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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1907834716
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.76749° Longitude: -103.72988°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Young 8709 #1 Heater Treater	Site Type: Production Facility
Date Release Discovered: 2/20/2019	API# *(if applicable)* Nearest well: Young 8709 JV-P #1 API #30-025-30051

Unit Letter	Section	Township	Range	County
A	11	18S	32E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 5 BBL (vol of vessel)	Volume Recovered (bbls) 0 BBL
☒ Produced Water	Volume Released (bbls) 5 BBL (vol of vessel)	Volume Recovered (bbls) 0 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The separator vessel leaked due to corrosion.

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State of New Mexico
Oil Conservation Division

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 3/7/2019

email: bhall@btaoil.com Telephone: 432-682-3753

OCD Only

Received by: Amelia Bustamante Date: 3/19/2019

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State of New Mexico
Oil Conservation Division

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	~111 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

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State of New Mexico
Oil Conservation Division

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

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

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) ** **no excavation completed**

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

☒ Description of remediation activities

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

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 1/13/2020

Email: bhall@btaoil.com Telephone: 432-682-3753

OCD Only

Received by: Cristina Eads Date: 03/16/2020

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

Closure Approved by: Denied Date: 03/18/2020

Printed Name: Cristina Eads Title: Environmental Specialist

CLOSURE REPORT FOR THE YOUNG 8709 JV-P #1 (1RP-5397)

BTA OIL PRODUCERS, LLC

C&M Services, LLC. Natural Resources Department
MAILING: P.O. BOX 3470 HOBBS, NM 88241
HOBBS OFFICE: 2607 W. MARLAND BLVD. HOBBS, NM 88240
CARLSBAD OFFICE: 312 N. CANAL ST STE C, CARLSBAD NM, 88220

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January 20, 2020

NMOCD District 1
1625 N. French Drive
Hobbs, New Mexico 88240

RE: Remediation Closure Report for the Young 8709 JV-P #1 Release (1RP-5397), Lea County, New Mexico

To Whom It May Concern,

On behalf of BTA Oil Producers, LLC (BTA) C&M Services, LLC. (C&M) has prepared this Remediation Closure Report, which describes the remediation of a release of liquids related to oil and gas production activities at the Young 8709 JV-P #1 site. The release site is in Unit A, Section 11, Township 18S, Range 32E, Lea County, New Mexico, on Federal (BLM) land. Map 1 illustrates the vicinity and site.

Release History

On February 20, 2019, a release was discovered at the Young 8709 JV-P #1 site as a result of the separator vessel leaking due to corrosion. Initial response activities were conducted by BTA and included; source elimination, site security, containment, and site stabilization activities. No fluid was recovered. Map 1 illustrates the vicinity and site location. Map 2 illustrates the release location. The C-141 form is included in Appendix A.

Release Location Information

Table 1: Release Information

API Number	30-025-30051	Source of Release	The separator vessel leaking due to corrosion
Remediation Permit Number	1RP-5397	Released Material	Crude Oil & Produced Water
Estimated Date of Release	2/20/2019	Released Volume	5 bbls Crude Oil 5 bbls Produced Water
NMOCD Report Date	3/07/2019	Recovered Volume	0 bbls
NMOCD Closure Criteria	>100 feet to groundwater	Net Release	5 bbls Crude Oil 5 bbls Produced Water

The Young 8709 JV-P #1 is located approximately 38.01 miles northeast of Carlsbad, New Mexico on Federal (BLM) land at an elevation of approximately 3,878 feet above mean sea level (amsl).

There are no known water sources within ½-mile of the location. Five wells are found within a 3.6-mile radius according to the New Mexico Office of the State Engineer (NMOSE) online water well database and the USGS Water Resources (Appendix B). Using the five surrounding wells the depth to groundwater is estimated to be around 111 ft (bgs). Map 2 illustrates the site with 100, 200, and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Table 1 demonstrates the closure criteria applicable to this location. Pertinent well data is attached in Appendix B.

Remediation Activities

Initial Release Characterization

On July 20, 2019, Expert Environmental, LLC (EE) arrived on site in response to the release associated with the Young 8709 JV-P #001. EE performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Samples were collected and field screened for chlorides using titration. The sample locations, depths, and dates collected are notated below in the Table 2. Map 3 shows the estimated release area and sample locations.

A total of thirteen (13) samples were collected for laboratory analysis. Samples were analyzed for: total chloride using SM4500CL-B; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015M. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Cardinal Laboratory in Hobbs, New Mexico (Appendix C).

Confirmation Sampling

On December 19, 2019, confirmation sampling of the release area (SP#6 thru SP#9, and SW#1 thru SW#3) was conducted by C&M personnel. On January 6, 2020, C&M returned to the location with a trailer-mounted auger to perform additional delineation in 3 areas (SP#1, SP#10, and SW#4).

A total of twenty-two (22) samples were collected for laboratory analysis. Samples were analyzed for: total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix C).

Map 3 shows the extent of the release area and sample locations. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

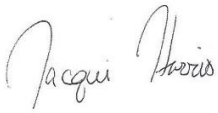
The site meets the standards of Table I of 19.15.29.12 NMAC.

In addition to meeting the Closure Criteria, the top four (4) feet of impacted areas off the well pad (not overlaying the old reserve pit) meet the Reclamation requirement of 19.15.29.13(D)(1).

Conclusion

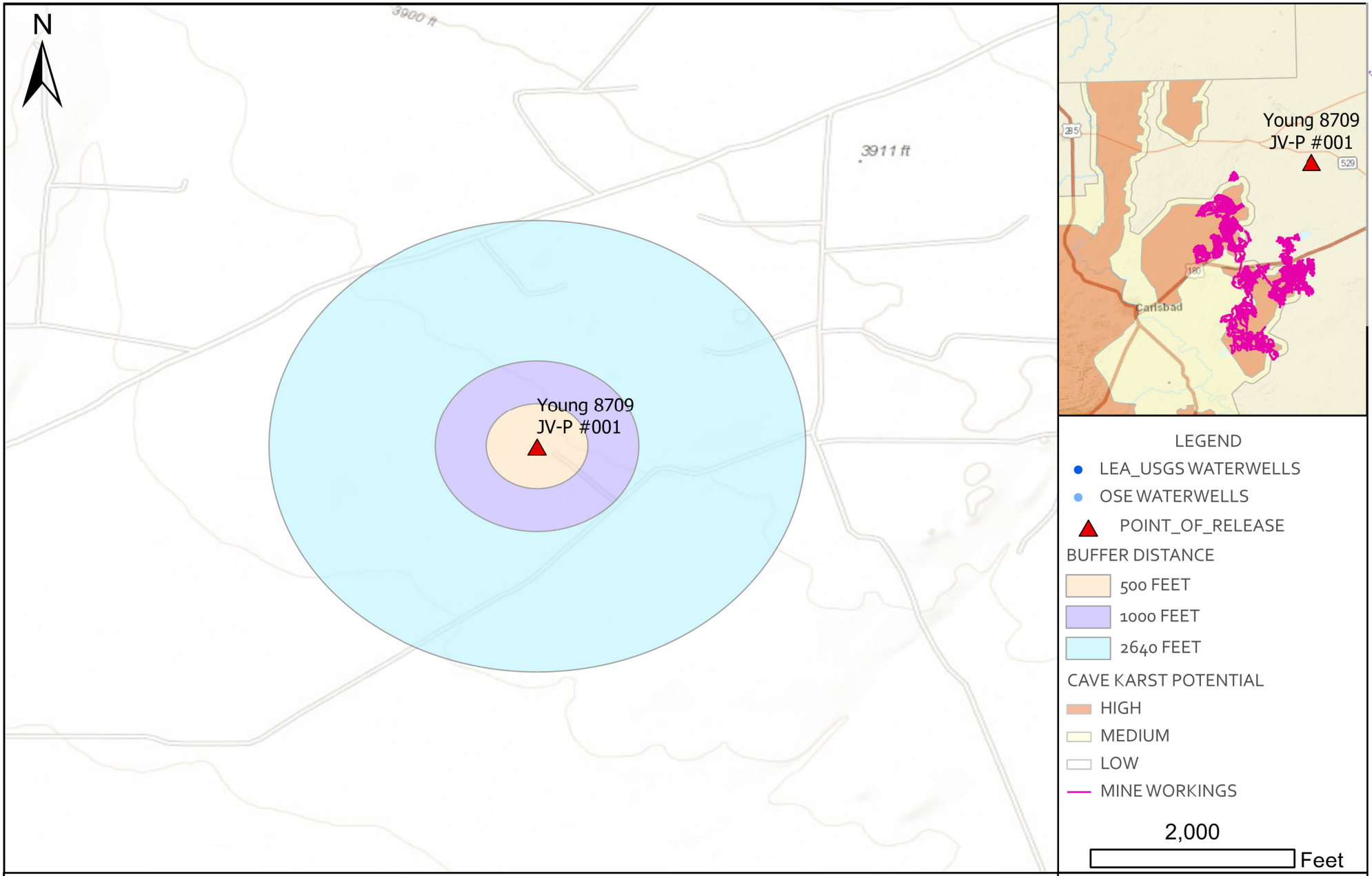
Based on the soil assessment at the site, BTA requests closure of this spill. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning this report, please call Jacqui Harris at 575-496-0780.

Submitted by:
C&M Services, LLC, Natural Resource Department



Jacqui Harris
Environmental Compliance Manager

Map 1



Regional Vicinity & Wellhead Protection Map

Map 1

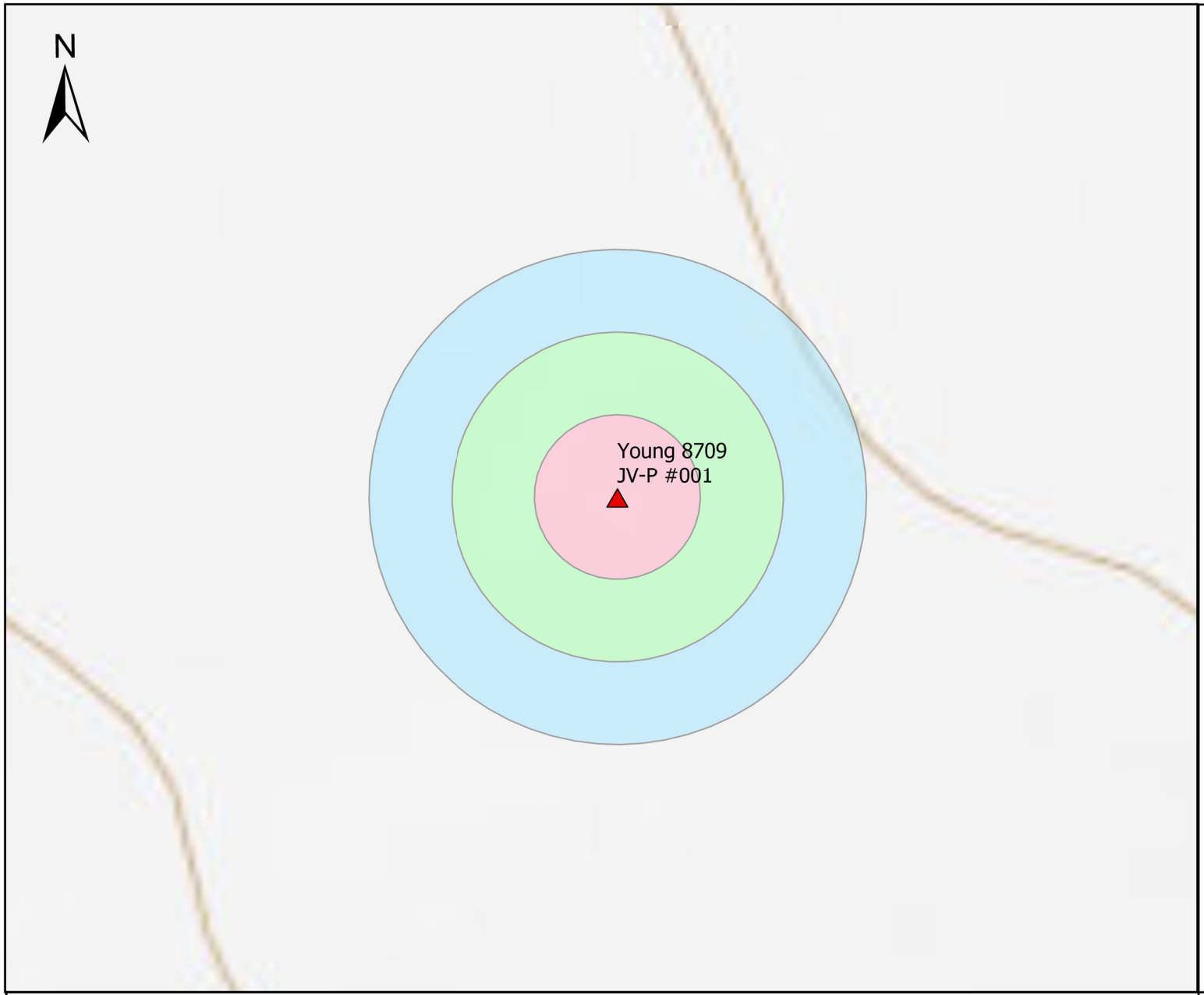
BTA-YOUNG 8709 JV-P #001

LRB Author

12/4/2019 Date

C&M SERVICES, LLC

Map 2



LEGEND

- SPRINGS SEEPS
- STREAMS CANALS
- RIVERS
- FLOWLINES SENM
- LAKES PLAYAS
- FEMA FLOOD ZONES 2011
- POINT_OF_RELEASE

BUFFER DISTANCE

- 100 FEET
- 200 FEET
- 300 FEET

260 Feet

Surface Water Protection Map

Map 2

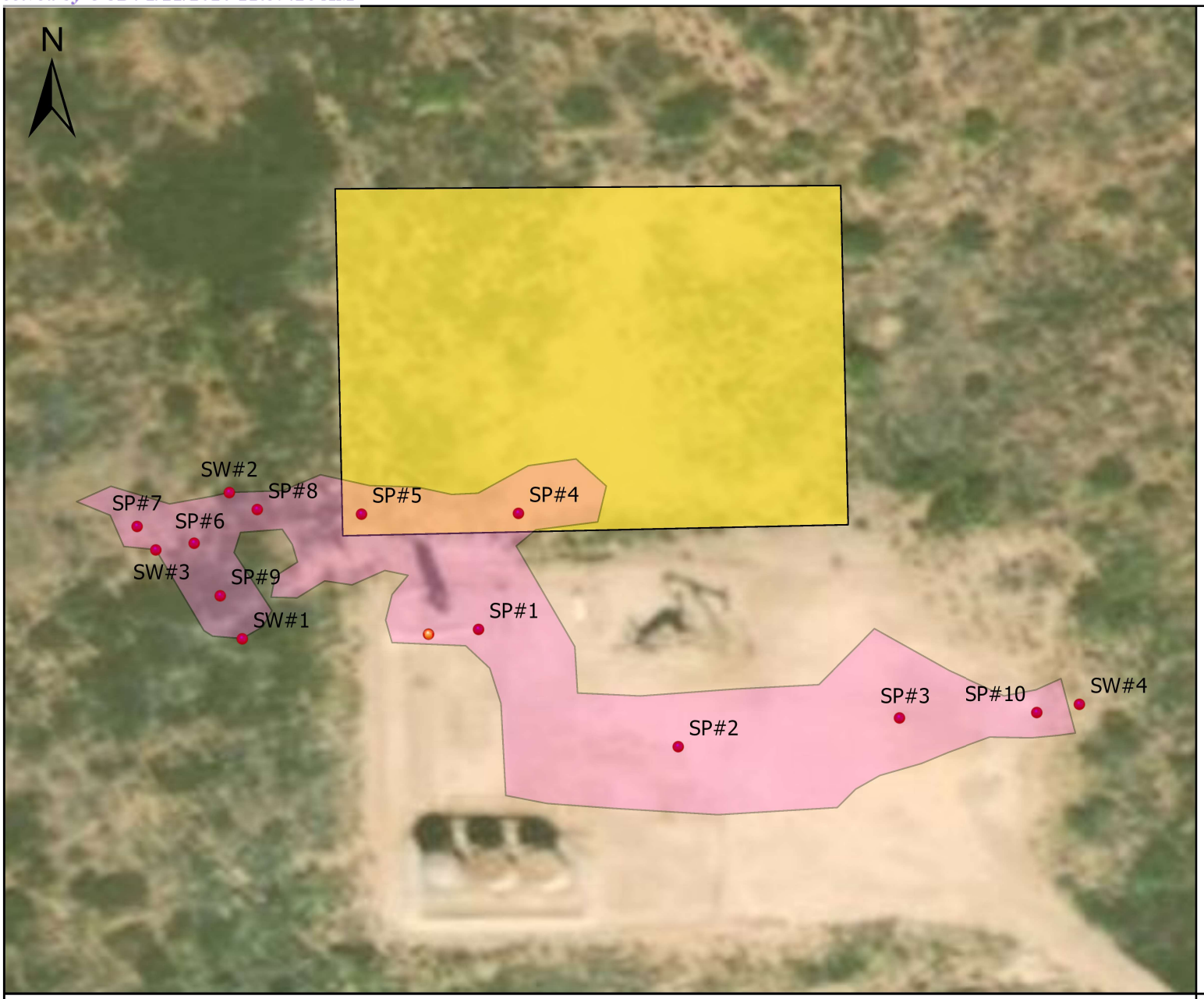
BTA-YOUNG 8709 JV-P #001

LRB Author

12/4/2019 Date

CM SERVICES, LLC

Map 3



LEGEND

- RELEASE LOCATION
- SAMPLE LOCATION
- RELEASE AREA
- OLD RESERVE PIT

110 Feet

Site and Sample Location Map

Map 3

BTA-YOUNG 8709 JV-P #001

JVH Author

1/20/2020 Date

C&M SERVICES, LLC

Tables

Table 2: Expert Environmental, LLC Sample Results											
Sample ID	Date Sampled	Depth (feet bgs)	Cl-	Field screening	Field screening	BTEX	Benzene	GRO	DRO	MRO	*Total TPH*
			mg/Kg	Cl-	PID	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria			20,000			50	10	1000			2500
SP#1	8/12/2019	Surf	-	4498.00	18.50	-	-	-	-	-	-
		1'	-	10921.00	19.50	-	-	-	-	-	-
		2'	9860.00	9297.00	20.50	ND	ND	ND	ND	ND	ND
		3'	-	7747.00	17.00	-	-	-	-	-	-
		4'	-	9996.00	55.40	-	-	-	-	-	-
		5'	-	15295.00	19.70	-	-	-	-	-	-
		6'	-	11121.00	11.20	-	-	-	-	-	-
		7'	-	10696.00	11.20	-	-	-	-	-	-
		8'	9860.00	7072.00	3.00	ND	ND	ND	ND	ND	ND
SP#2	8/12/2019	Surf	-	10571.00	55.40	-	-	-	-	-	-
		1'	-	1999.00	12.90	-	-	-	-	-	-
		2'	416.00	799.00	19.50	ND	ND	ND	ND	ND	ND
		3'	-	1124.00	5.60	-	-	-	-	-	-
		4'	-	1249.00	14.20	-	-	-	-	-	-
		5'	-	1124.00	12.60	-	-	-	-	-	-
		6'	-	799.00	0.00	-	-	-	-	-	-
		7'	-	799.00	0.00	-	-	-	-	-	-
		8'	224.00	549.00	0.00	ND	ND	ND	ND	ND	ND
SP#3	8/12/2019	Surf	-	23492.00	22.80	-	-	-	-	-	-
		1'	-	5398.00	13.50	-	-	-	-	-	-
		2'	960.00	1124.00	2.90	ND	ND	ND	ND	ND	ND
		3'	-	1574.00	2.30	-	-	-	-	-	-
		4'	-	574.00	0.00	-	-	-	-	-	-
		5'	160.00	574.00	0.00	ND	ND	ND	ND	ND	ND
SP#4	8/12/2019	Surf	-	4998.00	12.60	-	-	-	-	-	-
		1'	-	3673.00	55.80	-	-	-	-	-	-
		2'	2120.00	2749.00	23.50	ND	ND	ND	98.00	-	132.80
		3'	-	2179.00	22.90	-	-	-	-	-	-
		4'	1380.00	1874.00	16.80	ND	ND	ND	157.00	-	201.20
		5'	-	1874.00	12.50	-	-	-	-	-	-
		6'	-	1524.00	0.00	-	-	-	-	-	-
		7'	-	1674.00	0.00	-	-	-	-	-	-
		8'	-	2749.00	0.00	-	-	-	-	-	-
		9'	-	3199.00	19.80	-	-	-	-	-	-
		10'	3520.00	3273.00	2.30	ND	ND	ND	ND	ND	ND
SP#5	8/12/2019	Surf	-	5598.00	55.40	-	-	-	-	-	-
		1'	-	1949.00	29.40	-	-	-	-	-	-
		2'	2800.00	2499.00	12.60	ND	ND	ND	ND	ND	ND
		3'	-	4998.00	0.00	-	-	-	-	-	-
		4'	2200.00	2499.00	0.00	ND	ND	ND	12.40	-	12.40
		5'	-	2499.00	0.00	-	-	-	-	-	-
		6'	-	3373.00	0.00	-	-	-	-	-	-
		7'	-	3174.00	0.00	-	-	-	-	-	-
		8'	-	1799.00	0.00	-	-	-	-	-	-
		9'	-	1499.00	0.00	-	-	-	-	-	-
		10'	1040.00	1449.00	0.00	ND	ND	ND	ND	ND	ND
SP#6	8/12/2019	Surf	-	2499.00	0.00	-	-	-	-	-	-
		1'	-	649.00	0.00	-	-	-	-	-	-
		2'	-	524.00	0.00	-	-	-	-	-	-
		3'	160.00	499.00	0.00	ND	ND	ND	53.30	-	70.70
		4'	-	499.00	0.00	-	-	-	-	-	-
*Sent to Lab for Analysis											

Table 3: C&M Services, LLC Sample Results

Sample ID	Date Sampled	Depth (feet bgs)	Cl-	Field screening	BTEX	Benzene	GRO	DRO	MRO	*Total TPH*
			mg/Kg	Cl-	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria			20,000		50	10	1000			2500
SP#1	1/6/2020	8'	600	788	<0.212	<0.024	<4.7	<9.9	<50	<64.6
		9'	-	1149	-	-	-	-	-	-
		10'	-	1269	-	-	-	-	-	-
		11'	-	1265	-	-	-	-	-	-
		12'	1200	1351	<0.219	<0.024	<4.9	<9.6	<48	<62.5
		13'	-	1174	-	-	-	-	-	-
		14'	-	1145	-	-	-	-	-	-
		15'	-	939	-	-	-	-	-	-
		16'	-	852	-	-	-	-	-	-
		17'	-	751	-	-	-	-	-	-
		18'	-	559	-	-	-	-	-	-
		19'	-	650	-	-	-	-	-	-
		20'	300	524	-	-	-	-	-	-
		21'	-	448	-	-	-	-	-	-
		22'	130	322	-	-	-	-	-	-
		23'	-	361	-	-	-	-	-	-
		24'	-	393	-	-	-	-	-	-
		25'	-	394	-	-	-	-	-	-
		26'	-	423	-	-	-	-	-	-
		27'	-	390	-	-	-	-	-	-
		28'	-	337	-	-	-	-	-	-
		29'	-	332	-	-	-	-	-	-
		30'	-	347	-	-	-	-	-	-
SP#6	12/19/2019	Surf	-	113	-	-	-	-	-	-
		1'	<60	88	<0.224	<0.025	<5.0	<9.4	<47	<61.4
		2'	-	94	-	-	-	-	-	-
		3'	<60	86	<0.217	<0.024	<4.8	<9.5	<48	<62.3
		4'	-	73	-	-	-	-	-	-
SP#7	12/19/2019	Surf	-	127	-	-	-	-	-	-
		1'	<60	90	<0.213	<0.024	<4.7	<9.9	<50	<64.6
		2'	-	84	-	-	-	-	-	-
		3'	<60	67	<0.220	<0.024	<4.9	<9.2	<46	<60.1
SP#8	12/19/2019	Surf	-	65	-	-	-	-	-	-
		1'	<60	109	<0.224	<0.025	<5.0	<9.7	<48	<62.7
		2'	-	94	-	-	-	-	-	-
		3'	<60	60	<0.221	<0.025	<4.9	<9.7	<48	<62.6
SP#9	12/19/2019	Surf	-	74	-	-	-	-	-	-
		1'	<60	104	<0.215	<0.024	<4.8	<9.4	<47	<61.2
		2'	-	80	-	-	-	-	-	-
		3'	<60	81	<0.213	<0.024	<4.7	<9.7	<48	<62.40
SP#10	1/6/2020	Surf	-	62	-	-	-	-	-	-
		1'	<60	48	<0.224	<0.025	<5.0	<9.4	<47	<61.4
		2'	-	81	-	-	-	-	-	-
		3'	-	254	-	-	-	-	-	-
		4'	230	384	<0.221	<0.025	<4.9	<9.3	<46	<60.2
		5'	-	260	-	-	-	-	-	-
SW#1	12/19/2019	Surf	-	67	-	-	-	-	-	-
		1'	<60	90	<0.216	<0.024	<4.8	<9.7	<48	<62.5
		2'	-	133	-	-	-	-	-	-
		3'	<60	78	<0.207	<0.023	<4.6	<9.7	<49	<63.3
SW#2	12/19/2019	Surf	-	64	-	-	-	-	-	-
		1'	<59	65	<0.215	<0.024	<4.8	<9.9	<50	<64.7
		2'	-	71	-	-	-	-	-	-
		3'	<60	70	<0.219	<0.024	<4.9	<9.8	<49	<63.7
SW#3	12/19/2019	Surf	-	76	-	-	-	-	-	-
		1'	<60	65	<0.224	<0.025	<5.0	<9.5	<48	<62.5
		2'	-	90	-	-	-	-	-	-
		3'	<60	67	<0.221	<0.025	<4.9	<9.8	<49	<63.7
SW#4	1/6/2020	Surf	-	202	-	-	-	-	-	-
		1'	<60	58	<0.213	<0.024	<4.7	<9.0	<45	<58.7
		2'	-	24	-	-	-	-	-	-
		3'	<60	81	<0.225	<0.025	<5.0	<9.3	<46	<60.3

*Sent to Lab for Analysis

Appendix A
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 Department

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

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

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # *(assigned by OCD)* NAB1907834716
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.76749° Longitude: -103.72988°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Young 8709 #1 Heater Treater	Site Type: Production Facility
Date Release Discovered: 2/20/2019	API# *(if applicable)* Nearest well: Young 8709 JV-P #1 API #30-025-30051

Unit Letter	Section	Township	Range	County
A	11	18S	32E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 5 BBL (vol of vessel)	Volume Recovered (bbls) 0 BBL
☒ Produced Water	Volume Released (bbls) 5 BBL (vol of vessel)	Volume Recovered (bbls) 0 BBL
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The separator vessel leaked due to corrosion.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1907834716
District RP	1RP-5397
Facility ID	
Application ID	pAB1907834153

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bob Hall Title: Environmental Manager

Signature: Bob Hall Date: 3/7/2019

email: bhall@btaoil.com Telephone: 432-682-3753

OCD Only

Received by: Amalia Bustamante Date: 3/19/2019

Appendix B NMOSE Well Data

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 618964 **Northing (Y):** 3626225 **Radius:** 806

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 13909 POD1	L	LE	4	1	4	31	17S	33E	621735	3628514	3594	240	240	0
CP 00566 POD1	CP	LE	4	4	1	04	18S	32E	614960	3627280*	4140	133	65	68
L 06131	L	LE	3	1	2	08	18S	33E	623241	3626167*	4277	194	100	94

Average Depth to Water: **135 feet**

Minimum Depth: **65 feet**

Maximum Depth: **240 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 618964 **Northing (Y):** 3626225 **Radius:** 4500

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

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater ▼ Geographic Area: United States ▼ GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 324458103454301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

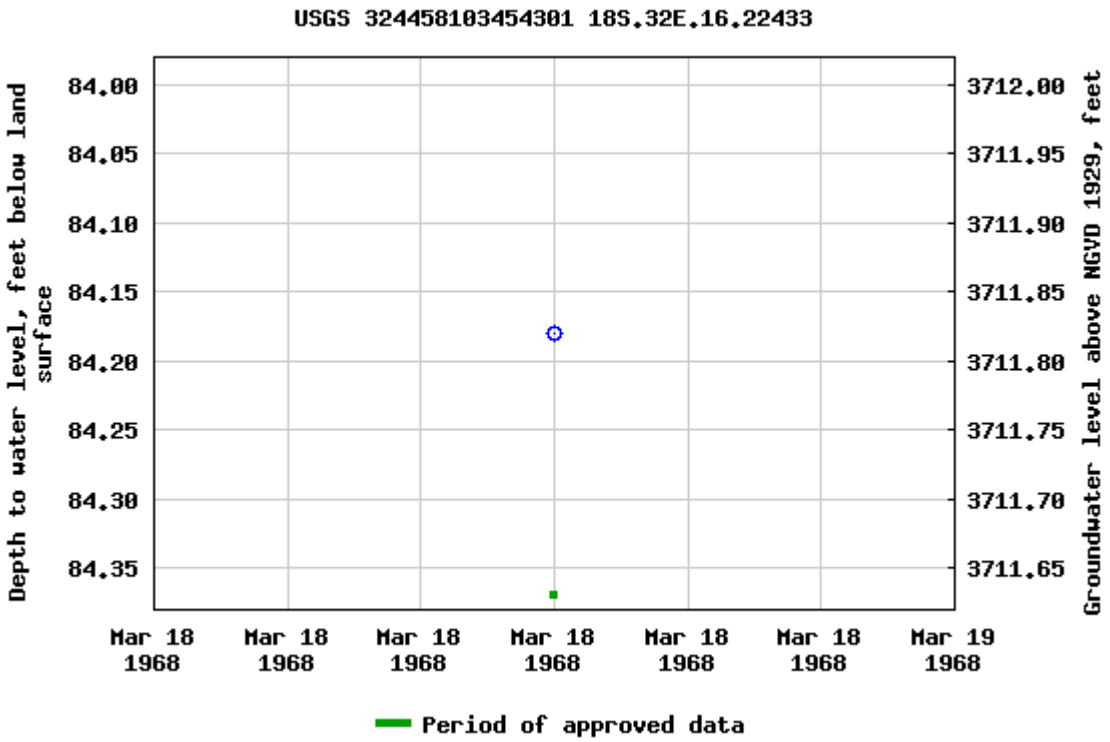
USGS 324458103454301 18S.32E.16.22433

Available data for this site Groundwater: Field measurements ▼ GO

Lea County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°45'05", Longitude 103°45'51" NAD27
Land-surface elevation 3,796.00 feet above NGVD29
The depth of the well is 100 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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



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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Appendix C Analytical Data

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

December 31, 2019

Jacqui Harris
CM Services
312 N. Canal Suite C
Carlsbad, NM 88220
TEL: (575) 499-5306
FAX

RE: Young 001 OrderNo.: 1912B50

Dear Jacqui Harris:

Hall Environmental Analysis Laboratory received 14 sample(s) on 12/21/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-001 **Matrix:** SOIL

Client Sample ID: SP#6@1
Collection Date: 12/19/2019 10:10:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	12/28/2019 2:50:54 AM	49542
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/26/2019 9:09:14 AM	49508
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/26/2019 9:09:14 AM	49508
Surr: DNOP	109	70-130		%Rec	1	12/26/2019 9:09:14 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/24/2019 1:04:52 PM	49491
Surr: BFB	80.2	66.6-105		%Rec	1	12/24/2019 1:04:52 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/24/2019 1:04:52 PM	49491
Toluene	ND	0.050		mg/Kg	1	12/24/2019 1:04:52 PM	49491
Ethylbenzene	ND	0.050		mg/Kg	1	12/24/2019 1:04:52 PM	49491
Xylenes, Total	ND	0.099		mg/Kg	1	12/24/2019 1:04:52 PM	49491
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	12/24/2019 1:04:52 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-002 **Matrix:** SOIL

Client Sample ID: SP#6@3
Collection Date: 12/19/2019 10:15:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	12/28/2019 3:27:57 AM	49542
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/26/2019 10:15:07 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 10:15:07 AM	49508
Surr: DNOP	88.2	70-130		%Rec	1	12/26/2019 10:15:07 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2019 2:15:36 PM	49491
Surr: BFB	78.2	66.6-105		%Rec	1	12/24/2019 2:15:36 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 2:15:36 PM	49491
Toluene	ND	0.048		mg/Kg	1	12/24/2019 2:15:36 PM	49491
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2019 2:15:36 PM	49491
Xylenes, Total	ND	0.097		mg/Kg	1	12/24/2019 2:15:36 PM	49491
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	1	12/24/2019 2:15:36 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-003 **Matrix:** SOIL

Client Sample ID: SP#7@1
Collection Date: 12/19/2019 10:20:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 2:25:51 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/26/2019 10:37:05 AM	49508
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/26/2019 10:37:05 AM	49508
Surr: DNOP	94.4	70-130		%Rec	1	12/26/2019 10:37:05 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/24/2019 2:39:12 PM	49491
Surr: BFB	77.8	66.6-105		%Rec	1	12/24/2019 2:39:12 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 2:39:12 PM	49491
Toluene	ND	0.047		mg/Kg	1	12/24/2019 2:39:12 PM	49491
Ethylbenzene	ND	0.047		mg/Kg	1	12/24/2019 2:39:12 PM	49491
Xylenes, Total	ND	0.095		mg/Kg	1	12/24/2019 2:39:12 PM	49491
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	12/24/2019 2:39:12 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-004 **Matrix:** SOIL

Client Sample ID: SP#7@3
Collection Date: 12/19/2019 10:25:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 3:40:18 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/26/2019 10:59:04 AM	49508
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/26/2019 10:59:04 AM	49508
Surr: DNOP	85.1	70-130		%Rec	1	12/26/2019 10:59:04 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/24/2019 3:02:49 PM	49491
Surr: BFB	78.9	66.6-105		%Rec	1	12/24/2019 3:02:49 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 3:02:49 PM	49491
Toluene	ND	0.049		mg/Kg	1	12/24/2019 3:02:49 PM	49491
Ethylbenzene	ND	0.049		mg/Kg	1	12/24/2019 3:02:49 PM	49491
Xylenes, Total	ND	0.098		mg/Kg	1	12/24/2019 3:02:49 PM	49491
Surr: 4-Bromofluorobenzene	96.7	80-120		%Rec	1	12/24/2019 3:02:49 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-005 **Matrix:** SOIL

Client Sample ID: SP#8@1
Collection Date: 12/19/2019 10:30:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 6:09:16 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/26/2019 11:20:58 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 11:20:58 AM	49508
Surr: DNOP	95.7	70-130		%Rec	1	12/26/2019 11:20:58 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/24/2019 3:26:24 PM	49491
Surr: BFB	78.6	66.6-105		%Rec	1	12/24/2019 3:26:24 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/24/2019 3:26:24 PM	49491
Toluene	ND	0.050		mg/Kg	1	12/24/2019 3:26:24 PM	49491
Ethylbenzene	ND	0.050		mg/Kg	1	12/24/2019 3:26:24 PM	49491
Xylenes, Total	ND	0.099		mg/Kg	1	12/24/2019 3:26:24 PM	49491
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	12/24/2019 3:26:24 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-006 **Matrix:** SOIL

Client Sample ID: SP#8@3
Collection Date: 12/19/2019 10:35:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 6:46:30 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/26/2019 11:43:03 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 11:43:03 AM	49508
Surr: DNOP	76.8	70-130		%Rec	1	12/26/2019 11:43:03 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/24/2019 3:49:54 PM	49491
Surr: BFB	79.4	66.6-105		%Rec	1	12/24/2019 3:49:54 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/24/2019 3:49:54 PM	49491
Toluene	ND	0.049		mg/Kg	1	12/24/2019 3:49:54 PM	49491
Ethylbenzene	ND	0.049		mg/Kg	1	12/24/2019 3:49:54 PM	49491
Xylenes, Total	ND	0.098		mg/Kg	1	12/24/2019 3:49:54 PM	49491
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	12/24/2019 3:49:54 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-007 **Matrix:** SOIL

Client Sample ID: SP#9@1
Collection Date: 12/19/2019 10:40:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 6:58:55 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/26/2019 8:35:02 AM	49508
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/26/2019 8:35:02 AM	49508
Surr: DNOP	117	70-130		%Rec	1	12/26/2019 8:35:02 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2019 4:13:27 PM	49491
Surr: BFB	79.1	66.6-105		%Rec	1	12/24/2019 4:13:27 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 4:13:27 PM	49491
Toluene	ND	0.048		mg/Kg	1	12/24/2019 4:13:27 PM	49491
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2019 4:13:27 PM	49491
Xylenes, Total	ND	0.095		mg/Kg	1	12/24/2019 4:13:27 PM	49491
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	12/24/2019 4:13:27 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Client Sample ID: SP#9@3
Project: Young 001
Collection Date: 12/19/2019 10:45:00 AM
Lab ID: 1912B50-008 **Matrix:** SOIL **Received Date:** 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 4:17:33 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/26/2019 8:59:17 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 8:59:17 AM	49508
Surr: DNOP	107	70-130		%Rec	1	12/26/2019 8:59:17 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/24/2019 5:47:33 PM	49491
Surr: BFB	77.6	66.6-105		%Rec	1	12/24/2019 5:47:33 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 5:47:33 PM	49491
Toluene	ND	0.047		mg/Kg	1	12/24/2019 5:47:33 PM	49491
Ethylbenzene	ND	0.047		mg/Kg	1	12/24/2019 5:47:33 PM	49491
Xylenes, Total	ND	0.095		mg/Kg	1	12/24/2019 5:47:33 PM	49491
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	12/24/2019 5:47:33 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-009 **Matrix:** SOIL

Client Sample ID: SW1@1
Collection Date: 12/19/2019 10:50:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 4:29:58 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/26/2019 9:23:21 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 9:23:21 AM	49508
Surr: DNOP	121	70-130		%Rec	1	12/26/2019 9:23:21 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2019 6:11:03 PM	49491
Surr: BFB	77.0	66.6-105		%Rec	1	12/24/2019 6:11:03 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 6:11:03 PM	49491
Toluene	ND	0.048		mg/Kg	1	12/24/2019 6:11:03 PM	49491
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2019 6:11:03 PM	49491
Xylenes, Total	ND	0.096		mg/Kg	1	12/24/2019 6:11:03 PM	49491
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	12/24/2019 6:11:03 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Client Sample ID: SW1@3
Project: Young 001
Collection Date: 12/19/2019 10:55:00 AM
Lab ID: 1912B50-010 **Matrix:** SOIL **Received Date:** 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 4:42:24 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/26/2019 9:47:43 AM	49508
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/26/2019 9:47:43 AM	49508
Surr: DNOP	88.2	70-130		%Rec	1	12/26/2019 9:47:43 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/24/2019 6:34:32 PM	49491
Surr: BFB	75.8	66.6-105		%Rec	1	12/24/2019 6:34:32 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	12/24/2019 6:34:32 PM	49491
Toluene	ND	0.046		mg/Kg	1	12/24/2019 6:34:32 PM	49491
Ethylbenzene	ND	0.046		mg/Kg	1	12/24/2019 6:34:32 PM	49491
Xylenes, Total	ND	0.092		mg/Kg	1	12/24/2019 6:34:32 PM	49491
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	12/24/2019 6:34:32 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-011 **Matrix:** SOIL

Client Sample ID: SW2@1
Collection Date: 12/19/2019 11:00:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	59		mg/Kg	20	12/30/2019 4:54:49 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/26/2019 10:11:51 AM	49508
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/26/2019 10:11:51 AM	49508
Surr: DNOP	84.9	70-130		%Rec	1	12/26/2019 10:11:51 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2019 6:58:00 PM	49491
Surr: BFB	78.1	66.6-105		%Rec	1	12/24/2019 6:58:00 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 6:58:00 PM	49491
Toluene	ND	0.048		mg/Kg	1	12/24/2019 6:58:00 PM	49491
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2019 6:58:00 PM	49491
Xylenes, Total	ND	0.095		mg/Kg	1	12/24/2019 6:58:00 PM	49491
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	12/24/2019 6:58:00 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-012 **Matrix:** SOIL

Client Sample ID: SW2@3
Collection Date: 12/19/2019 11:05:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 5:07:13 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/26/2019 10:36:05 AM	49508
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/26/2019 10:36:05 AM	49508
Surr: DNOP	84.9	70-130		%Rec	1	12/26/2019 10:36:05 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/24/2019 7:21:32 PM	49491
Surr: BFB	76.7	66.6-105		%Rec	1	12/24/2019 7:21:32 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	12/24/2019 7:21:32 PM	49491
Toluene	ND	0.049		mg/Kg	1	12/24/2019 7:21:32 PM	49491
Ethylbenzene	ND	0.049		mg/Kg	1	12/24/2019 7:21:32 PM	49491
Xylenes, Total	ND	0.097		mg/Kg	1	12/24/2019 7:21:32 PM	49491
Surr: 4-Bromofluorobenzene	94.2	80-120		%Rec	1	12/24/2019 7:21:32 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-013 **Matrix:** SOIL

Client Sample ID: SW3@1
Collection Date: 12/19/2019 11:10:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 5:19:38 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/26/2019 11:00:12 AM	49508
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/26/2019 11:00:12 AM	49508
Surr: DNOP	96.3	70-130		%Rec	1	12/26/2019 11:00:12 AM	49508
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/24/2019 7:45:02 PM	49491
Surr: BFB	80.7	66.6-105		%Rec	1	12/24/2019 7:45:02 PM	49491
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/24/2019 7:45:02 PM	49491
Toluene	ND	0.050		mg/Kg	1	12/24/2019 7:45:02 PM	49491
Ethylbenzene	ND	0.050		mg/Kg	1	12/24/2019 7:45:02 PM	49491
Xylenes, Total	ND	0.099		mg/Kg	1	12/24/2019 7:45:02 PM	49491
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	12/24/2019 7:45:02 PM	49491

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

Qualifiers:

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

Analytical Report
Lab Order **1912B50**
Date Reported: **12/31/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 1912B50-014 **Matrix:** SOIL

Client Sample ID: SW3@3
Collection Date: 12/19/2019 11:15:00 AM
Received Date: 12/21/2019 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	12/30/2019 5:32:02 PM	49558
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/27/2019 11:44:21 AM	49535
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/27/2019 11:44:21 AM	49535
Surr: DNOP	84.4	70-130		%Rec	1	12/27/2019 11:44:21 AM	49535
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/27/2019 3:57:13 PM	49528
Surr: BFB	79.7	66.6-105		%Rec	1	12/27/2019 3:57:13 PM	49528
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	12/27/2019 3:57:13 PM	49528
Toluene	ND	0.049		mg/Kg	1	12/27/2019 3:57:13 PM	49528
Ethylbenzene	ND	0.049		mg/Kg	1	12/27/2019 3:57:13 PM	49528
Xylenes, Total	ND	0.098		mg/Kg	1	12/27/2019 3:57:13 PM	49528
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	12/27/2019 3:57:13 PM	49528

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**

31-Dec-19

Client: CM Services

Project: Young 001

Sample ID: **MB-49542** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49542** RunNo: **65455**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2248446** Units: **mg/Kg**

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

Sample ID: **LCS-49542** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49542** RunNo: **65455**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2248447** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Sample ID: **MB-49558** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **49558** RunNo: **65473**
Prep Date: **12/30/2019** Analysis Date: **12/30/2019** SeqNo: **2249602** Units: **mg/Kg**

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

Sample ID: **LCS-49558** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **49558** RunNo: **65473**
Prep Date: **12/30/2019** Analysis Date: **12/30/2019** SeqNo: **2249603** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.1	90	110			

Sample ID: **1912B50-003AMSD** SampType: **msd** TestCode: **EPA Method 300.0: Anions**
Client ID: **SP#7@1** Batch ID: **49558** RunNo: **65473**
Prep Date: **12/30/2019** Analysis Date: **12/30/2019** SeqNo: **2249606** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	60	30.00	0	0	54.2	146	0	20	S

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**
31-Dec-19

Client: CM Services
Project: Young 001

Sample ID: **1912B50-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP#6@1** Batch ID: **49508** RunNo: **65397**
Prep Date: **12/24/2019** Analysis Date: **12/26/2019** SeqNo: **2246631** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	9.8	48.78	0	114	57	142			
Surr: DNOP	5.5		4.878		113	70	130			

Sample ID: **LCS-49508** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **49508** RunNo: **65397**
Prep Date: **12/24/2019** Analysis Date: **12/26/2019** SeqNo: **2246632** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	114	63.9	124			
Surr: DNOP	5.8		5.000		115	70	130			

Sample ID: **MB-49508** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **49508** RunNo: **65397**
Prep Date: **12/24/2019** Analysis Date: **12/26/2019** SeqNo: **2246633** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	70	130			

Sample ID: **1912B50-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP#6@1** Batch ID: **49508** RunNo: **65397**
Prep Date: **12/24/2019** Analysis Date: **12/26/2019** SeqNo: **2246665** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.46	0	100	57	142	12.1	20	
Surr: DNOP	4.6		4.946		93.3	70	130	0	0	

Sample ID: **LCS-49535** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	63.9	124			
Surr: DNOP	4.5		5.000		90.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**
31-Dec-19

Client: CM Services
Project: Young 001

Sample ID: **MB-49535** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **49535** RunNo: **65437**
Prep Date: **12/27/2019** Analysis Date: **12/27/2019** SeqNo: **2247855** 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	9.2		10.00		92.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**

31-Dec-19

Client: CM Services

Project: Young 001

Sample ID: **mb-49491**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **49491**	RunNo: **65395**
Prep Date: **12/23/2019**	Analysis Date: **12/24/2019**	SeqNo: **2246473** 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	790		1000		79.2	66.6	105			

Sample ID: **lcs-49491**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **49491**	RunNo: **65395**
Prep Date: **12/23/2019**	Analysis Date: **12/24/2019**	SeqNo: **2246474** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.9	80	120			
Surr: BFB	920		1000		92.5	66.6	105			

Sample ID: **MB-49528**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248318** 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		82.2	66.6	105			

Sample ID: **LCS-49528**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248319** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	870		1000		87.2	66.6	105			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**
31-Dec-19

Client: CM Services
Project: Young 001

Sample ID: **mb-49491** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **49491** RunNo: **65395**
Prep Date: **12/23/2019** Analysis Date: **12/24/2019** SeqNo: **2246497** Units: **mg/Kg**

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

Sample ID: **LCS-49491** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **49491** RunNo: **65395**
Prep Date: **12/23/2019** Analysis Date: **12/24/2019** SeqNo: **2246498** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: **1912b50-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP#6@1** Batch ID: **49491** RunNo: **65395**
Prep Date: **12/23/2019** Analysis Date: **12/24/2019** SeqNo: **2246500** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9775	0	111	76	123			
Toluene	1.1	0.049	0.9775	0.01011	111	80.3	127			
Ethylbenzene	1.1	0.049	0.9775	0.01080	112	80.2	131			
Xylenes, Total	3.3	0.098	2.933	0.01695	113	78	133			
Surr: 4-Bromofluorobenzene	1.0		0.9775		103	80	120			

Sample ID: **1912b50-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SP#6@1** Batch ID: **49491** RunNo: **65395**
Prep Date: **12/23/2019** Analysis Date: **12/24/2019** SeqNo: **2246501** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9398	0	109	76	123	5.38	20	
Toluene	1.0	0.047	0.9398	0.01011	109	80.3	127	5.71	20	
Ethylbenzene	1.1	0.047	0.9398	0.01080	112	80.2	131	4.08	20	
Xylenes, Total	3.2	0.094	2.820	0.01695	112	78	133	4.26	20	
Surr: 4-Bromofluorobenzene	0.93		0.9398		98.5	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1912B50**

31-Dec-19

Client: CM Services

Project: Young 001

Sample ID: **MB-49528**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248345** 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	1.0		1.000		100	80	120			

Sample ID: **LCS-49528**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **49528**	RunNo: **65453**
Prep Date: **12/26/2019**	Analysis Date: **12/27/2019**	SeqNo: **2248346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.3	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.6	80	120			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **CM SERVICES** Work Order Number: **1912B50** RcptNo: 1

Received By: **Yazmine Garduno** **12/21/2019 9:30:00 AM**

Completed By: **Yazmine Garduno** **12/21/2019 11:11:09 AM**

Reviewed By: ENM 12/23/19

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: 12/23/19

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good				

Chain-of-Custody Record

Client: C & M Services LLC

Mailing Address: 312 S. Canal Suite C, Carlsbad NM 88220

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 DAY

Project Name: Young #001

Project #:

Project Manager: J. Harris

Sampler: LAB

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.3+0.2=5.5 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1412850	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12.9.19	10:10	soil	SP # 1 @ 1	4oz		-001	X	X					X			
	10:15		SP # 1 @ 3			-002	X	X					X			
	10:20		SP # 7 @ 1			-003	X	X					X			
	10:25		SP # 7 @ 3			-004	X	X					X			
	10:30		SP # 8 @ 1			-005	X	X					X			
	10:35		SP # 8 @ 3			-006	X	X					X			
	10:40		SP # 9 @ 1			-007	X	X					X			
	10:45		SP # 9 @ 3			-008	X	X					X			
	10:50		SW 1 @ 1			-009	X	X					X			
	10:55		SW 1 @ 3			-010	X	X					X			
	11:00		SW 2 @ 1			-011	X	X					X			
	11:05		SW 2 @ 3			-012	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
12.20.19	11:00	Samantha Watson				
12/20	1900					

Received by: Via: Date Time
12/20 1230

Received by: Via: Date Time
Courier 12/21/19 0730

Remarks: BTA

1/2

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.

2 of 2

Chain-of-Custody Record

Client: C&M Services LLC

Mailing Address: 312 S. Canal Suite C, Carlsbad NM 88220

Phone #:

email or Fax#:

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

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

Turn-Around Time:
☐ Standard ☒ Rush 5 DAY

Project Name: Young #001

Project #:

Project Manager: J. Harris

Sampler: LRB

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.3+0.2=5.5 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1911285U	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12.9.19	11:10	soil	SW3@1	4oz		-013	X	X					X			
↓	11:15	↓	SW3@3	↓		-014	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
12.20.19	11:30	Samantha Watson	Chelsea Cooper	Courier	12/20	12:30
12/20	1900	Chelsea Cooper	[illegible] Carrier		12/21/19	0931

Remarks:
BTEX

2 of 2

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 15, 2020

Jacqui Harris
CM Services
312 N. Canal Suite C
Carlsbad, NM 88220
TEL: (575) 499-5306
FAX

RE: Young 001 OrderNo.: 2001229

Dear Jacqui Harris:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/8/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-001 **Matrix:** SOIL

Client Sample ID: SP#1-8'
Collection Date: 1/6/2020 9:50:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	600	60		mg/Kg	20	1/10/2020 7:39:11 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/10/2020 2:38:02 PM	49717
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/10/2020 2:38:02 PM	49717
Surr: DNOP	98.3	55.1-146		%Rec	1	1/10/2020 2:38:02 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/9/2020 4:51:41 PM	49708
Surr: BFB	85.0	66.6-105		%Rec	1	1/9/2020 4:51:41 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	1/9/2020 4:51:41 PM	49708
Toluene	ND	0.047		mg/Kg	1	1/9/2020 4:51:41 PM	49708
Ethylbenzene	ND	0.047		mg/Kg	1	1/9/2020 4:51:41 PM	49708
Xylenes, Total	ND	0.094		mg/Kg	1	1/9/2020 4:51:41 PM	49708
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	1/9/2020 4:51:41 PM	49708

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-002 **Matrix:** SOIL

Client Sample ID: SP#1-12'
Collection Date: 1/6/2020 9:55:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	1200	60		mg/Kg	20	1/10/2020 7:51:32 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/10/2020 2:59:59 PM	49717
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/10/2020 2:59:59 PM	49717
Surr: DNOP	106	55.1-146		%Rec	1	1/10/2020 2:59:59 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/9/2020 5:15:23 PM	49708
Surr: BFB	89.1	66.6-105		%Rec	1	1/9/2020 5:15:23 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	1/9/2020 5:15:23 PM	49708
Toluene	ND	0.049		mg/Kg	1	1/9/2020 5:15:23 PM	49708
Ethylbenzene	ND	0.049		mg/Kg	1	1/9/2020 5:15:23 PM	49708
Xylenes, Total	ND	0.097		mg/Kg	1	1/9/2020 5:15:23 PM	49708
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	1/9/2020 5:15:23 PM	49708

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-003 **Matrix:** SOIL

Client Sample ID: SP#1-20'
Collection Date: 1/6/2020 10:10:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	300	60		mg/Kg	20	1/10/2020 8:28:34 PM	49749

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-004 **Matrix:** SOIL

Client Sample ID: SP#1-22'
Collection Date: 1/6/2020 10:15:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	130	59		mg/Kg	20	1/14/2020 2:44:47 PM	49749

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-005 **Matrix:** SOIL

Client Sample ID: SP#10-1'
Collection Date: 1/6/2020 10:30:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	ND	60		mg/Kg	20	1/14/2020 2:57:12 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/10/2020 3:21:55 PM	49717
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/10/2020 3:21:55 PM	49717
Surr: DNOP	99.4	55.1-146		%Rec	1	1/10/2020 3:21:55 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/2020 5:39:06 PM	49708
Surr: BFB	82.3	66.6-105		%Rec	1	1/9/2020 5:39:06 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	1/9/2020 5:39:06 PM	49708
Toluene	ND	0.050		mg/Kg	1	1/9/2020 5:39:06 PM	49708
Ethylbenzene	ND	0.050		mg/Kg	1	1/9/2020 5:39:06 PM	49708
Xylenes, Total	ND	0.099		mg/Kg	1	1/9/2020 5:39:06 PM	49708
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	1/9/2020 5:39:06 PM	49708

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-006 **Matrix:** SOIL

Client Sample ID: SP#10-4'
Collection Date: 1/6/2020 10:35:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CJS**	
Chloride	230	59		mg/Kg	20	1/14/2020 3:34:26 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/10/2020 3:43:44 PM	49717
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/10/2020 3:43:44 PM	49717
Surr: DNOP	73.3	55.1-146		%Rec	1	1/10/2020 3:43:44 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/9/2020 6:02:44 PM	49708
Surr: BFB	82.6	66.6-105		%Rec	1	1/9/2020 6:02:44 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	1/9/2020 6:02:44 PM	49708
Toluene	ND	0.049		mg/Kg	1	1/9/2020 6:02:44 PM	49708
Ethylbenzene	ND	0.049		mg/Kg	1	1/9/2020 6:02:44 PM	49708
Xylenes, Total	ND	0.098		mg/Kg	1	1/9/2020 6:02:44 PM	49708
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	1/9/2020 6:02:44 PM	49708

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-007 **Matrix:** SOIL

Client Sample ID: SW#4-1'
Collection Date: 1/6/2020 10:50:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	1/14/2020 3:46:50 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/10/2020 4:05:48 PM	49717
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/10/2020 4:05:48 PM	49717
Surr: DNOP	75.7	55.1-146		%Rec	1	1/10/2020 4:05:48 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/9/2020 6:26:21 PM	49708
Surr: BFB	83.1	66.6-105		%Rec	1	1/9/2020 6:26:21 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	1/9/2020 6:26:21 PM	49708
Toluene	ND	0.047		mg/Kg	1	1/9/2020 6:26:21 PM	49708
Ethylbenzene	ND	0.047		mg/Kg	1	1/9/2020 6:26:21 PM	49708
Xylenes, Total	ND	0.095		mg/Kg	1	1/9/2020 6:26:21 PM	49708
Surr: 4-Bromofluorobenzene	93.9	80-120		%Rec	1	1/9/2020 6:26:21 PM	49708

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

Qualifiers:

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

Analytical Report
Lab Order **2001229**
Date Reported: **1/15/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services
Project: Young 001
Lab ID: 2001229-008 **Matrix:** SOIL

Client Sample ID: SW#4-3'
Collection Date: 1/6/2020 10:55:00 AM
Received Date: 1/8/2020 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CJS**
Chloride	ND	60		mg/Kg	20	1/14/2020 3:59:14 PM	49749
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/10/2020 4:27:45 PM	49717
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/10/2020 4:27:45 PM	49717
Surr: DNOP	95.2	55.1-146		%Rec	1	1/10/2020 4:27:45 PM	49717
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/2020 6:49:58 PM	49708
Surr: BFB	85.6	66.6-105		%Rec	1	1/9/2020 6:49:58 PM	49708
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	1/9/2020 6:49:58 PM	49708
Toluene	ND	0.050		mg/Kg	1	1/9/2020 6:49:58 PM	49708
Ethylbenzene	ND	0.050		mg/Kg	1	1/9/2020 6:49:58 PM	49708
Xylenes, Total	ND	0.10		mg/Kg	1	1/9/2020 6:49:58 PM	49708
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	1	1/9/2020 6:49:58 PM	49708

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001229**

15-Jan-20

Client: CM Services

Project: Young 001

Sample ID: **MB-49749**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **49749**	RunNo: **65712**
Prep Date: **1/10/2020**	Analysis Date: **1/10/2020**	SeqNo: **2257076** Units: **mg/Kg**

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

Sample ID: **LCS-49749**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **49749**	RunNo: **65712**
Prep Date: **1/10/2020**	Analysis Date: **1/10/2020**	SeqNo: **2257077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001229**

15-Jan-20

Client: CM Services

Project: Young 001

Sample ID: **LCS-49717**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **49717**	RunNo: **65691**
Prep Date: **1/9/2020**	Analysis Date: **1/10/2020**	SeqNo: **2256625** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	63.9	124			
Surr: DNOP	4.8		5.000		95.9	55.1	146			

Sample ID: **MB-49717**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **49717**	RunNo: **65691**
Prep Date: **1/9/2020**	Analysis Date: **1/10/2020**	SeqNo: **2256626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	55.1	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001229**

15-Jan-20

Client: CM Services

Project: Young 001

Sample ID: **mb-49708**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **49708**	RunNo: **65680**
Prep Date: **1/8/2020**	Analysis Date: **1/9/2020**	SeqNo: **2256104** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		93.6	66.6	105			

Sample ID: **lcs-49708**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **49708**	RunNo: **65680**
Prep Date: **1/8/2020**	Analysis Date: **1/9/2020**	SeqNo: **2256105** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.1	80	120			
Surr: BFB	990		1000		99.3	66.6	105			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2001229**

15-Jan-20

Client: CM Services

Project: Young 001

Sample ID: **mb-49708**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **49708**	RunNo: **65680**
Prep Date: **1/8/2020**	Analysis Date: **1/9/2020**	SeqNo: **2256130** 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	1.1		1.000		107	80	120			

Sample ID: **LCS-49708**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **49708**	RunNo: **65680**
Prep Date: **1/8/2020**	Analysis Date: **1/9/2020**	SeqNo: **2256131** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.2	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	93.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **CM SERVICES** Work Order Number: **2001229** RcptNo: **1**

Received By: **Daniel Marquez** **1/8/2020 10:30:00 AM**

Completed By: **Isaiah Ortiz** **1/8/2020 11:31:10 AM**

Reviewed By: YG 1/8/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

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

Adjusted? _____

Checked by: JR 1/8/20

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Not Present			

Chain-of-Custody Record

Client: C & M Services - Carlsbad

Mailing Address: 312 N. Canal Ste. C Carlsbad, NM 88220

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

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

Project Name: Young # 001

Project #:

Project Manager: Jacqui Harris

Sampler: LRB

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.8+0.1=0.9 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2001229	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/6/20	9:50	Soil	SP#1-8'	4 oz		-001	X	X					X			
	9:55		SP#1-12'			-002	X	X								
	10:10		SP#1-20'			-003										
	10:15		SP#1-22'			-004										
	10:30		SP#10-1'			-005	X	X								
	10:35		SP#10-4'			-006	X	X								
	10:50		SW#4-1'			-007	X	X								
	10:55		SW#4-3'			-008	X	X								

Date	Time	Relinquished by	Received by	Via	Date	Time
1/7/20	11:06	Lyndsey Bradse				
1/7/20	1900			Courrier	1/8/20	1030

Remarks: ☆ BTA ☆

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.

CARDINAL Laboratories

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

August 14, 2019

BOB HALL

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: YOUNG #001

Enclosed are the results of analyses for samples received by the laboratory on 08/13/19 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 2' (H902772-01)

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	08/13/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/13/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/13/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/13/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/13/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.3 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9860**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/13/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/13/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/13/2019	ND					

Surrogate: 1-Chlorooctane *119 %* *41-142*

Surrogate: 1-Chlorooctadecane *128 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 1 @ 8' (H902772-02)

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	08/13/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/13/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/13/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/13/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/13/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.2 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9860**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/13/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/13/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/13/2019	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *120 %* *37.6-147*

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 2' (H902772-03)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.7 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *114 %* *41-142*

Surrogate: 1-Chlorooctadecane *121 %* *37.6-147*

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CARDINAL Laboratories

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 8' (H902772-04)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.8 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *113 %* *41-142*

Surrogate: 1-Chlorooctadecane *121 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 2' (H902772-05)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.8 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**960**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *123 %* *41-142*

Surrogate: 1-Chlorooctadecane *131 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 3 @ 5' (H902772-06)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.6 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *122 %* *41-142*

Surrogate: 1-Chlorooctadecane *129 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 2' (H902772-07)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.6 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2120**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	**98.0**	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	**34.8**	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *124 %* *41-142*

Surrogate: 1-Chlorooctadecane *139 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 4' (H902772-08)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.0 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1380**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	**157**	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	**44.2**	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *125 %* *41-142*

Surrogate: 1-Chlorooctadecane *142 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 10' (H902772-09)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.7 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3520**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *121 %* *41-142*

Surrogate: 1-Chlorooctadecane *131 %* *37.6-147*

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CARDINAL Laboratories

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ 2' (H902772-10)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.1 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2800**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *119 %* *41-142*

Surrogate: 1-Chlorooctadecane *127 %* *37.6-147*

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CARDINAL Laboratories

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ 4' (H902772-11)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.3 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2200**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	**12.4**	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *111 %* *41-142*

Surrogate: 1-Chlorooctadecane *119 %* *37.6-147*

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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 5 @ 10' (H902772-12)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.0 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1040**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	<10.0	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	<10.0	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *108 %* *41-142*

Surrogate: 1-Chlorooctadecane *114 %* *37.6-147*

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CARDINAL Laboratories

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

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received:	08/13/2019	Sampling Date:	08/12/2019
Reported:	08/14/2019	Sampling Type:	Soil
Project Name:	YOUNG #001	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

Sample ID: SP 6 @ 3' (H902772-13)

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	08/14/2019	ND	2.03	102	2.00	4.53	
Toluene*	<0.050	0.050	08/14/2019	ND	2.17	109	2.00	4.91	
Ethylbenzene*	<0.050	0.050	08/14/2019	ND	2.09	105	2.00	3.88	
Total Xylenes*	<0.150	0.150	08/14/2019	ND	6.34	106	6.00	4.13	
Total BTEX	<0.300	0.300	08/14/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.8 %* *73.3-129*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/14/2019	ND	432	108	400	3.77	

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	08/14/2019	ND	195	97.5	200	3.16	
DRO >C10-C28*	**53.3**	10.0	08/14/2019	ND	195	97.3	200	1.89	
EXT DRO >C28-C36	**17.4**	10.0	08/14/2019	ND					

Surrogate: 1-Chlorooctane *108 %* *41-142*

Surrogate: 1-Chlorooctadecane *117 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: BTA Oil Producers
Project Manager: Bob Hall
Address:
City: State: Zip:
Phone #: Fax #:
Project #: Project Owner:
Project Name:
Project Location: Young 001
Sampler Name:

BILL TO
P.O. #:
Company: BTA
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	Cl	TPH	BTEX	ANALYSIS REQUEST
H902772	~~[illegible]~~																	
1	SP 1 @ 2'	C	1			X				X			8-12-19	9:00	X	X	X	
2	SP 1 @ 8'	C	1			X				X			8-12-19	9:30	X	X	X	
3	SP 2 @ 2'	C	1			X				X			8-12-19	9:40	X	X	X	
4	SP 2 @ 8'	C	1			X				X			8-12-19	10:05	X	X	X	
5	SP 3 @ 2'	C	1			X				X			8-12-19	10:30	X	X	X	
6	SP 3 @ 5'	C	1			X				X			8-12-19	11:00	X	X	X	
7	SP 4 @ 2'	C	1			X				X			8-12-19	11:20	X	X	X	
8	SP 4 @ 4'	C	1			X				X			8-12-19	11:50	X	X	X	
9	SP 4 @ 10'	C	1			X				X			8-12-19	12:10	X	X	X	
10	SP 5 @ 2'	C	1			X				X			8-12-19	12:30	X	X	X	

Relinquished By: Kaylea Richey
Date: 8-13-19
Time: 14:35
Received By: Tamara Oldaker
Relinquished By:
Date:
Time:
Received By:

Delivered By: (Circle One) 2.6c #97
Sampler - UPS - Bus - Other: Corrected 3.0c

Sample Condition: Cool: ☑ Yes ☐ No; Intact: ☐ Yes ☐ No
CHECKED BY: (Initials) TO

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: Michael@expertenviroservices.com

Rush!!

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	BTA	**BILL TO**	
Project Manager:		P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:		State: Zip:	
Project Location:	Young #001	Phone #:	
Sampler Name:		Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	CL	TPH	BTEX
H902772																	
11	SpSe4'	G	1			✓							8-12-19	12:49	✓	✓	✓
12	SpSe10'	1	1			1							1	13:00	1	1	1
13	Sp6@3'	1	1			1							1	13:15	1	1	1

Relinquished By:	Date: 8-13-19	Received By: Tamara Oldaker	
	Time: 14:35		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One) 2.6c #97
Sampler - UPS - Bus - Other: Corrected 3.0c

Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No

CHECKED BY: (Initials) T.O

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: Rush!!

Appendix D
Photo Log

Aerial Photo-North

Aerial Photo- East

Aerial Photo-South

Release Source

Aerial Photo-West (Pasture Area)

Impacted Area- West

Impacted area of pasture-East

Site Photo- Pumpjack

Site Photo-West

Site Photo- Tank Battery