APPROVED
By Olivia Yu at 11:32 am, Jun 15, 2018

June 11, 2018 Reference No. 11135250-09

Ms. Olivia Yu
New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, New Mexico 88240

NMOCD grants partial closure to 1RP-4621 for the remediated area and grants deferral of remediation for the identified area until time of abandonment, retrofit, or inactivity.

Dear Ms. Yu:

Re: Closure and Deferral Request
MB-5-12 (1RP-4621)
ETC Field Services LLC
Site Location: Unit O, Sec. 7, T 25-S, R 37-E
(Lat 32.13797N°, Long -103.19837W°)
Lea County, New Mexico

On behalf of ETC Field Services LLC (ETC), GHD Services, Inc. (GHD) is requesting that no further action status be granted for the MB-5-12 pipeline (hereafter referred to as the "Site") release with exception to a deferral area. The Site is located approximately 1.75 miles east of Jal, New Mexico (see Figure 1).

In an Assessment Report dated April 3, 2018 (attached) GHD recommended the following scope items be completed following delineation of the soil impacts in order to achieve no further action:

- Request a variance from the NMOCD to leave the impacted soil in place in the area of the pipelines (see Figure 2).
- The excavation will be backfilled with clean fill material to a depth of four ft. bgs, lined with a 20-mil liner, backfilled and wheel compacted to grade.

The work scope was approved by Ms. Yu with the NMOCD on April 30, 2018. As of the date of this letter, the above scope items have been completed and are documented in the attached completion photos and final C-141 for the Site; therefore, No Further Action is being requested for the Site except for the deferral area.

Should you have any questions, or require additional information regarding this submittal, please feel free to contact myself or Alan Brandon at (505) 884-0672 or Alan.Brandon@ghd.com.

Sincerely,

GHD

Christine Mathews
Project Scientist/Coordinator

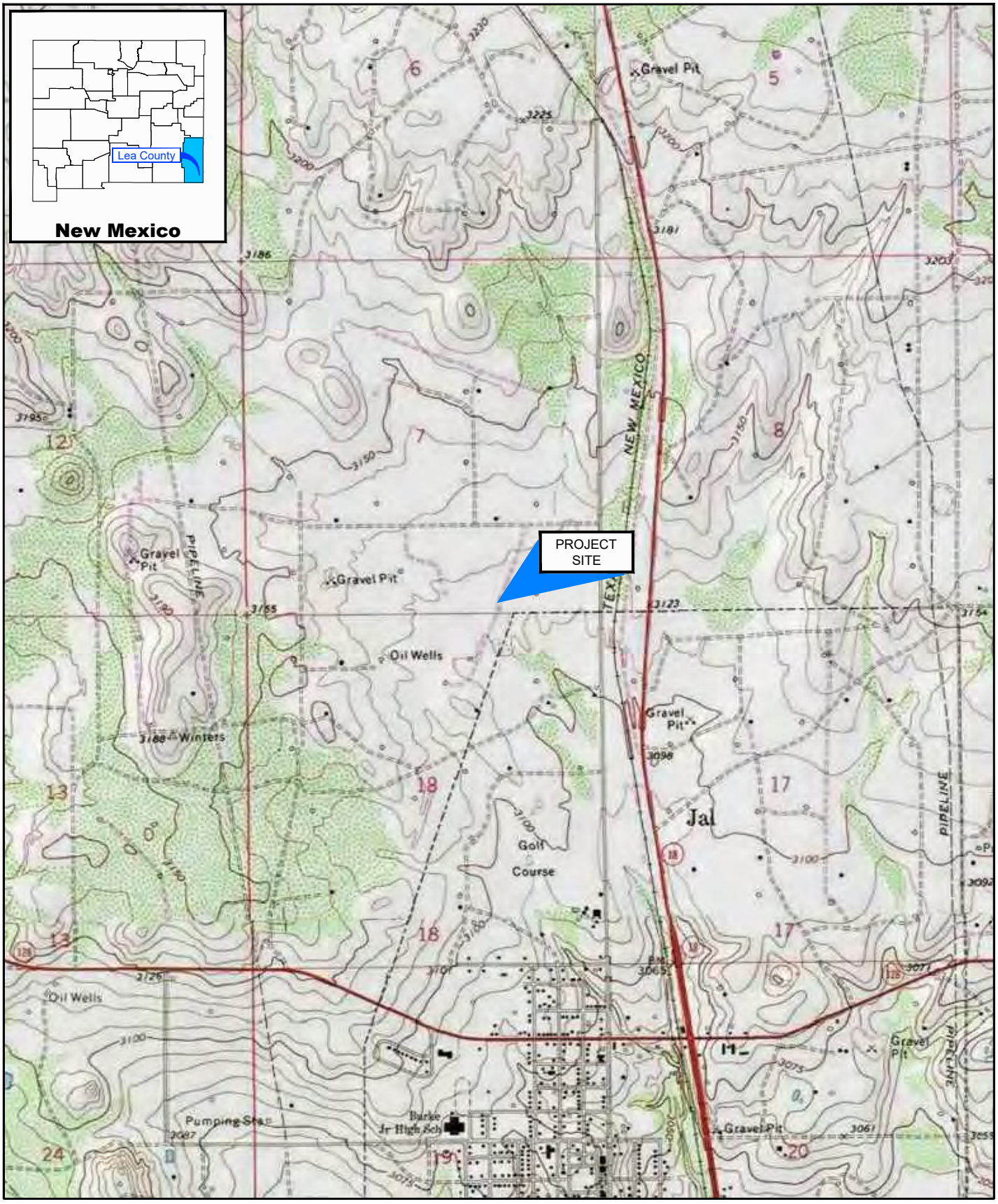
Alan Brandon
Senior Project Manager

CM/ji/2

Encl.

GHD
6121 Indian School Road NE Suite 200 Albuquerque New Mexico 87110 USA
T 505 884 0672 **F** 505 884 4932 **W** www.ghd.com

Figures



Source: USGS 7.5 Minute Quad "Jal NW and Jal, New Mexico"

Lat/Long: 32.137965° North, 103.198413° West

0 1000 2000ft

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

GHD

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
MB-5-12

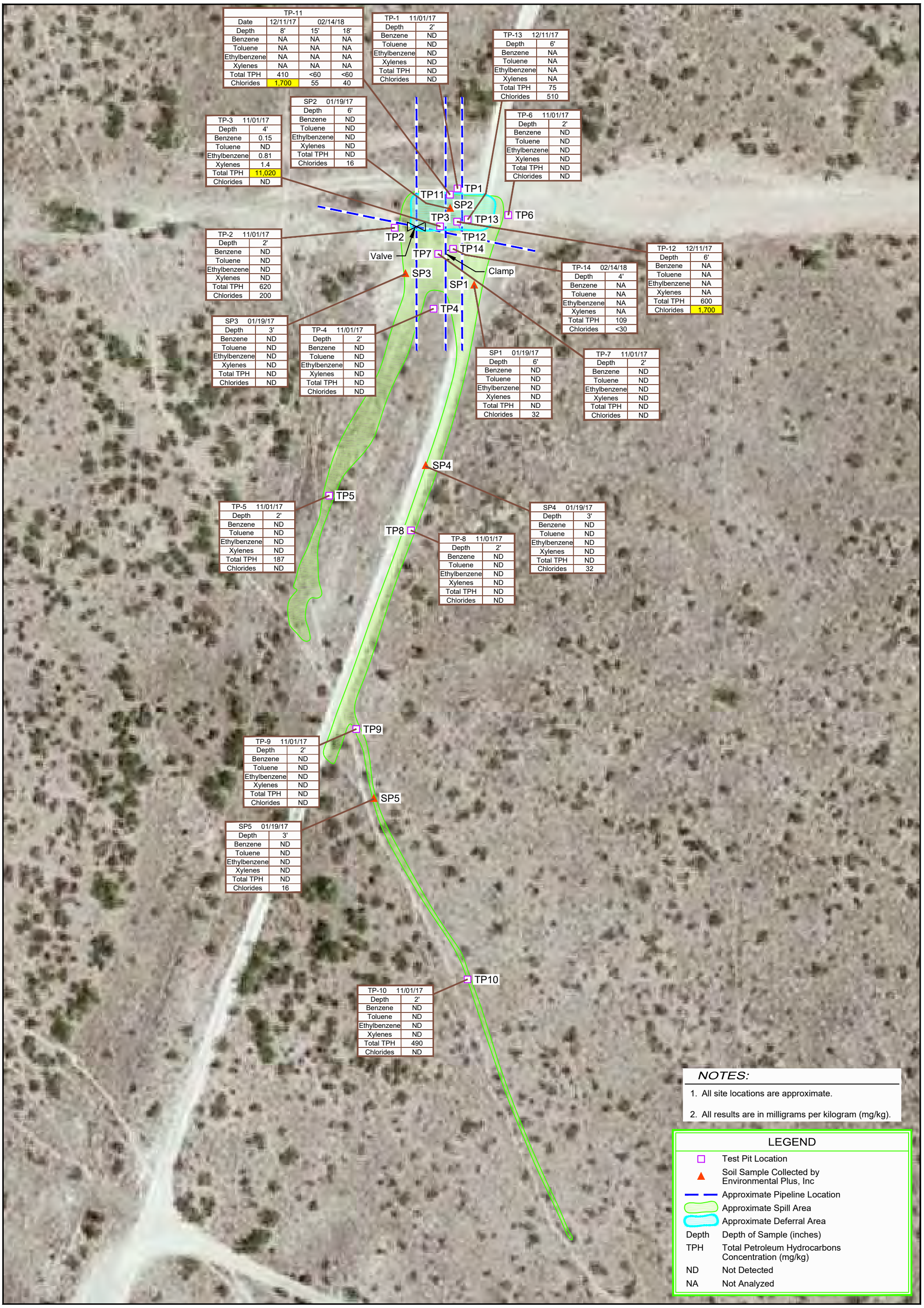
11135250-09

Nov 30, 2017

SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-09(000)GN-DL001.dwg



Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation

Lat/Long: 32.137965° North, 103.198413° West

0 30 60ft

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

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
MB-5-12

SOIL SAMPLE LOCATION

11135250-09

Jun 7, 2018

FIGURE 2

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-09(000)GN-DL001.dwg

Attachments

Attachment A
Site Photographs

Photo 1 - Placement of liner

Photo 2 - Placement of liner

Site Photographs

Photo 3 - Backfilled excavation

Photo 4 - Backfilled excavation

Site Photographs

Attachment B
Final 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

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: ETC Field Services	Contact: Dean Ericson
Address: 600 N. Marienfeld Ste 700, Midland, TX 79701	Telephone No.: 817-302-9758 (office) 432-238-2142 (cell)
Facility Name MB-5-12 (1RP-4621)	Facility Type: Pipeline

Surface Owner: Range Operating NM Inc.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	7	25S	37E	134.12	South	206.49	East	Lea

Latitude 32.13797N **Longitude** 103.19837W NAD83

NATURE OF RELEASE

Type of Release: Gas and oil	Volume of Release 221.366 mscf 12.4371 bbls	Volume Recovered: None
Source of Release: Pipeline	Date and Hour of Occurrence: 11/14/2016 17:50	Date and Hour of Discovery: 11/14/2016 17:50
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. Watercourse was not affected	

If a Watercourse was Impacted, Describe Fully.*
No watercourse affected

Describe Cause of Problem and Remedial Action Taken.*
Due to external corrosion on a section of 12" steel pipeline, two holes developed causing a release of field natural gas and oil. The two holes were approximately 10' apart.

Describe Area Affected and Cleanup Action Taken.*
The area affected was a lease road and pasture. The oil traveled down a lease road approximately 480', mainly affecting one tire track. This area was highly compacted caliche. Approximately 240' down the road, the path of the oil was diverted into the pasture and ran about 470' x 3". This path was sandy soil. The soil around the bell holes was removed and stock piled for disposal. The remaining impacted area was excavated until analytical results indicated that levels of BTEX, TPH and chloride were below site Recommended Remedial Action Limits (RRALs), with exception of a deferred area where several pipelines were located at the site of the release. A soil assessment report was submitted to the NMOCD with the analytical results from confirmation soil sampling and permission was granted to place a liner at four feet and backfill the excavation. Subsequently the liner was placed and the excavation was backfilled with clean soil and wheel compacted. Remedial efforts were completed as of May 24, 2018.

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: Dean R Ericson	OIL CONSERVATION DIVISION	
Printed Name: Dean Ericson	Approved by Environmental Specialist:	
Title: Sr. Environmental Specialist	Approval Date:	Expiration Date:
E-mail Address: Dean.Ericson@energyTransfer.com	Conditions of Approval:	Attached ☐
Date: Phone: 817-302-9758		

Attachment C
Assessment Summary Report

April 3, 2018 Reference No. 11135250-9

Mr. Dean Ericson
ETC Field Services LLC
600 N. Marienfeld
Suite 700
Midland, Texas 79701

Dear Mr. Ericson:

Re: Assessment Summary Report
MB-5-12
1RP-4621
ETC Field Services LLC
Site Location: Unit O, Sec. 7, T 25-S, R 37-E
(Lat 32.13797N°, Long -103.19837W°)
Lea County, New Mexico

GHD Services, Inc. (GHD) is pleased to present this report for the above referenced site. The MB-5-12 (hereafter referred to as the "Site") is located within Unit O, Section 7, Township 25 South, Range 37 East, in Lea County, New Mexico (see Figure 1). The property is privately owned.

On November 14, 2016, a release of approximately 221.366 standard cubic feet (Mscf) of natural gas and 12.43 barrels (bbls) of oil were reported to the State of New Mexico Oil Conservation Division (NMOCD) via Form C-141. The release was a result of external corrosion on a section of 12-inch steel pipeline that created two holes approximately 10 feet apart from each other. Contaminated soils were excavated and stockpiled on site (see Figure 2). Release number 1RP-4621 was assigned to the Site by NMOCD.

1. Recommended Remediation Action Limits

Based on information available from the New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System website, the closest well with a recorded depth to water measurement is approximately 0.58 mile from the site. The depth to groundwater measured in this well was 55 feet (ft.) below ground surface (bgs). See Attachment A, Water Well Report for depth to water. Additionally, there are no well head protection areas or surface water bodies within 1,000 ft. of the Site. Therefore, the preliminary total ranking score is 10 (see table below).

Based on this score, the applicable NMOCD Site specific Recommended Remediation Action Limits (RRALs) are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and xylenes (BTEX), 1,000 mg/kg for total petroleum hydrocarbons (TPH), and 600 mg/kg for chlorides.

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	Score
Depth to Ground Water (50-100 ft. bgs)	10
Wellhead Protection Area (> 1000 ft. from water source, > 200 ft. from domestic source)	0
Distance to Surface Body Water (>1000 ft.)	0
Ranking Criteria Total Score	**10***

Notes:

* Because the ranking criteria total score is 10, NMOCD established RRALs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 1,000 mg/kg for total TPH and 600 ppm for chlorides[1].

[1] NMOCD Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993 and recent discussions with Mr. Jim Griswold with the NMOCD.

2. Assessment Activities

Environmental Plus, Inc. (EPI) collected soil samples from five points (SP-1 through SP-5) within the spill area on January 19, 2017 and submitted them to Cardinal Laboratories in Hobbs, New Mexico. The approximate soil sample locations are shown on Figure 2. Sample depths ranged from 3 to 6 ft. bgs. The samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA Method 8021B, total petroleum hydrocarbons (TPH) by EPA Method 8015, and chloride by SM45CL-B analysis.

BTEX and TPH constituents were not detected above the laboratory reporting limits (LRLs) for any of the submitted samples. Chloride concentrations ranged from below the LRL to 32 milligrams per kilogram (mg/kg). The EPI data is included in Attachment B.

GHD personnel performed additional limited soil sampling at the site on November 1, 2017 that included the collection of soil samples from 10 hand augured borings within the spill area. Ten soil samples, TP-1 through TP-10, were collected from depths of either 2 or 4 ft. bgs (see Figure 2 for locations) and submitted to Hall Environmental Analysis Laboratory (HEAL) located in Albuquerque, New Mexico. The samples were analyzed for BTEX by EPA Method 8021, TPH by EPA Method 8015, and chloride by EPA 300.0 analysis.

BTEX constituents were detected in one sample collected from four ft. bgs from location TP-3. Benzene was detected at a concentration of 0.15 mg/kg, ethylbenzene at a concentration of 0.81 mg/kg, and xylenes at a concentration of 1.4 mg/kg. BTEX was not detected above the LRLs in any other samples. Total TPH concentrations ranged from less than the LRL to 11,020 mg/kg and chloride concentrations ranged from less than the LRL to 200 mg/kg. Only one sample, collected from TP-3 at a depth of four ft. bgs, contained a total TPH concentration exceeding the RRAL. The laboratory report is included in Attachment C and the results are summarized on Figure 2 and in Table 1.

Additional assessment activities were performed by GHD on December 11, 2017 that included the collection of 3 samples (TP-11 through TP-13) for laboratory analysis. Samples were collected from

depths of either 6 or 8 ft. bgs and submitted to HEAL for TPH and chloride analysis. TPH concentrations ranged from 75 to 600 mg/kg and chloride concentrations ranged from 510 to 1,700 mg/kg. The samples collected from TP-11 at 8 ft. bgs and TP-12 at 6 ft.bgs both exceeded the chloride RRAL.

Additional assessment was performed by GHD on February 14, 2018 that included extending TP-11 to a depth of 18 ft. bgs with samples collected at 15 and 18 ft bgs. An additional soil sample was also collected from TP-14 at a depth of 4 ft. bgs. The samples were submitted to HEAL for TPH and chloride analysis. TPH concentrations ranged from below the LRL to 109 mg/kg and chloride concentrations ranged from below the LRL to 55 mg/kg.

3. Summary and Recommendations

Based on the laboratory results, the vertical and horizontal extent of impacted soil has been assessed to below the RRALs. Additional excavation in the release area was prevented due to the presence of several active pipelines (see Figure 2).

Based on this, GHD recommends the following:

- Request a variance from the NMOCD to leave the impacted soil in place in the area of the pipelines until these pipelines have been abandoned.
- The excavation should be backfilled with clean fill material to a depth of four ft. bgs, lined with a 20-mil liner, backfilled and wheel compacted to grade.

Following completion of the backfilling, revegetation of the site will be performed. Disturbed areas associated with the remediation efforts will be re-seeded with a landowner approved seed mixture.

Following completion of the above activities, a request for no further action will be made for the Site. Should you have any questions, or require additional information regarding this submittal, please feel free to contact Bernie Bockisch or myself at (505) 884-0672 or Bernard.Bockisch@ghd.com.

Sincerely,

GHD

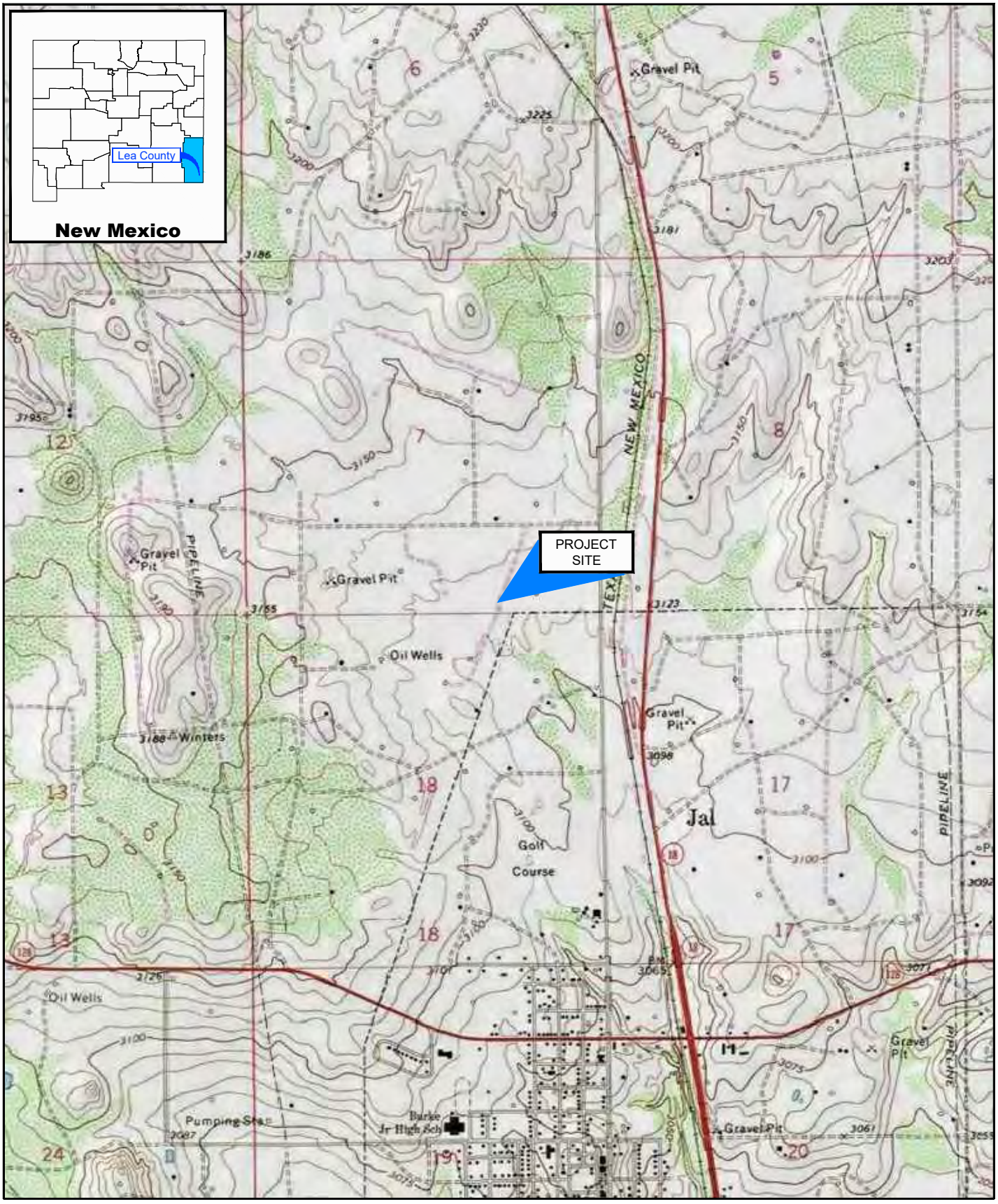
Alan Brandon
Senior Project Manager

Jeffrey Walker
Senior Project Manager

AB/ji/2

Encl.

Figures



Source: USGS 7.5 Minute Quad "Jal NW and Jal, New Mexico"

Lat/Long: 32.137965° North, 103.198413° West

0 1000 2000ft

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

GHD

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
MB-5-12

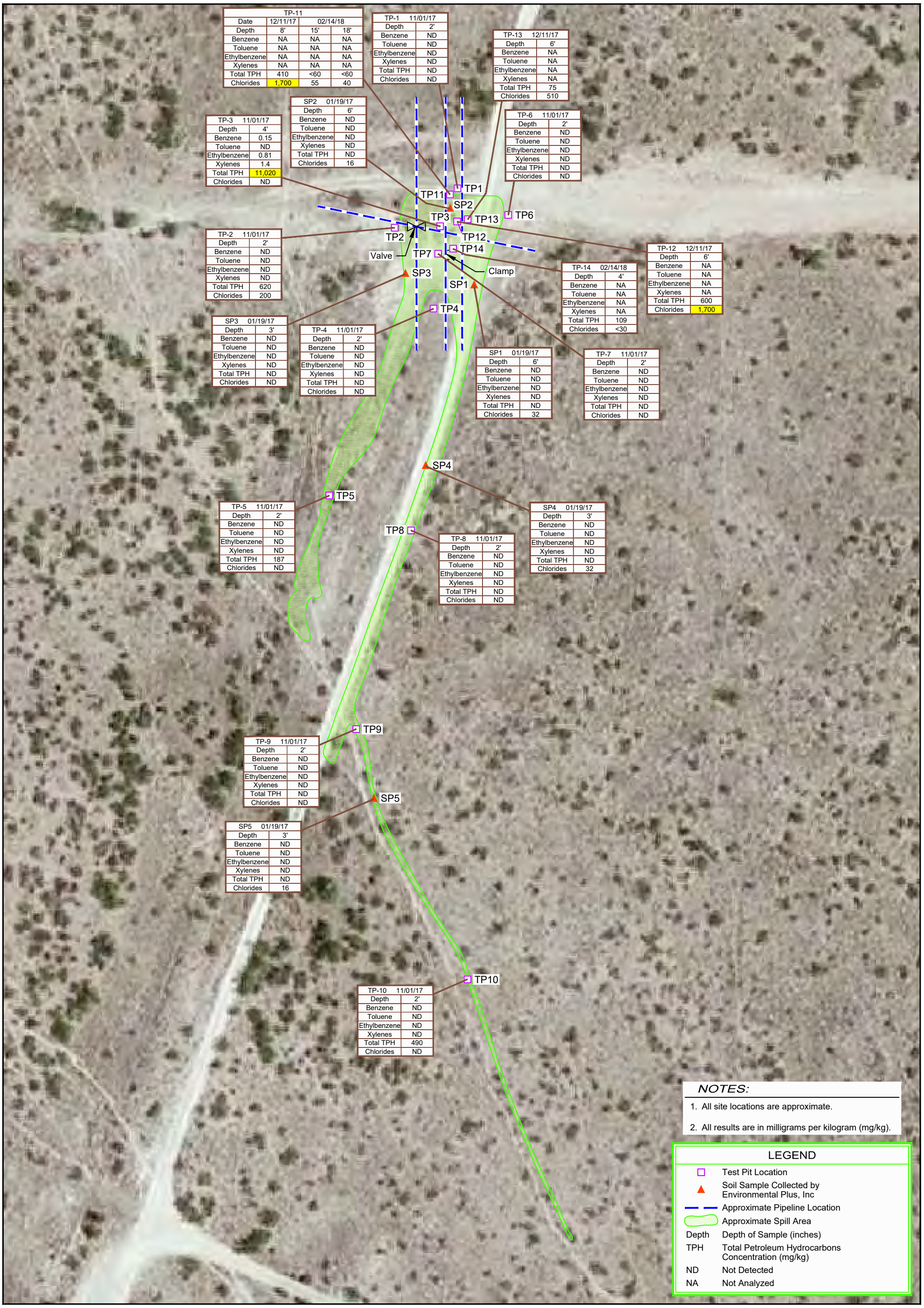
11135250-09

Nov 30, 2017

SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-09(000)GN-DL001.dwg



Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation

Lat/Long: 32.137965° North, 103.198413° West

0 30 60ft

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

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
MB-5-12

SOIL SAMPLE LOCATION

11135250-09

Mar 27, 2018

FIGURE 2

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-09(000)GN-DL001.dwg

Table

Table 1

ETC Field Services LLC - MB-5-12
Section 7, Township 25 South, Range 37 East
Lea County, New Mexico
Soil Analytical Results Summary

Sample ID	Date	Sample Depth	Chlorides	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH GRO (C6-C-10)	TPH DRO (C10-C28)	TPH EXT DRO (C28-C36)	Total TPH GRO/DRO
		(ft.)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD Remediation Action Levels			***600***	***10***	***NE***	***NE***	***NE***	***50***	***NE***	***NE***	***NE***	***1,000***
	ASSESSMENT SOIL SAMPLES											
S11135250-9-110117-MG-TP-1-2	11/1/2017	2	<30	<0.024	<0.047	<0.047	<0.095	<0.213	<4.7	<9.5	<47	<61.2
S11135250-9-110117-MG-TP-2-2	11/1/2017	2	200	<0.023	<0.047	<0.047	<0.094	<0.211	<4.7	190	430	620
S11135250-9-110117-MG-TP-3-4	11/1/2017	4	<30	0.15	<0.23	0.81	1.4	2.36	120	7,600	3,300	11,020
S11135250-9-110117-MG-TP-4-2	11/1/2017	2	<30	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.9	<50	<64.4
S11135250-9-110117-MG-TP-5-2	11/1/2017	2	<30	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	120	67	187
S11135250-9-110117-MG-TP-6-2	11/1/2017	2	<30	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.5	<47	<61.2
S11135250-9-110117-MG-TP-7-2	11/1/2017	2	<30	<0.023	<0.046	<0.046	<0.093	<0.208	<4.6	<9.5	<48	<62.1
S11135250-9-110117-MG-TP-8-2	11/1/2017	2	<30	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.8	<49	<63.4
S11135250-9-110117-MG-TP-9-2	11/1/2017	2	<30	<0.025	<0.050	<0.050	<0.099	<0.224	<5.0	<9.6	<48	<62.6
S11135250-9-110117-MG-TP-10-2	11/1/2017	2	<30	<0.024	<0.049	<0.049	<0.097	<0.219	<4.9	250	240	490
S11135250-9-121117-MG-TP-11-8	12/11/2017	8	1,700	NA	NA	NA	NA	NA	<4.9	240	170	410
S11135250-9-021418-JP-TP-11-15	2/14/2018	15	55	NA	NA	NA	NA	NA	<4.9	<9.1	<46	<60.0
S11135250-9-021418-JP-TP-11-18	2/14/2018	18	40	NA	NA	NA	NA	NA	<4.8	<9.2	<46	<60
S11135250-9-121117-MG-TP-12-6	12/11/2017	6	1,700	NA	NA	NA	NA	NA	<4.9	410	190	600
S11135250-9-121117-MG-TP-13-6	12/11/2017	6	510	NA	NA	NA	NA	NA	<4.8	75	<49	75
S11135250-9-021418-JP-TP-14-4	2/14/2018	4	<30	NA	NA	NA	NA	NA	<4.9	57.0	52.0	109

Note:

Concentrations in yellow exceed the NMOCD Remediation Action Level
NE = Not Established
mg/Kg = milligrams per Kilogram
NA = Not Analyzed
TPH = Total Petroleum Hydrocarbons
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
MRO = Motor Oil Range Organics
NMOCD = New Mexico Oil Conservation Division

Attachment A
Water Well Reports

MB-5-12

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01089 POD2		CP	LE	3	3	3	08	25S	37E	670530	3557274	605	57		
CP 01089 POD1		CP	LE	3	3	3	08	25S	37E	670529	3557286	608	71		
CP 00473 POD6		CP	LE	2	1	4	18	25S	37E	669913	3556196*	948	100	55	45
CP 00473 POD8		CP	LE	2	1	4	18	25S	37E	669913	3556196*	948	100		
CP 00473 POD9		CP	LE	1	2	4	18	25S	37E	670115	3556202*	958	100	65	35

Average Depth to Water: **60 feet**

Minimum Depth: **55 feet**

Maximum Depth: **65 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 669937.94 **Northing (Y):** 3557144.48 **Radius:** 1000

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

11/10/17 10:59 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Attachment B
EPI Data

TABLE 2

Summary of Soil Sample Field Testing and Laboratory Analytical Results

Energy Transfer

MB-5-12

Lab Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
SP1	3	In Situ	19-Jan-17	2.0	80	--	--	--	--	--	--	--	--	--
	5	In Situ	19-Jan-17	2.9	80	--	--	--	--	--	--	--	--	--
	6	In Situ	19-Jan-17	15.3	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32
SP2	3	In Situ	19-Jan-17	3.5	80	--	--	--	--	--	--	--	--	--
	5	In Situ	19-Jan-17	2.0	80	--	--	--	--	--	--	--	--	--
	6	In Situ	19-Jan-17	1.5	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
SP3	Surface	In Situ	19-Jan-17	2.5	80	--	--	--	--	--	--	--	--	--
	1	In Situ	19-Jan-17	2.9	80	--	--	--	--	--	--	--	--	--
	2	In Situ	19-Jan-17	1.2	80	--	--	--	--	--	--	--	--	--
	3	In Situ	19-Jan-17	1.5	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<16.0
SP4	Surface	In Situ	19-Jan-17	20.5	80	--	--	--	--	--	--	--	--	--
	1	In Situ	19-Jan-17	2.5	80	--	--	--	--	--	--	--	--	--
	2	In Situ	19-Jan-17	1.3	80	--	--	--	--	--	--	--	--	--
	3	In Situ	19-Jan-17	1.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	32

TABLE 2

Summary of Soil Sample Field Testing and Laboratory Analytical Results

Energy Transfer

MB-5-12

Lab Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
SP5	Surface	In Situ	19-Jan-17	6.4	80	--	--	--	--	--	--	--	--	--
	1	In Situ	19-Jan-17	0.4	80	--	--	--	--	--	--	--	--	--
	2	In Situ	19-Jan-17	0.2	80	--	--	--	--	--	--	--	--	--
	3	In Situ	19-Jan-17	0.1	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	16
Stockpile 1		In Situ	19-Jan-17	41.8	80	0.324	2.41	0.713	2.58	6.03	130	25,600	25,730	32
Stockpile 2		In Situ	19-Jan-17	955	560	<0.050	33.3	19.4	92.6	145	2,080	36,900	38,980	672
NMOCD Recommended Remedial Action Levels				100		10				50			1,000	600

-- = Not Analyzed

Bold values are in excess of NMOCD Recommended Remedial Action Levels

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 01, 2017

Daniel Dominguez

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: MB-5-12

Enclosed are the results of analyses for samples received by the laboratory on 01/30/17 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: SP 1 (6') (H700223-01)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	<0.050	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL *103 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	<10.0	10.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *97.6 %* *35-147*

Surrogate: 1-Chlorooctadecane *108 %* *28-171*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: SP 2 (6') (H700223-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	<0.050	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE *103 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	<10.0	10.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *88.2 %* *35-147*

Surrogate: 1-Chlorooctadecane *95.7 %* *28-171*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: SP 3 (3') (H700223-03)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	<0.050	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL *104 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	<10.0	10.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *77.9 %* *35-147*

Surrogate: 1-Chlorooctadecane *83.9 %* *28-171*

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*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: SP 4 (3') (H700223-04)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	<0.050	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL *102 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	<10.0	10.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *90.4 %* *35-147*

Surrogate: 1-Chlorooctadecane *92.0 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: SP 5 (3') (H700223-05)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	<0.050	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL *104 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	<10.0	10.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *89.2 %* *35-147*

Surrogate: 1-Chlorooctadecane *98.3 %* *28-171*

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: STOCKPILE 1 (H700223-06)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	**0.324**	0.050	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	**2.41**	0.050	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	**0.713**	0.050	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	**2.58**	0.150	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	**6.03**	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE *112 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/31/2017	ND	416	104	400	0.00	QM-07

TPH 8015M mg/kg **Analyzed By: MS** **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**130**	50.0	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	**25600**	50.0	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *115 %* *35-147*

Surrogate: 1-Chlorooctadecane *754 %* *28-171*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
Daniel Dominguez
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/30/2017	Sampling Date:	01/19/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	MB-5-12	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-O SEC.7, T25S, R37E		

Sample ID: STOCKPILE 2 (H700223-07)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	01/31/2017	ND	1.75	87.3	2.00	2.04	
Toluene*	**33.3**	2.00	01/31/2017	ND	1.76	88.2	2.00	2.36	
Ethylbenzene*	**19.4**	2.00	01/31/2017	ND	1.82	90.9	2.00	2.38	
Total Xylenes*	**92.6**	6.00	01/31/2017	ND	5.18	86.3	6.00	2.16	
Total BTEX	**145**	12.0	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE *106 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	01/31/2017	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS** **S-06**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**2080**	100	01/31/2017	ND	194	96.9	200	0.147	
DRO >C10-C28	**36900**	100	01/31/2017	ND	234	117	200	0.541	

Surrogate: 1-Chlorooctane *196 %* *35-147*

Surrogate: 1-Chlorooctadecane *922 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB Cardinal

Company Name	Environmental Plus, Inc.
EPI Project Manager	Daniel Dominguez
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	Energy Transfer
Facility Name	MB-5-12
Location	UL- O Sec. 7, T25S, R37E
AFE#	
EPI Sampler Name	Dustin Crockett

Bill To

Attn: Daniel Dominguez

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
H700223																									
1	SP1 (6')	G	1			X					X		19-Jan-17	9:05	X	X	X								
2	SP2 (6')	G	1			X					X		19-Jan-17	10:30	X	X	X								
3	SP3 (3')	G	1			X					X		19-Jan-17	12:35	X	X	X								
4	SP4 (3')	G	1			X					X		19-Jan-17	12:53	X	X	X								
5	SP5 (3')	G	1			X					X		19-Jan-17	13:10	X	X	X								
6	Stockpile 1	G	1			X					X		19-Jan-17	11:00	X	X	X								
7	Stockpile 2	G	1			X					X		19-Jan-17	11:05	X	X	X								
8																									
9																									
10																									

Sampler Relinquished: Dustin Crockett	Date 1/20/17 Time 6:00 am	Received By:	E-mail results to: ddominguezepi@gmail.com & bboone.epi@gmail.com
Relinquished By:	Date 1/20/17 Time 3:55pm	Received By: (lab staff) Jodi Henson	NOTES:
Delivered by: #75 -6.8°C	Sample Cool & Intact Yes No	Checked By:	

Attachment C
Analytical Reports

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

November 15, 2017

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

RE: MB5 OrderNo.: 1711096

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/2/2017 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1711096

Lab ID: 1711096-001 **Collection Date:** 11/1/2017 1:25:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-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	11/9/2017 9:51:09 PM	34931
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/6/2017 7:54:22 PM	34804
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/6/2017 7:54:22 PM	34804
Surr: DNOP	98.1	70-130		%Rec	1	11/6/2017 7:54:22 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/3/2017 9:38:00 PM	34772
Surr: BFB	86.1	15-316		%Rec	1	11/3/2017 9:38:00 PM	34772
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/3/2017 9:38:00 PM	34772
Toluene	ND	0.047		mg/Kg	1	11/3/2017 9:38:00 PM	34772
Ethylbenzene	ND	0.047		mg/Kg	1	11/3/2017 9:38:00 PM	34772
Xylenes, Total	ND	0.095		mg/Kg	1	11/3/2017 9:38:00 PM	34772
Surr: 4-Bromofluorobenzene	95.1	80-120		%Rec	1	11/3/2017 9:38:00 PM	34772

Lab ID: 1711096-002 **Collection Date:** 11/1/2017 1:27:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-2-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	200	30		mg/Kg	20	11/9/2017 10:28:22 PM	34931
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	190	9.4		mg/Kg	1	11/7/2017 1:36:51 PM	34804
Motor Oil Range Organics (MRO)	430	47		mg/Kg	1	11/7/2017 1:36:51 PM	34804
Surr: DNOP	105	70-130		%Rec	1	11/7/2017 1:36:51 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/3/2017 10:01:30 PM	34772
Surr: BFB	82.2	15-316		%Rec	1	11/3/2017 10:01:30 PM	34772
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/3/2017 10:01:30 PM	34772
Toluene	ND	0.047		mg/Kg	1	11/3/2017 10:01:30 PM	34772
Ethylbenzene	ND	0.047		mg/Kg	1	11/3/2017 10:01:30 PM	34772
Xylenes, Total	ND	0.094		mg/Kg	1	11/3/2017 10:01:30 PM	34772
Surr: 4-Bromofluorobenzene	89.3	80-120		%Rec	1	11/3/2017 10:01:30 PM	34772

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1711096

Lab ID: 1711096-003 **Collection Date:** 11/1/2017 1:30:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-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	11/9/2017 10:40:46 PM	34931
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/6/2017 8:38:58 PM	34804
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/6/2017 8:38:58 PM	34804
Surr: DNOP	94.1	70-130		%Rec	1	11/6/2017 8:38:58 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/3/2017 11:35:26 PM	34772
Surr: BFB	83.2	15-316		%Rec	1	11/3/2017 11:35:26 PM	34772
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/3/2017 11:35:26 PM	34772
Toluene	ND	0.047		mg/Kg	1	11/3/2017 11:35:26 PM	34772
Ethylbenzene	ND	0.047		mg/Kg	1	11/3/2017 11:35:26 PM	34772
Xylenes, Total	ND	0.094		mg/Kg	1	11/3/2017 11:35:26 PM	34772
Surr: 4-Bromofluorobenzene	91.0	80-120		%Rec	1	11/3/2017 11:35:26 PM	34772

Lab ID: 1711096-004 **Collection Date:** 11/1/2017 1:33:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-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	11/10/2017 2:35:25 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	120	9.6		mg/Kg	1	11/6/2017 9:01:07 PM	34804
Motor Oil Range Organics (MRO)	67	48		mg/Kg	1	11/6/2017 9:01:07 PM	34804
Surr: DNOP	88.1	70-130		%Rec	1	11/6/2017 9:01:07 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/3/2017 11:58:55 PM	34772
Surr: BFB	82.5	15-316		%Rec	1	11/3/2017 11:58:55 PM	34772
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/3/2017 11:58:55 PM	34772
Toluene	ND	0.046		mg/Kg	1	11/3/2017 11:58:55 PM	34772
Ethylbenzene	ND	0.046		mg/Kg	1	11/3/2017 11:58:55 PM	34772
Xylenes, Total	ND	0.092		mg/Kg	1	11/3/2017 11:58:55 PM	34772
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	11/3/2017 11:58:55 PM	34772

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1711096

Lab ID: 1711096-005 **Collection Date:** 11/1/2017 1:35:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-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	11/10/2017 3:12:39 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/6/2017 9:23:25 PM	34804
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/6/2017 9:23:25 PM	34804
Surr: DNOP	73.7	70-130		%Rec	1	11/6/2017 9:23:25 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/4/2017 12:22:26 AM	34772
Surr: BFB	83.1	15-316		%Rec	1	11/4/2017 12:22:26 AM	34772
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/4/2017 12:22:26 AM	34772
Toluene	ND	0.047		mg/Kg	1	11/4/2017 12:22:26 AM	34772
Ethylbenzene	ND	0.047		mg/Kg	1	11/4/2017 12:22:26 AM	34772
Xylenes, Total	ND	0.094		mg/Kg	1	11/4/2017 12:22:26 AM	34772
Surr: 4-Bromofluorobenzene	91.5	80-120		%Rec	1	11/4/2017 12:22:26 AM	34772

Lab ID: 1711096-006 **Collection Date:** 11/1/2017 1:38:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-8-2 **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	11/10/2017 3:49:51 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/7/2017 1:14:51 PM	34804
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/7/2017 1:14:51 PM	34804
Surr: DNOP	78.1	70-130		%Rec	1	11/7/2017 1:14:51 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/4/2017 12:45:56 AM	34783
Surr: BFB	81.1	15-316		%Rec	1	11/4/2017 12:45:56 AM	34783
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/4/2017 12:45:56 AM	34783
Toluene	ND	0.046		mg/Kg	1	11/4/2017 12:45:56 AM	34783
Ethylbenzene	ND	0.046		mg/Kg	1	11/4/2017 12:45:56 AM	34783
Xylenes, Total	ND	0.092		mg/Kg	1	11/4/2017 12:45:56 AM	34783
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	11/4/2017 12:45:56 AM	34783

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1711096

Lab ID: 1711096-007 **Collection Date:** 11/1/2017 1:40:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-9-2 **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	11/10/2017 4:02:16 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/7/2017 12:52:38 PM	34804
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2017 12:52:38 PM	34804
Surr: DNOP	83.7	70-130		%Rec	1	11/7/2017 12:52:38 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/4/2017 1:09:25 AM	34783
Surr: BFB	85.4	15-316		%Rec	1	11/4/2017 1:09:25 AM	34783
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	11/4/2017 1:09:25 AM	34783
Toluene	ND	0.050		mg/Kg	1	11/4/2017 1:09:25 AM	34783
Ethylbenzene	ND	0.050		mg/Kg	1	11/4/2017 1:09:25 AM	34783
Xylenes, Total	ND	0.099		mg/Kg	1	11/4/2017 1:09:25 AM	34783
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	1	11/4/2017 1:09:25 AM	34783

Lab ID: 1711096-008 **Collection Date:** 11/1/2017 1:44:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-10-2 **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	11/10/2017 4:14:40 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	250	9.5		mg/Kg	1	11/7/2017 12:30:33 PM	34804
Motor Oil Range Organics (MRO)	240	48		mg/Kg	1	11/7/2017 12:30:33 PM	34804
Surr: DNOP	97.3	70-130		%Rec	1	11/7/2017 12:30:33 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/4/2017 1:32:54 AM	34783
Surr: BFB	78.8	15-316		%Rec	1	11/4/2017 1:32:54 AM	34783
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/4/2017 1:32:54 AM	34783
Toluene	ND	0.049		mg/Kg	1	11/4/2017 1:32:54 AM	34783
Ethylbenzene	ND	0.049		mg/Kg	1	11/4/2017 1:32:54 AM	34783
Xylenes, Total	ND	0.097		mg/Kg	1	11/4/2017 1:32:54 AM	34783
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	11/4/2017 1:32:54 AM	34783

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1711096

Lab ID: 1711096-009 **Collection Date:** 11/1/2017 1:50:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-7-2 **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	11/10/2017 4:27:05 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/7/2017 12:08:21 PM	34804
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/7/2017 12:08:21 PM	34804
Surr: DNOP	88.8	70-130		%Rec	1	11/7/2017 12:08:21 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/4/2017 1:56:25 AM	34783
Surr: BFB	86.8	15-316		%Rec	1	11/4/2017 1:56:25 AM	34783
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	11/4/2017 1:56:25 AM	34783
Toluene	ND	0.046		mg/Kg	1	11/4/2017 1:56:25 AM	34783
Ethylbenzene	ND	0.046		mg/Kg	1	11/4/2017 1:56:25 AM	34783
Xylenes, Total	ND	0.093		mg/Kg	1	11/4/2017 1:56:25 AM	34783
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	11/4/2017 1:56:25 AM	34783

Lab ID: 1711096-010 **Collection Date:** 11/1/2017 2:00:00 PM
Client Sample ID: S-11135250-09-110117-MG-TP-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	11/10/2017 4:39:29 PM	34942
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	7600	97		mg/Kg	10	11/6/2017 11:14:11 PM	34804
Motor Oil Range Organics (MRO)	3300	480		mg/Kg	10	11/6/2017 11:14:11 PM	34804
Surr: DNOP	0	70-130	S	%Rec	10	11/6/2017 11:14:11 PM	34804
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	120	23		mg/Kg	5	11/4/2017 2:19:56 AM	34783
Surr: BFB	215	15-316		%Rec	5	11/4/2017 2:19:56 AM	34783
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.15	0.12		mg/Kg	5	11/4/2017 2:19:56 AM	34783
Toluene	ND	0.23		mg/Kg	5	11/4/2017 2:19:56 AM	34783
Ethylbenzene	0.81	0.23		mg/Kg	5	11/4/2017 2:19:56 AM	34783
Xylenes, Total	1.4	0.46		mg/Kg	5	11/4/2017 2:19:56 AM	34783
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	11/4/2017 2:19:56 AM	34783

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
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#: **1711096**

15-Nov-17

Client: GHD

Project: MB5

Sample ID	**MB-34931**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**34931**		RunNo:	**47011**				
Prep Date:	**11/9/2017**	Analysis Date:	**11/9/2017**		SeqNo:	**1501021**	Units:	**mg/Kg**		

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

Sample ID	**LCS-34931**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**34931**		RunNo:	**47011**				
Prep Date:	**11/9/2017**	Analysis Date:	**11/9/2017**		SeqNo:	**1501022**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Sample ID	**MB-34942**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**34942**		RunNo:	**47043**				
Prep Date:	**11/10/2017**	Analysis Date:	**11/10/2017**		SeqNo:	**1501826**	Units:	**mg/Kg**		

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

Sample ID	**LCS-34942**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**34942**		RunNo:	**47043**				
Prep Date:	**11/10/2017**	Analysis Date:	**11/10/2017**		SeqNo:	**1501827**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.6	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#: **1711096**

15-Nov-17

Client: GHD

Project: MB5

Sample ID	**LCS-34804**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**34804**		RunNo:	**46891**				
Prep Date:	**11/3/2017**	Analysis Date:	**11/6/2017**		SeqNo:	**1496763**	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	87.9	73.2	114			
Surr: DNOP	4.1		5.000		82.2	70	130			

Sample ID	**MB-34804**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**34804**		RunNo:	**46891**				
Prep Date:	**11/3/2017**	Analysis Date:	**11/6/2017**		SeqNo:	**1496764**	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	9.0		10.00		89.7	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#: **1711096**

15-Nov-17

Client: GHD
Project: MB5

Sample ID	**MB-34772**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**34772**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495077**	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	820		1000		82.3	15	316			

Sample ID	**LCS-34772**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**34772**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495078**	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	101	75.9	131			
Surr: BFB	940		1000		94.4	15	316			

Sample ID	**MB-34783**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495097**	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	850		1000		84.9	15	316			

Sample ID	**LCS-34783**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495098**	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	97.7	75.9	131			
Surr: BFB	920		1000		91.9	15	316			

Sample ID	**1711096-007AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**S-11135250-09-1101**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495102**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	24.85	0	119	77.8	128			
Surr: BFB	960		994.0		96.9	15	316			

Sample ID	**1711096-007AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**S-11135250-09-1101**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495103**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: **1711096**

15-Nov-17

Client: GHD

Project: MB5

Sample ID	**1711096-007AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**S-11135250-09-1101**	Batch ID:	**34783**	RunNo:	**46867**
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**	SeqNo:	**1495103** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.68	0	117	77.8	128	1.91	20	
Surr: BFB	960		987.2		97.3	15	316	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 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#: **1711096**

15-Nov-17

Client: GHD
Project: MB5

Sample ID	**MB-34772**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**34772**	RunNo:	**46867**					
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**	SeqNo:	**1495117**	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	0.93		1.000		93.3	80	120			

Sample ID	**LCS-34772**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**34772**	RunNo:	**46867**					
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**	SeqNo:	**1495118**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.8	77.3	128			
Toluene	0.92	0.050	1.000	0	92.1	79.2	125			
Ethylbenzene	0.91	0.050	1.000	0	91.3	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	92.4	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.4	80	120			

Sample ID	**MB-34783**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**34783**	RunNo:	**46867**					
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**	SeqNo:	**1495134**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			

Sample ID	**LCS-34783**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**34783**	RunNo:	**46867**					
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**	SeqNo:	**1495135**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.2	77.3	128			
Toluene	0.92	0.050	1.000	0	92.4	79.2	125			
Ethylbenzene	0.91	0.050	1.000	0	91.4	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	93.3	81.6	129			
Surr: 4-Bromofluorobenzene	0.91		1.000		90.9	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1711096**

15-Nov-17

Client: GHD

Project: MB5

Sample ID	**1711096-006AMS**	SampType:	**MS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**S-11135250-09-1101**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495138**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9497	0	102	80.9	132			
Toluene	0.98	0.047	0.9497	0	104	79.8	136			
Ethylbenzene	0.99	0.047	0.9497	0	104	79.4	140			
Xylenes, Total	3.0	0.095	2.849	0	104	78.5	142			
Surr: 4-Bromofluorobenzene	0.91		0.9497		95.6	80	120			

Sample ID	**1711096-006AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**S-11135250-09-1101**	Batch ID:	**34783**		RunNo:	**46867**				
Prep Date:	**11/2/2017**	Analysis Date:	**11/3/2017**		SeqNo:	**1495139**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9814	0	100	80.9	132	1.38	20	
Toluene	0.99	0.049	0.9814	0	101	79.8	136	0.911	20	
Ethylbenzene	1.0	0.049	0.9814	0	102	79.4	140	1.69	20	
Xylenes, Total	3.0	0.098	2.944	0	103	78.5	142	2.31	20	
Surr: 4-Bromofluorobenzene	0.89		0.9814		90.7	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 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: 1711096 | RcptNo: 1

Received By: **Sophia Campuzano** 11/2/2017 9:10:00 AM Sophia Campuzano

Completed By: **Isaiah Ortiz** 11/2/2017 10:35:30 AM IO

Reviewed By: ENM 11/2/17

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. 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)

16. 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: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: GHD Services Inc.

Mailing Address: 6121 Indian School Rd Ste 200 NE Albuquerque, NM 87110

Phone #: 505 884 0672

email or Fax#: Bernard.Bockisch@ghd.com

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

Accreditation
☐ NELAP ☒ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: MBS

Project #: 1113525O-09

Project Manager: Bernard Bockisch

Sampler: Michael Grant

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.6 - 0.5(CF) = 2.1

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. 1711096	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)
11/1/17	1325	S	S-1113525O-09-110117-MG-TP-1-2	4oz Cool Jar	ICE	-001	X		X									X				
	1327		S-1113525O-09-110117-MG-TP-2-2			-002	X		X									X				
	1330		S-1113525O-09-110117-MG-TP-4-2			-003	X		X									X				
	1333		S-1113525O-09-110117-MG-TP-5-2			-004	X		X									X				
	1335		S-1113525O-09-110117-MG-TP-6-2			-005	X		X									X				
	1338		S-1113525O-09-110117-MG-TP-8-2			-006	X		X									X				
	1340		S-1113525O-09-110117-MG-TP-9-2			-007	X		X									X				
	1344		S-1113525O-09-110117-MG-TP-10-2			-008	X		X									X				
	1350		S-1113525O-09-110117-MG-TP-7-2			-009	X		X									X				
	1400		S-1113525O-09-110117-MG-TP-3-4			-010	X		X									X				
						HEAL JMO																

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/1/17	1530			11/1/17	1530
11/1/17	1700			11/02/17	0910

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.

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

January 02, 2018

Bernie Bockisch

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

RE: MB5 OrderNo.: 1712917

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/14/2017 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1712917

Lab ID: 1712917-001 **Collection Date:** 12/11/2017 1:20:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-11-8' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1700	75		mg/Kg	50	12/28/2017 2:09:14 AM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	240	9.7		mg/Kg	1	12/20/2017 11:18:40 AM	35607
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	12/20/2017 11:18:40 AM	35607
Surr: DNOP	84.2	70-130		%Rec	1	12/20/2017 11:18:40 AM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/20/2017 3:00:14 PM	35606
Surr: BFB	88.6	15-316		%Rec	1	12/20/2017 3:00:14 PM	35606

Lab ID: 1712917-002 **Collection Date:** 12/11/2017 2:10:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-12-6' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1700	75		mg/Kg	50	12/28/2017 2:21:38 AM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	410	10		mg/Kg	1	12/20/2017 11:46:29 AM	35607
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	12/20/2017 11:46:29 AM	35607
Surr: DNOP	86.6	70-130		%Rec	1	12/20/2017 11:46:29 AM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/20/2017 7:18:50 PM	35606
Surr: BFB	105	15-316		%Rec	1	12/20/2017 7:18:50 PM	35606

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1712917

Lab ID: 1712917-003 **Collection Date:** 12/11/2017 2:15:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-13-6' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	510	30		mg/Kg	20	12/26/2017 11:35:43 PM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	75	9.7		mg/Kg	1	12/20/2017 12:13:47 PM	35607
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/20/2017 12:13:47 PM	35607
Surr: DNOP	85.8	70-130		%Rec	1	12/20/2017 12:13:47 PM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/20/2017 8:05:39 PM	35606
Surr: BFB	83.3	15-316		%Rec	1	12/20/2017 8:05:39 PM	35606

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
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#: **1712917**

03-Jan-18

Client: GHD

Project: MB5

Sample ID	**MB-35716**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**35716**		RunNo:	**48034**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/26/2017**		SeqNo:	**1539476**	Units:	**mg/Kg**		

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

Sample ID	**LCS-35716**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**35716**		RunNo:	**48034**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/26/2017**		SeqNo:	**1539477**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID	**MB-35716**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**35716**		RunNo:	**48058**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/27/2017**		SeqNo:	**1540366**	Units:	**mg/Kg**		

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

Sample ID	**LCS-35716**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**35716**		RunNo:	**48058**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/27/2017**		SeqNo:	**1540367**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.8	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#: **1712917**

03-Jan-18

Client: GHD
Project: MB5

Sample ID	**LCS-35579**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**35579**		RunNo:	**47874**				
Prep Date:	**12/18/2017**	Analysis Date:	**12/19/2017**		SeqNo:	**1533827**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.7	70	130			

Sample ID	**MB-35579**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**35579**		RunNo:	**47874**				
Prep Date:	**12/18/2017**	Analysis Date:	**12/19/2017**		SeqNo:	**1533828**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		83.6	70	130			

Sample ID	**1712917-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**S-11135250-09-1211**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534764**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.9	49.36	235.6	-236	55.8	125			S
Surr: DNOP	4.4		4.936		88.7	70	130			

Sample ID	**1712917-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**S-11135250-09-1211**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534765**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	140	9.8	48.83	235.6	-198	55.8	125	15.2	20	S
Surr: DNOP	4.7		4.883		95.4	70	130	0	0	

Sample ID	**LCS-35607**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534768**	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	89.7	73.2	114			
Surr: DNOP	4.2		5.000		84.3	70	130			

Sample ID	**MB-35607**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534769**	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								

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#: **1712917**

03-Jan-18

Client: GHD

Project: MB5

Sample ID	**MB-35607**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**35607**	RunNo:	**47874**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1534769**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.9		10.00		79.3	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 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#: **1712917**

03-Jan-18

Client: GHD
Project: MB5

Sample ID	**MB-35606**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535215**	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		85.8	15	316			

Sample ID	**LCS-35606**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535216**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	75.9	131			
Surr: BFB	1100		1000		105	15	316			

Sample ID	**1712917-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**S-11135250-09-1211**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535218**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	24.04	0	118	77.8	128			
Surr: BFB	990		961.5		103	15	316			

Sample ID	**1712917-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**S-11135250-09-1211**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535219**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.6	23.21	0	124	77.8	128	1.16	20	
Surr: BFB	920		928.5		99.0	15	316	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 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: 1712917 | RcptNo: 1

Received By: Erin Melendrez 12/14/2017 9:40:00 AM

Completed By: Sophia Campuzano 12/15/2017 9:14:19 AM

Reviewed By: JMO 12/15/17

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

16. 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: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: GHD Services Inc

Mailing Address: 6121 Indian School Rd Ste 200 NE Albuquerque, NM 87110

Phone #: 505 884 0672

email or Fax#: Bernard.Bockisch@ghd.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: MBS

Project #: 1135250-09

Project Manager: Bernard Bockisch

Sampler: Michael Gant

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1712917	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)
12/11/17	1320	S	1135250-09-121117-MG-TP-11-8	4oz Soil Jar	ICE	-001			X									X				
"	1410	"	1135250-09-121117-MG-TP-12-6	"	"	-002			X									X				
	1415		1135250-09-121117-MG-TP-13-6			-003			X									X				

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
12/12/17	1402			12/13/17	1400
12/13/17	1400			12/14/17	0840

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

January 02, 2018

Bernie Bockisch

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

RE: MB5 OrderNo.: 1712917

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/14/2017 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1712917

Lab ID: 1712917-001 **Collection Date:** 12/11/2017 1:20:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-11-8' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1700	75		mg/Kg	50	12/28/2017 2:09:14 AM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	240	9.7		mg/Kg	1	12/20/2017 11:18:40 AM	35607
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	12/20/2017 11:18:40 AM	35607
Surr: DNOP	84.2	70-130		%Rec	1	12/20/2017 11:18:40 AM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/20/2017 3:00:14 PM	35606
Surr: BFB	88.6	15-316		%Rec	1	12/20/2017 3:00:14 PM	35606

Lab ID: 1712917-002 **Collection Date:** 12/11/2017 2:10:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-12-6' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1700	75		mg/Kg	50	12/28/2017 2:21:38 AM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	410	10		mg/Kg	1	12/20/2017 11:46:29 AM	35607
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	12/20/2017 11:46:29 AM	35607
Surr: DNOP	86.6	70-130		%Rec	1	12/20/2017 11:46:29 AM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/20/2017 7:18:50 PM	35606
Surr: BFB	105	15-316		%Rec	1	12/20/2017 7:18:50 PM	35606

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD
Project: MB5

Lab Order: 1712917

Lab ID: 1712917-003 **Collection Date:** 12/11/2017 2:15:00 PM
Client Sample ID: S-11135250-09-121117-MG-TP-13-6' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	510	30		mg/Kg	20	12/26/2017 11:35:43 PM	35716
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	75	9.7		mg/Kg	1	12/20/2017 12:13:47 PM	35607
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/20/2017 12:13:47 PM	35607
Surr: DNOP	85.8	70-130		%Rec	1	12/20/2017 12:13:47 PM	35607
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/20/2017 8:05:39 PM	35606
Surr: BFB	83.3	15-316		%Rec	1	12/20/2017 8:05:39 PM	35606

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
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#: **1712917**

03-Jan-18

Client: GHD

Project: MB5

Sample ID	**MB-35716**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**35716**		RunNo:	**48034**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/26/2017**		SeqNo:	**1539476**	Units:	**mg/Kg**		

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

Sample ID	**LCS-35716**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**35716**		RunNo:	**48034**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/26/2017**		SeqNo:	**1539477**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Sample ID	**MB-35716**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**35716**		RunNo:	**48058**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/27/2017**		SeqNo:	**1540366**	Units:	**mg/Kg**		

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

Sample ID	**LCS-35716**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**35716**		RunNo:	**48058**				
Prep Date:	**12/26/2017**	Analysis Date:	**12/27/2017**		SeqNo:	**1540367**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.8	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#: **1712917**

03-Jan-18

Client: GHD
Project: MB5

Sample ID	**LCS-35579**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**35579**		RunNo:	**47874**				
Prep Date:	**12/18/2017**	Analysis Date:	**12/19/2017**		SeqNo:	**1533827**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.7	70	130			

Sample ID	**MB-35579**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**35579**		RunNo:	**47874**				
Prep Date:	**12/18/2017**	Analysis Date:	**12/19/2017**		SeqNo:	**1533828**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		83.6	70	130			

Sample ID	**1712917-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**S-11135250-09-1211**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534764**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	9.9	49.36	235.6	-236	55.8	125			S
Surr: DNOP	4.4		4.936		88.7	70	130			

Sample ID	**1712917-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**S-11135250-09-1211**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534765**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	140	9.8	48.83	235.6	-198	55.8	125	15.2	20	S
Surr: DNOP	4.7		4.883		95.4	70	130	0	0	

Sample ID	**LCS-35607**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534768**	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	89.7	73.2	114			
Surr: DNOP	4.2		5.000		84.3	70	130			

Sample ID	**MB-35607**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**35607**		RunNo:	**47874**				
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**		SeqNo:	**1534769**	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								

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#: **1712917**

03-Jan-18

Client: GHD

Project: MB5

Sample ID	**MB-35607**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**					
Client ID:	**PBS**	Batch ID:	**35607**	RunNo:	**47874**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1534769**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.9		10.00		79.3	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 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#: **1712917**

03-Jan-18

Client: GHD
Project: MB5

Sample ID	**MB-35606**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535215**	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		85.8	15	316			

Sample ID	**LCS-35606**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535216**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	75.9	131			
Surr: BFB	1100		1000		105	15	316			

Sample ID	**1712917-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**S-11135250-09-1211**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535218**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	24.04	0	118	77.8	128			
Surr: BFB	990		961.5		103	15	316			

Sample ID	**1712917-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**S-11135250-09-1211**	Batch ID:	**35606**	RunNo:	**47914**					
Prep Date:	**12/19/2017**	Analysis Date:	**12/20/2017**	SeqNo:	**1535219**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.6	23.21	0	124	77.8	128	1.16	20	
Surr: BFB	920		928.5		99.0	15	316	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 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: 1712917 | RcptNo: 1

Received By: Erin Melendrez 12/14/2017 9:40:00 AM

Completed By: Sophia Campuzano 12/15/2017 9:14:19 AM

Reviewed By: JMO 12/15/17

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? _____
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: _____

Special Handling (if applicable)

16. 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: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: GHD Services Inc

Mailing Address: 6121 Indian School Rd Ste 200 NE Albuquerque, NM 87110

Phone #: 505 884 0672

email or Fax#: Bernard.Bockisch@ghd.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____

Project Name: MBS

Project #: 1135250-09

Project Manager: Bernard Bockisch

Sampler: Michael Gant

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1712917	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)
12/11/17	1320	S	1135250-09-121117-MG-TP-11-8	4oz Soil Jar	ICE	-001			X									X				
"	1410	"	1135250-09-121117-MG-TP-12-6	"	"	-002			X									X				
	1415		1135250-09-121117-MG-TP-13-6			-003			X									X				

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
12/12/17	1402			12/13/17	1400
12/13/17	1400			12/14/17	0840

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.

www.ghd.com