Fields, Vanessa, EMNRD

From: Fields, Vanessa, EMNRD
Sent: Friday, February 22, 2019 3:13 PM
To: 'Joel Lowry'; EMNRD-OCD-District1spills
Cc: Ryan Mann
Subject: RE: 1RP_5048 - remediation plan approval

Good afternoon Joel,

Per our discussion, and after a release review was conducted, the OCD grants Lowry Environmental a final sampling plan of 1-5 point composite sample collected every 400 sq. ft. However, if any wet or discolored staining is observed a grab sample will need to be collected as well. The OCD approves the remediation plan for RP-5048

As well, per our conversation please send in the remediation portion of the new C-141 for remediation approval signature.

OCD Approval of the plan does not relieve the operator of any requirements imposed by other regulatory agencies.

Please let me know if you should have any questions and/or concerns.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: Joel Lowry <joel@lowryenvironmental.com>
Sent: Tuesday, February 19, 2019 10:36 AM
To: EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>
Subject: [EXT] FW: 1RP_5048 - C-1

To Whom it may concern,

I wanted to follow up on a release for which the workplan was submitted in early November. I will likely be handing the remediation phase for this project, as opposed to the contractor who prepared the Workplans. This email includes the Soil Assessment Report and historical email chains associated with the project. The Proposed Remediation Workplan is within Appendix D of the Soil Assessment Report. If I should be sending this to Mr. Billings, please advise. Thanks.

Respectfully,

State of New Mexico
Oil Conservation Division

Incident ID	nOY1812928883
District RP	1RP-5048
Facility ID	fOY1812928783
Application ID	NA

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~89 Ft. (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
- ☑ Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- ☐ Boring or excavation logs **(NA, Field Work Completed during Transistional Period)**
- ☐ Photographs including date and GIS information **(NA, Field Work Completed during Transistional Period)**
- ☑ 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. Than 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 modifies by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nOY1812928883
District RP	1RP-5048
Facility ID	fOY1812928783
Application ID	NA

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: Dean Ericson Title: Sr. Environmental Specialist

Signature: Dean D. Ericson Date: 2/26/19

email: dean.ercison@energytransfer.com Telephone: 817-302-9758

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1812928883
District RP	1RP-5048
Facility ID	fOY1812928783
Application ID	NA

Remediation Plan

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

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] 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: Dean Ericson Title: Sr. Environmental Specialist

Signature: Dean D Ericson Date: 2/25/2019

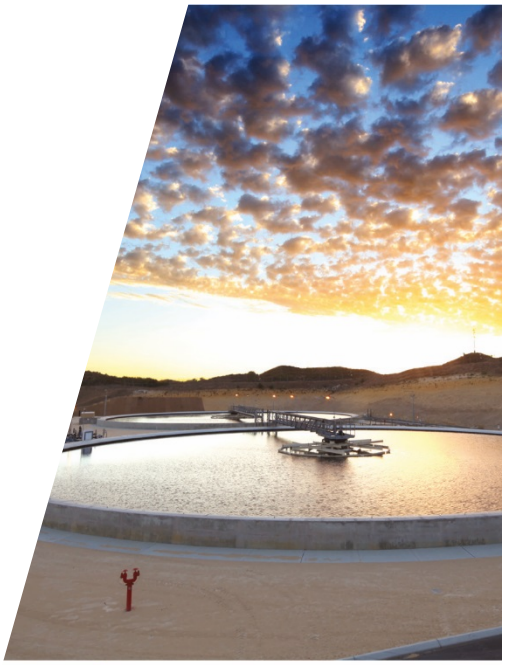
email: dean.ercison@energytransfer.com Telephone: 817-302-9758

OCD Only

Received by: Vanessa Fields Date: 2/26/2019

[ ] Approved [X] Approved with Attached Conditions of Approval [ ] Denied [ ] Deferral Approved

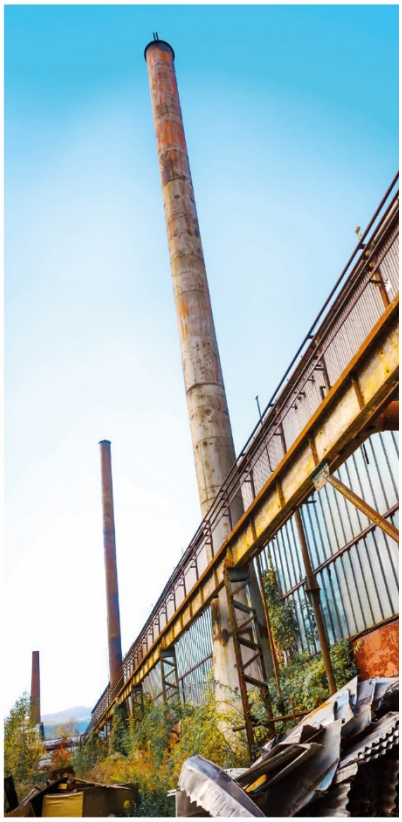
Signature: Vanessa Fields Date: 2/26/2019



Soil Assessment Report

C-1 Compressor Station
1RP-5048
Cud 12” Pipeline Purge
Lea County, New Mexico

ETC Texas Pipeline, Ltd.



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1. Introduction

GHD is pleased to present this Soil Assessment Report to ETC Texas Pipeline, Ltd. (ETC) for the C-1 Compressor Station, Cud 12 inch Pipeline purge release location (hereafter referred to as the "Site"). The Site is located at coordinates Latitude 32.3066 and Longitude -103.214 on land owned by the State of New Mexico in Unit W, Section 13, Township 23 South, Range 36 East, approximately 9.58-miles south, southwest of Eunice, Lea County, New Mexico (refer to Figure 1).

2. NMOCD Closure Requirement Criteria for Soils

Subsurface investigation activities were completed in accordance with the revised and reissued Guidelines for Remediation of Leaks, Spills, and Releases Rule 19.15.29 New Mexico Administrative Code (NMAC) from the New Mexico Oil Conservation Division (NMOCD) issued on August 14, 2018. The following criteria from Table 1 (below) within NMAC 19.15.29.12 was utilized to determine site-specific screening limits:

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Limit*
51 feet - 100 feet	Chloride**	10,000 mg/kg
	TPH (GRO+DRO+MRO[1])	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

* Numerical limits or natural background level, whichever is greater.

** This applies to release of produced water or other fluids which may contain chloride.

Localized depth to groundwater was estimated at a depth of approximately 89 feet below ground surface (bgs) based on depth to water records available on the United States Geological Survey (USGS) National Water System Information map for a well approximately 1.88 miles to the northeast. Well records showing groundwater measurement data are included in Appendix A. Additionally, information available from various sources including the Petroleum Recovery Research Center (PRRC) Mapping Portal and the USGS Current Water Database for the Nation, concludes:

a) the depth to groundwater at the Site is between 50-100-feet bgs;

b) the site is not within 300 feet of any continuously flowing watercourse;

c) the site is not within 200 feet of any lakebed, sinkhole or playa lake;

d) the site is not within 300 feet of an occupied permanent residence, school, etc.;

e) the site is not within 500 feet of a spring or private, domestic fresh water well;

f) the site is not within 1,000 feet of any fresh water well or spring;

g) the site is not within incorporated municipal boundaries or within a defined municipal fresh water well field;

h) the site is not within 300 feet of a wetland;

i) the site is not within an area overlying a subsurface mine;

j) the site is not within an unstable area;

k) the site is not within a 100-year floodplain.

Consequently, the anticipated site-specific screening limits to be applied to this location by the NMOCD based on the revised Rule are 10 mg/kg for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, toluene, and total xylenes (BTEX), 2,500 mg/kg for total petroleum hydrocarbons (TPH) including gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (MRO), and 10,000 mg/kg for chloride.

Per 19.15.29.13, Restoration, Reclamation, and Re-vegetation, the impacted area must be remediated a minimum of 4-feet bgs with non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg. Soil cover must consist of topsoil at a thickness comparable to background topsoil thicknesses, or one foot of suitable earthen material capable of establishing and maintaining vegetation at the site. Reclamation is considered complete when all disturbed areas have established vegetative cover with a life-form ratio of plus or minus 50 percent of pre-remedial levels, and plant cover of a minimum of 70 percent of previous levels, excluding noxious weeds.

3. Project Information and Background

According to the NMOCD Release Notification and Corrective Action Form C-141 submitted to the agency by ETC, the release occurred on May 3, 2018 and was reported to the Artesia District I NMOCD office on May 7, 2018 (see attached C-141 included in Appendix B). Remediation Permit (RP) 1RP-5048 was assigned to this release incident by the NMOCD District 1 office. The release was described as 1.72 barrels (bbls) of oil and 15.50 bbls of produced water with zero volume being recovered. The C-141 stated, “the release occurred due to purging of the Cud 12 inch pipeline segment at the C-1 Compressor Station in order to return the line to service. The valve was shut in, in order to stop the release. Energy Transfer is working with GHD for spill delineation. More information will follow in the Final Report.”

Prior to performing Site assessment activities, GHD received and email from Ryan Mann of the New Mexico State Land Office on May 14, 2018 stating that for this particular Site, a Right of Entry permit would not be required. GHD conducted field assessment activities at the Site on May 21, 2018. GHD’s assessment included a site visit, soil sample collection for field screening and analytical laboratory analyses, and a preliminary determination of impacts to environmental media.

4. Soil Sampling

On May 21, 2018, GHD performed initial soil assessment sampling with a hand auger. Hand auger samples were collected from six locations within the release footprint (HA-1 through HA-6 - refer to

Figure 2). The soil samples were collected at a depth of two feet bgs in each of the six sampling locations. Additionally, soil samples were collected from a depth of four feet bgs at the HA-2 and HA-3 locations. Field screening was completed for chloride using HACH chloride test strips and for total TPH using a Petroflag® TPH analyzer. The remainder of soil samples were packed into laboratory prepared jars and stored in a cooler with ice for subsequent delivery to the laboratory for analysis.

Chloride screening was accomplished in the field by mixing soil samples with distilled water, then testing the rinsate using Hach chloride test strips. The Petroflag® TPH analyzer utilizes a turbidmetric development method by extraction, filtration, and analysis for the determination of TPH present in soil.

Soil samples were sent to Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico for chloride analysis by EPA Method 300, BTEX analysis by EPA Method 8021, and TPH analysis by EPA Method 8015.

4.1 Soil Sampling Analytical Results

A soil analytical summary of results from the May 2018 sampling is presented in Table 1. A Sample Location Map including field screening and analytical results is presented as Figure 2.

- Laboratory analytical results were non-detect for chloride, BTEX, and TPH at a depth of two feet bgs in each of the six sampling locations.

The May 2018 soil laboratory analytical report is included in Appendix C.

5. Summary of Findings

Evaluation of the analytical data obtained from soil assessment and delineation activities performed in May of 2018 indicate horizontal and vertical delineation of TPH and chloride impacts has been achieved at the Site. Soil remediation activities per NMAC 19.15.29.13 will be conducted at the Site following NMOCD approval of the 2018 Remediation Work Plan attached as Appendix D. Proposed remedial activities will be excavation of the upper foot to two feet of soil in the area of the release. Confirmation soil samples will be collected from the sidewalls and bottom of the excavation area.

Submitted by:

GHD Services, Inc.

Christine Mathews, Project Manager

Scott Foord, P.G., Project Manager

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

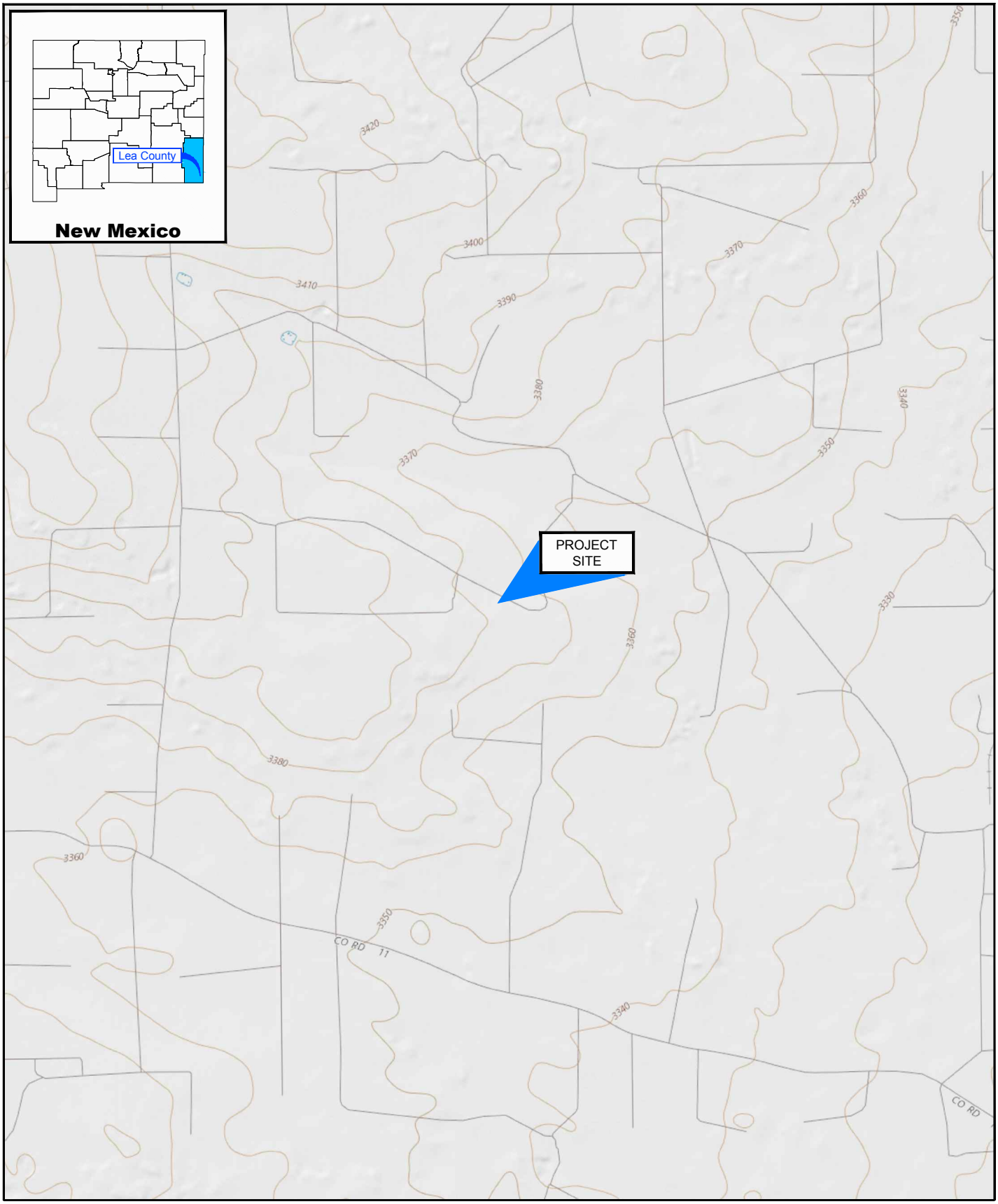
Christine Mathews
Christine.Mathews@ghd.com
505.884.0672

Scott Foord
Scott.Foord@ghd.com
832.485.5208

www.ghd.com

Figures

Figure 1
Site Location



Source: USGS 7.5 Minute Quad "Rattlesnake Canyon, New Mexico"

Lat/Long: 32.306372° North, 103.214127° West

0 1000 2000ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

ETC FIELD SERVICES, LLC
LEA COUNTY, NEW MEXICO
C-1 COMPRESSOR STATION

11135250-13

Nov 7, 2018

SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-13(000)GN-DL001.dwg

Figure 2
Sample Location Map

HA-4	05/21/18
Depth	2'
Benzene	<0.025
BTEX	<0.222
GRO/DRO	<14.8
TPH	<63.8
Chloride	<30

HA-4 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-6	05/21/18
Depth	2'
Benzene	<0.024
BTEX	<0.212
GRO/DRO	<14.7
TPH	<64.7
Chloride	<30

HA-6 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-2 FS	05/21/18	
Depth	2'	4'
TPH	10.5	94
Chloride	<1.0	<1.0

HA-2	05/21/18	
Depth	2'	4'
Benzene	<0.025	<0.023
BTEX	<0.221	<0.208
GRO/DRO	<14.6	<14.6
TPH	<64.9	<64.6
Chloride	<30	<30

HA-5	05/21/18
Depth	2'
Benzene	<0.025
BTEX	<0.225
GRO/DRO	<15
TPH	<65
Chloride	<30

HA-5 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-3	05/21/18	
Depth	2'	4'
Benzene	<0.025	<0.024
BTEX	<0.222	<0.212
GRO/DRO	<14.9	<14.5
TPH	<64.9	<63.5
Chloride	<30	<30

HA-3 FS	05/21/18	
Depth	2'	4'
TPH	256	124
Chloride	<1.0	<1.0

HA-1 FS	05/21/18
Depth	2'
TPH	117
Chloride	<1.0

HA-1	05/21/18
Depth	2'
Benzene	<0.023
BTEX	<0.21
GRO/DRO	<14.7
TPH	<64.7
Chloride	<30

NOTES:

1. All site locations are approximate.
2. All results are in milligrams per kilogram (mg/kg).

LEGEND

- Hand Auger Location
- Approximate Release Area
- Depth — Depth of Sample (feet)
- BTEX — Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg)
- TPH — Total Petroleum Hydrocarbons Concentration (mg/kg)
- GRO — TPH as Gasoline Range Organics
- DRO — TPH as Diesel Range Organics
- ND — Not Detected
- Indicates Field Screen (FS)

Source: Image © 2018 Google - Imagery Date: November 2, 2017

Lat/Long: 32.306372° North, 103.214127° West

0 15 30ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

GHD

ETC FIELD SERVICES, LLC
LEA COUNTY, NEW MEXICO
C-1 COMPRESSOR STATION

SOIL SAMPLE LOCATION

11135250-13

Nov 7, 2018

FIGURE 2

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-13(000)GN-DL001.dwg

Tables
Table 1

Table 1

C-1 Compressor Station- Summary of Soil Field Screening and Analytical Data

Sample ID	Depth (feet)	Date	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Total TPH Field Screen	Chloride	Chloride Field Screen (mg/L)
HA-1	2	5/21/2018	<0.023	<0.047	<0.047	<0.093	<0.21	<4.7	<10	<50	<64.7	117	<30	<1.0
HA-2	2	5/21/2018	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<10	<50	<64.9	10.5	<30	<1.0
	4	5/21/2018	<0.023	<0.046	<0.046	<0.093	<0.208	<4.6	<10	<50	<64.6	94	<30	<1.0
HA-3	2	5/21/2018	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<10	<50	<64.9	256	<30	<1.0
	4	5/21/2018	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.8	<49	<63.5	124	<30	<1.0
HA-4	2	5/21/2018	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.9	<49	<63.8	--	<30	<1.0
HA-5	2	5/21/2018	<0.025	<0.050	<0.050	<0.10	<0.225	<5.0	<10	<50	<65	--	<30	<1.0
HA-6	2	5/21/2018	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<10	<50	<64.7	--	<30	<1.0
NMOCD Closure Criteria for Soils Impacted by Release Depth to Water 51-100 feet			**10**	**BTEX = 50**				**Total TPH: 2500**				**NE**	**600***	**NE**

Notes:

All sample results are in milligrams per kilogram
NMOCD = New Mexico Oil Conservation Division
ND=Non Detect
NA = Not Analyzed
BTEX =Benzene, Toluene, Ethylbenzene, Xylenes
TPH = Total Petroleum Hydrocarbons
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics
NE = Not Established
* standard for soil from 0 to 4 feet below ground surface

Appendices

Appendix A
USGS National Water Information System Well Data

National Water Information System: Web Interface

Click to hideNews Bulletins

- Please see news on new formats
- **UPDATE, 11/2: The USGS continues to make progress on restoring all of its gages. As of 3 p.m. Friday, November 2, less than 3 percent of USGS streamgages are still not transmitting due to an issue with the telemetry system that records and transmits streamgage data. The USGS will continue to work through the weekend to bring the streamgages back online. Read more**
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =
- 321944103114201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

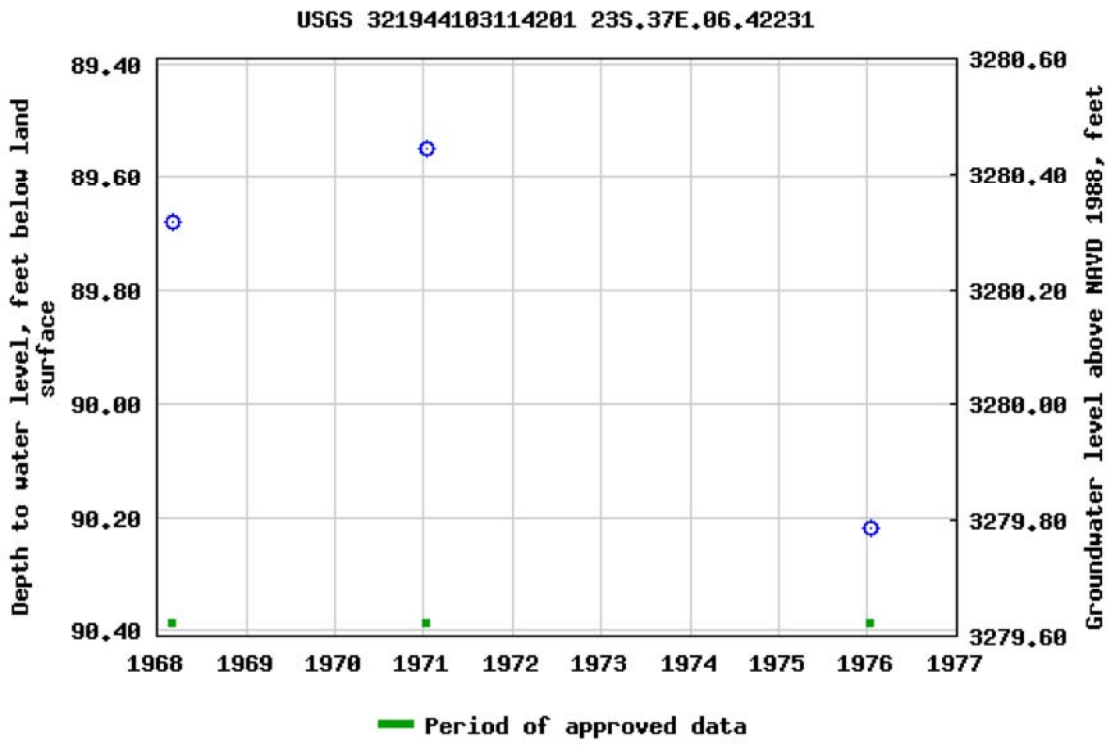
USGS 321944103114201 23S.37E.06.42231

Available data for this site Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°19'44", Longitude 103°11'42" NAD27
Land-surface elevation 3,370 feet above NAVD88
The depth of the well is 96 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms

Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2018-11-07 12:27:06 EST
6.91 0.88 nadww01

Appendix B
NMOCD Release Notification and Corrective Action Form C-141

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

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

HOBBS OCD
MAY 08 2018
RECEIVED

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Energy Transfer Field Services, LLC	Contact: Dean Ericson, Sr. Environmental Specialist
Address: 600 N. Marienfeld Street, Suite 700, Midland, TX 79701	Telephone No. (432) 238-2142
Facility Name: C-1 Compressor Station, Lea County NM	Facility Type: Compressor Station

Surface Owner	Mineral Owner	API No.
State	State	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	13	23S	36E					

Latitude 32.3066 **Longitude** -103.214 NAD83

NATURE OF RELEASE

Type of Release: Condensate Release	Volume of Release: 1.72 bbls Oil; 15.50 bbls Water	Volume Recovered: 0 bbls
Source of Release: Pipeline Segment Cud 12"	Date and Hour of Occurrence: 5/3/2018 at 15:00	Date and Hour of Discovery: 5/3/2018 at 15:00
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Not Applicable	
By Whom? Not Applicable	Date and Hour: Not Applicable	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. Not Applicable	

If a Watercourse was Impacted, Describe Fully.*

Not Applicable

RECEIVED
By Olivia Yu at 7:54 am, May 09, 2018

Describe Cause of Problem and Remedial Action Taken.*

The release occurred due to purging of the Cud 12" pipeline segment at the C-1 Compressor Station in order to return the line to service. The valve was shut in, in order to stop the release.

Describe Area Affected and Cleanup Action Taken.*

Energy Transfer is currently working with GHD for spill delineation. More information will follow on the Final Report.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Carolyn J Blackaller	OIL CONSERVATION DIVISION
Printed Name: Carolyn J. Blackaller	Approved by Environmental Specialist:
Title: Sr. Environmental Specialist	Approval Date: 5/9/2018 Expiration Date:
E-mail Address: Carolyn.blackaller@energytransfer.com	Conditions of Approval: see attached directive Attached ☑
Date: 5/7/2018 Phone: (817) 302-9766	

fOY1812928783 1RP-5048 nOY1812928883 pOY1812929098

ENERGY TRANSFER

May 7, 2018

HOBBS OCD
MAY 08 2018
RECEIVED

State of New Mexico Oil Conservation Division, District I
1625 N. French Dr.
Hobbs, NM 88240

RE: **Form C-141 - Release Notification and Corrective Action**
Energy Transfer Company
C-1 Compressor Station

To Whom It May Concern,

In accordance with 19.15.29 NMAC, please find enclosed the Initial Report Form C-141 – Release Notification and Corrective Action for the Energy Transfer Company C-1 Compressor Station condensate release that occurred on 5/3/2018. Should you have any questions or require additional information, please do not hesitate to contact me at (817) 302-9766 or at carolyn.blackaller@energytransfer.com

Sincerely,

Carolyn J. Blackaller

Carolyn J. Blackaller
Sr. Environmental Specialist

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _5/8/2018_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-5048__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _6/9/2018_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Appendix C
Soil Laboratory 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

June 01, 2018

Alan Brandon

GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: Cl OrderNo.: 1805D46

Dear Alan Brandon:

Hall Environmental Analysis Laboratory received 8 sample(s) on 5/24/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Cl
Lab Order: 1805D46

Lab ID: 1805D46-001 **Collection Date:** 5/21/2018 2:02:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-1-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 12:46:49 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 8:31:22 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 8:31:22 PM	38332
Surr: DNOP	88.8	70-130		%Rec	1	5/29/2018 8:31:22 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/25/2018 9:10:07 PM	38316
Surr: BFB	92.9	15-316		%Rec	1	5/25/2018 9:10:07 PM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	5/25/2018 9:10:07 PM	38316
Toluene	ND	0.047		mg/Kg	1	5/25/2018 9:10:07 PM	38316
Ethylbenzene	ND	0.047		mg/Kg	1	5/25/2018 9:10:07 PM	38316
Xylenes, Total	ND	0.093		mg/Kg	1	5/25/2018 9:10:07 PM	38316
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	5/25/2018 9:10:07 PM	38316

Lab ID: 1805D46-002 **Collection Date:** 5/21/2018 2:05:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-2-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 1:48:50 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 8:53:50 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 8:53:50 PM	38332
Surr: DNOP	110	70-130		%Rec	1	5/29/2018 8:53:50 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2018 10:23:12 AM	38316
Surr: BFB	90.0	15-316		%Rec	1	5/29/2018 10:23:12 AM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/29/2018 10:23:12 AM	38316
Toluene	ND	0.049		mg/Kg	1	5/29/2018 10:23:12 AM	38316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2018 10:23:12 AM	38316
Xylenes, Total	ND	0.098		mg/Kg	1	5/29/2018 10:23:12 AM	38316
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	5/29/2018 10:23:12 AM	38316

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 Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Cl

Lab Order: 1805D46

Lab ID: 1805D46-003
Collection Date: 5/21/2018 2:07:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-2-4'
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 2:01:15 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 9:15:55 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 9:15:55 PM	38332
Surr: DNOP	74.4	70-130		%Rec	1	5/29/2018 9:15:55 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/29/2018 10:46:51 AM	38316
Surr: BFB	92.8	15-316		%Rec	1	5/29/2018 10:46:51 AM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	5/29/2018 10:46:51 AM	38316
Toluene	ND	0.046		mg/Kg	1	5/29/2018 10:46:51 AM	38316
Ethylbenzene	ND	0.046		mg/Kg	1	5/29/2018 10:46:51 AM	38316
Xylenes, Total	ND	0.093		mg/Kg	1	5/29/2018 10:46:51 AM	38316
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/29/2018 10:46:51 AM	38316

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 Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Cl
Lab Order: 1805D46

Lab ID: 1805D46-004 **Collection Date:** 5/21/2018 2:10:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-3-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 2:13:39 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 9:38:11 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 9:38:11 PM	38332
Surr: DNOP	92.3	70-130		%Rec	1	5/29/2018 9:38:11 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2018 11:10:11 AM	38316
Surr: BFB	92.5	15-316		%Rec	1	5/29/2018 11:10:11 AM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/29/2018 11:10:11 AM	38316
Toluene	ND	0.049		mg/Kg	1	5/29/2018 11:10:11 AM	38316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2018 11:10:11 AM	38316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2018 11:10:11 AM	38316
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	5/29/2018 11:10:11 AM	38316

Lab ID: 1805D46-005 **Collection Date:** 5/21/2018 2:13:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-3-4' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 2:26:03 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/29/2018 10:00:18 PM	38332
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2018 10:00:18 PM	38332
Surr: DNOP	89.5	70-130		%Rec	1	5/29/2018 10:00:18 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2018 11:33:46 AM	38316
Surr: BFB	94.6	15-316		%Rec	1	5/29/2018 11:33:46 AM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/29/2018 11:33:46 AM	38316
Toluene	ND	0.047		mg/Kg	1	5/29/2018 11:33:46 AM	38316
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2018 11:33:46 AM	38316
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2018 11:33:46 AM	38316
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/29/2018 11:33:46 AM	38316

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 Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Cl

Lab Order: 1805D46

Lab ID: 1805D46-006
Collection Date: 5/21/2018 2:15:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-4-2'
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 2:38:28 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/29/2018 10:22:31 PM	38332
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/29/2018 10:22:31 PM	38332
Surr: DNOP	107	70-130		%Rec	1	5/29/2018 10:22:31 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/29/2018 11:57:10 AM	38316
Surr: BFB	95.0	15-316		%Rec	1	5/29/2018 11:57:10 AM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/29/2018 11:57:10 AM	38316
Toluene	ND	0.049		mg/Kg	1	5/29/2018 11:57:10 AM	38316
Ethylbenzene	ND	0.049		mg/Kg	1	5/29/2018 11:57:10 AM	38316
Xylenes, Total	ND	0.099		mg/Kg	1	5/29/2018 11:57:10 AM	38316
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	5/29/2018 11:57:10 AM	38316

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 Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: Cl
Lab Order: 1805D46

Lab ID: 1805D46-007 **Collection Date:** 5/21/2018 2:18:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-5-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 2:50:52 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 10:44:37 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 10:44:37 PM	38332
Surr: DNOP	83.0	70-130		%Rec	1	5/29/2018 10:44:37 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/29/2018 12:20:29 PM	38316
Surr: BFB	89.7	15-316		%Rec	1	5/29/2018 12:20:29 PM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/29/2018 12:20:29 PM	38316
Toluene	ND	0.050		mg/Kg	1	5/29/2018 12:20:29 PM	38316
Ethylbenzene	ND	0.050		mg/Kg	1	5/29/2018 12:20:29 PM	38316
Xylenes, Total	ND	0.10		mg/Kg	1	5/29/2018 12:20:29 PM	38316
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	5/29/2018 12:20:29 PM	38316

Lab ID: 1805D46-008 **Collection Date:** 5/21/2018 2:20:00 PM
Client Sample ID: S-11135250-13-052118-MG-HA-6-2' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	5/30/2018 3:03:16 PM	38378
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/29/2018 11:06:48 PM	38332
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/29/2018 11:06:48 PM	38332
Surr: DNOP	86.6	70-130		%Rec	1	5/29/2018 11:06:48 PM	38332
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/29/2018 12:43:49 PM	38316
Surr: BFB	91.7	15-316		%Rec	1	5/29/2018 12:43:49 PM	38316
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/29/2018 12:43:49 PM	38316
Toluene	ND	0.047		mg/Kg	1	5/29/2018 12:43:49 PM	38316
Ethylbenzene	ND	0.047		mg/Kg	1	5/29/2018 12:43:49 PM	38316
Xylenes, Total	ND	0.094		mg/Kg	1	5/29/2018 12:43:49 PM	38316
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	5/29/2018 12:43:49 PM	38316

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 Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	GHD	**Lab Order:**	1805D46
Project:	Cl		

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 Detection Limit	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805D46**

01-Jun-18

Client: GHD

Project: Cl

Sample ID	**MB-38378**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**38378**	RunNo:	**51601**					
Prep Date:	**5/30/2018**	Analysis Date:	**5/30/2018**	SeqNo:	**1683649**	Units:	**mg/Kg**			

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

Sample ID	**LCS-38378**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**38378**	RunNo:	**51601**					
Prep Date:	**5/30/2018**	Analysis Date:	**5/30/2018**	SeqNo:	**1683650**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805D46**

01-Jun-18

Client: GHD

Project: Cl

Sample ID	**MB-38332**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**38332**		RunNo:	**51574**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681229**	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	8.5		10.00		85.0	70	130			

Sample ID	**LCS-38332**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**38332**		RunNo:	**51574**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681245**	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	70	130			
Surr: DNOP	4.2		5.000		83.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805D46**

01-Jun-18

Client: GHD

Project: Cl

Sample ID	**MB-38316**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**38316**		RunNo:	**51525**				
Prep Date:	**5/24/2018**	Analysis Date:	**5/25/2018**		SeqNo:	**1680808**	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		86.1	15	316			

Sample ID	**LCS-38316**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**38316**		RunNo:	**51525**				
Prep Date:	**5/24/2018**	Analysis Date:	**5/25/2018**		SeqNo:	**1680809**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	75.9	131			
Surr: BFB	930		1000		92.6	15	316			

Sample ID	**MB-38338**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**38338**		RunNo:	**51580**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681351**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		95.1	15	316			

Sample ID	**LCS-38338**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**38338**		RunNo:	**51580**				
Prep Date:	**5/25/2018**	Analysis Date:	**5/29/2018**		SeqNo:	**1681352**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1805D46**

01-Jun-18

Client: GHD

Project: Cl

Sample ID	**MB-38316**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **38316**			RunNo: **51525**					
Prep Date:	**5/24/2018**	Analysis Date: **5/25/2018**			SeqNo: **1680851**		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	0.94		1.000		93.8	80	120			

Sample ID	**LCS-38316**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **38316**			RunNo: **51525**					
Prep Date:	**5/24/2018**	Analysis Date: **5/25/2018**			SeqNo: **1680852**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.8	77.3	128			
Toluene	0.91	0.050	1.000	0	91.4	79.2	125			
Ethylbenzene	0.92	0.050	1.000	0	91.7	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	92.9	81.6	129			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.3	80	120			

Sample ID	**MB-38338**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID: **38338**			RunNo: **51580**					
Prep Date:	**5/25/2018**	Analysis Date: **5/29/2018**			SeqNo: **1681394**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	**LCS-38338**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID: **38338**			RunNo: **51580**					
Prep Date:	**5/25/2018**	Analysis Date: **5/29/2018**			SeqNo: **1681396**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

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 Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: GHD | Work Order Number: 1805D46 | RcptNo: 1

Received By: Isaiah Ortiz 5/24/2018 10:45:00 AM IO

Completed By: Erin Melendrez 5/24/2018 11:25:48 AM

Reviewed By: MW 5/24/18

Labled By: JB 05/24/18

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (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: JB 5/24/18

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good	Yes			

Chain-of-Custody Record

Client: GHD Services

Mailing Address: 6121 Indian School Rd NE Albuquerque, NM 87110

Phone #: 505 8840672

email or Fax#: Alan.Brandon@ghd.com

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

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time: 5 day Turn
☐ Standard ☐ Rush _____

Project Name: C1

Project #: 1113S250.13

Project Manager: Alan Brandon

Sampler: MG

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.9

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 Request ID	Container Type and #	Preservative Type	HEAL No. 1805D46	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride 300				Air Bubbles (Y or N)
5/21/18	1402	S	S-1113S250.13-052118-MG-HA-1-2'	4oz Soil Jar	ICE	-001	X		X									X				
	1405		S-1113S250.13-052118-MG-HA-2-2'			-002	X		X									X				
	1407		S-1113S250.13-052118-MG-HA-2-4'			-003	X		X									X				
	1410		S-1113S250.13-052118-MG-HA-3-2'			-004	X		X									X				
	1413		S-1113S250.13-052118-MG-HA-3-4'			-005	X		X									X				
	1415		S-1113S250.13-052118-MG-HA-2			-006	X		X									X				
	1418		S-1113S250.13-052118-MG-HA-5-2'			-007	X		X									X				
	1420		S-1113S250.13-052118-MG-HA-6-2'			-008	X		X									X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/23/18	0800			5/23/18	0800
5/23/18	1900			5/24/18	1045

Remarks:

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.

Appendix D
2018 Remediation Work Plan

November 12, 2018 Reference No. 11135250-13

Ms. Olivia Yu
Environmental Specialist
New Mexico Oil Conservation Division – District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Remediation Work Plan
ETC Texas Pipeline, Ltd.
C-1 Compressor Station Release (RP-5048)
Lea County, New Mexico

Dear Ms. Yu:

1. Project Information

The Site is located in Unit W, Section 13, Township 23 South, Range 36 East, approximately 9.58-miles south, southwest of Eunice, Lea County, New Mexico. ETC Texas Pipeline, Ltd. (ETC) submitted an initial C-141 Form to the New Mexico Oil Conservation Division (NMOCD) dated May 7, 2018 describing a release of 1.72 barrels (bbls) of oil and 15.50 bbls of produced water with zero volume being recovered. The C-141 stated, "the release occurred due to purging of the Cud 12 inch pipeline segment at the C-1 Compressor Station in order to return the line to service. The valve was shut in, in order to stop the release. Energy Transfer is working with GHD for spill delineation. More information will follow in the Final Report.

2. NMOCD Closure Requirement Criteria for Soils

Subsurface investigation activities were completed in accordance with the revised and reissued Guidelines for Remediation of Leaks, Spills, and Releases Rule 19.15.29 New Mexico Administrative Code (NMAC) from the NMOCD issued on August 14, 2018. The following criteria from Table 1 (below) within NMAC 19.15.29.12 was utilized to determine site-specific screening limits:

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Limit*
51-100 feet	Chloride**	10,000
	TPH (GRO+DRO+MRO	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

* Numerical limits or natural background level, whichever is greater.

** This applies to release of produced water or other fluids which may contain chloride.

GHD
6121 Indian School Rd NE Ste 200 Albuquerque New Mexico 87110 USA
T 505 884 0672 **F** 505 884 4932 **W** http://www.ghd.com/

Localized depth to groundwater was estimated at a depth of approximately 89 feet below ground surface (bgs) based on depth to water records available on the United States Geological Survey (USGS) National Water System Information map for a well 1.88 miles to the northeast. Additionally, information available from various sources including the Petroleum Recovery Research Center (PRRC) Mapping Portal and the USGS Current Water Database for the Nation, concludes:

a) the depth to groundwater at the Site is greater than 50-100-feet bgs;

b) the site is not within 300 feet of any continuously flowing watercourse;

c) the site is not within 200 feet of any lakebed, sinkhole or playa lake;

d) the site is not within 300 feet of an occupied permanent residence, school, etc.;

e) the site is not within 500 feet of a spring or private, domestic fresh water well;

f) the site is not within 1,000 feet of any fresh water well or spring;

g) the site is not within incorporated municipal boundaries or within a defined municipal fresh water well field;

h) the site is not within 300 feet of a wetland;

i) the site is not within an area overlying a subsurface mine;

j) the site is not within an unstable area; and

k) the site is not within a 100-year floodplain.

Consequently, the anticipated site-specific screening limits to be applied to this location by the NMOCD based on the revised Rule are 10 mg/kg for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), 2,500 mg/kg for total petroleum hydrocarbons (TPH) including gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (MRO), and 10,000 mg/kg for chloride.

Per 19.15.29.13, Restoration, Reclamation, and Re-vegetation, the impacted area must be remediated a minimum of 4-feet bgs with non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg. Soil cover must consist of topsoil at a thickness comparable to background topsoil thicknesses, or one foot of suitable earthen material capable of establishing and maintaining vegetation at the site. Reclamation is considered complete when all disturbed areas have established vegetative cover with a life-form ratio of plus or minus 50 percent of pre-remedial levels, and plant cover of a minimum of 70 percent of previous levels, excluding noxious weeds.

Evaluation of the analytical data obtained from soil assessment and delineation activities performed in May of 2018 indicate horizontal and vertical delineation of TPH and chloride impacts has been achieved at the Site to support remediation activities (surficial soil excavation).

3. Scope of Work

The scope of work for this project will involve soil remediation activities inclusive of excavation, sampling, backfilling, and restoration (re-seeding of off-pad areas) of the impacted area (see Figure 1).

Chloride and TPH impacted compressor site soil will be excavated accompanied by confirmation soil sample analysis. Field screening of soils for chlorides will be performed in order to guide excavation activities. Subsequently, the excavation will be backfilled with clean soil, graded and contoured, and any off-Site areas fertilized and re-seeded. The following outlines basic project details that will be completed by ETC, GHD and ETC subcontractors.

Field Program

- Prior to mobilizing excavation equipment to the Site, a New Mexico 811 utility notification will be made at least 48-hours prior to mobilization.
- Underground utilities in proximity to the proposed excavation area will be day-lighted prior to remedial excavation activities.
- GHD anticipates that pipeline operators will not allow excavation within 10 feet of any pipelines, therefore remediation within these areas will be deferred until operations of the pipelines cease.
- Approximately 500 (cy) of shallow sub-surface soil with in the release area footprint will be excavated (Figure 1). Impacted soil in the affected area will be excavated until field screening indicates that the soil is below the limit for chloride (600 mg/kg) and TPH (2,500 mg/kg) specified in NMMAC 19.15.29.13 D (1). Initial assessment suggest that impacts do not exceed two feet bgs.
- Soils will be field screened for chloride during excavation activities utilizing Hach chloride test strips and for TPH using a Petroflag® TPH analyzer. Soils with field test results greater than 600 mg/kg chloride and an indication of TPH above 2,500 mg/kg with be transported to an approved disposal facility.
- Five-point composite confirmation soil samples will be collected from the excavation floor and sidewalls at 200 square feet intervals for analysis of chloride by EPA Method 300, BTEX by EPA Method 8021, and TPH by EPA Method 8015. Lateral limits of the excavation will halt once confirmation sample analytical results are 600 mg/kg chloride or less, and when BTEX and TPH concentrations are confirmed below the site specific screening criteria via confirmation soil samples.
- The excavation will be backfilled with caliche and soil from an off-site borrow pit to grade.
- The disturbed off-pad area will be fertilized and re-seeded with an approved seed mix.

Quality Assurance/ Quality Control

Confirmation soil sampling will be completed in accordance with our standard Quality Assurance/ Quality Control procedures designed to minimize cross-contamination between samples and to provide reliable laboratory results.

Reporting

A report summarizing remediation activities will be submitted. The report will include a Site description, project history, description of field events, a discussion of results, and recommendations (if any).

The report will include:

- A scaled Site plan showing the locations of the excavation and other Site features;
- Tabulation of field screening and laboratory analytical results and
- Geotagged photographic documentation of field activities.

Vegetation Monitoring

Following completion of soil remediation activities at the Site, and as required by the New Mexico State Land Office (NMSLO), GHD will conduct vegetation monitoring visits to the Site. The status of vegetative growth within the remediated area will be documented with photographs and in field notes during each visit. A closure request report will be completed following one year of monitoring for submittal to NMSLO.

4. Schedule

GHD is prepared to initiate the scope of work immediately. Interim remedial measures will be performed in the near future and a remediation report and closure request will be submitted following those measures. If you have any questions or comments with regards to this work plan, please do not hesitate to contact our Albuquerque office at (505) 884-0672. Your timely response to this correspondence is appreciated.

Sincerely,

GHD

Christine Mathews
Project Manager

CM/ji/1

Encl.

Attachment: Figure 1 – Proposed Excavation Area

HA-4	05/21/18
Depth	2'
Benzene	<0.025
BTEX	<0.222
GRO/DRO	<14.8
TPH	<63.8
Chloride	<30

HA-4 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-6	05/21/18
Depth	2'
Benzene	<0.024
BTEX	<0.212
GRO/DRO	<14.7
TPH	<64.7
Chloride	<30

HA-6 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-2 FS	05/21/18	
Depth	2'	4'
TPH	10.5	94
Chloride	<1.0	<1.0

HA-2	05/21/18	
Depth	2'	4'
Benzene	<0.025	<0.023
BTEX	<0.221	<0.208
GRO/DRO	<14.6	<14.6
TPH	<64.9	<64.6
Chloride	<30	<30

HA-5	05/21/18
Depth	2'
Benzene	<0.025
BTEX	<0.225
GRO/DRO	<15
TPH	<65
Chloride	<30

HA-5 FS	05/21/18
Depth	2'
Chloride	<1.0

HA-3	05/21/18	
Depth	2'	4'
Benzene	<0.025	<0.024
BTEX	<0.222	<0.212
GRO/DRO	<14.9	<14.5
TPH	<64.9	<63.5
Chloride	<30	<30

HA-3 FS	05/21/18	
Depth	2'	4'
TPH	256	124
Chloride	<1.0	<1.0

HA-1 FS	05/21/18
Depth	2'
TPH	117
Chloride	<1.0

HA-1	05/21/18
Depth	2'
Benzene	<0.023
BTEX	<0.21
GRO/DRO	<14.7
TPH	<64.7
Chloride	<30

NOTES:

1. All site locations are approximate.
2. All results are in milligrams per kilogram (mg/kg).

LEGEND

- Hand Auger Location
- Approximate Release Area
- Proposed Excavation Limits
- Depth — Depth of Sample (feet)
- BTEX — Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg)
- TPH — Total Petroleum Hydrocarbons Concentration (mg/kg)
- GRO — TPH as Gasoline Range Organics
- DRO — TPH as Diesel Range Organics
- ND — Not Detected
- Indicates Field Screen (FS)

Source: Image © 2018 Google - Imagery Date: November 2, 2017

Lat/Long: 32.306372° North, 103.214127° West

0 15 30ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

GHD

ETC FIELD SERVICES, LLC
LEA COUNTY, NEW MEXICO
C-1 COMPRESSOR STATION

PROPOSED EXCAVATION AREA

11135250-13

Nov 8, 2018

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\Proposal\11135250-13(Proposal-01)\GN-DL001.dwg