix B**).

- 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 (**Figure E**, **Appendix B**).

- No fresh water wells or springs were identified within 1,000 feet of the Site (**Figure E**, **Appendix B**).

- 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 (**Figure F**, **Appendix B**).

- 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 (**Figure G**, **Appendix B**).

- The Site is not located within an unstable area.

- The Site is not located within a 100-year floodplain (**Figure H**, **Appendix B**).

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

Closure Criteria for Petroleum Hydrocarbon Impacted Soils		
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 EXCAVATION ACTIVITIES

On April 4, 2019 Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation activities Sierra Oilfield Services, Inc. (Sierra) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

Due to the extensive presence of subgrade piping and electrical conduit, the excavation was advanced utilizing a hydro-excavator and hand implements. The final excavation measured approximately 85 feet long and 28 feet wide at the maximum extents. The maximum depth of the excavation measured approximately six (6) feet bgs.

The lithology encountered during the excavation activities consisted primarily of a 6-inch thick gravel driving surface underlain by unconsolidated and semi-consolidated silty sand.

Although the New Mexico EMNRD OCD provided regulatory oversight for the release, the affected soils from the excavation were treated as non-exempt waste due to the anticipated presence of lubricating oil associated with the compressor. The waste characterization sample (CS-1) data is provided in **Table 1A** of **Appendix E**. Approximately 100 cubic yards (yd^3) of petroleum hydrocarbon affected soils and 130 barrels (bbls) of hydro-excavation soil cuttings and water related to the excavation were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form associated with the excavation is provided in **Appendix C**. The excavation was backfilled with imported fill and was then contoured to surrounding grade.

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

3.1 Soil Sampling Program

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

Prior to the initiation of excavation activities, Ensolum collected one (1) composite soil sample (CS-1) for the purpose of waste characterization. This sample was comprised of five (5) aliquots collected from the central portion of the release area.

Ensolum's soil sampling program for the excavation included the collection of one (1) grab sample (S-1), and 14 composite soil samples (S-2 through S-15), comprised of five (5) aliquots each, from the excavation for laboratory analyses. A clean shovel was utilized to obtain fresh aliquots from each accessible 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 events.

First Sampling Event
On April 2, 2019, prior to the initiation of hydro-excavation activities, one (1) waste characterization composite soil sample (CS-1) was collected from the impacted soils in the release area.

Second Sampling Event
On April 4, 2019, one (1) grab sample (S-1 (5')) was collected from the bottom of an approximately five (5) foot deep pothole created by the hydro-excavator immediately southwest of the compressor skid. Analytical results for sample S-1 indicated a New Mexico EMNRD OCD closure criteria exceedance for TPH. In response to the data exceedances, the excavation was enlarged to remove additional petroleum hydrocarbon impact. Soils associated with grab sample S-1 were removed and transported to the landfarm for disposal/remediation during subsequent hydro-excavation activities.

Third Sampling Event
On April 22, 2019, after the excavation was enlarged utilizing hydro-excavation and hand-tools, a second sampling event was performed. Composite soil samples S-2 (1'-1.5'), S-3 (0.5'), S-4 (0-6.5'), S-5 (0'-6.5'), S-6 (0'-6.5'), S-7 (6.5'), S-8 (0'-2'), S-9 (0'-2'), and S-10 (0'-2') were collected from the floor and sidewalls of the enlarged excavation. Analytical results from composite soil samples S-2, S-3, S-4, S-7, S-8, S-9, and S-10 from the excavation indicated New Mexico EMNRD OCD closure criteria exceedances for TPH. Due to safety concerns associated with the depth of the excavation adjacent to the compressor skid and concerns with regard to the structural support of the equipment and piping, further excavation immediately adjacent to the compressor skid was suspended, and potentially unstable areas were backfilled with consent from the New Mexico EMNRD OCD, on the condition that additional delineation would be performed to allow more comprehensive characterization. Excavation activities subsequently continued in less stability-threatened areas of the release. Soils associated with composite soil samples S-2 and S-3 were subsequently removed by hydro-excavation and transported to the landfarm for disposal/remediation.

Fourth Sampling Event
On April 24, 2019, subsequent to additional excavation activities, composite soil samples S-11 (0'-2'), S-12 (0'-2'), S-13 (0'-2'), S-14 (0'-2'), and S-15 (0'-1') were collected from the floor and sidewalls of the deepened and extended excavation.

The 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 (HEAL) of Albuquerque, New Mexico, under proper chain-of-custody procedures.

3.2 Soil Laboratory Analytical Methods

The grab and composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021/8260, 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. The waste characterization sample was also analyzed for Resource Conservation and Recovery Act metals (RCRA-8).

The laboratory analytical results for the waste characterization and excavation samples are summarized in **Table 1A** and **Table 2** in **Appendix E**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix G**.

3.3 Data Evaluation

3.3.1 Waste Characterization Sample

Ensolum compared the benzene and RCRA 8 metals analytical results or laboratory practical quantitation limits (PQLs)/reporting limits (RLs) associated with composite soil sample CS-1 (waste characterization sample) to the applicable New Mexico EMNRD OCD closure criteria and the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limits.

Benzene, BTEX, and TPH – New Mexico EMNRD OCD Closure Criteria

- The laboratory analytical results for the waste characterization soil sample (CS-1) indicate benzene is not present in concentrations greater than the laboratory PQLs/RLs.
- The laboratory analytical results for the waste characterization soil sample (CS-1) indicate total BTEX is not present in concentrations greater than the laboratory PQLs/RLs.
- The laboratory analytical results for the waste characterization soil sample (CS-1) indicate a combined TPH GRO/DRO/MRO concentration of 26,100 milligrams per kilogram (mg/kg).

Benzene and RCRA 8 Metals – Toxicity

Although the waste characterization soil sample (CS-1) was not analyzed utilizing the TCLP protocol, the total concentration data can still be utilized to determine if there is a potential for a TCLP permissible level exceedance. For 100% physically solid wastes, the maximum leachate concentration is 1/20 of the total concentration in the waste (based on the extraction method for a TCLP analysis). Therefore, if this value (total concentration divided by 20) is less than the regulatory TCLP threshold, a TCLP analysis should not be necessary[1] (this is often referred to as the "Rule of 20"). Sample CS-1 did not exceed the Rule of 20 for any of the RCRA COCs. The Rule of 20 projected equivalents are provided in **Table 1B** (**Appendix E**).

3.3.2 Excavation Samples

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory PQLs/RLs associated with the composite soil samples (S-4 through S-15) associated with soils remaining in place at the excavation to the applicable New Mexico EMNRD OCD closure criteria. Soils associated with soil samples S-1, S-2, and S-3 were removed from the Site by hydro-excavation and transported to the 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 in place 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 mg/kg.
- The laboratory analytical results for the composite soil samples collected from soils remaining in place 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 S-4 and S-7 through S-10 collected from soils remaining in place indicate combined TPH GRO/DRO/MRO concentrations ranging from 10,490 mg/kg (S-8) to 23,200 mg/kg (S-4), which exceed the New Mexico EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for composite soil sample S-5 collected from soils remaining in place indicates a combined TPH GRO/DRO/MRO concentration of 59 mg/kg,

[1] Federal Register – [60 FR 66389, December 21, 1995]

which does not exceed the New Mexico EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining in place indicate combined TPH GRO/DRO/MRO is not present in concentrations greater than the laboratory PQLs/RLs, 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 in place at the excavation 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.

The laboratory analytical results are summarized in **Table 2** (**Appendix E**).

3.4 Remediation

The excavation was backfilled with imported fill and resurfaced with gravel to provide a suitable driving surface. Based on the information provided herein, Enterprise requests the deferment of final remediation and reclamation until after the facility is decommissioned, to avoid damaging existing structures/appurtenances at the facility. At that time, Enterprise will perform final remediation and reclamation of the Site.

4.0 SOIL BORING PROGRAM

Prior to soil boring activities, each location was “daylighted” to approximately nine (9) feet bgs, utilizing a hydro-excavator. Approximately 25 bbls of unaffected (based on laboratory analytical results from the soil borings) hydro-excavation soil cuttings and water related to the soil borings were transported to the Industrial Ecosystems, Inc. (IEI) landfarm on Crouch Mesa near Aztec, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form for the hydro-excavation activities associated with the soil borings is provided in **Appendix C**.

4.1 Soil Boring Installation

During August 2019, a total of seven (7) soil borings were advanced at the Site utilizing a track-mounted CME-55 drilling rig. Soil borings SB-1 and SB-2 were advanced southeast of the compressor skid. Soil boring SB-3 was advanced southwest of the compressor skid and soil borings SB-4 and SB-5 were advanced west of the compressor skid. Soil borings SB-6 and SB-7 were advanced northeast of the compressor skid. Soil borings SB-1, SB-4, and SB-6 were advanced as close as possible to the compressor skid release area. Soil borings SB-2, SB-5, and SB-7 were advanced further from the release area to provide additional delineation in the event that impact was identified in one or more of the closer soil borings. **Figure 3B** of **Appendix A** is a map that depicts the soil boring locations.

Soil samples were collected continuously utilizing a hand auger (during hydro-excavation), five-foot continuous core sediment barrel, split spoon, or air-rotary core (sandstone), depending on the subsurface conditions encountered at different depths. Samples and drill cuttings were observed to document visual and olfactory evidence of petroleum hydrocarbons. A field headspace analysis was conducted on each available soil sample interval by placing the portion of the sample designated for field screening into a plastic Ziplock® bag. The plastic bag was sealed, and the sample allowed to volatilize. The air above the sample, the headspace, was then evaluated using a PID capable of detecting VOCs. The PID was calibrated utilizing an isobutylene standard prior to use in the field.

During the completion of each soil boring, a trained Ensolum professional documented the subsurface lithology, color, and moisture content, and constructed a continuous profile of the soil column from the ground surface to the boring terminus. Soil samples from each boring location were visually inspected and

classified in the field. The lithology observed during the advancement of soil borings generally consisted of sandy silty clay and clayey silt, underlain by sandstone. Detailed lithologic descriptions are presented on the soil boring logs included in **Appendix F**.

Overall, PID readings ranged from zero (0) parts per million (ppm) to 21.4 ppm (SB-2 @ 18'-20'). Field screening results are presented on soil boring logs included in **Appendix F**.

4.2 Soil Sampling Program

A minimum of five (5) soil samples from each soil boring were submitted for laboratory analyses from a combination of the following:

- The depth interval exhibiting the highest concentration of VOCs based on PID evidence;
- An interval exhibiting visual/olfactory evidence of impairment;
- The capillary fringe zone (not encountered);
- From a change in lithology; or
- From the bottom of the boring.

The 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 HEAL of Albuquerque, New Mexico, under proper chain-of-custody procedures.

4.3 Soil Laboratory Analytical Program

The soil samples collected from the soil borings were analyzed for BTEX using EPA SW-846 Method #8021/8260, TPH GRO/DRO/MRO using EPA SW-846 Method #8015, and chlorides using EPA Method #300.0.

A summary of the analytes, sample type, number of samples, and EPA-approved methods is presented in the following table:

Analytes	Sample Type	No. of Samples	Method
TPH GRO/DRO/MRO	Soil	44	SW-846 8015
BTEX	Soil	44	SW-846 8021/8260
Chlorides	Soil	44	EPA Method 300.0

The soil boring laboratory results are summarized in **Table 3** (**Appendix E**). The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix G**.

4.4 Data Evaluation

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory PQLs/RLs associated with the soil boring soil samples to the applicable New Mexico EMNRD OCD closure criteria.

- The laboratory analytical results for soil samples collected from the soil borings 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 mg/kg.

- The laboratory analytical results for soil samples collected from the soil borings 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 soil samples SB-1 (34'-35') and SB-2 (18'-20') indicate combined TPH GRO/DRO/MRO concentrations of 34 mg/kg and 17 mg/kg, respectively, which do not exceed the New Mexico EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for the remaining soil samples collected from the soil borings indicate combined TPH GRO/DRO/MRO is not present in concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for soil samples SB-2 (18'-20'), SB-3 (2'), SB-7 (2'), SB-7 (4'), S-7 (8'), and S-7 (10'-13') indicate chloride concentrations ranging from 63 mg/kg (SB-2 (18'-20') and SB-3 (2')) to 300 mg/kg (S-7 (8')), which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg for chlorides. The laboratory analytical results for the remaining soil samples collected from the soil borings 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.

The laboratory analytical results for the soil boring samples are summarized in **Table 3** (**Appendix E**).

5.0 FINDINGS

During April 2019, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. The initial objective of the remediation activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria. After determining that further excavation would risk the integrity of the compressor pad and associated appurtenances, the remediation activities were halted. During August and September 2019, Ensolum performed a LESI to assess and characterize the release Site.

- During excavation activities, a total of 16 soil samples were collected from the remediation excavation for laboratory analysis. Based on soil laboratory analytical results, soils remaining in place exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria for TPH MRO.

- A total of approximately 100 yd^3 of petroleum hydrocarbon affected soils and 130 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and resurfaced with gravel. A total of approximately 25 bbls of hydro-excavation soil cuttings and water associated with the soil boring activities were transported to IEI on Crouch Mesa near Aztec, New Mexico for disposal/remediation.

- During the LESI activities, a total of 44 soil samples were collected from the soil borings. Based on the analytical results, COC concentrations were not identified above the applicable New Mexico EMNRD closure criteria standards at any of the soil boring locations.

- Groundwater was not encountered during the advancement of the soil borings.

6.0 RECOMMENDATION

Based upon the information provided herein, Enterprise requests the deferment of final remediation and reclamation until after the facility is decommissioned, to avoid damaging existing structures/appurtenances at the facility. At that time, Enterprise will perform final remediation and reclamation of the Site.

7.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

7.1 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).

7.2 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.

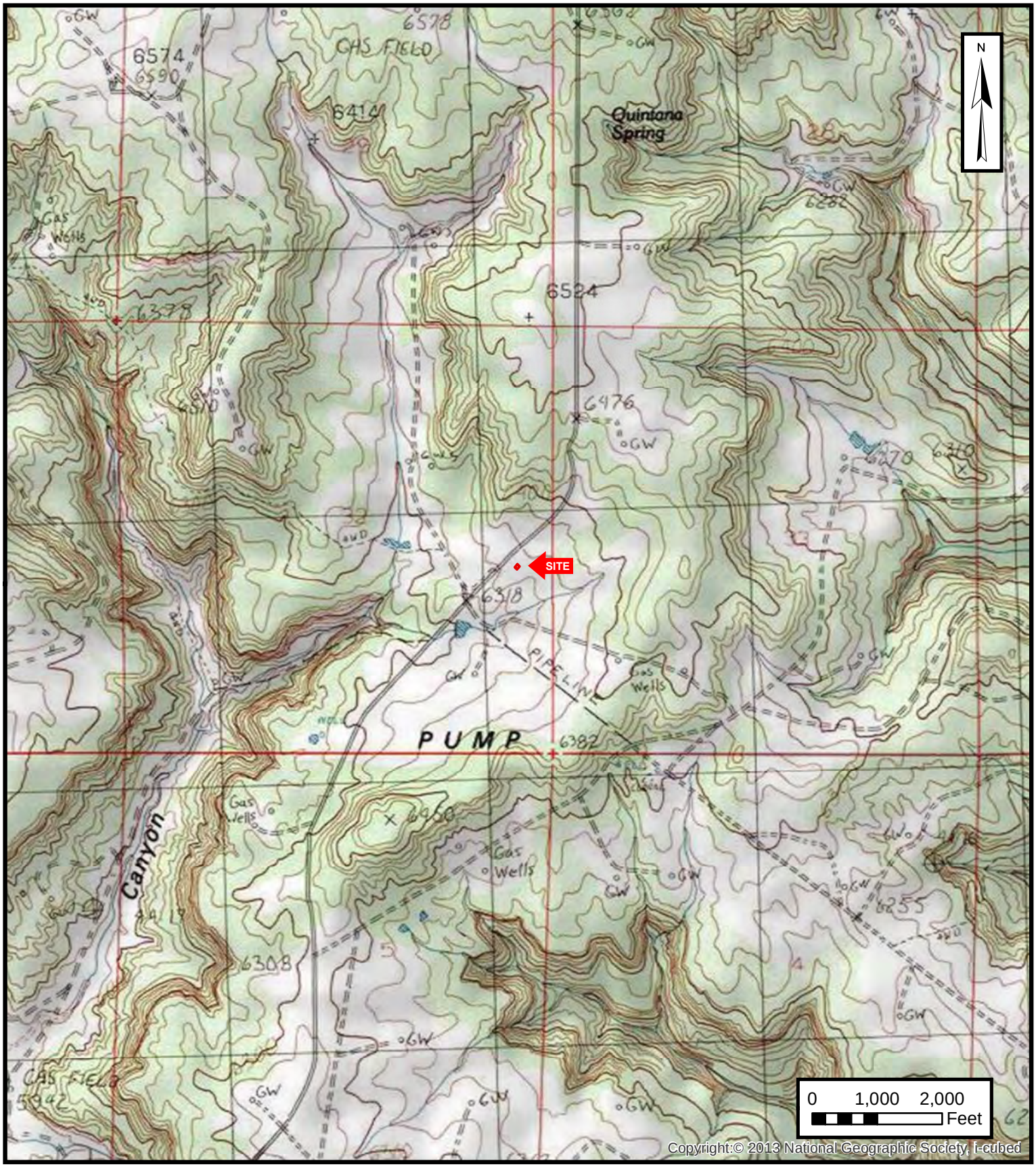
7.3 Reliance

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 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



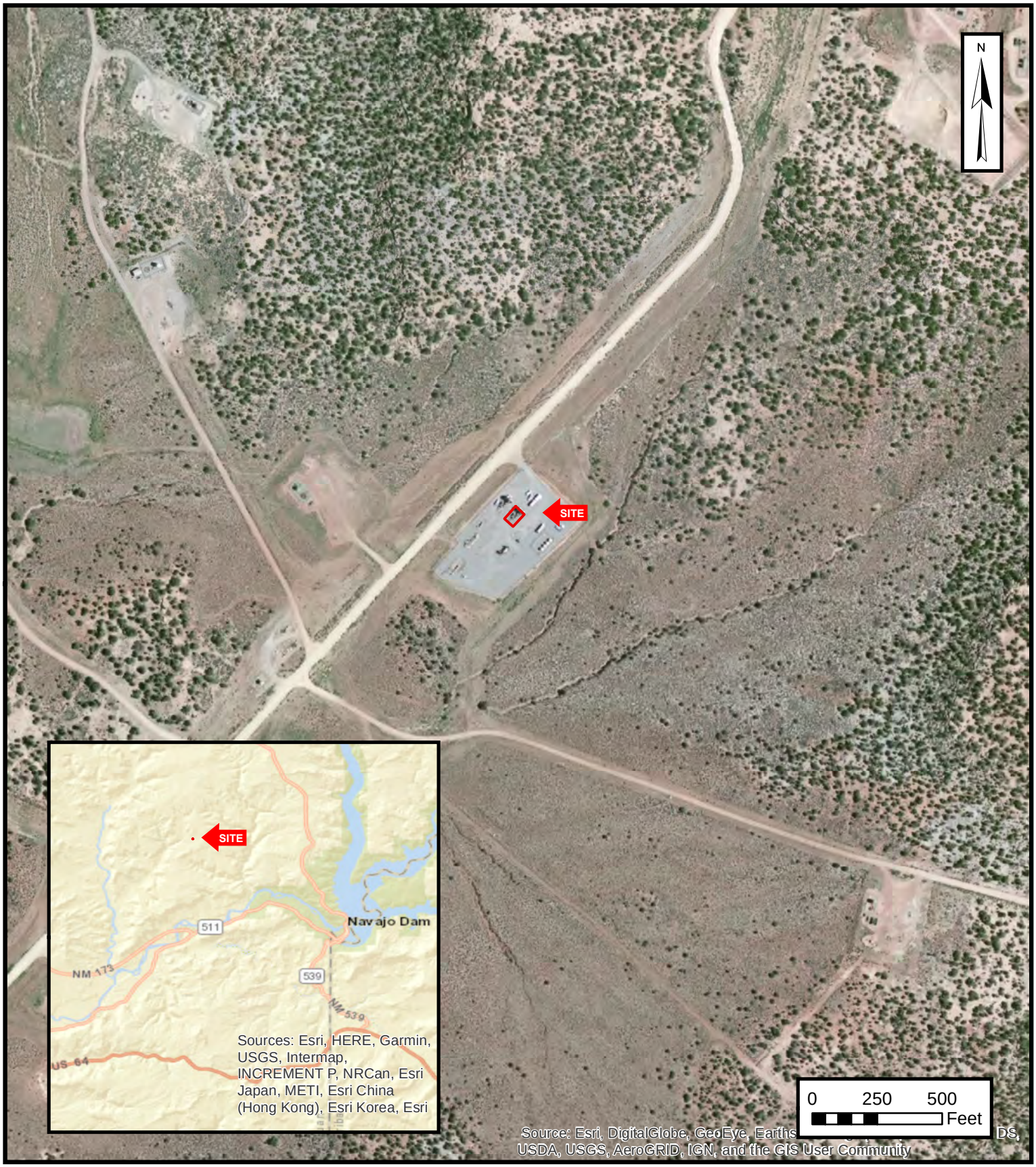
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
1



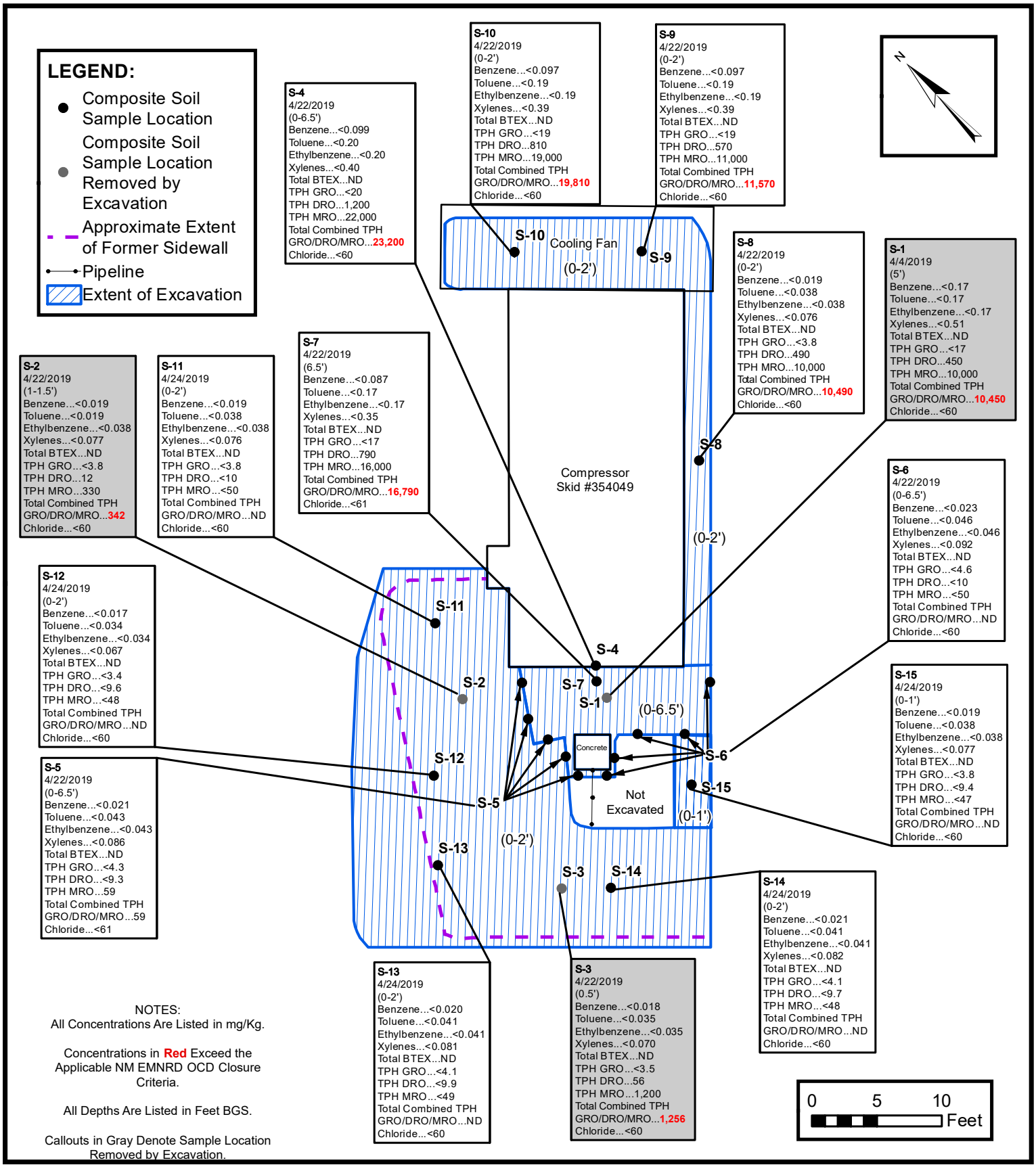
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
2



ENSOLUM
Environmental & Hydrogeologic Consultants

EXCAVATION SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
3A

ENSOLUM
Environmental & Hydrogeologic Consultants

SOIL BORING LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

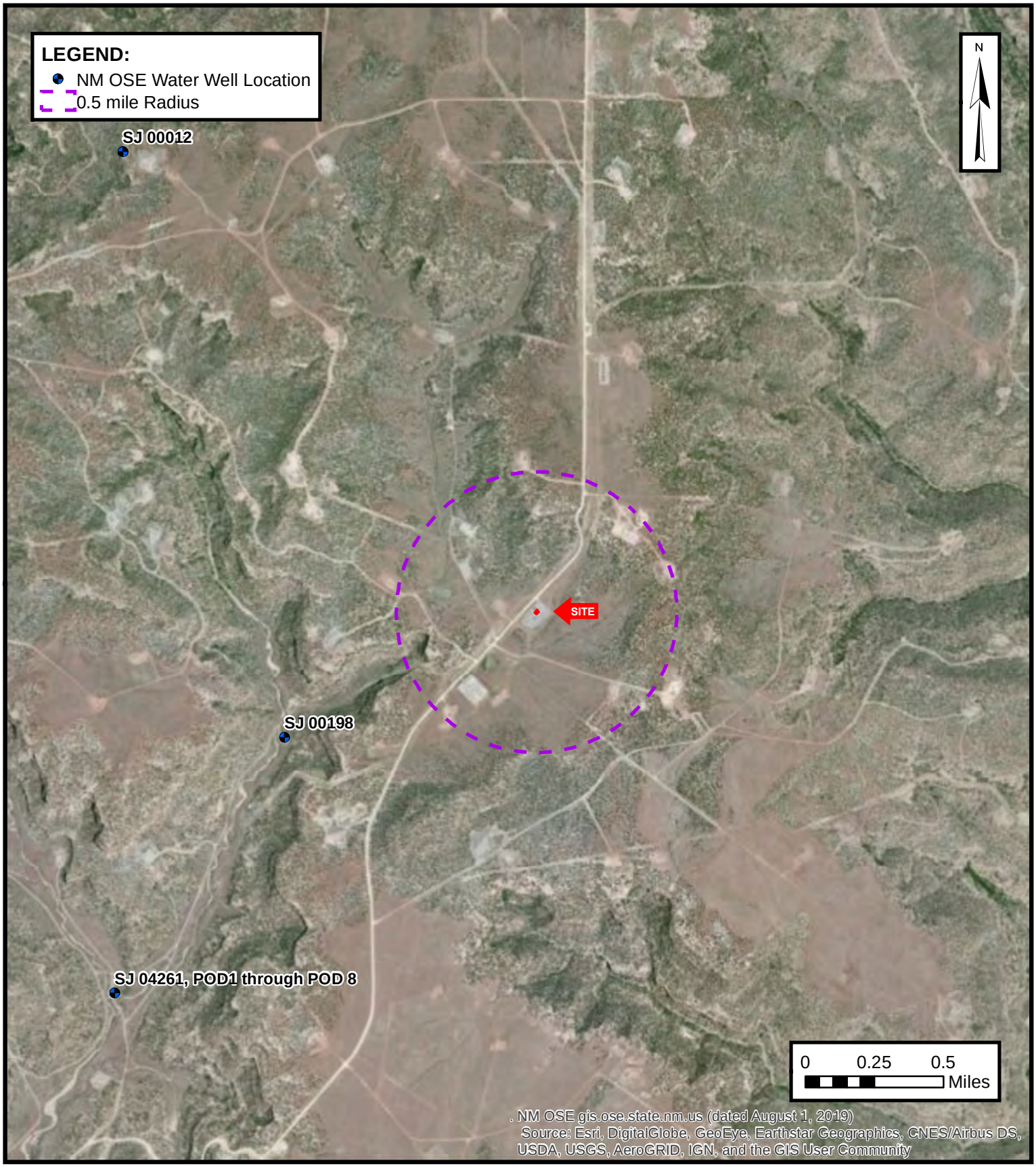
PROJECT NUMBER: 05A1226053

FIGURE
3B

ENSOLUM

APPENDIX B

Siting Figures and Documentation



ENSOLUM
Environmental & Hydrogeologic Consultants

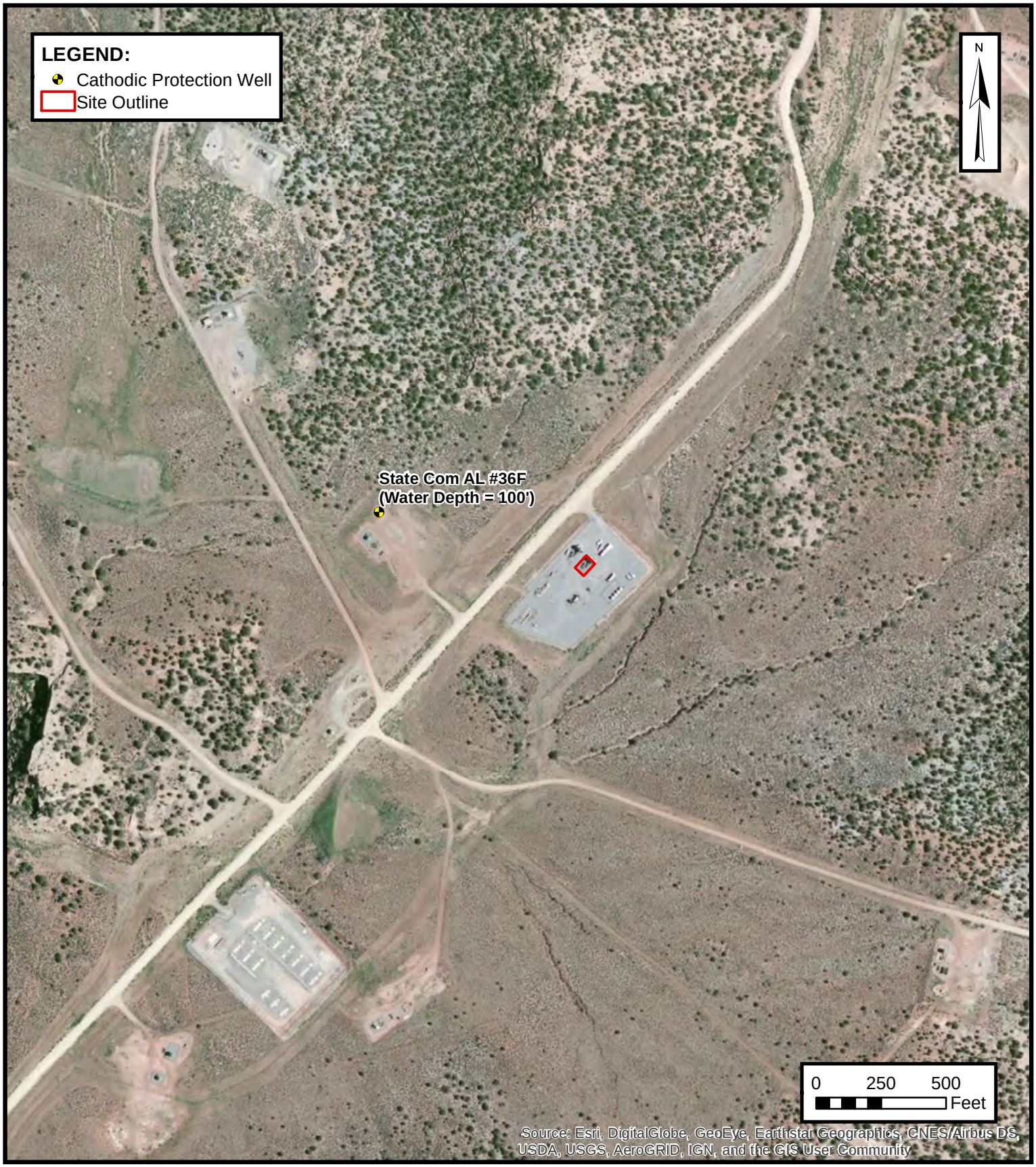
HALF MILE RADIUS WATER WELLS

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE

A



ENSOLUM
Environmental & Hydrogeologic Consultants

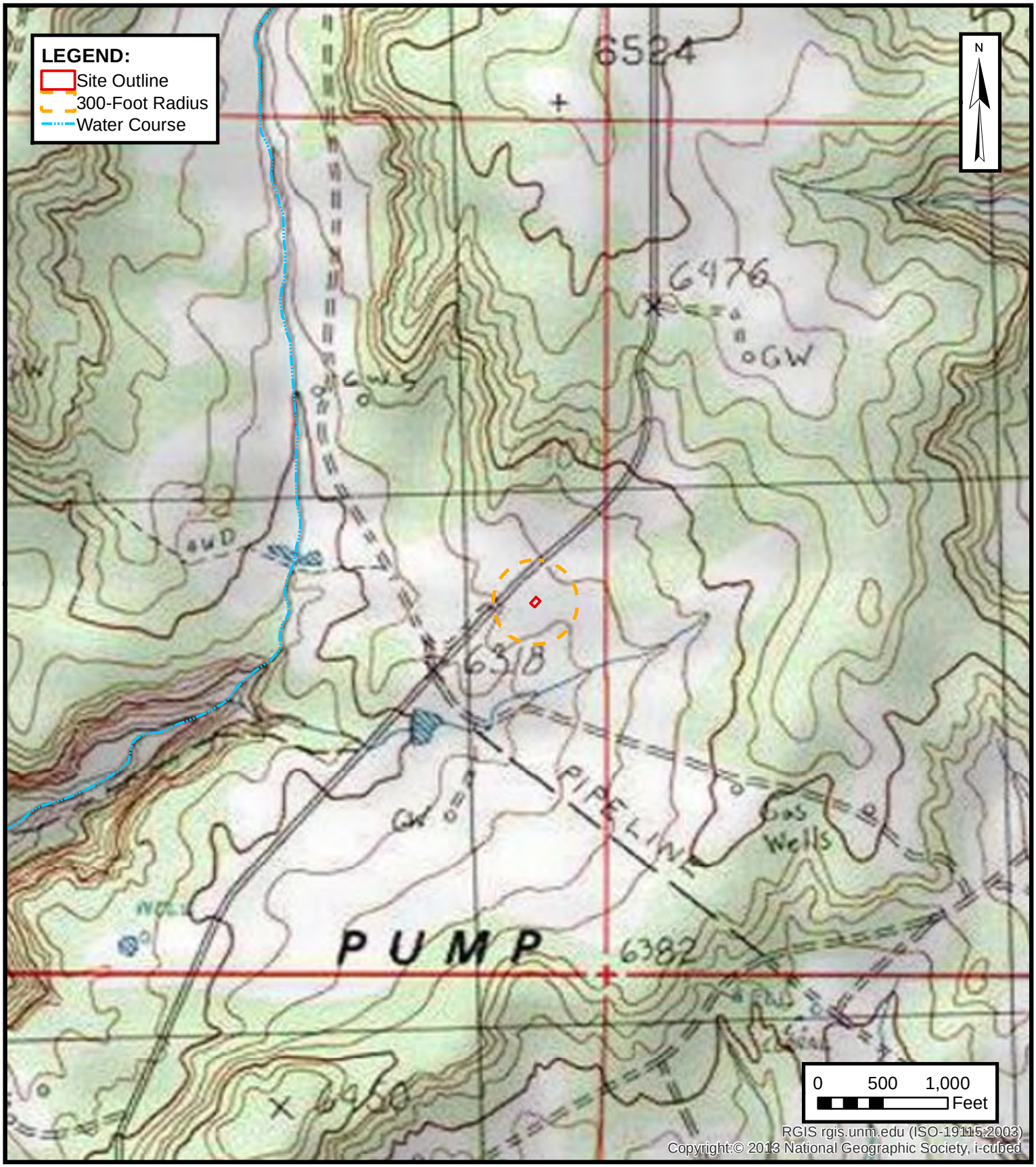
CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE

B



ENSOLUM
Environmental & Hydrogeologic Consultants

300-FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
C

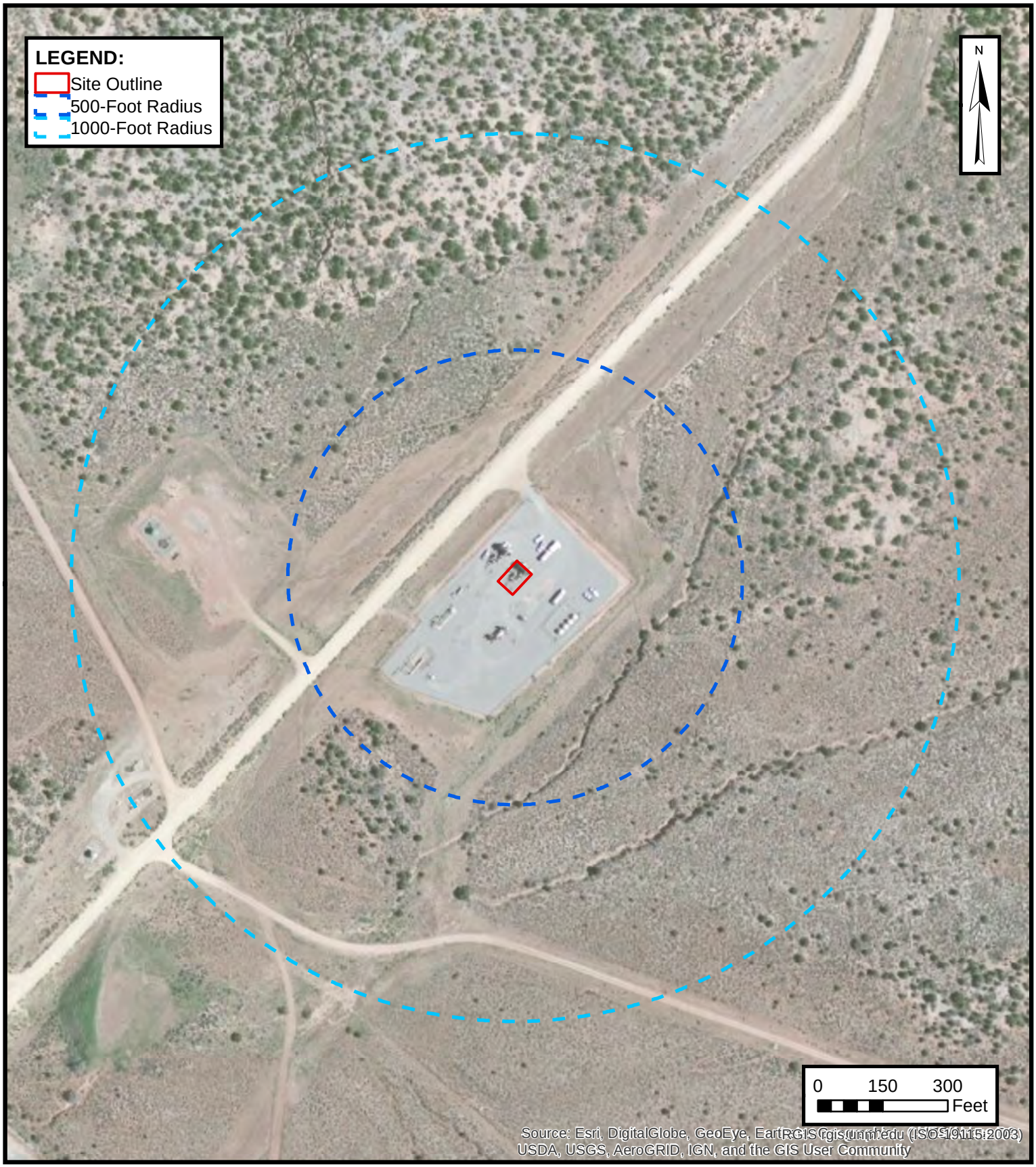
ENSOLUM
Environmental & Hydrogeologic Consultants

300-FOOT RADIUS OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
D



ENSOLUM
Environmental & Hydrogeologic Consultants

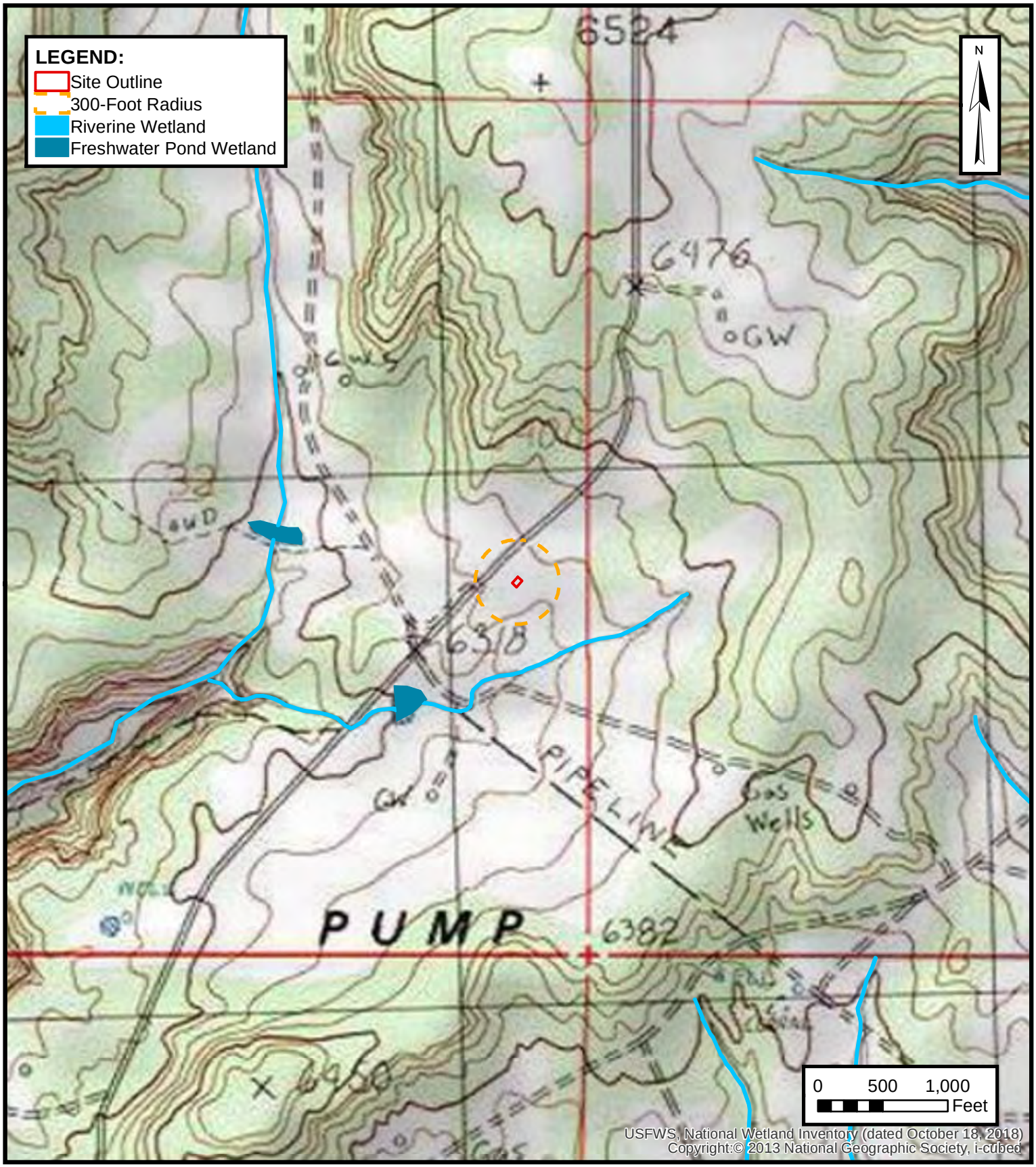
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE

E



ENSOLUM
Environmental & Hydrogeologic Consultants

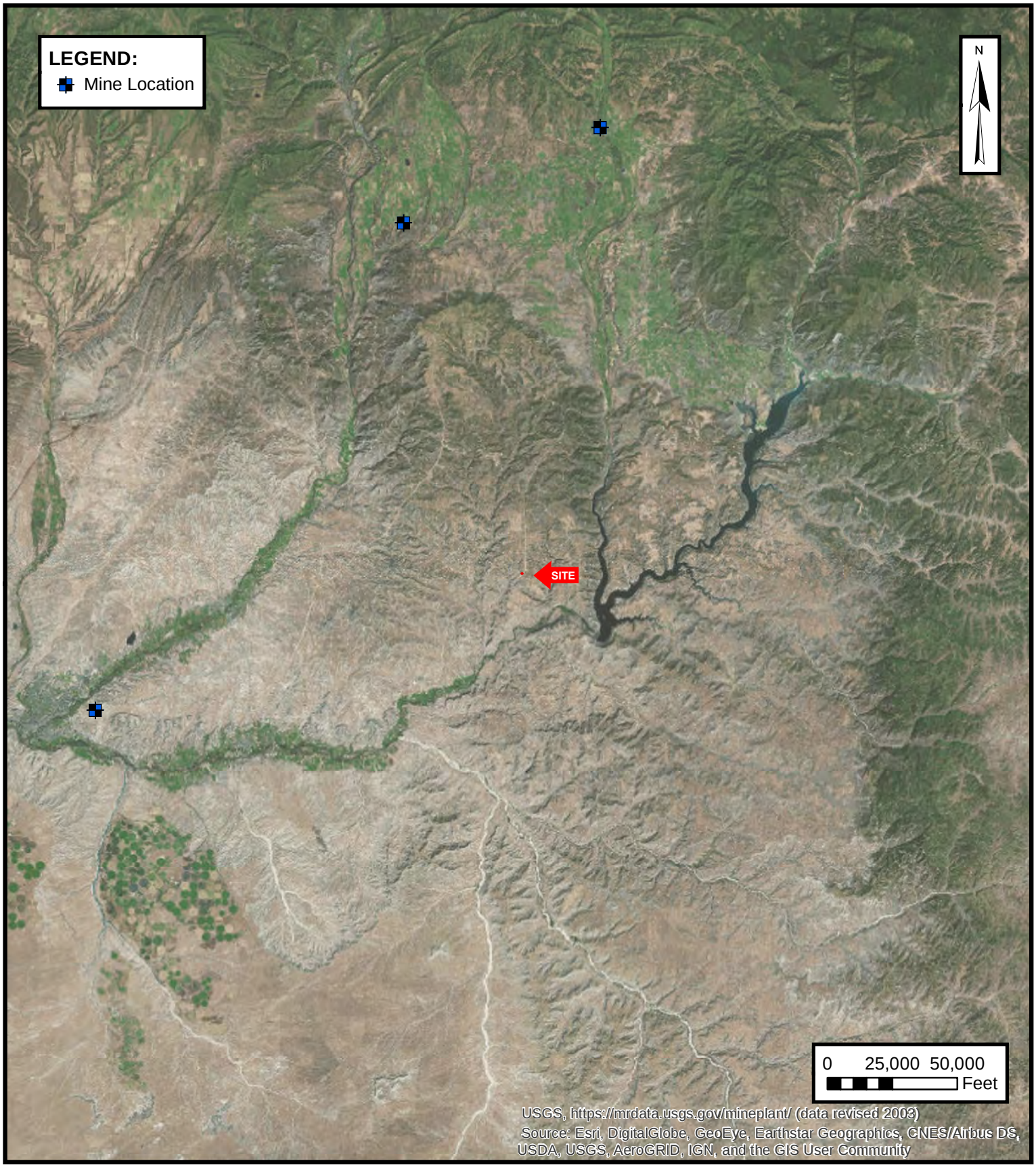
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE

F



ENSOLUM
Environmental & Hydrogeologic Consultants

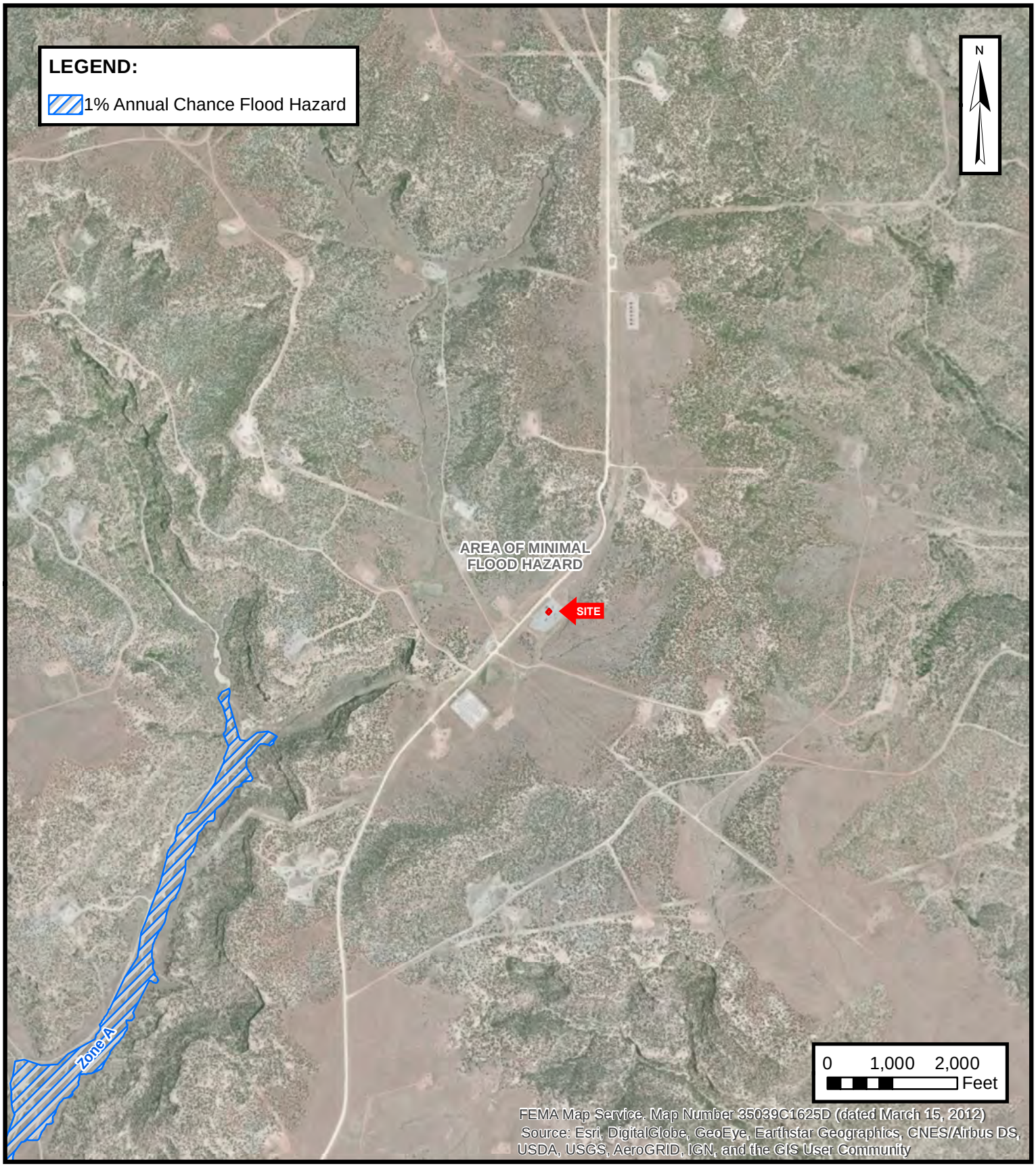
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE

G



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
SANDSTONE COMPRESSOR STATION
SE ¼, S32 T31N R8W, San Juan County, New Mexico
36.853508° N, 107.690945° W

PROJECT NUMBER: 05A1226053

FIGURE
H

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 260087.96 **Northing (Y):** 4082001 **Radius:** 804.67

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

UTMNAD83 Radius Search (in meters):

Easting (X): 260087.96 **Northing (Y):** 4082001 **Radius:** 804.67

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00012	SJ	SJ			2	30	31N	08W	258218	4084189*	1021	475	546
SJ 00198	SJ	SJ	4	3	3	32	31N	08W	258895	4081451*	2003		

Average Depth to Water: **475 feet**

Minimum Depth: **475 feet**

Maximum Depth: **475 feet**

Record Count: 2

PLSS Search:

Section(s): 28, 29, 30, 31, 32, 33 **Township:** 31N **Range:** 08W

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 4, 5, 6 **Township:** 30N **Range:** 08W

New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: SJ 04261 **Subbasin:** SJ **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: LT ENVIRONMENTAL

Contact: DANNY BURNS

Owner: WILLIAMS FOUR CORNERS LLC

Contact: AARON GALER

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	663822	EXPL	2017-10-16	PMT	APR	SJ-4261-POD1-POD8	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Other Location Desc
SJ 04261 POD1			1	3		06	30N	08W	258098	4081476	MW1 EXISTING
SJ 04261 POD2			1	3		06	30N	08W	258042	4080308	MW3 EXISTING
SJ 04261 POD3			1	3		06	30N	08W	258087	4080292	MW4 EXISTING
SJ 04261 POD4			1	3		06	30N	08W	258110	4080301	MW5 EXISTING
SJ 04261 POD5			1	3		06	30N	08W	258097	4080273	MW6 EXISTING
SJ 04261 POD6			1	3		06	30N	08W	258092	4080327	MW2R
SJ 04261 POD7			1	3		06	30N	08W	258103	4080267	MW7
SJ 04261 POD8			1	3		06	30N	08W	258117	4080283	MW6

RCVD MAR28'07
OIL CONS. DIV.
DIST. 3

OCD CATHODIC PROTECTION DEEPWELL GROUNDBED REPORT
DATA SHEET: NORTHWESTERN NEW MEXICO

OPERATOR: ConocoPhillips CO.
FARMINGTON, NM 87401
PHONE: 599-3400

SUBMIT 2 COPIES TO O.C.D. AZTEC OFFICE

LOCATION INFORMATION

API Number: ~~3004532897~~ 30-045-32885

WELL NAME OR PIPELINE SERVED: STATE COM AL #36F
LEGAL LOCATION: 32-31-8
INSTALLATION DATE: 11/30/2006
PPCO. RECTIFIER NO.: FM-0396A
ADDITIONAL WELLS: N/A
TYPE OF LEASE: STATE
LEASE NUMBER: E-5113

GROUND BED INFORMATION

TOTAL DEPTH: 400
CASING DIAMETER: 8-IN
TYPE OF CASING: PVC
CASING DEPTH: 20
CASING CEMENTED: ☐
TOP ANODE DEPTH: 240
BOTTOM ANODE DEPTH: 390
ANODE DEPTHS: 240,250,260,270,280,290,300,320,330,340,370,380,390
AMOUNT OF COKE: 3000#

WATER INFORMATION

WATER DEPTH (1): 100
WATER DEPTH (2):
GAS DEPTH:
CEMENT PLUGS:

OTHER INFORMATION

TOP OF VENT PERFORATIONS: 200
VENT PIPE DEPTH: 400
REMARKS: START UP ON 12-4-06 STATIC READ =-.640

IF ANY OF THE ABOVE DATA IS UNAVAILABLE, PLEASE INDICATE SO. COPIES OF ALL LOGS, INCLUDING DRILLERS LOGS, WATER ANALYSIS, AND WELL BORE SCHEMATICS SHOULD BE SUBMITTED WHEN AVAILABLE. UNPLUGGED UNABANDONED WELLS ARE TO BE INCLUDED.

*- LAND TYPE MAY BE SHOWN: F-FEDERAL; I-INDIAN; S-STATE; P-FEE
IF FEDERAL OR INDIAN, ADD LEASE NUMBER.

ENSOLUM

APPENDIX C

Executed C-138 Solid Waste Acceptance Forms

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

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

97057-1002

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

AFE: Pending
PayKey: GG11580
PM: Matt Garrison

2. Originating Site:
Sandstone Compressor Station

3. Location of Material (Street Address, City, State or ULSTR):
UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996 April 2019

4. Source and Description of Waste:
Source: Leak from the Compressor Skid.
Description: Hydrocarbon/Glycol Impacted Soil.
Estimated Volume 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 100/130 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 4-8-19, 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: TBD Sierra, CNJ

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, 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: Envtl Manager DATE: 4/15/19
SIGNATURE: Greg Crabtree TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised August 1, 2011

*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:**
2. Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

Invoice Information:

PM: Matt Garrison
Pay Key:EM20767

3. **Originating Site:**
Sandstone CS hydrovac and drill cuttings (soil)

4. **Location of Material (Street Address, City, State or ULSTR):**
Section 32 T31N R8W

4. **Source and Description of Waste:** Hydrocarbon impacted soil/sludge from remediation activities associated with a natural gas pipeline release.
Estimated Volume 5 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 25 yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Brian Stone (BMStone) representative or authorized agent for Enterprise Field Services, LLC do hereby
PRINT & SIGN NAME COMPANY NAME
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)

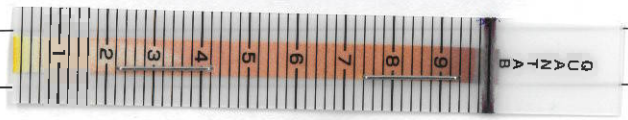
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, (BMStone) 7-19-19, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, Betty Pruden, representative for IEI 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.

Transporter: TBD



OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: **IEI, Inc. Soil Remediation Facility * Permit #: NM 01-0010B**
Address of Facility: **#49 County Rd 3150, Aztec , NM 87410**

CL=588

Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other PH-7

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: BETTY PRUDEN TITLE: Clerk DATE: 7/17/19

SIGNATURE: Betty Pruden TELEPHONE NO.: 632-1786
Surface Waste Management Facility Authorized Agent

7/17/19

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Limited Environmental Site Investigation Report
Sandstone Compressor Station
Ensolum Project No. 05A1226053

ENSOLUM

Photograph 1 Photograph Description: View of the release area.	
Photograph 2 Photograph Description: View of in-process excavation activities.	
Photograph 3 Photograph Description: View of in-process excavation activities.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Limited Environmental Site Investigation Report
Sandstone Compressor Station
Ensolum Project No. 05A1226053

ENSOLUM

Photograph 4 Photograph Description: View of final excavation adjacent to the compressor skid.	
Photograph 5 Photograph Description: View of final excavation adjacent to the compressor skid.	
Photograph 6 Photograph Description: View of final excavation beneath the compressor cooling fan.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Limited Environmental Site Investigation Report
Sandstone Compressor Station
Ensolum Project No. 05A1226053

ENSOLUM

Photograph 7 Photograph Description: View of the final excavation.	

ENSOLUM

APPENDIX E

Tables

ENSOLUM

TABLE 1A
Sandstone CS
Waste Characterization Sample - Laboratory Results

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	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 (GRO/DRO/MRO) (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Mercury (mg/kg)
Waste Characterization Sample - Removed by Excavation																				
CS-1	04.02.19	C	0.16	<0.016	<0.032	<0.032	<0.064	ND	<3.2	1,100	25,000	26,100	<4.9	81	<0.20	4.3	2.7	<4.9	<0.49	<0.035

TABLE 1B
Sandstone CS
Waste Characterization Sample - TCLP Rule of 20 Projection

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)
TCLP Regulatory Limit (40 CFR 261.24)				0.5	5.0	100	1.0	5.0	5.0	1.0	5.0	0.2
Waste Characterization Sample - Projected Rule of 20 TCLP Equivalent												
CS-1 Projected TCLP*	04.02.19	C	0.16	<0.0008*	<0.245*	4.05*	<0.01*	0.215*	0.135*	<0.245*	<0.0245*	<0.00175*

ND = Not Detected above the Practical Quantitation Limits or Reporting Limits
TCLP = Toxicity Characteristic Leaching Procedure
mg/kg = milligram per kilogram
mg/L = milligram per liter
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
* Rule of 20 Projected TCLP Result

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TABLE 2
Sandstone CS
Soil Analytical Summary - Excavation

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	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 (GRO/DRO/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria				10	NE	NE	NE	50	NE			100	600
Composite Soil Samples Removed by Excavation													
S-1	04.04.19	G	5	<0.17	<0.17	<0.17	<0.51	ND	<17	450	10,000	**10,450**	<60
S-2	04.22.19	C	1 to 1.5	<0.019	<0.038	<0.038	<0.077	ND	<3.8	12	330	**342**	<60
S-3	04.22.19	C	0.5	<0.018	<0.035	<0.035	<0.070	ND	<3.5	56	1,200	**1,256**	<60
Excavation Composite Soil Samples													
S-4	04.22.19	C	0 to 6.5	<0.099	<0.20	<0.20	<0.40	ND	<20	1,200	22,000	**23,200**	<60
S-5	04.22.19	C	0 to 6.5	<0.021	<0.043	<0.043	<0.086	ND	<4.3	<9.3	59	59	<61
S-6	04.22.19	C	0 to 6.5	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<10	<50	ND	<60
S-7	04.22.19	C	6.5	<0.087	<0.17	<0.17	<0.35	ND	<17	790	16,000	**16,790**	<61
S-8	04.22.19	C	0 to 2	<0.019	<0.038	<0.038	<0.076	ND	<3.8	490	10,000	**10,490**	<60
S-9	04.22.19	C	0 to 2	<0.097	<0.19	<0.19	<0.39	ND	<19	570	11,000	**11,570**	<60
S-10	04.22.19	C	0 to 2	<0.097	<0.19	<0.19	<0.39	ND	<19	810	19,000	**19,810**	<60
S-11	04.24.19	C	0 to 2	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<10	<50	ND	<60
S-12	04.24.19	C	0 to 2	<0.017	<0.034	<0.034	<0.067	ND	<3.4	<9.6	<48	ND	<60
S-13	04.24.19	C	0 to 2	<0.020	<0.041	<0.041	<0.081	ND	<4.1	<9.9	<49	ND	<60
S-14	04.24.19	C	0 to 2	<0.021	<0.041	<0.041	<0.082	ND	<4.1	<9.7	<48	ND	<60
S-15	04.24.19	C	0 to 1	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<9.4	<47	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

NA = Not Analyzed

ENSOLUM

TABLE 3
Sandstone CS
Soil Analytical Summary - LESI

Sample I.D.	Date	Sample Depth (feet)	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 (GRO/DRO/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria			10	NE	NE	NE	50	NE			100	600
Soil Borings Advanced by Ensolum												
SB-1	7.17.19	2	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.8	<49	ND	<60
		4	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.9	<49	ND	<61
		8	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.8	<49	ND	<60
	8.12.19	17 to 20	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<8.9	<45	ND	<60
		34 to 35	<0.024	<0.049	<0.049	<0.097	ND	<4.9	34	<43	34	<59
	8.14.19	50 to 52	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<9.8	<49	ND	<60
SB-2	7.17.19	2	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<10	<50	ND	<59
	8.15.19	18 to 20	<0.024	<0.049	<0.049	<0.098	ND	<4.9	17	<46	17	63
		22 to 25	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<8.8	<44	ND	<60
	8.21.19	30 to 33	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.7	<48	ND	<60
		43 to 45	<0.023	<0.047	<0.047	<0.094	ND	<4.7	<9.5	<48	ND	<60
SB-3	7.17.19	2	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49	ND	63
		4	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<10	<51	ND	<60
		8	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<10	<52	ND	<60
	8.15.19	12 to 15	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.2	<46	ND	<60
		22 to 24	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.0	<45	ND	<60
	8.22.19	33 to 34	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.5	<48	ND	<60
		49 to 50	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.9	<50	ND	<60
SB-4[1]	7.17.19	2	<0.023	<0.047	<0.047	<0.094	ND	<4.7	<10	<51	ND	<60
		6	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<10	<51	ND	<60
		8	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49	ND	<60
	8.14.19	16 to 17	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<8.9	<45	ND	<60
		23 to 25	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.2	<46	ND	<61
		30 to 33	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.9	<49	ND	<60
		48 to 50	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.3	<47	ND	<60

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TABLE 3
Sandstone CS
Soil Analytical Summary - LESI

Sample I.D.	Date	Sample Depth (feet)	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 (GRO/DRO/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria			10	NE	NE	NE	50	NE			100	600
SB-5	7.17.19	2	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.6	<48	ND	<60
		4	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.7	<49	ND	<60
		8	<0.024	<0.047	<0.047	<0.094	ND	<4.7	<10	<51	ND	<60
	8.15.19	13 to 15	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<8.6	<43	ND	<59
	8.21.19	23 to 25	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.1	<45	ND	<60
		30 to 33	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.3	<47	ND	<60
		48 to 50	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<9.7	<49	ND	<60
SB-6	7.17.19	2	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<10	<50	ND	<60
		4	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<10	<51	ND	<60
		8	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<10	<51	ND	<60
	8.14.19	24 to 25	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<8.8	<44	ND	<60
		30 to 32	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.1	<46	ND	<60
		48 to 50	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<49	ND	<60
SB-7	7.17.19	2	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.9	<49	ND	280
		4	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<10	<50	ND	270
		8	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<10	<50	ND	300
	8.15.19	10 to 13	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<49	ND	84
		23 to 25	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.5	<48	ND	<60
	8.21.19	47 to 50	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.6	<48	ND	<60

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

1 = Soil Sample SB-4 (23-25') was inadvertently stamped with an out of sequence time

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

NA = Not Applicable

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

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APPENDIX F

Soil Boring Logs

BORING LOG SB-1

PROJECT NUMBER 05A1226053	**DRILLING DATE** 7/17/19, 8/12/19, 8/14/19	**NORTH COORDINATE** 36.85342 N
PROJECT NAME Sandstone CS	**DRILLING COMPANY** HRL Compliance Solutions	**WEST COORDINATE** 107.69088 W
CLIENT Enterprise Field Services, LLC	**BORING METHOD** Hand Auger/Split Spoon Coring	**SURFACE COMPLETION**
LOCATION San Juan County, NM		**LOGGED BY** R.DEECHILLY
	TOTAL DEPTH 52 ft	**SAMPLER** R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Material Description	Depth (ft)
3.2	SB-1 (2')	Y		2		Silty Sandy Clay to Silty Clay with traces of competent sandstone.Moderate yellowish brown. Moist, No odor. No staining.	2
1.4	SB-1 (4')	Y		4			4
0				6			6
0	SB-1 (8')	Y		8			8
0				10			10
				12			12
				14			14
				16			16
0	SB-1 (17'-20')	Y		18		Clayey Silt with traces of sandy shale. Light Olive Gray. Moist. No Odor. No Staining.	18
0.1				20			20
0				22			22
				24		Weathered Shaly Sandstone. Light Olive Gray/ Dusky Yellowish Brown. Moist. No Odor. No Staining.	24
0.2				26			26
				28		Sandstone with traces of shale. Light Olive Grey/Pale Yellowish Brown to Moderate Yellowish Brown/Dark Yellowish Orange. Moist. No Odor. No Staining.	28
0.3				30			30
0.7				32			32
0.8				34			34
2.8	SB-1 (34'35')	Y		36			36
2.2				38			38
				40			40
2.7				42			42
				44			44
				46			46
				48			48
				50			50
0	SB-1 (50'-52')	Y		52			52
				54		TD at 52 ft bgs	54

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-2

PROJECT NUMBER 05A1226053
PROJECT NAME Sandstone CS
CLIENT Enterprise Field Services, LLC
LOCATION San Juan County, NM

DRILLING DATE 7/17/19, 8/15/19, 8/21/19
DRILLING COMPANY HRL Compliance Solutions
BORING METHOD Hand Auger/Coring
TOTAL DEPTH 50 ft

NORTH COORDINATE 36.85340 N
WEST COORDINATE 107.69085 W
SURFACE COMPLETION
LOGGED BY R.DEECHILLY
SAMPLER R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Material Description	Depth (ft)
1.3	SB-2 (2')	Y		2		Silty Sandy Clay to Interbedded Silty Sand. Moderate Yellowish Brown to Dark Yellowish Orange. Moist, No odor. No staining.	2
				4			4
				6			6
				8			8
1.4				10			10
1.0				12			12
0.7				14			14
4.3				16		Clayey Silt with traces of shale and competent sandstone.Light Olive Gray. Moist. No Odor. No Staining.	16
2.4				18			18
21.4	SB-2 (18'-20')	Y		20			20
2.6				22			22
2.5	SB-2 (22'-25')	Y		24		Weathered Sandstone to Sandstone. Yellowish Gray to Light Olive Gray/ Dark Yellowish Orange. Moist to Very Moist at 33 ft bgs. No Odor. No Staining.	24
2.1				26			26
2.0				28			28
0	SB-2 (30'-33')	Y		30			30
0				32			32
0				34			34
0				36			36
0				38			38
0				40			40
0				42			42
0	SB-2 (43'-45')	Y		44			44
				46		No Recovery	46
				48			48
				50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-3

PROJECT NUMBER 05A1226053	**DRILLING DATE** 7/17/19, 8/15/19, 8/22/19	**NORTH COORDINATE** 36.85340 N
PROJECT NAME Sandstone CS	**DRILLING COMPANY** HRL Compliance Solutions	**WEST COORDINATE** 107.69105 ?W
CLIENT Enterprise Field Services, LLC	**BORING METHOD** Hand Auger/Split Spoon Coring	**SURFACE COMPLETION**
LOCATION San Juan County, NM		**LOGGED BY** R.DEECHILLY
	TOTAL DEPTH 50 ft	**SAMPLER** R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	% Recovery	Depth (ft)	Graphic Log	Material Description	Depth (ft)
0.1	SB-3 (2')	Y		2		Silty Sandy Clay.Moderate Yellowish Brown. Moist, No odor. No staining.	2
0.1	SB-3 (4')	Y		4			4
0				6			6
0	SB-3 (8')	Y		8			8
0.1				10			10
0.6	SB-3 (12'-15')	Y		12		Silty Clay with traces of competent sandstone.Dark Yellowish Brown. Moist, No odor. No staining.	12
0.2				14			14
0				16		Clayey Silt. Dusky Yellow to Light Olive Gray. Moist. No Odor. No Staining.	16
				18			18
				20		No Recovery Using Core (20'-25'). Switch to Split Spoon.	20
0	SB-3 (22'-24')	Y		22		Weathered Sandstone. Light Olive Gray. Moist. No Odor. No Staining.	22
				24			24
				26		No Recovery Using Core (25'-30'). Switch to Split Spoon.	26
0.5				28		Sandstone. Light Olive Gray. Very Moist. No Odor. No Staining.	28
0				30			30
0	SB-3 (33'-34')	Y		32		Sandstone. Yellowish Gray to Light Olive Gray/ Dark Yellowish Orange. Moist. No Odor. No Staining.	32
0				34			34
0				36			36
0				38			38
				40			40
0				42			42
0				44			44
0				46			46
				48			48
0	SB-3 (49'-50')	Y		50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-4

PROJECT NUMBER 05A1226053
PROJECT NAME Sandstone CS
CLIENT Enterprise Field Services, LLC
LOCATION San Juan County, NM

DRILLING DATE 7/17/19, 8/14/19
DRILLING COMPANY HRL Compliance Solutions
BORING METHOD Hand Auger/Coring
TOTAL DEPTH 50 ft

NORTH COORDINATE 36.85350 N
WEST COORDINATE 107.69104 W
SURFACE COMPLETION NA
LOGGED BY R.DEECHILLY
SAMPLER R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	Recovery (%)	Depth (ft)	Graphic Log	Material Description	Depth (ft)
0.8	SB-4 (2')	Y		2		Silty Sandy Clay.Moderate Yellowish Brown. Moist, No odor. No staining.	2
0.9	SB-4 (6')	Y		4			4
0	SB-4 (8')	Y		6			6
				8			8
				10			10
0				12			12
0.1				14			14
1.3				16		Sand to Sand Clayey with Traces of Competent Sandstone. Moderate Yellowish Brown.Moist. No Odor. No Staining.	16
2.9	SB-4 (16'-17')	Y		18			18
2.8				20		Clayey Silt Transitioning to Silty Clay. Dusky Yellow to Light Olive Gray to Dark Yellowish Brown. Moist. No Odor. No Staining.	20
2.3				22			22
1.4				24		Weathered Sandstone. Light Olive Gray with Very Dusky Red. Moist. No Odor. No Staining.	24
1.1	SB-4 (23'-25')	Y		26		Sandstone. Yellowish Gray to Light Olive Gray and Dark Yellowish Orange. Moist. Very Moist at 33 feet bgs. No Odor. No Staining.	26
1.6				28			28
1.3				30			30
	SB-4 (30'-33')	Y		32			32
1.7				34			34
1.0				36			36
2.6				38			38
0.6				40			40
1.3				42			42
1.1				44			44
0.5				46			46
				48			48
0.7	SB-4 (48'-50')	Y		50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-5

PROJECT NUMBER 05A1226053
PROJECT NAME Sandstone CS
CLIENT Enterprise Field Services, LLC
LOCATION San Juan County, NM

DRILLING DATE 7/17/19, 8/15/19, 8/21/19
DRILLING COMPANY HRL Compliance Solutions
BORING METHOD Hand Auger/Split Spoon/ Coring
TOTAL DEPTH 50 ft

NORTH COORDINATE 36.85352 N
WEST COORDINATE 107.69104 W
SURFACE COMPLETION NA
LOGGED BY R.DEECHILLY
SAMPLER R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	Recovery (%)	Depth (ft)	Graphic Log	Material Description	Depth (ft)
0.2	SB-5 (2')	Y		2		Silty Sandy Clay.Moderate Yellowish Brown. Moist, No odor. No staining.	2
0.4	SB-5 (4')	Y		4			4
0.1				6			6
0	SB-5 (8')	Y		8			8
				10			10
2.3				12			12
4.5	SB-5 (13'-15')	Y		14			14
1.4				16		Sand Transitioning to Weathered Sandstone. Dusky Yellow to Light Olive Gray and Very Dusky Red.Moist. No Odor. No Staining.	16
1.6	SB-5 (18'-20')	Y		18			18
				20			20
				22			22
0	SB-5 (23'-25')	Y		24			24
				26		Sandstone. Traces of Shale @ 45'-50'. Yellowish Gray to Light Olive Gray and Dark Yellowish Orange. Moist. Very Moist at 33 feet bgs. No Odor. No Staining.	26
0.7				28			28
	SB-5 (30'-33')	Y		30			30
0				32			32
0				34			34
0				36			36
0				38			38
0				40			40
0				42			42
0				44			44
0				46			46
				48			48
0	SB-5 (48'-50')	Y		50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-6

PROJECT NUMBER 05A1226053	**DRILLING DATE** 7/17/19, 8/14/19	**NORTH COORDINATE** 36.85352 N
PROJECT NAME Sandstone CS	**DRILLING COMPANY** HRL Compliance Solutions	**WEST COORDINATE** 107.69090 W
CLIENT Enterprise Field Services, LLC	**BORING METHOD** Hand Auger/Coring	**SURFACE COMPLETION** NA
LOCATION San Juan County, NM	**TOTAL DEPTH** 50 ft	**LOGGED BY** R.DEECHILLY
		SAMPLER R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	Recovery (%) 0–100	Depth (ft)	Graphic Log	Material Description	Depth (ft)
0	SB-6 (2')	Y		2		Silty Sandy Clay.Moderate Yellowish Brown. Moist, No odor. No staining.	2
0	SB-6 (4')	Y		4			4
0				6			6
0	SB-6 (8')	Y		8			8
				10			10
0				12			12
0				14			14
0				16		Sand Transitioning to Clayey Silt with Traces of Competent Sandstone. Moderate Yellowish Brown. Dusky Yellow to Light Olive Gray and Dark Yellowish Orange. Moist. No Odor. No Staining.	16
0				18			18
0				20			20
0				22			22
0				24			24
0	SB-6 (24'-25')	Y		26		Weathered Sandstone to Sandstone. Traces of shale at 48 feet bgss. Yellowish Gray to Light Olive Gray and Dark Yellowish Orange. Moist. Very Moist at 34 feet bgs. No Odor. No Staining.	26
0				28			28
0				30			30
1.6	SB-6 (30'-32')	Y		32			32
0.2				34			34
0.9				36			36
1.0				38			38
0				40			40
				42			42
0				44			44
0				46			46
				48			48
0	SB-6 (48'-50')	Y		50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

BORING LOG SB-7

PROJECT NUMBER 05A1226053
PROJECT NAME Sandstone CS
CLIENT Enterprise Field Services, LLC
LOCATION San Juan County, NM

DRILLING DATE 7/17/19, 8/15/19, 8/21/19
DRILLING COMPANY HRL Compliance Solutions
BORING METHOD Hand Auger/Coring
TOTAL DEPTH 50 ft

NORTH COORDINATE 36.85357 N
WEST COORDINATE 107.69083 W
SURFACE COMPLETION NA
LOGGED BY R.DEECHILLY
SAMPLER R.DEECHILLY/C.D'APONTI

COMMENTS 0 to 9 feet bgs was hydro-excavated. Hand auger was utilized to collect samples from 0 to 8 feet bgs.

PID (ppm)	Samples	Analysed	Recovery (%) 0–100	Depth (ft)	Graphic Log	Material Description	Depth (ft)
0	SB-7 (2')	Y		2		Silty Sandy Clay.Moderate Yellowish Brown. Moist, No odor. No staining.	2
0	SB-7 (4')	Y		4			4
0				6			6
0	SB-7 (8')	Y		8			8
				10			10
3.2	SB-7 (10'-13')	Y		12			12
2.1				14			14
0				16		Sand Transitioning to Clayey Silt. Moderate Yellowish Brown. Dusky Yellow to Light Olive Gray and Dark Yellowish Orange. Moist. No Odor. No Staining.	16
2.2				18			18
				20			20
2.6				22			22
1.7	SB-7 (23'-25')	Y		24		Weathered Sandstone to Sandstone. Yellowish Gray to Light Olive Gray and Dark Yellowish Orange. Moist. Very Moist at 35 feet bgs. No Odor. No Staining.	24
0				26			26
0				28			28
				30			30
				32			32
				34			34
0				36			36
0				38			38
				40			40
0				42			42
0				44			44
0				46			46
	SB-7 (47'-50')	Y		48			48
0				50			50
				52		TD at 50 ft bgs	52

Disclaimer This bore log should not be used separately from this report..

ENSOLUM

APPENDIX G

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

April 08, 2019

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

RE: Sandstone CS OrderNo.: 1904149

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/3/2019 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 **1904149**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: CS-1
Project: Sandstone CS
Collection Date: 4/2/2019 4:20:00 PM
Lab ID: 1904149-001 **Matrix:** SOIL **Received Date:** 4/3/2019 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 7471: MERCURY						Analyst: **pmf**	
Mercury	ND	0.035		mg/Kg	1	4/4/2019 4:22:42 PM	44120
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**	
Arsenic	ND	4.9		mg/Kg	2	4/4/2019 10:32:51 AM	44085
Barium	81	0.20		mg/Kg	2	4/4/2019 9:33:57 AM	44085
Cadmium	ND	0.20		mg/Kg	2	4/4/2019 9:33:57 AM	44085
Chromium	4.3	0.59		mg/Kg	2	4/4/2019 9:33:57 AM	44085
Lead	2.7	0.49		mg/Kg	2	4/4/2019 12:37:26 PM	44085
Selenium	ND	4.9		mg/Kg	2	4/4/2019 9:33:57 AM	44085
Silver	ND	0.49		mg/Kg	2	4/4/2019 9:33:57 AM	44085
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	4/3/2019 10:16:29 AM	GS5884
Surr: BFB	100	70-130		%Rec	1	4/3/2019 10:16:29 AM	GS5884
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	1100	980		mg/Kg	100	4/3/2019 12:02:04 PM	44058
Motor Oil Range Organics (MRO)	25000	4900		mg/Kg	100	4/3/2019 12:02:04 PM	44058
Surr: DNOP	0	70-130	S	%Rec	100	4/3/2019 12:02:04 PM	44058
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.016		mg/Kg	1	4/3/2019 10:16:29 AM	SLS5884
Toluene	ND	0.032		mg/Kg	1	4/3/2019 10:16:29 AM	SLS5884
Ethylbenzene	ND	0.032		mg/Kg	1	4/3/2019 10:16:29 AM	SLS5884
Xylenes, Total	ND	0.064		mg/Kg	1	4/3/2019 10:16:29 AM	SLS5884
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/3/2019 10:16:29 AM	SLS5884
Surr: Toluene-d8	93.4	70-130		%Rec	1	4/3/2019 10:16:29 AM	SLS5884

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

Qualifiers:

E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **LCS-44058** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **44058** RunNo: **58853**

Prep Date: **4/3/2019** Analysis Date: **4/3/2019** SeqNo: **1978307** 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	101	63.9	124			
Surr: DNOP	4.7		5.000		94.0	70	130			

Sample ID: **MB-44058** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **44058** RunNo: **58853**

Prep Date: **4/3/2019** Analysis Date: **4/3/2019** SeqNo: **1978308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.2	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **LCSS** Batch ID: **SLS58841** RunNo: **58841**

Prep Date: Analysis Date: **4/3/2019** SeqNo: **1980250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	1.000	0	82.4	70	130			
Toluene	0.96	0.050	1.000	0	95.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		84.6	70	130			
Surr: Toluene-d8	0.47		0.5000		93.6	70	130			

Sample ID: **1904149-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **CS-1** Batch ID: **SLS58841** RunNo: **58841**

Prep Date: Analysis Date: **4/3/2019** SeqNo: **1980251** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.53	0.016	0.6435	0	81.8	68.9	131			
Toluene	0.60	0.032	0.6435	0	93.6	64.3	137			
Surr: 1,2-Dichloroethane-d4	0.28		0.3218		88.4	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3218		100	70	130			
Surr: Dibromofluoromethane	0.29		0.3218		88.8	70	130			
Surr: Toluene-d8	0.30		0.3218		93.6	70	130			

Sample ID: **1904149-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **CS-1** Batch ID: **SLS58841** RunNo: **58841**

Prep Date: Analysis Date: **4/3/2019** SeqNo: **1980252** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.51	0.016	0.6435	0	79.0	68.9	131	3.51	20	
Toluene	0.59	0.032	0.6435	0	91.1	64.3	137	2.67	20	
Surr: 1,2-Dichloroethane-d4	0.29		0.3218		89.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.33		0.3218		101	70	130	0	0	
Surr: Dibromofluoromethane	0.29		0.3218		90.6	70	130	0	0	
Surr: Toluene-d8	0.30		0.3218		92.9	70	130	0	0	

Sample ID: **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **SLS58841** RunNo: **58841**

Prep Date: Analysis Date: **4/3/2019** SeqNo: **1980253** 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								

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**
08-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **SLS58841** RunNo: **58841**
Prep Date: Analysis Date: **4/3/2019** SeqNo: **1980253** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		84.0	70	130			
Surr: Toluene-d8	0.48		0.5000		95.8	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **MB-44120** SampType: **MBLK** TestCode: **EPA Method 7471: Mercury**

Client ID: **PBS** Batch ID: **44120** RunNo: **58906**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980133** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID: **LLLCS-44120** SampType: **LCSLL** TestCode: **EPA Method 7471: Mercury**

Client ID: **BatchQC** Batch ID: **44120** RunNo: **58906**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033	0.006660	0	107	70	130			

Sample ID: **LCS-44120** SampType: **LCS** TestCode: **EPA Method 7471: Mercury**

Client ID: **LCSS** Batch ID: **44120** RunNo: **58906**

Prep Date: **4/4/2019** Analysis Date: **4/4/2019** SeqNo: **1980135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.8	80	120			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**
08-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44085** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **44085** RunNo: **58886**
Prep Date: **4/3/2019** Analysis Date: **4/4/2019** SeqNo: **1979637** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID: **LCS-44085** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **44085** RunNo: **58886**
Prep Date: **4/3/2019** Analysis Date: **4/4/2019** SeqNo: **1979638** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	100	80	120			
Barium	25	0.10	25.00	0	98.3	80	120			
Cadmium	26	0.10	25.00	0	102	80	120			
Chromium	25	0.30	25.00	0	101	80	120			
Selenium	25	2.5	25.00	0	101	80	120			
Silver	5.1	0.25	5.000	0	102	80	120			

Sample ID: **MB-44085** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **44085** RunNo: **58886**
Prep Date: **4/3/2019** Analysis Date: **4/4/2019** SeqNo: **1979846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.25								

Sample ID: **LCS-44085** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **44085** RunNo: **58886**
Prep Date: **4/3/2019** Analysis Date: **4/4/2019** SeqNo: **1979847** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	25	0.25	25.00	0	99.1	80	120			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904149**
08-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS58841**	RunNo: **58841**
Prep Date:	Analysis Date: **4/3/2019**	SeqNo: **1982271** 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	490		500.0		98.4	70	130			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS58841**	RunNo: **58841**
Prep Date:	Analysis Date: **4/3/2019**	SeqNo: **1982272** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.2	70	130			
Surr: BFB	510		500.0		103	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

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: 1904149 RcptNo: 1

Received By: Anne Thorne 4/3/2019 8:10:00 AM Anne Thorne

Completed By: Anne Thorne 4/3/2019 8:24:54 AM Anne Thorne

Reviewed By: DAD 4/3/19

Labeled by: AT 04/03/19

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: _____

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 ON SOIL JARS/at 4/3/19

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

ASAP - metals
100% TPH/BTEX

Turn-Around Time: ☐ Standard ☒ Rush 4/3/19

Client: Ensolum, LLC

Project Name: Sandstone CS

Mailing Address: 606 S. Rio Grande Suite A, Aztec, NM 87410

Project #:

Phone #:

email or Fax#: KSummers@ensolum.com

Project Manager: KSummers

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.0°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 # (AT041019 ~~HEAL~~)	Preservative Type	HEAL No 1904149	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
4/2/19	1620	S	CS-1	(2) 4oz Jars	cool	001	X	X				X					

NPS

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/2/19	1840				4/2/19	1840
4/2/19	1906				04/03/19	0810

Remarks: PM - Tom Long
Pay key - GG11580

SAME DAY RUSH

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

April 08, 2019

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

RE: Sandstone CS OrderNo.: 1904339

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/5/2019 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 **1904339**
Date Reported: **4/8/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-1
Project: Sandstone CS **Collection Date:** 4/4/2019 3:45:00 PM
Lab ID: 1904339-001 **Matrix:** SOIL **Received Date:** 4/5/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/5/2019 10:28:24 AM	44147
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**RAA**
Gasoline Range Organics (GRO)	ND	17	D	mg/Kg	10	4/5/2019 1:52:15 PM	R58934
Surr: BFB	101	70-130	D	%Rec	10	4/5/2019 1:52:15 PM	R58934
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	450	200		mg/Kg	20	4/5/2019 1:17:28 PM	44142
Motor Oil Range Organics (MRO)	10000	1000		mg/Kg	20	4/5/2019 1:17:28 PM	44142
Surr: DNOP	0	70-130	S	%Rec	20	4/5/2019 1:17:28 PM	44142
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**RAA**
Benzene	ND	0.17	D	mg/Kg	10	4/5/2019 1:52:15 PM	R58934
Toluene	ND	0.17	D	mg/Kg	10	4/5/2019 1:52:15 PM	R58934
Ethylbenzene	ND	0.17	D	mg/Kg	10	4/5/2019 1:52:15 PM	R58934
Xylenes, Total	ND	0.51	D	mg/Kg	10	4/5/2019 1:52:15 PM	R58934
Surr: 4-Bromofluorobenzene	103	70-130	D	%Rec	10	4/5/2019 1:52:15 PM	R58934
Surr: Toluene-d8	96.6	70-130	D	%Rec	10	4/5/2019 1:52:15 PM	R58934

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

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904339**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **MB-44147**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44147**	RunNo: **58920**							
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982048**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44147**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44147**	RunNo: **58920**							
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982049**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904339**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **LCS-44142**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44142**	RunNo: **58917**
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1981087** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.4	63.9	124			
Surr: DNOP	4.4		5.000		87.5	70	130			

Sample ID: **MB-44142**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44142**	RunNo: **58917**
Prep Date: **4/5/2019**	Analysis Date: **4/5/2019**	SeqNo: **1981088** 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	10		10.00		101	70	130			

Sample ID: **LCS-44128**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44128**	RunNo: **58917**
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982023** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.1	70	130			

Sample ID: **MB-44128**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44128**	RunNo: **58917**
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982024** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.1	70	130			

Sample ID: **LCS-44110**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44110**	RunNo: **58917**
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983117** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.3	70	130			

Sample ID: **MB-44110**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44110**	RunNo: **58917**
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1983118** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.9	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904339**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **LCSS** Batch ID: **R58934** RunNo: **58934**

Prep Date: Analysis Date: **4/5/2019** SeqNo: **1981802** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	83.7	70	130			
Toluene	0.99	0.050	1.000	0	99.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.3	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Sample ID: **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **R58934** RunNo: **58934**

Prep Date: Analysis Date: **4/5/2019** SeqNo: **1981805** 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: 1,2-Dichloroethane-d4	0.42		0.5000		84.3	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.4	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Sample ID: **lcs-44098** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **LCSS** Batch ID: **44098** RunNo: **58934**

Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982755** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.2	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		88.1	70	130			
Surr: Toluene-d8	0.47		0.5000		95.0	70	130			

Sample ID: **mb-44098** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **44098** RunNo: **58934**

Prep Date: **4/4/2019** Analysis Date: **4/5/2019** SeqNo: **1982756** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.8	70	130			
Surr: Toluene-d8	0.46		0.5000		93.0	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904339**

08-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R58934**	RunNo: **58934**
Prep Date:	Analysis Date: **4/5/2019**	SeqNo: **1981849** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	70	130			
Surr: BFB	490		500.0		98.8	70	130			

Sample ID: **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **R58934**	RunNo: **58934**
Prep Date:	Analysis Date: **4/5/2019**	SeqNo: **1981850** 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	500		500.0		99.7	70	130			

Sample ID: **lcs-44098**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44098**	RunNo: **58934**
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982789** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		100	70	130			

Sample ID: **lcs-44111**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44111**	RunNo: **58934**
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1982790** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		103	70	130			

Sample ID: **mb-44111**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **44111**	RunNo: **58934**
Prep Date: **4/4/2019**	Analysis Date: **4/6/2019**	SeqNo: **1982791** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		105	70	130			

Sample ID: **mb-44098**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **44098**	RunNo: **58934**
Prep Date: **4/4/2019**	Analysis Date: **4/5/2019**	SeqNo: **1982792** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		99.8	70	130			

Qualifiers:

E	Value above quantitation range
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode
H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix

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: 1904339 RcptNo: 1

Received By: Anne Thorne 4/5/2019 8:30:00 AM

Completed By: Anne Thorne 4/5/2019 8:41:24 AM

Reviewed By: JC 4-5-19

Labeled by: AT 04/05/19

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: _____

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 Seal intact on Sal Jar / AT 04/05/19

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande Suite A

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: 100%

☐ Standard ☒ Rush 4/5/19

Project Name: Sandstone CS

Project #: 05A1226053

Project Manager: Ksummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1.0

Cooler Temp (including CF): 1.0°C

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1904339
4/4/19	1545	S	S-1	4oz Glass Jar	Cool	001

Analysis Request

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
X	X									X

NPS

Relinquished by:	Received by:	Via:	Date	Time
Date: 4/4/19 Time: 1738				
Date: 4/4/19 Time: 1832 Christen Wheeler				
		Via:	Date: 04/05/19	Time: 0830

Remarks: PM - Tom Long

PAY ICY - GG11580

SAME DAY RUSH

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

April 26, 2019

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

RE: Sandstone CS OrderNo.: 1904A76

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/23/2019 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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-2
Project: Sandstone CS
Collection Date: 4/22/2019 11:20:00 AM
Lab ID: 1904A76-001 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	4/23/2019 10:38:54 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	12	9.3		mg/Kg	1	4/23/2019 10:26:47 AM	44480
Motor Oil Range Organics (MRO)	330	47		mg/Kg	1	4/23/2019 10:26:47 AM	44480
Surr: DNOP	119	70-130		%Rec	1	4/23/2019 10:26:47 AM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/23/2019 8:34:31 AM	G59360
Surr: BFB	86.2	73.8-119		%Rec	1	4/23/2019 8:34:31 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	4/23/2019 8:34:31 AM	B59360
Toluene	ND	0.038		mg/Kg	1	4/23/2019 8:34:31 AM	B59360
Ethylbenzene	ND	0.038		mg/Kg	1	4/23/2019 8:34:31 AM	B59360
Xylenes, Total	ND	0.077		mg/Kg	1	4/23/2019 8:34:31 AM	B59360
Surr: 4-Bromofluorobenzene	86.1	80-120		%Rec	1	4/23/2019 8:34:31 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-3
Project: Sandstone CS
Collection Date: 4/22/2019 11:25:00 AM
Lab ID: 1904A76-002 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/23/2019 10:51:19 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	56	20		mg/Kg	2	4/23/2019 2:38:38 PM	44480
Motor Oil Range Organics (MRO)	1200	100		mg/Kg	2	4/23/2019 2:38:38 PM	44480
Surr: DNOP	97.6	70-130		%Rec	2	4/23/2019 2:38:38 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/23/2019 8:58:06 AM	G59360
Surr: BFB	86.1	73.8-119		%Rec	1	4/23/2019 8:58:06 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.018		mg/Kg	1	4/23/2019 8:58:06 AM	B59360
Toluene	ND	0.035		mg/Kg	1	4/23/2019 8:58:06 AM	B59360
Ethylbenzene	ND	0.035		mg/Kg	1	4/23/2019 8:58:06 AM	B59360
Xylenes, Total	ND	0.070		mg/Kg	1	4/23/2019 8:58:06 AM	B59360
Surr: 4-Bromofluorobenzene	85.6	80-120		%Rec	1	4/23/2019 8:58:06 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Sandstone CS
Collection Date: 4/22/2019 11:30:00 AM
Lab ID: 1904A76-003 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	4/23/2019 11:03:43 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	1200	490		mg/Kg	50	4/23/2019 12:59:59 PM	44480
Motor Oil Range Organics (MRO)	22000	2500		mg/Kg	50	4/23/2019 12:59:59 PM	44480
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2019 12:59:59 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	20		mg/Kg	5	4/23/2019 9:21:37 AM	G59360
Surr: BFB	87.4	73.8-119		%Rec	5	4/23/2019 9:21:37 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.099		mg/Kg	5	4/23/2019 9:21:37 AM	B59360
Toluene	ND	0.20		mg/Kg	5	4/23/2019 9:21:37 AM	B59360
Ethylbenzene	ND	0.20		mg/Kg	5	4/23/2019 9:21:37 AM	B59360
Xylenes, Total	ND	0.40		mg/Kg	5	4/23/2019 9:21:37 AM	B59360
Surr: 4-Bromofluorobenzene	86.8	80-120		%Rec	5	4/23/2019 9:21:37 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-5
Project: Sandstone CS
Collection Date: 4/22/2019 11:35:00 AM
Lab ID: 1904A76-004 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	61		mg/Kg	20	4/23/2019 11:16:08 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/23/2019 2:12:35 PM	44480
Motor Oil Range Organics (MRO)	59	47		mg/Kg	1	4/23/2019 2:12:35 PM	44480
Surr: DNOP	93.9	70-130		%Rec	1	4/23/2019 2:12:35 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/23/2019 9:45:08 AM	G59360
Surr: BFB	86.0	73.8-119		%Rec	1	4/23/2019 9:45:08 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.021		mg/Kg	1	4/23/2019 9:45:08 AM	B59360
Toluene	ND	0.043		mg/Kg	1	4/23/2019 9:45:08 AM	B59360
Ethylbenzene	ND	0.043		mg/Kg	1	4/23/2019 9:45:08 AM	B59360
Xylenes, Total	ND	0.086		mg/Kg	1	4/23/2019 9:45:08 AM	B59360
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	4/23/2019 9:45:08 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-6
Project: Sandstone CS
Collection Date: 4/22/2019 11:40:00 AM
Lab ID: 1904A76-005 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	4/23/2019 11:28:32 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/23/2019 2:53:51 PM	44480
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/23/2019 2:53:51 PM	44480
Surr: DNOP	111	70-130		%Rec	1	4/23/2019 2:53:51 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/23/2019 10:08:39 AM	G59360
Surr: BFB	89.3	73.8-119		%Rec	1	4/23/2019 10:08:39 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/23/2019 10:08:39 AM	B59360
Toluene	ND	0.046		mg/Kg	1	4/23/2019 10:08:39 AM	B59360
Ethylbenzene	ND	0.046		mg/Kg	1	4/23/2019 10:08:39 AM	B59360
Xylenes, Total	ND	0.092		mg/Kg	1	4/23/2019 10:08:39 AM	B59360
Surr: 4-Bromofluorobenzene	90.3	80-120		%Rec	1	4/23/2019 10:08:39 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-7
Project: Sandstone CS
Collection Date: 4/22/2019 11:45:00 AM
Lab ID: 1904A76-006 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	61		mg/Kg	20	4/23/2019 11:40:57 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	790	450		mg/Kg	50	4/23/2019 1:45:39 PM	44480
Motor Oil Range Organics (MRO)	16000	2300		mg/Kg	50	4/23/2019 1:45:39 PM	44480
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2019 1:45:39 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	4/23/2019 10:32:03 AM	G59360
Surr: BFB	89.0	73.8-119		%Rec	5	4/23/2019 10:32:03 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.087		mg/Kg	5	4/23/2019 10:32:03 AM	B59360
Toluene	ND	0.17		mg/Kg	5	4/23/2019 10:32:03 AM	B59360
Ethylbenzene	ND	0.17		mg/Kg	5	4/23/2019 10:32:03 AM	B59360
Xylenes, Total	ND	0.35		mg/Kg	5	4/23/2019 10:32:03 AM	B59360
Surr: 4-Bromofluorobenzene	89.6	80-120		%Rec	5	4/23/2019 10:32:03 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-8
Project: Sandstone CS
Collection Date: 4/22/2019 11:50:00 AM
Lab ID: 1904A76-007 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/23/2019 11:53:21 AM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	490	470		mg/Kg	50	4/23/2019 12:31:36 PM	44480
Motor Oil Range Organics (MRO)	10000	2300		mg/Kg	50	4/23/2019 12:31:36 PM	44480
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2019 12:31:36 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/23/2019 10:55:23 AM	G59360
Surr: BFB	87.9	73.8-119		%Rec	1	4/23/2019 10:55:23 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.019		mg/Kg	1	4/23/2019 10:55:23 AM	B59360
Toluene	ND	0.038		mg/Kg	1	4/23/2019 10:55:23 AM	B59360
Ethylbenzene	ND	0.038		mg/Kg	1	4/23/2019 10:55:23 AM	B59360
Xylenes, Total	ND	0.076		mg/Kg	1	4/23/2019 10:55:23 AM	B59360
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	4/23/2019 10:55:23 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-9
Project: Sandstone CS
Collection Date: 4/22/2019 11:55:00 AM
Lab ID: 1904A76-008 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/23/2019 12:05:46 PM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	570	490		mg/Kg	50	4/23/2019 1:21:38 PM	44480
Motor Oil Range Organics (MRO)	11000	2500		mg/Kg	50	4/23/2019 1:21:38 PM	44480
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2019 1:21:38 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	4/23/2019 11:18:42 AM	G59360
Surr: BFB	87.7	73.8-119		%Rec	5	4/23/2019 11:18:42 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.097		mg/Kg	5	4/23/2019 11:18:42 AM	B59360
Toluene	ND	0.19		mg/Kg	5	4/23/2019 11:18:42 AM	B59360
Ethylbenzene	ND	0.19		mg/Kg	5	4/23/2019 11:18:42 AM	B59360
Xylenes, Total	ND	0.39		mg/Kg	5	4/23/2019 11:18:42 AM	B59360
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	5	4/23/2019 11:18:42 AM	B59360

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 **1904A76**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-10
Project: Sandstone CS
Collection Date: 4/22/2019 12:00:00 PM
Lab ID: 1904A76-009 **Matrix:** SOIL **Received Date:** 4/23/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/23/2019 12:43:01 PM	44484
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	810	460		mg/Kg	50	4/23/2019 1:45:18 PM	44480
Motor Oil Range Organics (MRO)	19000	2300		mg/Kg	50	4/23/2019 1:45:18 PM	44480
Surr: DNOP	0	70-130	S	%Rec	50	4/23/2019 1:45:18 PM	44480
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	4/23/2019 11:42:08 AM	G59360
Surr: BFB	85.5	73.8-119		%Rec	5	4/23/2019 11:42:08 AM	G59360
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.097		mg/Kg	5	4/23/2019 11:42:08 AM	B59360
Toluene	ND	0.19		mg/Kg	5	4/23/2019 11:42:08 AM	B59360
Ethylbenzene	ND	0.19		mg/Kg	5	4/23/2019 11:42:08 AM	B59360
Xylenes, Total	ND	0.39		mg/Kg	5	4/23/2019 11:42:08 AM	B59360
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	5	4/23/2019 11:42:08 AM	B59360

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904A76**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44484**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44484**	RunNo: **59358**							
Prep Date: **4/23/2019**	Analysis Date: **4/23/2019**	SeqNo: **2000323**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44484**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44484**	RunNo: **59358**							
Prep Date: **4/23/2019**	Analysis Date: **4/23/2019**	SeqNo: **2000324**	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#: **1904A76**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44480** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **44480** RunNo: **59341**
Prep Date: **4/23/2019** Analysis Date: **4/23/2019** SeqNo: **1998796** 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	10		10.00		103	70	130			

Sample ID: **LCS-44480** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **44480** RunNo: **59341**
Prep Date: **4/23/2019** Analysis Date: **4/23/2019** SeqNo: **1998797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.5	63.9	124			
Surr: DNOP	4.5		5.000		89.9	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#: **1904A76**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **G59360**	RunNo: **59360**							
Prep Date:	Analysis Date: **4/23/2019**	SeqNo: **1999550**	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	890		1000		89.2	73.8	119			

Sample ID: **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **G59360**	RunNo: **59360**							
Prep Date:	Analysis Date: **4/23/2019**	SeqNo: **1999551**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

Sample ID: **1904A76-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **S-2**	Batch ID: **G59360**	RunNo: **59360**							
Prep Date:	Analysis Date: **4/23/2019**	SeqNo: **1999552**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	19.16	0	96.0	69.1	142			
Surr: BFB	770		766.3		101	73.8	119			

Sample ID: **1904A76-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **S-2**	Batch ID: **G59360**	RunNo: **59360**							
Prep Date:	Analysis Date: **4/23/2019**	SeqNo: **1999553**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	19.16	0	95.6	69.1	142	0.376	20	
Surr: BFB	730		766.3		95.1	73.8	119	0	0	

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#: **1904A76**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **B59360** RunNo: **59360**
Prep Date: Analysis Date: **4/23/2019** SeqNo: **1999584** 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	0.88		1.000		88.0	80	120			

Sample ID: **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **B59360** RunNo: **59360**
Prep Date: Analysis Date: **4/23/2019** SeqNo: **1999585** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	87.3	80	120			
Toluene	0.91	0.050	1.000	0	91.4	80	120			
Ethylbenzene	0.91	0.050	1.000	0	91.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.9	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		87.8	80	120			

Sample ID: **1904A76-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-3** Batch ID: **B59360** RunNo: **59360**
Prep Date: Analysis Date: **4/23/2019** SeqNo: **1999586** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.018	0.7013	0	89.0	63.9	127			
Toluene	0.66	0.035	0.7013	0.007784	92.5	69.9	131			
Ethylbenzene	0.65	0.035	0.7013	0	92.8	71	132			
Xylenes, Total	2.0	0.070	2.104	0	93.1	71.8	131			
Surr: 4-Bromofluorobenzene	0.63		0.7013		90.4	80	120			

Sample ID: **1904A76-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-3** Batch ID: **B59360** RunNo: **59360**
Prep Date: Analysis Date: **4/23/2019** SeqNo: **1999587** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.018	0.7013	0	88.2	63.9	127	0.880	20	
Toluene	0.64	0.035	0.7013	0.007784	90.6	69.9	131	2.01	20	
Ethylbenzene	0.64	0.035	0.7013	0	91.4	71	132	1.44	20	
Xylenes, Total	1.9	0.070	2.104	0	92.3	71.8	131	0.881	20	
Surr: 4-Bromofluorobenzene	0.62		0.7013		88.4	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: 1904A76 RcptNo: 1

Received By: Erin Melendrez 4/23/2019 8:05:00 AM

Completed By: Anne Thorne 4/23/2019 8:14:26 AM

Reviewed By: DAD 4/23/19

Labeled by: AT 04/23/19

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: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

CUSTODY SEALS INTACT ON SOIL JARS/at 4/24/19

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6065 Riocerrande, 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: 4/23/19
☐ Standard ☒ Rush SAMEDAY

Project Name: Sandstone CS

Project #: 05A1226053

Project Manager: Ksummers

Sampler: RDeechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1 (CF = +0.1)
Cooler Temp (including CF): 1.6°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. 1904A76	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
4/22/19	1120	S	S-2	1 4oz Jar	cool	201	X	X									X
4/22/19	1125	S	S-3	1 4oz Jar	cool	202	X	X									X
4/22/19	1130	S	S-4	1 4oz Jar	cool	203	X	X									X
4/22/19	1135	S	S-5	1 4oz Jar	cool	204	X	X									X
4/22/19	1140	S	S-6	1 4oz Jar	cool	205	X	X									X
4/22/19	1145	S	S-7	1 4oz Jar	cool	206	X	X									X
4/22/19	1150	S	S-8	1 4oz Jar	cool	207	X	X									X
4/22/19	1155	S	S-9	1 4oz Jar	cool	208	X	X									X
4/22/19	1200	S	S-10	1 4oz Jar	cool	209	X	X									X

NFS

Date	Time	Relinquished by	Received by	Via	Date	Time
4/22/19	1533	Rani Dechilly	Chad Walt		4/22/19	1533
4/22/19	1911	Chantha Wells		Courier	4/23/19	0805

Remarks: PM - Tom Long (EPROD)
Pay Key - GG11580

SAME DAY

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

April 26, 2019

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

RE: Sandstone CS OrderNo.: 1904C01

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 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 **1904C01**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-11
Project: Sandstone CS
Collection Date: 4/24/2019 3:45:00 PM
Lab ID: 1904C01-001 **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	4/25/2019 10:52:20 AM	44534
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/25/2019 9:52:26 AM	44533
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/25/2019 9:52:26 AM	44533
Surr: DNOP	109	70-130		%Rec	1	4/25/2019 9:52:26 AM	44533
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/25/2019 8:30:34 AM	44507
Surr: BFB	88.2	73.8-119		%Rec	1	4/25/2019 8:30:34 AM	44507
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	4/25/2019 8:30:34 AM	44507
Toluene	ND	0.038		mg/Kg	1	4/25/2019 8:30:34 AM	44507
Ethylbenzene	ND	0.038		mg/Kg	1	4/25/2019 8:30:34 AM	44507
Xylenes, Total	ND	0.076		mg/Kg	1	4/25/2019 8:30:34 AM	44507
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	1	4/25/2019 8:30:34 AM	44507

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 **1904C01**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-12
Project: Sandstone CS
Collection Date: 4/24/2019 3:50:00 PM
Lab ID: 1904C01-002 **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	4/25/2019 11:04:44 AM	44534
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/25/2019 10:14:36 AM	44533
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/25/2019 10:14:36 AM	44533
Surr: DNOP	110	70-130		%Rec	1	4/25/2019 10:14:36 AM	44533
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/25/2019 8:53:54 AM	44507
Surr: BFB	83.8	73.8-119		%Rec	1	4/25/2019 8:53:54 AM	44507
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	4/25/2019 8:53:54 AM	44507
Toluene	ND	0.034		mg/Kg	1	4/25/2019 8:53:54 AM	44507
Ethylbenzene	ND	0.034		mg/Kg	1	4/25/2019 8:53:54 AM	44507
Xylenes, Total	ND	0.067		mg/Kg	1	4/25/2019 8:53:54 AM	44507
Surr: 4-Bromofluorobenzene	83.0	80-120		%Rec	1	4/25/2019 8:53:54 AM	44507

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 **1904C01**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-13
Project: Sandstone CS
Collection Date: 4/24/2019 3:55:00 PM
Lab ID: 1904C01-003 **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	4/25/2019 11:17:09 AM	44534
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/25/2019 10:36:39 AM	44533
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/25/2019 10:36:39 AM	44533
Surr: DNOP	113	70-130		%Rec	1	4/25/2019 10:36:39 AM	44533
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/25/2019 9:17:14 AM	44507
Surr: BFB	86.2	73.8-119		%Rec	1	4/25/2019 9:17:14 AM	44507
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	4/25/2019 9:17:14 AM	44507
Toluene	ND	0.041		mg/Kg	1	4/25/2019 9:17:14 AM	44507
Ethylbenzene	ND	0.041		mg/Kg	1	4/25/2019 9:17:14 AM	44507
Xylenes, Total	ND	0.081		mg/Kg	1	4/25/2019 9:17:14 AM	44507
Surr: 4-Bromofluorobenzene	85.3	80-120		%Rec	1	4/25/2019 9:17:14 AM	44507

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 **1904C01**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-14
Project: Sandstone CS
Collection Date: 4/24/2019 4:00:00 PM
Lab ID: 1904C01-004 **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	4/25/2019 11:29:33 AM	44534
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/25/2019 9:57:09 AM	44533
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/25/2019 9:57:09 AM	44533
Surr: DNOP	102	70-130		%Rec	1	4/25/2019 9:57:09 AM	44533
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	4/25/2019 9:40:36 AM	44507
Surr: BFB	87.8	73.8-119		%Rec	1	4/25/2019 9:40:36 AM	44507
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.021		mg/Kg	1	4/25/2019 9:40:36 AM	44507
Toluene	ND	0.041		mg/Kg	1	4/25/2019 9:40:36 AM	44507
Ethylbenzene	ND	0.041		mg/Kg	1	4/25/2019 9:40:36 AM	44507
Xylenes, Total	ND	0.082		mg/Kg	1	4/25/2019 9:40:36 AM	44507
Surr: 4-Bromofluorobenzene	87.7	80-120		%Rec	1	4/25/2019 9:40:36 AM	44507

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 **1904C01**
Date Reported: **4/26/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-15
Project: Sandstone CS
Collection Date: 4/24/2019 4:05:00 PM
Lab ID: 1904C01-005 **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	4/25/2019 11:41:58 AM	44534
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/25/2019 10:27:58 AM	44533
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/25/2019 10:27:58 AM	44533
Surr: DNOP	102	70-130		%Rec	1	4/25/2019 10:27:58 AM	44533
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	4/25/2019 10:04:02 AM	44507
Surr: BFB	84.7	73.8-119		%Rec	1	4/25/2019 10:04:02 AM	44507
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	4/25/2019 10:04:02 AM	44507
Toluene	ND	0.038		mg/Kg	1	4/25/2019 10:04:02 AM	44507
Ethylbenzene	ND	0.038		mg/Kg	1	4/25/2019 10:04:02 AM	44507
Xylenes, Total	ND	0.077		mg/Kg	1	4/25/2019 10:04:02 AM	44507
Surr: 4-Bromofluorobenzene	84.6	80-120		%Rec	1	4/25/2019 10:04:02 AM	44507

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#: **1904C01**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44534**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **44534**	RunNo: **59428**							
Prep Date: **4/25/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002547**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-44534**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **44534**	RunNo: **59428**							
Prep Date: **4/25/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002548**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.2	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#: **1904C01**

26-Apr-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **LCS-44533** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **44533** RunNo: **59419**

Prep Date: **4/25/2019** Analysis Date: **4/25/2019** SeqNo: **2001610** 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	105	63.9	124			
Surr: DNOP	4.7		5.000		93.6	70	130			

Sample ID: **MB-44533** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **44533** RunNo: **59419**

Prep Date: **4/25/2019** Analysis Date: **4/25/2019** SeqNo: **2001611** 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	11		10.00		110	70	130			

Sample ID: **1904C01-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-11** Batch ID: **44533** RunNo: **59419**

Prep Date: **4/25/2019** Analysis Date: **4/25/2019** SeqNo: **2001997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.20	2.664	91.4	53.5	126			
Surr: DNOP	4.6		5.020		92.6	70	130			

Sample ID: **1904C01-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-11** Batch ID: **44533** RunNo: **59419**

Prep Date: **4/25/2019** Analysis Date: **4/25/2019** SeqNo: **2001998** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.5	47.57	2.664	98.2	53.5	126	1.70	21.7	
Surr: DNOP	4.6		4.757		95.7	70	130	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#: **1904C01**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44507**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44507**	RunNo: **59426**
Prep Date: **4/24/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002311** 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	860		1000		86.2	73.8	119			

Sample ID: **LCS-44507**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44507**	RunNo: **59426**
Prep Date: **4/24/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002312** 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	94.6	80.1	123			
Surr: BFB	960		1000		95.7	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#: **1904C01**
26-Apr-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-44507**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **44507**	RunNo: **59426**
Prep Date: **4/24/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002339** 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		86.3	80	120			

Sample ID: **LCS-44507**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **44507**	RunNo: **59426**
Prep Date: **4/24/2019**	Analysis Date: **4/25/2019**	SeqNo: **2002341** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	1.000	0	86.4	80	120			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	95.0	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	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: 1904C01 RcptNo: 1

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

Completed By: **Anne Thorne** 4/25/2019 8:20:36 AM Anne Thorne

Reviewed By: JO 4/25/19

Labeled by: AT 04/25/19

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: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

CUSTODY SEALS INTACT ON SOIL JARS/at 4/25/19

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, LLC

Mailing Address: 606 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: 4/25/19
☐ Standard ☒ Rush Same DAY

Project Name: Sandstone CS

Project #: 05A1226053

Project Manager: KSummers

Sampler: RDeechilly
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. 1904C01	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
4/24/19	1545	S	S-11	1 4oz Jar	Cool	001	X	X									X
4/24/19	1550	S	S-12	1 4oz Jar	Cool	002	X	X									X
4/24/19	1555	S	S-13	1 4oz Jar	Cool	003	X	X									X
4/24/19	1600	S	S-14	1 4oz Jar	Cool	004	X	X									X
4/24/19	1605	S	~~S-15~~ S-15	1 4oz Jar	Cool	005	X	X									X

MS

Date:	Time:	Relinquished by:	Received by:	Via:	Date Time
4/24/19	1807				4/24/19 1807
4/24/19	1920				04/25/19 0810

Remarks: PM - Tom Long (EPROD)
PayKey - 66115B0

SAME DAY

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 02, 2019

Kyle Summers

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

RE: Sandstone Compressor Station OrderNo.: 1907C86

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 19 sample(s) on 7/25/2019 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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-1@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:00:00 AM
Lab ID: 1907C86-001 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/25/2019 10:02:00 PM	46399
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/30/2019 8:45:30 AM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 8:45:30 AM	46442
Surr: DNOP	96.7	70-130		%Rec	1	7/30/2019 8:45:30 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 10:24:37 AM	46440
Surr: BFB	95.5	73.8-119		%Rec	1	7/30/2019 10:24:37 AM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/30/2019 10:24:37 AM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 10:24:37 AM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 10:24:37 AM	46440
Xylenes, Total	ND	0.096		mg/Kg	1	7/30/2019 10:24:37 AM	46440
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	7/30/2019 10:24:37 AM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-1@4'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:05:00 AM
Lab ID: 1907C86-002 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	61		mg/Kg	20	7/25/2019 10:14:24 PM	46399
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/30/2019 9:51:57 AM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 9:51:57 AM	46442
Surr: DNOP	99.5	70-130		%Rec	1	7/30/2019 9:51:57 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 11:35:14 AM	46440
Surr: BFB	92.7	73.8-119		%Rec	1	7/30/2019 11:35:14 AM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/30/2019 11:35:14 AM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 11:35:14 AM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 11:35:14 AM	46440
Xylenes, Total	ND	0.097		mg/Kg	1	7/30/2019 11:35:14 AM	46440
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	7/30/2019 11:35:14 AM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-1@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:10:00 AM
Lab ID: 1907C86-003 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/25/2019 10:26:49 PM	46399
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/30/2019 10:14:14 AM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 10:14:14 AM	46442
Surr: DNOP	102	70-130		%Rec	1	7/30/2019 10:14:14 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 12:45:59 PM	46440
Surr: BFB	92.9	73.8-119		%Rec	1	7/30/2019 12:45:59 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/30/2019 12:45:59 PM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 12:45:59 PM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 12:45:59 PM	46440
Xylenes, Total	ND	0.096		mg/Kg	1	7/30/2019 12:45:59 PM	46440
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	7/30/2019 12:45:59 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-2@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:15:00 AM
Lab ID: 1907C86-004 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	59		mg/Kg	20	7/26/2019 7:10:04 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 10:36:21 AM	46442
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2019 10:36:21 AM	46442
Surr: DNOP	99.3	70-130		%Rec	1	7/30/2019 10:36:21 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/30/2019 1:09:37 PM	46440
Surr: BFB	94.8	73.8-119		%Rec	1	7/30/2019 1:09:37 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	7/30/2019 1:09:37 PM	46440
Toluene	ND	0.046		mg/Kg	1	7/30/2019 1:09:37 PM	46440
Ethylbenzene	ND	0.046		mg/Kg	1	7/30/2019 1:09:37 PM	46440
Xylenes, Total	ND	0.092		mg/Kg	1	7/30/2019 1:09:37 PM	46440
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	7/30/2019 1:09:37 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:20:00 AM
Lab ID: 1907C86-005 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	63	60		mg/Kg	20	7/26/2019 7:22:29 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/30/2019 10:58:38 AM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 10:58:38 AM	46442
Surr: DNOP	95.7	70-130		%Rec	1	7/30/2019 10:58:38 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/30/2019 1:33:12 PM	46440
Surr: BFB	93.8	73.8-119		%Rec	1	7/30/2019 1:33:12 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/30/2019 1:33:12 PM	46440
Toluene	ND	0.049		mg/Kg	1	7/30/2019 1:33:12 PM	46440
Ethylbenzene	ND	0.049		mg/Kg	1	7/30/2019 1:33:12 PM	46440
Xylenes, Total	ND	0.098		mg/Kg	1	7/30/2019 1:33:12 PM	46440
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	7/30/2019 1:33:12 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3@4'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:25:00 AM
Lab ID: 1907C86-006 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 7:59:43 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 11:20:51 AM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 11:20:51 AM	46442
Surr: DNOP	96.9	70-130		%Rec	1	7/30/2019 11:20:51 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 1:56:52 PM	46440
Surr: BFB	94.9	73.8-119		%Rec	1	7/30/2019 1:56:52 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/30/2019 1:56:52 PM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 1:56:52 PM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 1:56:52 PM	46440
Xylenes, Total	ND	0.096		mg/Kg	1	7/30/2019 1:56:52 PM	46440
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	7/30/2019 1:56:52 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:30:00 AM
Lab ID: 1907C86-007 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 8:12:08 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 11:43:16 AM	46442
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	7/30/2019 11:43:16 AM	46442
Surr: DNOP	94.3	70-130		%Rec	1	7/30/2019 11:43:16 AM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2019 2:20:31 PM	46440
Surr: BFB	94.4	73.8-119		%Rec	1	7/30/2019 2:20:31 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/30/2019 2:20:31 PM	46440
Toluene	ND	0.050		mg/Kg	1	7/30/2019 2:20:31 PM	46440
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2019 2:20:31 PM	46440
Xylenes, Total	ND	0.099		mg/Kg	1	7/30/2019 2:20:31 PM	46440
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	7/30/2019 2:20:31 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:35:00 AM
Lab ID: 1907C86-008 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 8:24:33 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 12:05:32 PM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 12:05:32 PM	46442
Surr: DNOP	93.9	70-130		%Rec	1	7/30/2019 12:05:32 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/30/2019 2:44:17 PM	46440
Surr: BFB	94.9	73.8-119		%Rec	1	7/30/2019 2:44:17 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	7/30/2019 2:44:17 PM	46440
Toluene	ND	0.047		mg/Kg	1	7/30/2019 2:44:17 PM	46440
Ethylbenzene	ND	0.047		mg/Kg	1	7/30/2019 2:44:17 PM	46440
Xylenes, Total	ND	0.094		mg/Kg	1	7/30/2019 2:44:17 PM	46440
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	7/30/2019 2:44:17 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@6'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:40:00 AM
Lab ID: 1907C86-009 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 8:36:57 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 12:27:57 PM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 12:27:57 PM	46442
Surr: DNOP	93.2	70-130		%Rec	1	7/30/2019 12:27:57 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/30/2019 3:07:58 PM	46440
Surr: BFB	95.5	73.8-119		%Rec	1	7/30/2019 3:07:58 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	7/30/2019 3:07:58 PM	46440
Toluene	ND	0.049		mg/Kg	1	7/30/2019 3:07:58 PM	46440
Ethylbenzene	ND	0.049		mg/Kg	1	7/30/2019 3:07:58 PM	46440
Xylenes, Total	ND	0.098		mg/Kg	1	7/30/2019 3:07:58 PM	46440
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	7/30/2019 3:07:58 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:45:00 AM
Lab ID: 1907C86-010 **Matrix:** SOIL
Received Date: 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	7/26/2019 8:49:22 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/30/2019 12:50:21 PM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 12:50:21 PM	46442
Surr: DNOP	94.6	70-130		%Rec	1	7/30/2019 12:50:21 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/30/2019 3:31:41 PM	46440
Surr: BFB	98.8	73.8-119		%Rec	1	7/30/2019 3:31:41 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	7/30/2019 3:31:41 PM	46440
Toluene	ND	0.049		mg/Kg	1	7/30/2019 3:31:41 PM	46440
Ethylbenzene	ND	0.049		mg/Kg	1	7/30/2019 3:31:41 PM	46440
Xylenes, Total	ND	0.098		mg/Kg	1	7/30/2019 3:31:41 PM	46440
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	7/30/2019 3:31:41 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:50:00 AM
Lab ID: 1907C86-011 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	7/26/2019 9:01:47 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/30/2019 1:12:45 PM	46442
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/30/2019 1:12:45 PM	46442
Surr: DNOP	92.1	70-130		%Rec	1	7/30/2019 1:12:45 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 5:06:51 PM	46440
Surr: BFB	102	73.8-119		%Rec	1	7/30/2019 5:06:51 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	7/30/2019 5:06:51 PM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 5:06:51 PM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 5:06:51 PM	46440
Xylenes, Total	ND	0.096		mg/Kg	1	7/30/2019 5:06:51 PM	46440
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/30/2019 5:06:51 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@4'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 9:55:00 AM
Lab ID: 1907C86-012 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	7/26/2019 9:14:12 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/30/2019 1:35:06 PM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 1:35:06 PM	46442
Surr: DNOP	97.0	70-130		%Rec	1	7/30/2019 1:35:06 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/30/2019 5:30:36 PM	46440
Surr: BFB	97.0	73.8-119		%Rec	1	7/30/2019 5:30:36 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	7/30/2019 5:30:36 PM	46440
Toluene	ND	0.047		mg/Kg	1	7/30/2019 5:30:36 PM	46440
Ethylbenzene	ND	0.047		mg/Kg	1	7/30/2019 5:30:36 PM	46440
Xylenes, Total	ND	0.093		mg/Kg	1	7/30/2019 5:30:36 PM	46440
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	7/30/2019 5:30:36 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:00:00 AM
Lab ID: 1907C86-013 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	7/26/2019 9:51:25 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 1:57:30 PM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 1:57:30 PM	46442
Surr: DNOP	95.0	70-130		%Rec	1	7/30/2019 1:57:30 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/30/2019 5:54:22 PM	46440
Surr: BFB	104	73.8-119		%Rec	1	7/30/2019 5:54:22 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	7/30/2019 5:54:22 PM	46440
Toluene	ND	0.047		mg/Kg	1	7/30/2019 5:54:22 PM	46440
Ethylbenzene	ND	0.047		mg/Kg	1	7/30/2019 5:54:22 PM	46440
Xylenes, Total	ND	0.094		mg/Kg	1	7/30/2019 5:54:22 PM	46440
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/30/2019 5:54:22 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:05:00 AM
Lab ID: 1907C86-014 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	7/26/2019 10:28:37 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 2:19:45 PM	46442
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2019 2:19:45 PM	46442
Surr: DNOP	100	70-130		%Rec	1	7/30/2019 2:19:45 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2019 6:18:07 PM	46440
Surr: BFB	97.2	73.8-119		%Rec	1	7/30/2019 6:18:07 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	7/30/2019 6:18:07 PM	46440
Toluene	ND	0.050		mg/Kg	1	7/30/2019 6:18:07 PM	46440
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2019 6:18:07 PM	46440
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2019 6:18:07 PM	46440
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	7/30/2019 6:18:07 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@4'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:10:00 AM
Lab ID: 1907C86-015 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 10:41:03 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 2:42:07 PM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 2:42:07 PM	46442
Surr: DNOP	100	70-130		%Rec	1	7/30/2019 2:42:07 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/30/2019 6:41:52 PM	46440
Surr: BFB	101	73.8-119		%Rec	1	7/30/2019 6:41:52 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	7/30/2019 6:41:52 PM	46440
Toluene	ND	0.049		mg/Kg	1	7/30/2019 6:41:52 PM	46440
Ethylbenzene	ND	0.049		mg/Kg	1	7/30/2019 6:41:52 PM	46440
Xylenes, Total	ND	0.097		mg/Kg	1	7/30/2019 6:41:52 PM	46440
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	7/30/2019 6:41:52 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:15:00 AM
Lab ID: 1907C86-016 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	7/26/2019 10:53:27 PM	46427
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 3:26:52 PM	46442
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/30/2019 3:26:52 PM	46442
Surr: DNOP	94.5	70-130		%Rec	1	7/30/2019 3:26:52 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/30/2019 7:05:42 PM	46440
Surr: BFB	97.9	73.8-119		%Rec	1	7/30/2019 7:05:42 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	7/30/2019 7:05:42 PM	46440
Toluene	ND	0.046		mg/Kg	1	7/30/2019 7:05:42 PM	46440
Ethylbenzene	ND	0.046		mg/Kg	1	7/30/2019 7:05:42 PM	46440
Xylenes, Total	ND	0.093		mg/Kg	1	7/30/2019 7:05:42 PM	46440
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	7/30/2019 7:05:42 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7@2'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:20:00 AM
Lab ID: 1907C86-017 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	280	60		mg/Kg	20	7/31/2019 8:49:21 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/30/2019 3:49:14 PM	46442
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/30/2019 3:49:14 PM	46442
Surr: DNOP	93.7	70-130		%Rec	1	7/30/2019 3:49:14 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 7:29:31 PM	46440
Surr: BFB	94.8	73.8-119		%Rec	1	7/30/2019 7:29:31 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	7/30/2019 7:29:31 PM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 7:29:31 PM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 7:29:31 PM	46440
Xylenes, Total	ND	0.095		mg/Kg	1	7/30/2019 7:29:31 PM	46440
Surr: 4-Bromofluorobenzene	94.6	80-120		%Rec	1	7/30/2019 7:29:31 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7@4'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:25:00 AM
Lab ID: 1907C86-018 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	270	60		mg/Kg	20	7/31/2019 9:01:46 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 4:11:49 PM	46442
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2019 4:11:49 PM	46442
Surr: DNOP	96.9	70-130		%Rec	1	7/30/2019 4:11:49 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/30/2019 7:53:15 PM	46440
Surr: BFB	93.8	73.8-119		%Rec	1	7/30/2019 7:53:15 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	7/30/2019 7:53:15 PM	46440
Toluene	ND	0.046		mg/Kg	1	7/30/2019 7:53:15 PM	46440
Ethylbenzene	ND	0.046		mg/Kg	1	7/30/2019 7:53:15 PM	46440
Xylenes, Total	ND	0.092		mg/Kg	1	7/30/2019 7:53:15 PM	46440
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	7/30/2019 7:53:15 PM	46440

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 **1907C86**
Date Reported: **8/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7@8'
Project: Sandstone Compressor Station
Collection Date: 7/17/2019 10:30:00 AM
Lab ID: 1907C86-019 **Matrix:** SOIL **Received Date:** 7/25/2019 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	300	60		mg/Kg	20	7/31/2019 9:14:10 PM	46523
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/30/2019 4:34:10 PM	46442
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2019 4:34:10 PM	46442
Surr: DNOP	94.0	70-130		%Rec	1	7/30/2019 4:34:10 PM	46442
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/30/2019 8:17:01 PM	46440
Surr: BFB	94.6	73.8-119		%Rec	1	7/30/2019 8:17:01 PM	46440
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	7/30/2019 8:17:01 PM	46440
Toluene	ND	0.048		mg/Kg	1	7/30/2019 8:17:01 PM	46440
Ethylbenzene	ND	0.048		mg/Kg	1	7/30/2019 8:17:01 PM	46440
Xylenes, Total	ND	0.096		mg/Kg	1	7/30/2019 8:17:01 PM	46440
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	7/30/2019 8:17:01 PM	46440

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#: **1907C86**
02-Aug-19

Client: ENSOLUM
Project: Sandstone Compressor Station

Sample ID: **MB-46399** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **46399** RunNo: **61687**
Prep Date: **7/25/2019** Analysis Date: **7/25/2019** SeqNo: **2091060** Units: **mg/Kg**

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

Sample ID: **LCS-46399** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **46399** RunNo: **61687**
Prep Date: **7/25/2019** Analysis Date: **7/25/2019** SeqNo: **2091061** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	90	110			

Sample ID: **MB-46427** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **46427** RunNo: **61674**
Prep Date: **7/26/2019** Analysis Date: **7/26/2019** SeqNo: **2091646** Units: **mg/Kg**

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

Sample ID: **LCS-46427** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **46427** RunNo: **61674**
Prep Date: **7/26/2019** Analysis Date: **7/26/2019** SeqNo: **2091647** 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			

Sample ID: **MB-46523** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **46523** RunNo: **61780**
Prep Date: **7/31/2019** Analysis Date: **7/31/2019** SeqNo: **2095372** Units: **mg/Kg**

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

Sample ID: **LCS-46523** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **46523** RunNo: **61780**
Prep Date: **7/31/2019** Analysis Date: **7/31/2019** SeqNo: **2095374** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	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#: **1907C86**
02-Aug-19

Client: ENSOLUM
Project: Sandstone Compressor Station

Sample ID: **1907C86-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SB-1@2'** Batch ID: **46442** RunNo: **61704**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093098** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.3	46.30	0	105	57	142			
Surr: DNOP	4.4		4.630		95.7	70	130			

Sample ID: **1907C86-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SB-1@2'** Batch ID: **46442** RunNo: **61704**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093099** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.10	0	104	57	142	7.50	20	
Surr: DNOP	4.7		5.010		93.2	70	130	0	0	

Sample ID: **LCS-46442** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **46442** RunNo: **61704**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093112** 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	100	63.9	124			
Surr: DNOP	4.7		5.000		93.4	70	130			

Sample ID: **MB-46442** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **46442** RunNo: **61704**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093113** 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		96.6	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#: **1907C86**
02-Aug-19

Client: ENSOLUM
Project: Sandstone Compressor Station

Sample ID: **MB-46440** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093505** 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	980		1000		98.4	73.8	119			

Sample ID: **LCS-46440** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.7	80.1	123			
Surr: BFB	1100		1000		107	73.8	119			

Sample ID: **1907C86-002AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-1@4'** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093509** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.50	0	103	69.1	142			
Surr: BFB	1000		939.8		110	73.8	119			

Sample ID: **1907C86-002AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-1@4'** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093510** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.8	24.06	0	105	69.1	142	3.95	20	
Surr: BFB	1000		962.5		106	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#: **1907C86**
02-Aug-19

Client: ENSOLUM
Project: Sandstone Compressor Station

Sample ID: **MB-46440** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093551** 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		97.5	80	120			

Sample ID: **LCS-46440** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093552** 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	98.2	80	120			
Toluene	1.0	0.050	1.000	0	104	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	0.96		1.000		96.1	80	120			

Sample ID: **1907C86-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-1@2'** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093554** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9407	0	107	63.9	127			
Toluene	1.1	0.047	0.9407	0.009387	114	69.9	131			
Ethylbenzene	1.1	0.047	0.9407	0	119	71	132			
Xylenes, Total	3.4	0.094	2.822	0.01705	119	71.8	131			
Surr: 4-Bromofluorobenzene	0.92		0.9407		98.2	80	120			

Sample ID: **1907C86-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-1@2'** Batch ID: **46440** RunNo: **61757**
Prep Date: **7/29/2019** Analysis Date: **7/30/2019** SeqNo: **2093555** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9524	0	101	63.9	127	4.48	20	
Toluene	1.0	0.048	0.9524	0.009387	104	69.9	131	8.32	20	
Ethylbenzene	1.0	0.048	0.9524	0	106	71	132	10.4	20	
Xylenes, Total	3.0	0.095	2.857	0.01705	104	71.8	131	11.7	20	
Surr: 4-Bromofluorobenzene	0.91		0.9524		95.7	80	120	0	0	

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		

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: **1907C86** RcptNo: 1

Received By: **Desiree Dominguez** **7/25/2019 7:45:00 AM** DD

Completed By: **Desiree Dominguez** **7/25/2019 8:50:40 AM** DD

Reviewed By: DAD 7/25/19

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: YG 7/25/19

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	0.3	Good	Not Present			

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Sandstone Compressor Station

Project #: 05A1226053

Project Manager: K. Summers

Sampler: C DAponti

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.3+0.0=0.3c

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. 1907C86	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)
7/17/19	900	S	SB-1 @ 2'	1 4oz Jar	cool	-001	X	X					X			
	905	S	SB-1 @ 4'			-002	X	X					X			
	910	S	SB-1 @ 8'			-003	X	X					X			
	915	S	SB-2 @ 2'			-004	X	X					X			
	920	S	SB-3 @ 2'			-005	X	X					X			
	925	S	SB-3 @ 4'			-006	X	X					X			
	930	S	SB-3 @ 8'			-007	X	X					X			
	935	S	SB-4 @ 2'			-008	X	X					X			
	940	S	SB-4 @ 6'			-009	X	X					X			
	945	S	SB-4 @ 8'			-010	X	X					X			
	950	S	SB-5 @ 2'			-011	X	X					X			
	955	S	SB-5 @ 4'			-012	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/24/19	1653				7/24/19	1650
7/24/19	1810			Courier	7/25/19	7:45

Remarks: PM - Tom Long
Pay Key - GG11580

Page 1

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.

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suite A 87410

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Standstone Compressor Station

Project #: 05A1226053

Project Manager: K. Summers

Sampler: C. DAponti

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.3+0.0=0.3°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. 1907C86	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)
7/17/19	1000	S	SB-5 @ 8'	1 4oz Jar	Cool	-013	X	X					X			
	1005	S	SB-6 @ 2'			-014	X	X					X			
	1010	S	SB-6 @ 4'			-015	X	X					X			
	1015	S	SB-6 @ 8'			-016	X	X					X			
	1020	S	SB-7 @ 2'			-017	X	X					X			
	1025	S	SB-7 @ 4'			-018	X	X					X			
	1030	S	SB-7 @ 8'			-019	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/24/19	1653				7/24/19	1653
7/24/19	1816			Courier	7/25/19	7:45

Remarks: PM-Tom Long
Pay Key - GG11580

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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 28, 2019

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

RE: Sandstone CS OrderNo.: 1908979

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/16/2019 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1908979**
Date Reported: **8/28/2019**

CLIENT: ENSOLUM
Client Sample ID: SB-1@ 17'-20'
Project: Sandstone CS
Collection Date: 8/12/2019 1:10:00 PM
Lab ID: 1908979-001 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 1:02:28 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/22/2019 3:16:38 AM	46903
Surr: BFB	97.1	70-130		%Rec	1	8/22/2019 3:16:38 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/21/2019 4:22:04 PM	46911
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/21/2019 4:22:04 PM	46911
Surr: DNOP	94.0	70-130		%Rec	1	8/21/2019 4:22:04 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.023		mg/Kg	1	8/22/2019 3:16:38 AM	46903
Toluene	ND	0.047		mg/Kg	1	8/22/2019 3:16:38 AM	46903
Ethylbenzene	ND	0.047		mg/Kg	1	8/22/2019 3:16:38 AM	46903
Xylenes, Total	ND	0.093		mg/Kg	1	8/22/2019 3:16:38 AM	46903
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	8/22/2019 3:16:38 AM	46903
Surr: 4-Bromofluorobenzene	91.6	70-130		%Rec	1	8/22/2019 3:16:38 AM	46903
Surr: Dibromofluoromethane	106	70-130		%Rec	1	8/22/2019 3:16:38 AM	46903
Surr: Toluene-d8	94.9	70-130		%Rec	1	8/22/2019 3:16:38 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-1@ 34'-35'
Project: Sandstone CS
Collection Date: 8/12/2019 1:15:00 PM
Lab ID: 1908979-002 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	59		mg/Kg	20	8/22/2019 1:39:30 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2019 3:45:57 AM	46903
Surr: BFB	104	70-130		%Rec	1	8/22/2019 3:45:57 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	34	8.7		mg/Kg	1	8/21/2019 4:44:18 PM	46911
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	8/21/2019 4:44:18 PM	46911
Surr: DNOP	97.5	70-130		%Rec	1	8/21/2019 4:44:18 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 3:45:57 AM	46903
Toluene	ND	0.049		mg/Kg	1	8/22/2019 3:45:57 AM	46903
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2019 3:45:57 AM	46903
Xylenes, Total	ND	0.097		mg/Kg	1	8/22/2019 3:45:57 AM	46903
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	8/22/2019 3:45:57 AM	46903
Surr: 4-Bromofluorobenzene	93.7	70-130		%Rec	1	8/22/2019 3:45:57 AM	46903
Surr: Dibromofluoromethane	117	70-130		%Rec	1	8/22/2019 3:45:57 AM	46903
Surr: Toluene-d8	99.0	70-130		%Rec	1	8/22/2019 3:45:57 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-1@50'-52'
Project: Sandstone CS
Collection Date: 8/14/2019 9:30:00 AM
Lab ID: 1908979-003 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 2:16:32 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/22/2019 4:15:17 AM	46903
Surr: BFB	95.3	70-130		%Rec	1	8/22/2019 4:15:17 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/21/2019 5:06:40 PM	46911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/21/2019 5:06:40 PM	46911
Surr: DNOP	88.8	70-130		%Rec	1	8/21/2019 5:06:40 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 4:15:17 AM	46903
Toluene	ND	0.047		mg/Kg	1	8/22/2019 4:15:17 AM	46903
Ethylbenzene	ND	0.047		mg/Kg	1	8/22/2019 4:15:17 AM	46903
Xylenes, Total	ND	0.095		mg/Kg	1	8/22/2019 4:15:17 AM	46903
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	8/22/2019 4:15:17 AM	46903
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	8/22/2019 4:15:17 AM	46903
Surr: Dibromofluoromethane	110	70-130		%Rec	1	8/22/2019 4:15:17 AM	46903
Surr: Toluene-d8	97.2	70-130		%Rec	1	8/22/2019 4:15:17 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@ 24'-25'
Project: Sandstone CS
Collection Date: 8/14/2019 12:45:00 PM
Lab ID: 1908979-004 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 2:28:52 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2019 4:44:47 AM	46903
Surr: BFB	93.0	70-130		%Rec	1	8/22/2019 4:44:47 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	8/21/2019 5:29:05 PM	46911
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/21/2019 5:29:05 PM	46911
Surr: DNOP	78.3	70-130		%Rec	1	8/21/2019 5:29:05 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.025		mg/Kg	1	8/22/2019 4:44:47 AM	46903
Toluene	ND	0.049		mg/Kg	1	8/22/2019 4:44:47 AM	46903
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2019 4:44:47 AM	46903
Xylenes, Total	ND	0.099		mg/Kg	1	8/22/2019 4:44:47 AM	46903
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	8/22/2019 4:44:47 AM	46903
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	8/22/2019 4:44:47 AM	46903
Surr: Dibromofluoromethane	115	70-130		%Rec	1	8/22/2019 4:44:47 AM	46903
Surr: Toluene-d8	100	70-130		%Rec	1	8/22/2019 4:44:47 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@ 30'-32'
Project: Sandstone CS
Collection Date: 8/14/2019 12:50:00 PM
Lab ID: 1908979-005 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 2:41:13 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/22/2019 5:13:56 AM	46903
Surr: BFB	95.1	70-130		%Rec	1	8/22/2019 5:13:56 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	8/21/2019 5:51:28 PM	46911
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/21/2019 5:51:28 PM	46911
Surr: DNOP	86.6	70-130		%Rec	1	8/21/2019 5:51:28 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 5:13:56 AM	46903
Toluene	ND	0.048		mg/Kg	1	8/22/2019 5:13:56 AM	46903
Ethylbenzene	ND	0.048		mg/Kg	1	8/22/2019 5:13:56 AM	46903
Xylenes, Total	ND	0.097		mg/Kg	1	8/22/2019 5:13:56 AM	46903
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	8/22/2019 5:13:56 AM	46903
Surr: 4-Bromofluorobenzene	88.4	70-130		%Rec	1	8/22/2019 5:13:56 AM	46903
Surr: Dibromofluoromethane	113	70-130		%Rec	1	8/22/2019 5:13:56 AM	46903
Surr: Toluene-d8	95.8	70-130		%Rec	1	8/22/2019 5:13:56 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-6@ 48'-50'
Project: Sandstone CS
Collection Date: 8/14/2019 1:00:00 PM
Lab ID: 1908979-006 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 2:53:33 PM	46964
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2019 5:42:50 AM	46903
Surr: BFB	90.8	70-130		%Rec	1	8/22/2019 5:42:50 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/21/2019 6:13:47 PM	46911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/21/2019 6:13:47 PM	46911
Surr: DNOP	86.7	70-130		%Rec	1	8/21/2019 6:13:47 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 5:42:50 AM	46903
Toluene	ND	0.049		mg/Kg	1	8/22/2019 5:42:50 AM	46903
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2019 5:42:50 AM	46903
Xylenes, Total	ND	0.098		mg/Kg	1	8/22/2019 5:42:50 AM	46903
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	8/22/2019 5:42:50 AM	46903
Surr: 4-Bromofluorobenzene	85.6	70-130		%Rec	1	8/22/2019 5:42:50 AM	46903
Surr: Dibromofluoromethane	109	70-130		%Rec	1	8/22/2019 5:42:50 AM	46903
Surr: Toluene-d8	96.3	70-130		%Rec	1	8/22/2019 5:42:50 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@ 16'-17'
Project: Sandstone CS
Collection Date: 8/14/2019 4:00:00 PM
Lab ID: 1908979-007 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 12:45:36 PM	46985
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/22/2019 6:12:05 AM	46903
Surr: BFB	94.5	70-130		%Rec	1	8/22/2019 6:12:05 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/21/2019 6:36:12 PM	46911
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/21/2019 6:36:12 PM	46911
Surr: DNOP	89.2	70-130		%Rec	1	8/21/2019 6:36:12 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.023		mg/Kg	1	8/22/2019 6:12:05 AM	46903
Toluene	ND	0.046		mg/Kg	1	8/22/2019 6:12:05 AM	46903
Ethylbenzene	ND	0.046		mg/Kg	1	8/22/2019 6:12:05 AM	46903
Xylenes, Total	ND	0.093		mg/Kg	1	8/22/2019 6:12:05 AM	46903
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%Rec	1	8/22/2019 6:12:05 AM	46903
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	1	8/22/2019 6:12:05 AM	46903
Surr: Dibromofluoromethane	98.3	70-130		%Rec	1	8/22/2019 6:12:05 AM	46903
Surr: Toluene-d8	96.7	70-130		%Rec	1	8/22/2019 6:12:05 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@ 30'-33'
Project: Sandstone CS
Collection Date: 8/14/2019 4:15:00 PM
Lab ID: 1908979-008 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 12:58:01 PM	46985
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2019 6:41:03 AM	46903
Surr: BFB	101	70-130		%Rec	1	8/22/2019 6:41:03 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/21/2019 6:58:29 PM	46911
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/21/2019 6:58:29 PM	46911
Surr: DNOP	98.0	70-130		%Rec	1	8/21/2019 6:58:29 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 6:41:03 AM	46903
Toluene	ND	0.049		mg/Kg	1	8/22/2019 6:41:03 AM	46903
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2019 6:41:03 AM	46903
Xylenes, Total	ND	0.097		mg/Kg	1	8/22/2019 6:41:03 AM	46903
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	8/22/2019 6:41:03 AM	46903
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	8/22/2019 6:41:03 AM	46903
Surr: Dibromofluoromethane	110	70-130		%Rec	1	8/22/2019 6:41:03 AM	46903
Surr: Toluene-d8	93.5	70-130		%Rec	1	8/22/2019 6:41:03 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@ 48'-50'
Project: Sandstone CS
Collection Date: 8/14/2019 4:40:00 PM
Lab ID: 1908979-009 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/22/2019 1:10:26 PM	46985
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2019 7:10:01 AM	46903
Surr: BFB	92.9	70-130		%Rec	1	8/22/2019 7:10:01 AM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/21/2019 7:21:00 PM	46911
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/21/2019 7:21:00 PM	46911
Surr: DNOP	91.5	70-130		%Rec	1	8/21/2019 7:21:00 PM	46911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 7:10:01 AM	46903
Toluene	ND	0.049		mg/Kg	1	8/22/2019 7:10:01 AM	46903
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2019 7:10:01 AM	46903
Xylenes, Total	ND	0.098		mg/Kg	1	8/22/2019 7:10:01 AM	46903
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	8/22/2019 7:10:01 AM	46903
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	1	8/22/2019 7:10:01 AM	46903
Surr: Dibromofluoromethane	110	70-130		%Rec	1	8/22/2019 7:10:01 AM	46903
Surr: Toluene-d8	97.0	70-130		%Rec	1	8/22/2019 7:10:01 AM	46903

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 **1908979**
Date Reported: **8/28/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-4@ 23'-25'
Project: Sandstone CS
Collection Date: 8/14/2019 4:45:00 PM
Lab ID: 1908979-010 **Matrix:** SOIL **Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	61		mg/Kg	20	8/22/2019 1:22:50 PM	46985
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/22/2019 12:42:34 PM	46903
Surr: BFB	92.8	70-130		%Rec	1	8/22/2019 12:42:34 PM	46903
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/21/2019 11:39:47 AM	46912
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/21/2019 11:39:47 AM	46912
Surr: DNOP	82.2	70-130		%Rec	1	8/21/2019 11:39:47 AM	46912
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/22/2019 12:42:34 PM	46903
Toluene	ND	0.048		mg/Kg	1	8/22/2019 12:42:34 PM	46903
Ethylbenzene	ND	0.048		mg/Kg	1	8/22/2019 12:42:34 PM	46903
Xylenes, Total	ND	0.097		mg/Kg	1	8/22/2019 12:42:34 PM	46903
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	8/22/2019 12:42:34 PM	46903
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	8/22/2019 12:42:34 PM	46903
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/22/2019 12:42:34 PM	46903
Surr: Toluene-d8	97.2	70-130		%Rec	1	8/22/2019 12:42:34 PM	46903

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#: **1908979**

28-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **MB-46964** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **46964** RunNo: **62353**

Prep Date: **8/21/2019** Analysis Date: **8/22/2019** SeqNo: **2119648** Units: **mg/Kg**

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

Sample ID: **LCS-46964** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **46964** RunNo: **62353**

Prep Date: **8/21/2019** Analysis Date: **8/22/2019** SeqNo: **2119649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Sample ID: **MB-46985** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **46985** RunNo: **62350**

Prep Date: **8/22/2019** Analysis Date: **8/22/2019** SeqNo: **2119770** Units: **mg/Kg**

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

Sample ID: **LCS-46985** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **46985** RunNo: **62350**

Prep Date: **8/22/2019** Analysis Date: **8/22/2019** SeqNo: **2119771** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	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#: **1908979**

28-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **LCS-46912** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46912** RunNo: **62286**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2116452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.0	63.9	124			
Surr: DNOP	3.7		5.000		74.6	70	130			

Sample ID: **MB-46912** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46912** RunNo: **62286**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2116453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.4		10.00		84.2	70	130			

Sample ID: **MB-46911** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46911** RunNo: **62249**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117215** 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		96.6	70	130			

Sample ID: **MB-46911** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46911** RunNo: **62249**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117216** 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	9.9		10.00		98.6	70	130			

Sample ID: **LCS-46911** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46911** RunNo: **62249**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117217** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	119	63.9	124			
Surr: DNOP	4.5		5.000		90.2	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#: **1908979**

28-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **LCS-46911** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46911** RunNo: **62249**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117218** 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	4.5		5.000		89.4	70	130			

Sample ID: **1908979-010AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SB-4@ 23'-25'** Batch ID: **46912** RunNo: **62286**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.9	49.60	2.325	84.0	57	142			
Surr: DNOP	3.1		4.960		62.9	70	130			S

Sample ID: **1908979-010AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SB-4@ 23'-25'** Batch ID: **46912** RunNo: **62286**

Prep Date: **8/20/2019** Analysis Date: **8/21/2019** SeqNo: **2117563** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.8	49.02	2.325	86.8	57	142	1.91	20	
Surr: DNOP	3.3		4.902		66.7	70	130	0	0	S

Sample ID: **MB-46940** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46940** RunNo: **62330**

Prep Date: **8/21/2019** Analysis Date: **8/22/2019** SeqNo: **2118181** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		105	70	130			

Sample ID: **LCS-46940** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46940** RunNo: **62330**

Prep Date: **8/21/2019** Analysis Date: **8/22/2019** SeqNo: **2118182** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.6	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#: **1908979**
28-Aug-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **lcs-46903** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **46903** RunNo: **62292**
Prep Date: **8/19/2019** Analysis Date: **8/20/2019** SeqNo: **2116842** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.5	68	135			
Toluene	0.99	0.050	1.000	0	99.3	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.1	0.10	3.000	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.5	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.8	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.49		0.5000		99.0	70	130			

Sample ID: **mb-46903** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **46903** RunNo: **62292**
Prep Date: **8/19/2019** Analysis Date: **8/20/2019** SeqNo: **2116843** 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: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.49		0.5000		98.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908979**

28-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **lcs-46903** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **LCSS** Batch ID: **46903** RunNo: **62292**

Prep Date: **8/19/2019** Analysis Date: **8/20/2019** SeqNo: **2116854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.0	70	130			
Surr: BFB	460		500.0		92.4	70	130			

Sample ID: **mb-46903** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **PBS** Batch ID: **46903** RunNo: **62292**

Prep Date: **8/19/2019** Analysis Date: **8/20/2019** SeqNo: **2116855** 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	470		500.0		93.4	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

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: **1908979** RcptNo: **1**

Received By: **Anne Thorne** **8/16/2019 7:57:00 AM**

Completed By: **Yazmine Garduno** **8/19/2019 10:15:42 AM**

Reviewed By: MP 08/19/19

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 8/19/19

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				

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 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: Sandstone CS

Project #: see notes

Project Manager: KSummers

Sampler: RQuechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.4-0.4CF = 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. 1908479	BTEX / ~~MTBE / TMBs~~ (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
8/12/19	1310	S	SB-1 @ 17'-20'	1 x 4oz Jar	cool	-001	X	X									X
8/12/19	1315	S	SB-1 @ 34'-35'	1 x 4oz Jar	cool	-002	X	X									X
8/14/19	930	S	SB-1 @ 50'-52'	1 x 4oz Jar	cool	-003	X	X									X
8/14/19	1245	S	SB-6 @ 24'-25'	1 x 4oz Jar	cool	-004	X	X									X
8/14/19	1250	S	SB-6 @ 30'-32'	1 x 4oz Jar	cool	-005	X	X									X
8/14/19	1300	S	SB-6 @ 48'-50'	1 x 4oz Jar	cool	-006	X	X									X
8/14/19	1600	S	SB-4 @ 16'-17'	1 x 4oz Jar	cool	-007	X	X									X
8/14/19	1615	S	SB-4 @ 30'-33'	1 x 4oz Jar	cool	-008	X	X									X
8/14/19	1640	S	SB-4 @ 48'-50'	1 x 4oz Jar	cool	-009	X	X									X
8/14/19	1645	S	SB-4 @ 23'-25'	1 x 4oz Jar	cool	-010	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
8/15/19	1548				8/15/19	1548
8/15/19	1806				08/16/19	0757

Remarks: PM - Tom Long (EPROD)
PayKey - GG11580

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 29, 2019

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

RE: Sandstone CS OrderNo.: 1908C35

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/21/2019 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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3 @ 12'-15'
Project: Sandstone CS
Collection Date: 8/15/2019 9:15:00 AM
Lab ID: 1908C35-001 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/27/2019 5:43:22 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/26/2019 1:40:33 PM	47012
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/26/2019 1:40:33 PM	47012
Surr: DNOP	96.2	70-130		%Rec	1	8/26/2019 1:40:33 PM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/23/2019 5:12:42 PM	46998
Surr: BFB	93.5	77.4-118		%Rec	1	8/23/2019 5:12:42 PM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/23/2019 5:12:42 PM	46998
Toluene	ND	0.049		mg/Kg	1	8/23/2019 5:12:42 PM	46998
Ethylbenzene	ND	0.049		mg/Kg	1	8/23/2019 5:12:42 PM	46998
Xylenes, Total	ND	0.098		mg/Kg	1	8/23/2019 5:12:42 PM	46998
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	8/23/2019 5:12:42 PM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: Sandstone CS
Lab ID: 1908C35-002 **Matrix:** SOIL

Client Sample ID: SB-3@ 22'-24'
Collection Date: 8/15/2019 9:25:00 AM
Received Date: 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/27/2019 6:20:35 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	8/26/2019 2:04:59 PM	47012
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/26/2019 2:04:59 PM	47012
Surr: DNOP	98.3	70-130		%Rec	1	8/26/2019 2:04:59 PM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/23/2019 5:36:09 PM	46998
Surr: BFB	98.1	77.4-118		%Rec	1	8/23/2019 5:36:09 PM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/23/2019 5:36:09 PM	46998
Toluene	ND	0.048		mg/Kg	1	8/23/2019 5:36:09 PM	46998
Ethylbenzene	ND	0.048		mg/Kg	1	8/23/2019 5:36:09 PM	46998
Xylenes, Total	ND	0.096		mg/Kg	1	8/23/2019 5:36:09 PM	46998
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	8/23/2019 5:36:09 PM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5 @13'-15'
Project: Sandstone CS
Collection Date: 8/15/2019 12:20:00 PM
Lab ID: 1908C35-003 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	59		mg/Kg	20	8/27/2019 6:32:59 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	8/26/2019 10:04:37 AM	47012
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	8/26/2019 10:04:37 AM	47012
Surr: DNOP	107	70-130		%Rec	1	8/26/2019 10:04:37 AM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/23/2019 5:59:40 PM	46998
Surr: BFB	92.3	77.4-118		%Rec	1	8/23/2019 5:59:40 PM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/23/2019 5:59:40 PM	46998
Toluene	ND	0.048		mg/Kg	1	8/23/2019 5:59:40 PM	46998
Ethylbenzene	ND	0.048		mg/Kg	1	8/23/2019 5:59:40 PM	46998
Xylenes, Total	ND	0.097		mg/Kg	1	8/23/2019 5:59:40 PM	46998
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	8/23/2019 5:59:40 PM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-2 @ 18'-20'
Project: Sandstone CS
Collection Date: 8/15/2019 10:40:00 AM
Lab ID: 1908C35-004 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	63	60		mg/Kg	20	8/27/2019 6:45:25 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	17	9.1		mg/Kg	1	8/26/2019 10:33:33 AM	47012
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/26/2019 10:33:33 AM	47012
Surr: DNOP	104	70-130		%Rec	1	8/26/2019 10:33:33 AM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2019 8:49:24 AM	46998
Surr: BFB	91.8	77.4-118		%Rec	1	8/24/2019 8:49:24 AM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/24/2019 8:49:24 AM	46998
Toluene	ND	0.049		mg/Kg	1	8/24/2019 8:49:24 AM	46998
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2019 8:49:24 AM	46998
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2019 8:49:24 AM	46998
Surr: 4-Bromofluorobenzene	91.8	80-120		%Rec	1	8/24/2019 8:49:24 AM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-2 @22'-25'
Project: Sandstone CS
Collection Date: 8/15/2019 10:45:00 AM
Lab ID: 1908C35-005 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/27/2019 7:22:38 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	8/26/2019 10:55:41 AM	47012
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/26/2019 10:55:41 AM	47012
Surr: DNOP	98.3	70-130		%Rec	1	8/26/2019 10:55:41 AM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/24/2019 9:12:44 AM	46998
Surr: BFB	99.5	77.4-118		%Rec	1	8/24/2019 9:12:44 AM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	8/24/2019 9:12:44 AM	46998
Toluene	ND	0.047		mg/Kg	1	8/24/2019 9:12:44 AM	46998
Ethylbenzene	ND	0.047		mg/Kg	1	8/24/2019 9:12:44 AM	46998
Xylenes, Total	ND	0.093		mg/Kg	1	8/24/2019 9:12:44 AM	46998
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/24/2019 9:12:44 AM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7 @10'-13'
Project: Sandstone CS
Collection Date: 8/15/2019 11:35:00 AM
Lab ID: 1908C35-006 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	84	60		mg/Kg	20	8/27/2019 7:35:02 PM	47084
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/26/2019 11:17:45 AM	47012
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/26/2019 11:17:45 AM	47012
Surr: DNOP	103	70-130		%Rec	1	8/26/2019 11:17:45 AM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2019 9:36:08 AM	46998
Surr: BFB	90.8	77.4-118		%Rec	1	8/24/2019 9:36:08 AM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/24/2019 9:36:08 AM	46998
Toluene	ND	0.049		mg/Kg	1	8/24/2019 9:36:08 AM	46998
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2019 9:36:08 AM	46998
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2019 9:36:08 AM	46998
Surr: 4-Bromofluorobenzene	91.0	80-120		%Rec	1	8/24/2019 9:36:08 AM	46998

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 **1908C35**
Date Reported: **8/29/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7 @ 23'-25'
Project: Sandstone CS
Collection Date: 8/15/2019 11:45:00 AM
Lab ID: 1908C35-007 **Matrix:** SOIL **Received Date:** 8/21/2019 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/27/2019 11:43:15 PM	47099
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/26/2019 11:39:57 AM	47012
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/26/2019 11:39:57 AM	47012
Surr: DNOP	101	70-130		%Rec	1	8/26/2019 11:39:57 AM	47012
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/24/2019 9:59:33 AM	46998
Surr: BFB	89.3	77.4-118		%Rec	1	8/24/2019 9:59:33 AM	46998
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/24/2019 9:59:33 AM	46998
Toluene	ND	0.049		mg/Kg	1	8/24/2019 9:59:33 AM	46998
Ethylbenzene	ND	0.049		mg/Kg	1	8/24/2019 9:59:33 AM	46998
Xylenes, Total	ND	0.098		mg/Kg	1	8/24/2019 9:59:33 AM	46998
Surr: 4-Bromofluorobenzene	90.0	80-120		%Rec	1	8/24/2019 9:59:33 AM	46998

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#: **1908C35**

29-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **MB-47084** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **47084** RunNo: **62447**

Prep Date: **8/27/2019** Analysis Date: **8/27/2019** SeqNo: **2124844** Units: **mg/Kg**

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

Sample ID: **LCS-47084** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **47084** RunNo: **62447**

Prep Date: **8/27/2019** Analysis Date: **8/27/2019** SeqNo: **2124845** 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			

Sample ID: **MB-47099** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **47099** RunNo: **62447**

Prep Date: **8/27/2019** Analysis Date: **8/27/2019** SeqNo: **2124883** Units: **mg/Kg**

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

Sample ID: **LCS-47099** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **47099** RunNo: **62447**

Prep Date: **8/27/2019** Analysis Date: **8/27/2019** SeqNo: **2124884** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.8	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#: **1908C35**
29-Aug-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **LCS-47012** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **47012** RunNo: **62411**
Prep Date: **8/23/2019** Analysis Date: **8/26/2019** SeqNo: **2121721** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.9	124			
Surr: DNOP	4.7		5.000		94.3	70	130			

Sample ID: **MB-47012** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **47012** RunNo: **62411**
Prep Date: **8/23/2019** Analysis Date: **8/26/2019** SeqNo: **2121724** 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	11		10.00		106	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#: **1908C35**

29-Aug-19

Client: ENSOLUM

Project: Sandstone CS

Sample ID: **MB-46998** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **46998** RunNo: **62392**

Prep Date: **8/22/2019** Analysis Date: **8/23/2019** SeqNo: **2120740** 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		95.9	77.4	118			

Sample ID: **LCS-46998** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **46998** RunNo: **62392**

Prep Date: **8/22/2019** Analysis Date: **8/23/2019** SeqNo: **2120741** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.5	80	120			
Surr: BFB	1100		1000		105	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#: **1908C35**
29-Aug-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-46998** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **46998** RunNo: **62392**
Prep Date: **8/22/2019** Analysis Date: **8/23/2019** SeqNo: **2120761** 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		96.6	80	120			

Sample ID: **LCS-46998** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **46998** RunNo: **62392**
Prep Date: **8/22/2019** Analysis Date: **8/23/2019** SeqNo: **2120762** 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	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	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: **1908C35** RcptNo: **1**

Received By: **Isaiah Ortiz** **8/21/2019 8:30:00 AM** I-04

Completed By: **Leah Baca** **8/21/2019 2:11:42 PM** Leah Baca

Reviewed By: LB 8/22/19

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 8/22/19

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, LLC

Mailing Address: 606 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: Sandstone CS

Project #: Secretes

Project Manager: Ksummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.1-0.1 (CF) 1.0 °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. 1908C35	BTEX / ~~MTBE / TMBs~~ (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		#HOLD			
8/15/19	915	S	SB-3 @ 12'-15'	1x4oz Jar	cool	-001	X	X									X					
8/15/19	925	S	SB-3 @ 22'-24'	1x4oz Jar	cool	-002	X	X									X					
8/15/19	1220	S	SB-5 @ 13'-15'	1x4oz Jar	cool	-003	X	X									X					
8/15/19	1040	S	SB-2 @ 18'-20'	1x4oz Jar	cool	-004	X	X									X					
8/15/19	1045	S	SB-2 @ 22'-25'	1x4oz Jar	cool	-005	X	X									X					
8/15/19	1135	S	SB-7 @ 10'-13'	1x4oz Jar	cool	-006	X	X									X					
8/15/19	1145	S	SB-7 @ 23'-25'	1x4oz Jar	cool	-007	X	X									X					
8/15/19	1250	S	SB-5 @ 18'-20'	1x4oz Jar	cool	-008	~~X~~	~~X~~	(2)								*(2)		X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
8/20/19	1627				8/20/19	1627
8/20/19	1817			courier	8/21/19	0830

Remarks: PM - Tom Long (EPROD)
Pax Key - GG 1580

* SB-5 @ 18'-20' HOLD

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: Sandstone CS OrderNo.: 1908E66

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/24/2019 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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@ 23'-25'
Project: Sandstone CS
Collection Date: 8/21/2019 11:15:00 AM
Lab ID: 1908E66-001 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 5:08:09 PM	47159
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/28/2019 7:37:16 AM	47067
Surr: BFB	86.8	70-130		%Rec	1	8/28/2019 7:37:16 AM	47067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	8/28/2019 12:36:52 PM	47083
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/28/2019 12:36:52 PM	47083
Surr: DNOP	107	70-130		%Rec	1	8/28/2019 12:36:52 PM	47083
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 7:37:16 AM	47067
Toluene	ND	0.048		mg/Kg	1	8/28/2019 7:37:16 AM	47067
Ethylbenzene	ND	0.048		mg/Kg	1	8/28/2019 7:37:16 AM	47067
Xylenes, Total	ND	0.096		mg/Kg	1	8/28/2019 7:37:16 AM	47067
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	8/28/2019 7:37:16 AM	47067
Surr: 4-Bromofluorobenzene	83.9	70-130		%Rec	1	8/28/2019 7:37:16 AM	47067
Surr: Dibromofluoromethane	116	70-130		%Rec	1	8/28/2019 7:37:16 AM	47067
Surr: Toluene-d8	98.2	70-130		%Rec	1	8/28/2019 7:37:16 AM	47067

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@ 30'-33'
Project: Sandstone CS
Collection Date: 8/21/2019 11:30:00 AM
Lab ID: 1908E66-002 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 5:45:23 PM	47159
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/28/2019 8:06:16 AM	47067
Surr: BFB	87.9	70-130		%Rec	1	8/28/2019 8:06:16 AM	47067
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/28/2019 1:00:53 PM	47083
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	8/28/2019 1:00:53 PM	47083
Surr: DNOP	99.9	70-130		%Rec	1	8/28/2019 1:00:53 PM	47083
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 8:06:16 AM	47067
Toluene	ND	0.048		mg/Kg	1	8/28/2019 8:06:16 AM	47067
Ethylbenzene	ND	0.048		mg/Kg	1	8/28/2019 8:06:16 AM	47067
Xylenes, Total	ND	0.096		mg/Kg	1	8/28/2019 8:06:16 AM	47067
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	8/28/2019 8:06:16 AM	47067
Surr: 4-Bromofluorobenzene	87.3	70-130		%Rec	1	8/28/2019 8:06:16 AM	47067
Surr: Dibromofluoromethane	113	70-130		%Rec	1	8/28/2019 8:06:16 AM	47067
Surr: Toluene-d8	97.0	70-130		%Rec	1	8/28/2019 8:06:16 AM	47067

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-5@ 48'-50'
Project: Sandstone CS
Collection Date: 8/21/2019 11:20:00 AM
Lab ID: 1908E66-003 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 5:57:47 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/29/2019 3:56:57 AM	47096
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/29/2019 3:56:57 AM	47096
Surr: DNOP	99.5	70-130		%Rec	1	8/29/2019 3:56:57 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/28/2019 10:25:37 AM	47087
Surr: BFB	93.5	77.4-118		%Rec	1	8/28/2019 10:25:37 AM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 10:25:37 AM	47087
Toluene	ND	0.047		mg/Kg	1	8/28/2019 10:25:37 AM	47087
Ethylbenzene	ND	0.047		mg/Kg	1	8/28/2019 10:25:37 AM	47087
Xylenes, Total	ND	0.095		mg/Kg	1	8/28/2019 10:25:37 AM	47087
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	1	8/28/2019 10:25:37 AM	47087

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-2@ 30'-33'
Project: Sandstone CS
Collection Date: 8/21/2019 1:40:00 PM
Lab ID: 1908E66-004 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 6:10:12 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/29/2019 4:21:21 AM	47096
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/29/2019 4:21:21 AM	47096
Surr: DNOP	109	70-130		%Rec	1	8/29/2019 4:21:21 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/28/2019 11:36:13 AM	47087
Surr: BFB	91.4	77.4-118		%Rec	1	8/28/2019 11:36:13 AM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 11:36:13 AM	47087
Toluene	ND	0.048		mg/Kg	1	8/28/2019 11:36:13 AM	47087
Ethylbenzene	ND	0.048		mg/Kg	1	8/28/2019 11:36:13 AM	47087
Xylenes, Total	ND	0.096		mg/Kg	1	8/28/2019 11:36:13 AM	47087
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	8/28/2019 11:36:13 AM	47087

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-2@ 43'-45'
Project: Sandstone CS
Collection Date: 8/21/2019 1:45:00 PM
Lab ID: 1908E66-005 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 6:22:36 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/29/2019 4:45:35 AM	47096
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/29/2019 4:45:35 AM	47096
Surr: DNOP	103	70-130		%Rec	1	8/29/2019 4:45:35 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/28/2019 12:46:57 PM	47087
Surr: BFB	95.7	77.4-118		%Rec	1	8/28/2019 12:46:57 PM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	8/28/2019 12:46:57 PM	47087
Toluene	ND	0.047		mg/Kg	1	8/28/2019 12:46:57 PM	47087
Ethylbenzene	ND	0.047		mg/Kg	1	8/28/2019 12:46:57 PM	47087
Xylenes, Total	ND	0.094		mg/Kg	1	8/28/2019 12:46:57 PM	47087
Surr: 4-Bromofluorobenzene	96.6	80-120		%Rec	1	8/28/2019 12:46:57 PM	47087

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-7@ 47'-50'
Project: Sandstone CS
Collection Date: 8/21/2019 5:30:00 PM
Lab ID: 1908E66-006 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 6:35:00 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/29/2019 5:09:48 AM	47096
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/29/2019 5:09:48 AM	47096
Surr: DNOP	102	70-130		%Rec	1	8/29/2019 5:09:48 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/28/2019 1:10:37 PM	47087
Surr: BFB	94.6	77.4-118		%Rec	1	8/28/2019 1:10:37 PM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	8/28/2019 1:10:37 PM	47087
Toluene	ND	0.047		mg/Kg	1	8/28/2019 1:10:37 PM	47087
Ethylbenzene	ND	0.047		mg/Kg	1	8/28/2019 1:10:37 PM	47087
Xylenes, Total	ND	0.093		mg/Kg	1	8/28/2019 1:10:37 PM	47087
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	8/28/2019 1:10:37 PM	47087

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3@ 33'-34'
Project: Sandstone CS
Collection Date: 8/22/2019 1:40:00 PM
Lab ID: 1908E66-007 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 6:47:25 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/29/2019 5:33:58 AM	47096
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/29/2019 5:33:58 AM	47096
Surr: DNOP	121	70-130		%Rec	1	8/29/2019 5:33:58 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/28/2019 1:34:14 PM	47087
Surr: BFB	94.2	77.4-118		%Rec	1	8/28/2019 1:34:14 PM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 1:34:14 PM	47087
Toluene	ND	0.048		mg/Kg	1	8/28/2019 1:34:14 PM	47087
Ethylbenzene	ND	0.048		mg/Kg	1	8/28/2019 1:34:14 PM	47087
Xylenes, Total	ND	0.096		mg/Kg	1	8/28/2019 1:34:14 PM	47087
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	8/28/2019 1:34:14 PM	47087

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 **1908E66**
Date Reported: **9/5/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SB-3@ 49'-50'
Project: Sandstone CS
Collection Date: 8/22/2019 1:45:00 PM
Lab ID: 1908E66-008 **Matrix:** SOIL **Received Date:** 8/24/2019 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	8/29/2019 7:24:37 PM	47159
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**JME**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/29/2019 5:58:04 AM	47096
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2019 5:58:04 AM	47096
Surr: DNOP	131	70-130	S	%Rec	1	8/29/2019 5:58:04 AM	47096
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/28/2019 1:57:52 PM	47087
Surr: BFB	98.7	77.4-118		%Rec	1	8/28/2019 1:57:52 PM	47087
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	8/28/2019 1:57:52 PM	47087
Toluene	ND	0.048		mg/Kg	1	8/28/2019 1:57:52 PM	47087
Ethylbenzene	ND	0.048		mg/Kg	1	8/28/2019 1:57:52 PM	47087
Xylenes, Total	ND	0.095		mg/Kg	1	8/28/2019 1:57:52 PM	47087
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/28/2019 1:57:52 PM	47087

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#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-47159** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **47159** RunNo: **62527**
Prep Date: **8/29/2019** Analysis Date: **8/29/2019** SeqNo: **2128255** Units: **mg/Kg**

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

Sample ID: **LCS-47159** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **47159** RunNo: **62527**
Prep Date: **8/29/2019** Analysis Date: **8/29/2019** SeqNo: **2128256** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	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#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-47083** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **47083** RunNo: **62455**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2124830** 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		94.9	70	130			

Sample ID: **LCS-47083** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **47083** RunNo: **62455**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2124832** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.6	63.9	124			
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID: **MB-47096** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **47096** RunNo: **62455**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2126367** 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		117	70	130			

Sample ID: **LCS-47096** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **47096** RunNo: **62455**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2126368** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	63.9	124			
Surr: DNOP	5.5		5.000		109	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#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-47087** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125577** 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	970		1000		97.2	77.4	118			

Sample ID: **LCS-47087** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125578** 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	82.8	80	120			
Surr: BFB	1000		1000		105	77.4	118			

Sample ID: **1908E66-004AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-2@ 30'-33'** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.8	24.18	0	91.0	69.1	142			
Surr: BFB	1000		967.1		105	77.4	118			

Sample ID: **1908E66-004AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SB-2@ 30'-33'** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.47	0	89.5	69.1	142	4.59	20	
Surr: BFB	990		939.0		105	77.4	118	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#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **MB-47087** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125624** 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	0.99		1.000		99.5	80	120			

Sample ID: **LCS-47087** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125625** 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	97.6	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.5	80	120			

Sample ID: **1908E66-003AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-5@ 48'-50'** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125627** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9479	0	99.8	76	123			
Toluene	0.99	0.047	0.9479	0	104	80.3	127			
Ethylbenzene	1.0	0.047	0.9479	0	106	80.2	131			
Xylenes, Total	3.0	0.095	2.844	0	107	78	133			
Surr: 4-Bromofluorobenzene	0.90		0.9479		94.6	80	120			

Sample ID: **1908E66-003AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SB-5@ 48'-50'** Batch ID: **47087** RunNo: **62475**
Prep Date: **8/27/2019** Analysis Date: **8/28/2019** SeqNo: **2125628** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9775	0	103	76	123	5.78	20	
Toluene	1.1	0.049	0.9775	0	108	80.3	127	7.18	20	
Ethylbenzene	1.1	0.049	0.9775	0	111	80.2	131	7.63	20	
Xylenes, Total	3.3	0.098	2.933	0	112	78	133	7.65	20	
Surr: 4-Bromofluorobenzene	1.0		0.9775		106	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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **mb-47067** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **47067** RunNo: **62460**
Prep Date: **8/26/2019** Analysis Date: **8/27/2019** SeqNo: **2124394** 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: 1,2-Dichloroethane-d4	0.59		0.5000		118	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.5	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		120	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			

Sample ID: **lcs-47067** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **47067** RunNo: **62460**
Prep Date: **8/26/2019** Analysis Date: **8/27/2019** SeqNo: **2124395** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	68	135			
Toluene	0.91	0.050	1.000	0	90.5	70	130			
Surr: 1,2-Dichloroethane-d4	0.57		0.5000		114	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		83.2	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130			
Surr: Toluene-d8	0.49		0.5000		97.3	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#: **1908E66**
09-Sep-19

Client: ENSOLUM
Project: Sandstone CS

Sample ID: **mb-47067** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **47067** RunNo: **62460**
Prep Date: **8/26/2019** Analysis Date: **8/27/2019** SeqNo: **2124604** 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	430		500.0		86.6	70	130			

Sample ID: **lcs-47067** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **47067** RunNo: **62460**
Prep Date: **8/26/2019** Analysis Date: **8/27/2019** SeqNo: **2124605** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	25.00	0	72.7	70	130			
Surr: BFB	450		500.0		89.0	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

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: **1908E66** RcptNo: **1**

Received By: **Anne Thorne** **8/24/2019 10:00:00 AM** Anne Thorne

Completed By: **Yazmine Garduno** **8/26/2019 10:50:23 AM** Yazmine Garduno

Reviewed By: MS 08/26/19

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 8/26/19

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	4.6	Good				
2	2.9	Good				
3	1.0	Good				
4	0.8	Good				

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 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: Sandstone CS

Project #: See notes

Project Manager: KSummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 4

Cooler Temp(including CF): See Email

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. 1908E004	BTEX / MTBE / TMBs (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
8/21/19	1115	S	SB-5 @ 23'-25'	1x4oz Jar	cool	-001	X	X									X
8/21/19	1130	S	SB-5 @ 30'-33'	1x4oz Jar	cool	-002	X	X									X
8/21/19	1120	S	SB-5 @ 48'-50'	1x4oz Jar	cool	-003	X	X									X
8/21/19	1340	S	SB-2 @ 30'-33'	1x4oz Jar	cool	-004	X	X									X
8/21/19	1345	S	SB-2 @ 43'-45'	1x4oz Jar	cool	-005	X	X									X
8/21/19	1730	S	SB-7 @ 47'-50'	1x4oz Jar	cool	-006	X	X									X
8/22/19	1340	S	SB-3 @ 33'-34'	1x4oz Jar	cool	-007	X	X									X
8/22/19	1345	S	SB-3 @ 49'-50'	1x4oz Jar	cool	-008	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
8/23/19	1004	RDeechilly	Chantel Walters		8/23/19	1004
8/23/19	1746	Chantel Walters			08/24/19	1000

Remarks: RM - Tom Long (EPROD)
4.1 + 0.5CF = 4.6 PayKey - GG11580
2.4 + 0.5CF = 2.9
0.5 + 0.5CF = 1.0
0.3 + 0.5 = 0.8

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.

ENSOLUM

APPENDIX H

Regulatory Correspondence

From: Long, Thomas
To: Smith, Cory, EMNRD
Cc: Stone, Brian
Subject: RE: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996
Date: Tuesday, April 30, 2019 7:22:00 AM
Attachments: Rpt_1904A76_Sandstone_CS_Final_v1.pdf
Rpt_1904C01_Sandstone_CS_Final_v1.pdf
image001.png
Sandstone CS Site Map_042619.pdf

Cory,

Please find the attached site sketch and lab reports for Sandstone Compressor Station. Enterprise will have to conduct delineation activities utilizing a drilling rig in the area for S-7, S-8, and S-9 and S-10. I will keep you informed as to when we have the drilling activities scheduled. If you have any questions, please call or email.

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Thursday, April 25, 2019 11:03 AM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Tom,
OCD processed the initial C-141 for the Sandstone Site see below it will be scanned into 3R-1011

NCS1911539620 SANDSTONE COMPRESSOR STATION @ FJK1424831933

General Incident Information

Site Name:	SANDSTONE COMPRESSOR STATION		
Well:			
Facility:	[fJK1424831933] ENTERPRISE SAN JUAN PIPELINE 3R-1011		
Operator:	[151618] ENTERPRISE FIELD SERVICES L.L.C.		
Status:	Closure Not Approved	**Severity:**	Minor
Type:	Other	**Surface Owner:**	State
District:	Aztec	**County:**	San Juan (45)
Incident Location:	I-32-31N-08W Lot: 0 FNL 0 FEL		
Lat/Long:	36.853298,-107.690996 NAD83		

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Smith, Cory, EMNRD
Sent: Wednesday, April 24, 2019 7:09 AM
To: 'Long, Thomas' <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Tom,

Enterprise can backfill and get a site characterization so long as it done within the 90 days since discovery.

Thanks for the notification ill put it on the calendar.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, April 23, 2019 3:40 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] FW: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Cory,

Also, we will be collecting soil samples for laboratory analysis tomorrow at 1:00 p.m. If you have any questions, please call or email.

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Long, Thomas

Sent: Tuesday, April 23, 2019 3:35 PM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Cory,

Please find the attached site sketch and lab report for Sandstone Compressor Station. We are going excavate more soil in the areas of S-2 and S-3 and then resample. Enterprise requests to backfill the remaining areas and then perform a site characterization per NMAC 19.15129.11 utilizing a drilling rig. Please acknowledge if you agree with this. If you have any questions, please call or email.

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Monday, April 22, 2019 10:37 AM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Tom,

OCD approves the collect of samples for evaluation. As previously discussed since Enterprise collected a surface sample of impacted material to test for used metals if those samples are below the limits and the waste is not considered hazardous additional metals samples will not be required.

The option to perform a full site characterization and reevaluate the remediation approach as described in 19.15.29.11 NMAC is an option,

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Monday, April 22, 2019 10:27 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] FW: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Cory,

Please find the attached photos and lab report for Sandstone Compressor Station. Enterprise requests to collect soil samples for laboratory analysis to evaluate subsurface contaminant concentrations. We will be collecting one soil sampler for every 200 square feet with in the excavated areas. We are getting into areas that are very difficult to excavate. Underneath the compressor cooling fan and along the compressor skid foundation. All places are becoming concerns with the foundation stability and confined spaces. Please see the attached pictures for reference. Completing remediation by excavating may not be possible at this time. We will have to evaluate the lab results upon receipt. If you have any questions, please call or email.

Sincerely,

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Long, Thomas
Sent: Tuesday, April 9, 2019 7:28 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; 'l1thomas@blm.gov' <l1thomas@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Sandstone Compressor Station - UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996

Cory/Whitney,

This email is to notify you that Enterprise had a release of glycol from the compressor skid at Sandstone Compressor Station on 4-2-2019. We have been hand digging the last few days and this release became reportable due the amount of impacted soil that has been removed. We have approximate 10 yards of soil stockpiled that needs to be disposed. The facility is located at UL I Section 32 Township 31 North Range 8 West; 36.853298, -107.690996. We will have to bring in a backhoe to complete the remediation. If you have any questions, please call or email.

Sincerely,

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Long, Thomas
To: "Smith, Cory, EMNRD (Cory.Smith@state.nm.us)"
Cc: Stone, Brian
Subject: FW: Sandstone CS, Section 32 Range 8W, Township 31N
Date: Tuesday, August 20, 2019 12:51:00 PM

Cory,

This email is to notify you that Enterprise will continue delineation activities at Sandstone Compressor Station. We have two soil borings to complete. The drilling rig has additional mechanical problems last week. If you have any questions, please call or email.

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Long, Thomas
Sent: Friday, August 9, 2019 9:26 AM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone CS, Section 32 Range 8W, Township 31N

Cory,

This email is to notify you that Enterprise has scheduled the delineation activities (soil boring installation) at Sandstone Compressor Station to begin Monday, August 12, 2019. We will be collecting soil samples throughout the drilling project. If you have any questions, please call or email.

Sincerely,

Tom Long
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, July 23, 2019 2:41 PM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone CS, Section 32 Range 8W, Township 31N

Tom,

OCD approves the extension request to submit a full site characterization and remediation plan no later than October 25, 2019.

Please include this approval in your characterization and remediation plan report.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, July 23, 2019 12:14 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] RE: Sandstone CS, Section 32 Range 8W, Township 31N

Cory,

This would be a time extension request to complete a site characterization and submit a remediation plan. If you have any questions, please call or email.

Sincerely,

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Tuesday, July 23, 2019 10:21 AM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Sandstone CS, Section 32 Range 8W, Township 31N

Tom,

Is this extension request for 90 extra days to send in a Site characterization and remediation plan? Or does Enterprise plan to drill holes and then return to Dig and haul and have a completed closure report in 90 days?

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, July 23, 2019 8:29 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] FW: Sandstone CS, Section 32 Range 8W, Township 31N

Cory,

This email is a request for time extension for the delineation activities associated with the April 2, 2019 release at Sandstone Compressor Station. We began delineation activities last week, but the drilling rig had mechanical problems. I anticipate we will complete delineation activities (field work) in the next two weeks. Enterprise requests 90 day time extension. Please acknowledge if you agree/grant this time extension request.

Sincerely,

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

From: Stone, Brian <bmstone@eprod.com>
Sent: Thursday, July 18, 2019 3:28 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Long, Thomas <tjlong@eprod.com>
Subject: RE: Sandstone CS, Section 32 Range 8W, Township 31N

Cory, we are still having problems with the sampling rig, so we will delay sampling to Monday at 8:00am.

From: Stone, Brian
Sent: Wednesday, July 17, 2019 11:02 AM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>
Cc: Long, Thomas <tjlong@eprod.com>
Subject: RE: Sandstone CS, Section 32 Range 8W, Township 31N

Cory,
Sampling is delayed to Friday July 19 at 8:00am due to problems with the rig.

From: Stone, Brian
Sent: Tuesday, July 16, 2019 3:33 PM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>
Cc: Long, Thomas <tjlong@eprod.com>
Subject: Sandstone CS, Section 32 Range 8W, Township 31N

Cory,

This email is to notify you that Enterprise anticipates collecting soil samples for laboratory analysis at the Sandstone Compressor Station starting Thursday, July 18 2019 at 8:00 a.m. If you have any questions or concerns, please all or email.

Brian Stone
(970) 210-2170

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

Action 9576

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 9576
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral approved. Required to remediate & reclaim after decommissioning per 19.15.29.12C (2) & 19.15.29.13D (1).	3/25/2022