

# Remediation Work Plan

Barr None Federal #001 API# 30-025-32221 Lea County, New Mexico 1RP-2958, 1RP-4574

# Prepared For:

Judah Oil, LLC PO Box 568 Artesia, NM 88211

# Prepared By:

TALON/LPE 408 W. Texas Avenue Artesia, NM 88210

March 9, 2020

Received by OCD: 7/6/2020 8:40:58 AM

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Mr. Mike Bratcher NMOCD District 2 811 South First Street Artesia, New Mexico 88210 Mr. Jim Amos **Bureau of Land Management** 600 E. Greene Street Carlsbad, NM 88220

Subject:

Remediation Work Plan Barr None Federal #001 API# 30-025-32221 Lea County, New Mexico 1RP-2958, 1RP-4574

Dear Mr. Bratcher,

Talon/LPE (Talon) has been retained to provide Judah Oil, LLC, with a remediation work plan in order to close out the above referenced historical remediation orders. Enclosed please find the results of our site assessment/characterization, soil sampling results and remediation work plan.

# Site Information

The Barr None Federal #001 is located approximately thirty (30) miles west of Eunice, New Mexico. The legal location for this release is Unit Letter E, Section 10, Township 22 South and Range 32 East in Lea County, New Mexico. More specifically the latitude and longitude for the facility is 32.407936 North and -103.668888 West. Facility location maps are presented in Appendix 1.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Simona-Upton association which consists of gravely fine sand underlain by fine sandy loam with 0 to 3 percent slopes. The soil survey is presented in Appendix II.

# Groundwater and Site Characterization

The New Mexico Office of the State Engineer indicates that the nearest reported depth to groundwater in the area is 360-feet below ground surface (bgs). Drainage courses in this area are well-drained. Additionally, the facility is located in a low potential Karst area. See Appendix II for copies of the referenced data. Karst and FEMA Flood maps are also presented.

oth to Groundwater	360 Feet/BGS
Within 300 feet of any continuously flowing wat significant watercourse	tercourse or any other
Within 200 feet of any lakebed, sinkhole or a pl	laya lake
Within 300 feet from an occupied permanent re institution or church	esidence, school, hospital,
Within 500 feet of a spring or a private, domest by less than five households for domestic or stop	
Within 1000 feet of any freshwater well or sprin	ng
Within incorporated municipal boundaries or wi freshwater well field covered under a municipa pursuant to Section 3-2703 NMSA 1978	
Within 300 feet of a wetland	
Within the area overlying a subsurface mine	
Within an unstable area	
Within a 100-year floodplain	
	Within 300 feet of any continuously flowing was significant watercourse  Within 200 feet of any lakebed, sinkhole or a published within 300 feet from an occupied permanent resinstitution or church  Within 500 feet of a spring or a private, domestic by less than five households for domestic or structure. Within 1000 feet of any freshwater well or spring within incorporated municipal boundaries or with freshwater well field covered under a municipal pursuant to Section 3-2703 NMSA 1978  Within 300 feet of a wetland  Within the area overlying a subsurface mine within an unstable area

Based on the site characterization data, the releases did not occur in any of these areas and the depth to groundwater exceeds 100-feet bgs. However this remediation plan addresses impacts that are off the well pad consisting of pasture lands. As such, the upper 4-feet of the area southwest of the location will be restored to the following closure criteria levels as if it was less than 50-feet to groundwater.

		Table I oils Impacted by a Release	
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
< 50 feet	Total Chlorides	EPA 300.0 or SM4500 CI B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

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# Incident Descriptions

On July 21, 2013, a hole in a metal flow line southwest of the tank battery released 11 barrels (bbls) of crude oil and 18 bbls of produced water. No fluids were recovered. Remediation activities were conducted by TNT Backhoe Services and Souder Miller Associates completed confirmation sampling and closure reporting for this incident (1RP-2958). Closure of this incident was requested at that time. However this remediation order is still open. A copy of the initial C-141 and reports submitted by both of these companies are attached. (Appendix III).

On November 8, 2016, a flow line failure resulted in 12 bbls of crude oil and 30 bbls of produce water to release onto the well pad and flow northward into the reserve drilling pit (1RP-4574). Remediation activities on the well pad were supervised by Souder Miller Associates. Approximately 110 cubic yards of impacted material were excavated and disposed of. A closure report was subsequently submitted. BLM approved the closure but the NMOCD did not citing the flow path onto the center of the drilling pit was not addressed; specifically sample location L-7 was not vertically delineated. A copy of the referenced closure report and regulatory correspondence is appended hereto for review (Appendix III).

# Site Assessment Activities

On July 9, 2019, Talon personnel mobilized to begin site assessment and sampling activities for the construction of a work plan. Grab soil samples were collected with a hand auger until depths at which refusal was encountered. Results from our initial sampling event are presented on the following data table and the complete laboratory report can be found in Appendix V.

On July 31, 2019, Talon personnel returned to the site to continue vertical delineation sampling utilizing a Geoprobe rig (direct push technology). Grab soil samples were collected with the Geoprobe until depths at which hard rock refusal was encountered. Results from this sampling event are presented on the following data table. All sample point locations are illustrated on the attached site plan (Appendix I) and the complete laboratory report is presented in Appendix V.

On October 8, 2019, an air rotary drilling rig was mobilized to the project location in order to fully delineate the vertical chloride impacts in the reserve drilling pit (samples L-7, S-5 and S-6) and at sample location S-10 immediately south of the tank battery at the locations shown on the site plan (samples collected with the drill rig are notated with an A on the data table and lab report).

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Sample ID	Depth (ft.)	Sample Date	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Clorides mg/kg	CL Field Titrations
Closure 19.15. NM	29.12		50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg	
	0	7/9/2019	ND	ND	ND	ND	ND	ND	19400	
	1	7/9/2019	NT	NT	NT	NT	NT	NT	18000	
	2	7/9/2019	NT	NT	NT	NT	NT	NT	21400	
	3R	7/9/2019	NT	NT	NT	NT	NT	NT	22200	
L-7	4	7/31/2019	NT	NT	NT	NT	NT	NT	14000	
	8	7/31/2019	NT	NT	NT	NT	NT	NT	NT	4379
	12	7/31/2019	NT	NT	NT	NT	NT	NT	NT	4283
	14	7/31/2019	NT	NT	NT	NT	NT	NT	8400	
	16R	7/31/2019	NT	NT	NT	NT	NT	NT	4300	4144.8
o Park	20	10/8/2019	NT	NT	NT	NT	NT	NT	1100	1283.6
L-7A	25	10/8/2019	NT	NT	NT	NT	NT	NT	180	241.1
S-1	0	7/31/2019	NT	NT	NT	NT	NT	NT	100	
S-2	0	7/31/2019	NT	NT	NT	NT	NT	NT	ND	
S-3	0	7/31/2019	NT	NT	NT	NT	NT	NT	ND	
S-4	0	7/31/2019	NT	NT	NT	NT	NT	NT	ND	
S-5	11R	7/31/2019	NT	NT	NT	NT	NT	NT	6400	
	15	10/8/2019	NT	NT	NT	NT	NT	NT	NT	4949
5.51	20	10/8/2019	NT	NT	NT	NT	NT	NT	1900	2609.1
S-5A	25	10/8/2019	NT	NT	NT	NT	NT	NT	400	453.8
	30	10/8/2019	NT	NT	NT	NT	NT	NT	NT	482.1
	14	7/31/2019	NT	NT	NT	NT	NT	NT	2200	
S-6	16R	7/31/2019	NT	NT	NT	NT	NT	NT	5300	
	20	10/8/2019	NT	NT	NT	NT	NT	NT	NT	1680.3
	25	10/8/2019	NT	NT	NT	NT	NT	NT	NT	1935.6
S-6A	30	10/8/2019	NT	NT	NT	NT	NT	NT	2100	1695
	35	10/8/2019	NT	NT	NT	NT	NT	NT	280	425.4
	40	10/8/2019	NT	NT	NT	NT	NT	NT	71	99.3
S-7	0-1	7/31/2019	NT	NT	NT	NT	NT	NT	ND	11077
S-8	0-1	7/31/2019	NT	NT	NT	NT	NT	NT	ND	
S-9	0-1	7/31/2019	NT	NT	NT	NT	NT	NT	ND	
10.07	5	7/31/2019	NT	NT	NT	NT	NT	NT	1400	
S-10	6R	7/31/2019	NT	NT	NT	NT	NT	NT	830	

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Sample ID	Depth (ft.)	Sample Date	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Clorides mg/kg	CL Field Titrations
Closure 19.15. NM	29.12		50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg	
	8	10/8/2019	NT	NT	NT	NT	NT	NT	NT	1566.9
C 10A	10	10/8/2019	NT	NT	NT	NT	NT	NT	510	510.5
S-10A	15	10/8/2019	NT	NT	NT	NT	NT	NT	180	
	20	10/8/2019	NT	NT	NT	NT	NT	NT	240	
	0-1	7/31/2019	NT	NT	NT	NT	NT	NT	560	
S-11	3	7/31/2019	NT	NT	NT	NT	NT	NT	620	580.3
	4	7/31/2019	NT	NT	NT	NT	NT	NT	330	158.9
S-12	0-1		NT	NT	NT	NT	NT	NT	380	379.9

R = refusal encountered ND = analyte not detected

NT = analyte not tested

# **Proposed Remedial Actions**

# 1RP-2958

- The area immediately south of the tank battery (sample location S-10) will be excavated to a depth of 4-feet bgs. Field titration testing for chlorides will be used to guide the horizonal extent of the excavation. completion, 5-point composite samples will be collected from each side wall and and sent to a certified laboratory for total chloride analysis per EPA Test Method 300.0.
- Upon receipt of total chloride results of 600 mg/kg or less from each side wall, the excavation will be backfilled with like material obtained from a local material pit.
- The backfilled area will be contoured to match the surrounding terrain and seeded with BLM #1 and #2 seed mix utilizing a Culti-Pack seed drill.
- One foot of topsoil will be hauled in from a local material pit to cover the additional non-vegetated areas southwest of the well pad. The area will be contoured and seeded as referenced above to encourage vegetative regrowth.

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# Proposed Remedial Actions

# 1RP-4574

- The reserve drilling pit has been horizontally and vertically delineated as requested by the MNOCD. The vertical extent of chloride impacts within the pit extends to 25-feet bgs at sample locations L-7 and S-5; and to 35feet deep at sample location S-6. The nearest depth to groundwater is reported at 360-feet bgs.
- The entire reserve drilling pit will be excavated to a depth of 1-feet deep. The excavated material will be disposed of at a NMOCD approved solid waste disposal facility.
- The drilling pit will be encapsulated with a 20-mil liner to prevent downward leaching of chlorides due to precipitation events. The liner will be keyed in to a depth of 2-feet deep at the edges of the drilling pit to prevent any future movement of the liner.
- Two feet of locally obtained topsoil will be brought in and placed on top of the liner to facilitate regrowth of vegetation. The topsoil will be contoured to match the surrounding terrain and seeded with BLM #1 and #2 seed mix utilizing a Culti-Pack seed drill.
- Erosion control features will be constructed such as upgradient berms and water bars to prevent rainfall sheeting from eroding the newly reclaimed areas
- Photo documentation of all remedial actions will be completed and presented in the closure report along with a Final C-141 for both referenced incidents.

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# Closure

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

David J. Adkins District Manager

Attachments:

Appendix I Site Maps

Appendix II Groundwater Data, Soil Survey & FEMA Flood Map

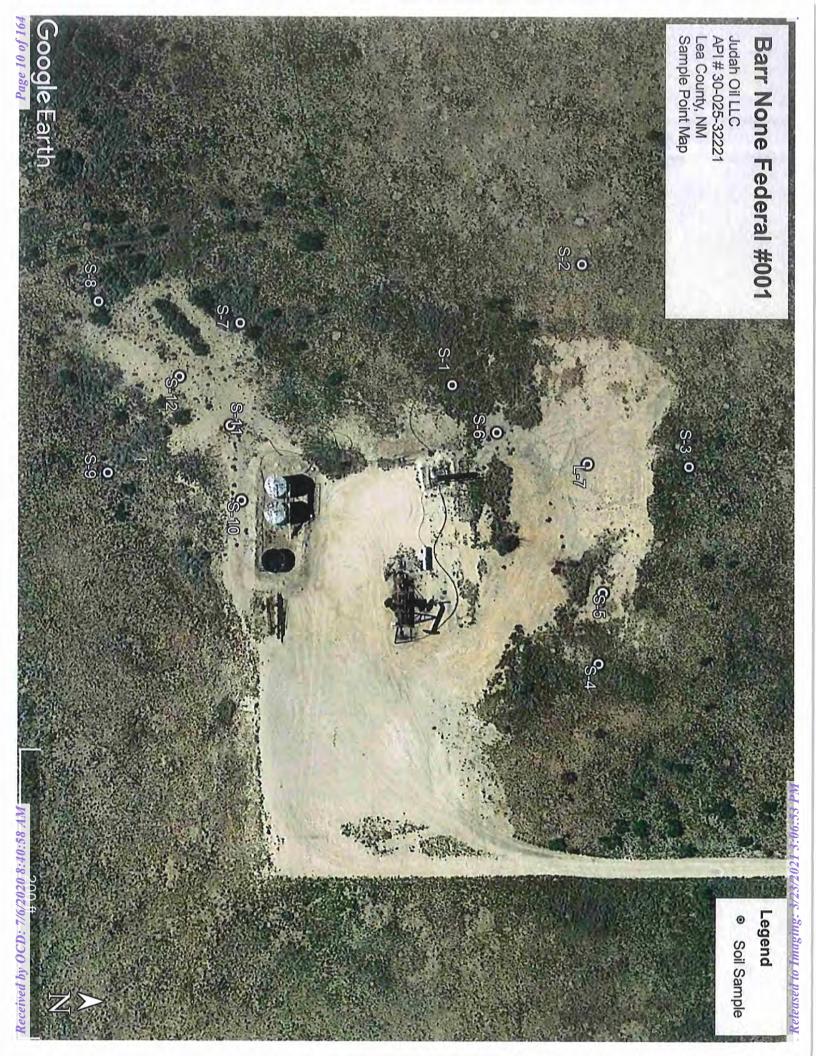
Appendix III Site Photographs Appendix IV C-141 Forms

Appendix V Background, previous reports by others

Appendix VI Laboratory Data

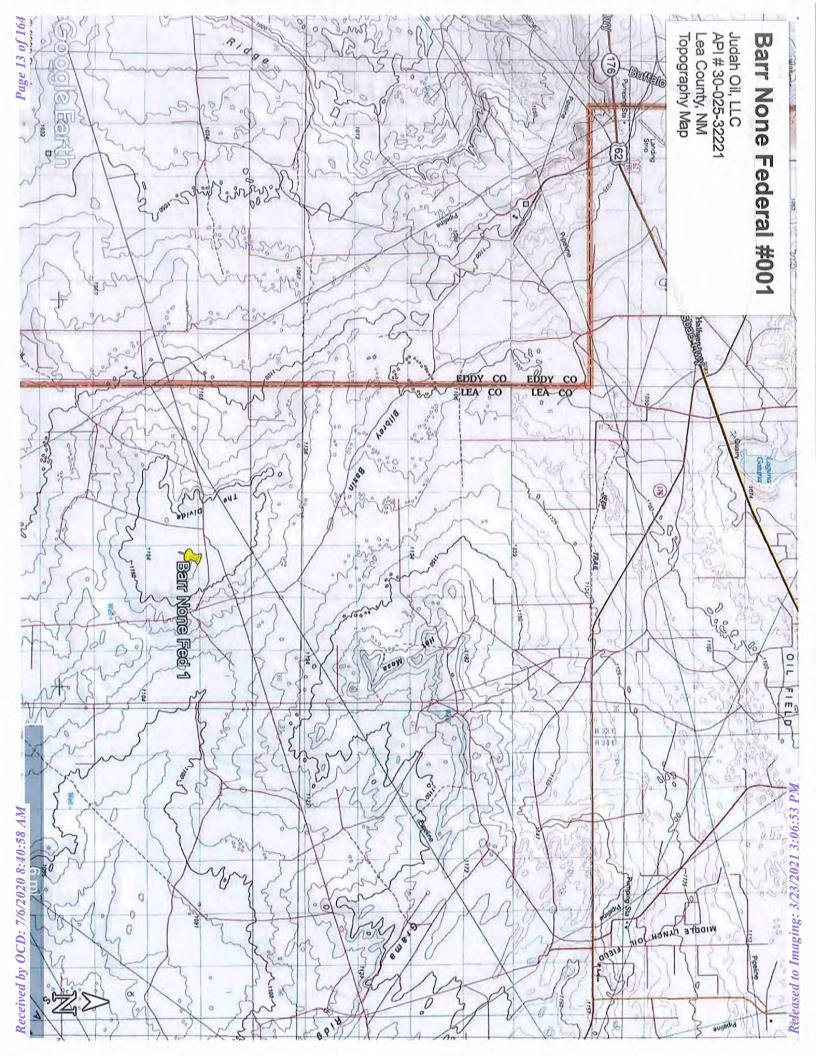
# APPENDIX I

# SITE MAPS









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# **APPENDIX II**

# GROUNDWATER DATA SOIL SURVEY FEMA FLOOD MAP



# 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)

Radius: 3000

(In feet)

Page 1 of 1

POD Sub-QQQ Water **POD Number** basin County 6416 4 Sec Tws Rng DistanceDepthWellDepthWater Column Code X 1139 C 03717 POD1 C 4 4 1 09 22S 32E 624094 3586365 2652 435 CUB 2 3 14 225 627204 3584464\* 360 75 C 02096 32F C C 02821 2 2 3 14 22S 32E 627303 3584563\* 2664 540 340 200

> Average Depth to Water: 350 feet

> > Minimum Depth: 340 feet Maximum Depth: 360 feet

Record Count:3

UTMNAD83 Radius Search (in meters):

Easting (X): 625225.116 Northing (Y): 3586231

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

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WATER COLUMN/ AVERAGE DEPTH TO WATER

# Lea County, New Mexico

# SR—Simona-Upton association

# **Map Unit Setting**

National map unit symbol: dmr3 Elevation: 3,000 to 4,400 feet

Mean annual precipitation: 10 to 16 inches Mean annual air temperature: 58 to 62 degrees F

Frost-free period: 190 to 205 days

Farmland classification: Not prime farmland

# **Map Unit Composition**

Simona and similar soils: 50 percent Upton and similar soils: 35 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

# **Description of Simona**

# Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Calcareous eolian deposits derived from

sedimentary rock

# Typical profile

A - 0 to 8 inches: gravelly fine sandy loam Bk - 8 to 16 inches: fine sandy loam Bkm - 16 to 26 inches: cemented material

## Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Natural drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Very

low to moderately low (0.00 to 0.06 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 50 percent

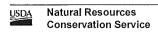
Gypsum, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0

to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 2.0

Available water storage in profile: Very low (about 1.9 inches)



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# Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Shallow Sandy (R042XC002NM)

Hydric soil rating: No

# **Description of Upton**

# Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Calcareous eolian deposits derived from

sedimentary rock

# Typical profile

A - 0 to 8 inches: gravelly loam

Bkm - 8 to 18 inches: cemented material BCk - 18 to 60 inches: very gravelly loam

# Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Low to

moderately high (0.01 to 0.60 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 75 percent

Gypsum, maximum in profile: 1 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0

to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 2.0

Available water storage in profile: Very low (about 0.9 inches)

# Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Shallow (R042XC025NM)

Hydric soil rating: No

# **Minor Components**

# Kimbrough

Percent of map unit: 6 percent

Ecological site: Very Shallow 16-21" PZ (R077CY037TX)

Hydric soil rating: No



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USDA

# Natural Resources **Conservation Service**

# Stegall

Percent of map unit: 5 percent

Ecological site: Limy Upland 16-21" PZ (R077CY028TX)

Hydric soil rating: No

# Slaughter

Percent of map unit: 4 percent

Ecological site: Limy Upland 16-21" PZ (R077CY028TX)

Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 15, Sep 12, 2018

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# **S** FEMA Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



OTHER AREAS OF FLOOD HAZARD

Chance Flood Hazard Zone X

Levee. See Notes, Zone X

Area with Reduced Flood Risk due to

Area with Flood Risk due to Levee zone D

NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs

Area of Undetermined Flood Hazard Zone

OTHER AREAS

STRUCTURES | 1111111 Levee, Dike, or Floodwall Channel, Culvert, or Storm Sewer

GENERAL

Water Surface Elevation Cross Sections with 1% Annual Chance Coastal Transect

Profile Baseline Limit of Study Hydrographic Feature Coastal Transect Baseline Jurisdiction Boundary Base Flood Elevation Line (BFE)

FEATURES

OTHER

MAP PANELS

Unmapped

Digital Data Available

No Digital Data Available

point selected by the user and does not represe The pin displayed on the map is an approximate

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap an authoritative property location.

time. The NFHL and effective information may change or reflect changes or amendments subsequent to this date and The flood hazard information is derived directly from the become superseded by new data over time. was exported on 6/12/2019 at 9:47:23 AM and does not authoritative NFHL web services provided by FEMA. This map

regulat FIRM panel number, and FIRM effective date. Map images for This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, unmapped and unmodernized areas cannot be used for

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Page 19 of 164

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# APPENDIX III

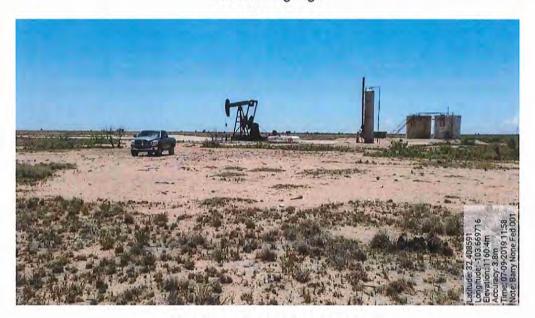
# SITE PHOTOGRAPHS

# Barr None Fed 001

# PHOTO DOCUMENTATION



Location Signage



View of Location from the North

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Sample Location L7



Overview Sample Location L7

# **APPENDIX IV**

# NMOCD C-141's

# State of New Mexico Oil Conservation Division

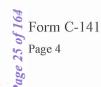
Incident ID	NSAD1326254300
District RP	1RP-2958, 1RP-4574
Facility ID	
Application ID	

# Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	360 (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 vecontamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	ertical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
Cooled site man showing imported ones profess fortune and muffer fortune delication with a literation of the state of the	

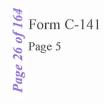
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data  Depth to water determination  Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release  Boring or excavation logs  Photographs including date and GIS information  Topographic/Aerial maps  Laboratory data including chain of custody	23/2021 3:06:53 PM
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proport 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 contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.	osed 👺



# State of New Mexico Oil Conservation Division

Incident ID	NSAD1326254300
District RP	1RP-2958, 1RP-4574
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: David J. Adkins Title: District Manager, Talon/LPE Signature: Date: 3/18/20 email: dadkins@talonlpe.com Telephone: 407.746.8768 **OCD Only** Date: 03/23/2021 Cristina Eads Received by:



# State of New Mexico Oil Conservation Division

Incident ID	NSAD1326254300
District RP	1RP-2958, 1RP-4574
Facility ID	
Application ID	

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# **Remediation Plan**

Remediation Plan Checklist: Each of the following item	ns must be included in the plan.
<ul> <li>☑ Detailed description of proposed remediation techniqu</li> <li>☑ Scaled sitemap with GPS coordinates showing delinea</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to</li> <li>☑ Proposed schedule for remediation (note if remediation)</li> </ul>	ation points
Deferral Requests Only: Each of the following items m	ust be confirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or deconstruction.	around production equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to hum	nan health, the environment, or groundwater.
rules and regulations all operators are required to report an which may endanger public health or the environment. The liability should their operations have failed to adequately i	d complete to the best of my knowledge and understand that pursuant to OCD d/or file certain release notifications and perform corrective actions for releases are acceptance of a C-141 report by the OCD does not relieve the operator of investigate and remediate contamination that pose a threat to groundwater, on, OCD acceptance of a C-141 report does not relieve the operator of or local laws and/or regulations.
Printed Name: David J. Adkins	Title: District Manager, Talon/LPE
Signature:	Date: 3/18/20
email: dadkins@talonlpe.com	Telephone: 575.746.8768
OCD Only	·
	00/00/0004
Received by: Cristina Eads	Date:03/23/2021
Approved with Attached Cond	litions of Approval
Signature: Justu 2	Date: 03/23/2021

# APPENDIX V

# LABORATORY REPORTS



July 11, 2019

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: BARR NONE FED #1

Enclosed are the results of analyses for samples received by the laboratory on 07/10/19 13:35.

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.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Received by OCD: 7/6/2020 8:40:58 AM

Lab Director/Quality Manager



# Analytical Results For:

TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

07/10/2019

Sampling Date:

07/09/2019

Reported:

07/11/2019

Sampling Type:

Soil

Project Name:

BARR NONE FED #1

Sampling Condition:

Cool & Intact

Project Number:

701484.009.01

Sample Received By:

Tamara Oldaker

Project Location:

JUDAH OIL - LEA CO NM

# Sample ID: L- 7 0' (H902358-01)

BTEX 8021B	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/11/2019	ND	2.09	105	2.00	0.678	
Toluene*	<0.050	0.050	07/11/2019	ND	2.09	104	2.00	2.09	
Ethylbenzene*	<0.050	0.050	07/11/2019	ND	1.98	98.9	2.00	0.643	
Total Xylenes*	<0.150	0.150	07/11/2019	ND	5.96	99.3	6.00	0.617	
Total BTEX	<0.300	0.300	07/11/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	109 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte .	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	19400	16.0	07/11/2019	ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS			٠		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC.	RPD	Qualifier
GRO C6-C10*	<10.0	10,0	07/10/2019	ND	202	101	200	7.22	
DRO >C10-C28*	<10.0	10.0	07/10/2019	ND	202	101	200	5.24	
EXT DRO >C28-C36	<10.0	10.0	07/10/2019	ND					
Surrogate: 1-Chlorooctane	115	% 41-142	· !		And Total AMPs - STaPed Actor?				
Surrogate: 1-Chlorooctadecane	118 9	% 37.6-14	7						

# Cardinal Laboratories

Received by OCD: 7/6/2020 8:40:58 AM

\*=Accredited Analyte

PLEXE NOTE: LibRity and Damages. Cardnal's Fability and client's exclusive remedy for any claim arising, whether based in contract or tout, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without Emitation, business interruptions, loss of use, or loss of profits incurred by Cardinal by Client, its subsidiaties, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories,

Celeg & Keena







# Analytical Results For:

TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905

Fax To:

Received:

07/10/2019

07/11/2019

Project Name: Project Number:

Reported:

BARR NONE FED #1 701484,009,01

Project Location:

Analyte

JUDAH OIL - LEA CO NM

Reporting Limit

16.0

Sampling Date:

Sampling Type: Sampling Condition:

Sample Received By:

07/09/2019

Soil

Cool & Intact Tamara Oldaker

Sample ID: L- 7 1' (H902358-02)

Chloride, SM4500CI-B

Chloride

Chloride

mg/kg

Result

18000

Analyzed By: AC

07/11/2019

Analyzed

Method Blank ND

BS

416

% Recovery True Value QC 104

0.00

RPD

Qualifier QM-07

Qualifier

Qualifier

Sample ID: L- 7 2' (H902358-03)

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte

Result Reporting Limit 21400 16.0

Analyzed 07/11/2019 Method Blank ND

₿S 416 % Recovery 104

True Value QC 400

400

RPD

0.00

Sample ID: L- 7 3' R (H902358-04)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AC

Analyte		Result	Reporting Limit		
Chloride		22200	16.0	07	

Analyzed 7/11/2019 Method Blank ND

BS 416 % Recovery 104

True Value QC 400

RPD 0.00

Cardinal Laboratories

\*=Accredited Analyte

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### **Notes and Definitions**

5-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference, QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. NĐ Analyte NOT DETECTED at or above the reporting limit Relative Percent Difference RPD \*\* 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

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aleg & Kene

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariand, Hobbs, NM 88246 (575) 393-2326 FAX (575) 393-2476

<sup>;</sup> Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



RONMENTAL LABORATORY

August 13, 2019

David Adkins Talon Artesia 408 West Texas Ave Artesia, NM 88210 TEL: FAX:

RE: BARR NONE FED 1

OrderNo.: 1908235

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

# Dear David Adkins:

Hall Environmental Analysis Laboratory received 18 sample(s) on 8/6/2019 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

Received by OCD: 7/6/2020 8:40:58 AM

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report Lab Order: 1908235

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/13/2019

	alon Artesia ARR NONE FED 1		Lab Order: 1908235
			Collection Date: 7/31/2019 10:30:00 AM
Lab ID:	1908235-001		Matrix: SOIL
Client Sample ID: Analyses	L-7 4	Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0; ANIONS			Analyst: CJS
Chloride	NO. ANIONO	14000	600 mg/Kg 200 8/9/2019 11:46:50 PM 46667
Lab ID:	1908235-002		Collection Date: 7/31/2019 11:00:00 AM
Client Sample ID:	L-7 14'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	0.0: ANIONS		Analyst: CJS
Chloride		8400	300 mg/Kg 100 8/9/2019 11:59:14 PM 46667
Lab ID:	1908235-003		Collection Date: 7/31/2019 1:00:00 PM
${\bf Client\ Sample\ ID:}$	S-6 14'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS			Analyst: CAS
Chloride		2200	60 mg/Kg 20 8/8/2019 1:47:35 PM 46669
Lab ID:	1908235-004		Collection Date: 7/31/2019 1:30:00 PM
Client Sample ID:	S-6 16'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS Chloride		5300	Analyst: <b>CJS</b> 150 mg/Kg 50 8/10/2019 12:11:39 AM 46669
Lab ID:	1908235-005		Collection Date: 8/1/2019 8:30:00 AM
Client Sample ID:	S-5 11'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	D.O: ANIONS		Analyst: CJS
Chloride		6400	300 mg/Kg 100 8/10/2019 12:24:03 AM 46673

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

Page 1 of 5

# Hall Environmental Analysis Laboratory, Inc.

	alon Artesia ARR NONE FED 1		Lab Order: 1908235
Lab ID:	1908235-006		Collection Date: 8/1/2019 9:00:00 AM
Client Sample ID:	S-4 0'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	ND	Analyst: <b>CAS</b> 60 mg/Kg 20 8/8/2019 6:32:37 PM 46673
Lab ID:	1908235-007		Collection Date: 8/1/2019 9:10:00 AM
Client Sample ID:	S-3 0'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	.0: ANIONS	ND	Analyst: <b>CAS</b> 60 mg/Kg 20 8/8/2019 6:45:02 PM 46673
Lab ID:	1908235-008		Collection Date: 8/1/2019 9:20:00 AM
Client Sample ID:	S-2 0'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS Chloride		ND	Analyst: <b>CAS</b> 60 mg/Kg 20 8/8/2019 6:57:27 PM 46673
Lab ID:	1908235-009		Collection Date: 8/1/2019 9:30:00 AM
Client Sample ID:	S-1 0'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	100	Analyst: <b>CAS</b> 60 mg/Kg 20 8/8/2019 7:34:40 PM 46673
Lab ID:	1908235-010		Collection Date: 7/31/2019 11:10:00 AM
Client Sample ID:	L-7 16' R		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS Chloride		4300	Analyst: <b>CJS</b> 150 mg/Kg 50 8/10/2019 12:36:28 AM 46673

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

# Qualifiers:

Received by OCD: 7/6/2020 8:40:58 AM

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- If Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- 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

Page 2 of 5

Analytical Report Lab Order: 1908235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/13/2019

	Calon Artesia BARR NONE FED 1		<b>Lab Order:</b> 1908235
Lab ID:	1908235-011		Collection Date: 8/1/2019 10:00:00 AM
Client Sample ID:	S-10 5'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS			Analyst: CAS
Chloride		1400	60 mg/Kg 20 8/8/2019 7:59:29 PM 46673
Lab ID:	1908235-012	200 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Collection Date: 8/1/2019 10:10:00 AM
Client Sample ID:	S-10 6'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	0.0: ANIONS		Analyst: CAS
Chloride		830	60 mg/Kg 20 8/8/2019 8:36:42 PM 46673
Lab ID:	1908235-013		Collection Date: 8/1/2019 10:35:00 AM
Client Sample ID:	S-11 3'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS			Analyst: CAS
Chloride		620	60 mg/Kg 20 8/8/2019 8:49:07 PM 46673
Lab ID:	1908235-014	an kanana kanana kanggangan pengungan pengungan pengungan pengungan pengungan pengungan pengungan pengungan pe	Collection Date: 8/1/2019 10:45:00 AM
Client Sample ID:	S-11 4'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 30	0.0: ANIONS		Analyst: CAS
Chloride		330	60 mg/Kg 20 8/8/2019 9:01:32 PM 46673
Lab ID:	1908235-015	de anticipate de la comita de la companya de destructura de la companya del la companya de la co	Collection Date: 8/1/2019 11:00:00 AM
Client Sample ID:	S-12 0'-1'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300.0: ANIONS			Analyst: CAS
Chloride		380	59 mg/Kg 20 8/8/2019 9:13:56 PM 46673

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

# Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit Practical Quanitative Limit ND
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Page 3 of 5

Analytical Report Lab Order: 1908235

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/13/2019

	Talon Artesia BARR NONE FED 1		<b>Lab Order:</b> 1908235
Lab ID:	1908235-016		Collection Date: 8/1/2019 11:30:00 AM
Client Sample ID:	S-7 0'-1'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	ND	Analyst: <b>CAS</b> 60 mg/Kg 20 8/8/2019 9:26:21 PM 46673
Lab ID:	1908235-017		Collection Date: 8/1/2019 12:00:00 PM
Client Sample ID:	S-8 0'-1'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	0.0: ANIONS		Analyst: CAS
Chloride		ND	60 mg/Kg 20 8/8/2019 9:38:45 PM 46673
Lab ID:	1908235-018	V-786AA-408888888	Collection Date: 8/1/2019 12:30:00 PM
Client Sample ID:	S-9 0'-1'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 30	0.0: ANIONS		Analyst: CAS

ND

60

mg/Kg

20 8/8/2019 9:51:10 PM

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

Qualifiers:

Chloride

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Defected at the Reporting Limit PQL Practical Quantitative 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

Page 4 of 5

46673

# Received by OCD: 7/6/2020 8:40:58 AM

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1908235

13-Aug-19

Client:

Talon Artesia

Project:

BARR NONE FED 1

Sample ID:	MB-46667
------------	----------

SampType: MBLK

Client ID: PBS

Batch ID: 46667

TestCode: EPA Method 300.0: Anions

RunNo: 61996

Prep Date: 8/8/2019 Analysis Date: 8/8/2019

SeqNo: 2103915

Units: mg/Kg

HighLimit

%RPD

%RPD

%RPD

**RPDLimit** Qual

Analyte Chloride

Result PQL ND 1.5

Sample ID: LCS-46667

SampType: LCS

TestCode: EPA Method 300.0: Anions

SPK value SPK Ref Val %REC LowLimit

0

Client ID: LCSS Prep Date: 8/8/2019 Batch ID: 46667

1.5

RunNo: 61996

Units: mg/Kg

Analyte

Analysis Date: 8/8/2019

SeqNo: 2103916

90

Result 14 PQL SPK value SPK Ref Val

%REC LowLimit 94.1

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

Sample ID: MB-46673

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS Prep Date: 8/8/2019

Batch ID: 46673 Analysis Date: 8/8/2019

RunNo: 61996 SeqNo: 2103945

Units: mg/Kg

110

Analyte Chloride

Result ND

Result

15

SPK value SPK Ref Val %REC LowLimit PQL 1.5

15.00

15.00

HighLimit

**RPDLimit** 

Qual

Client ID: LCSS

Client ID: PBS

Prep Date: 8/8/2019

Sample ID: LCS-46669

Client ID: LCSS Prep Date: 8/8/2019

Sample ID: LCS-46673 SampType: LCS TestCode: EPA Method 300.0: Anions

Batch ID: 46673

RunNo: 61996

%REC

97.1

Prep Date: 8/8/2019

**PQL** 

1.5

Analyte

Analysis Date: 8/8/2019

SeqNo: 2103946

Units: mg/Kg

HighLimit

**RPDLimit** Qual

Chloride

Sample ID: MB-46669

SampType: mblk Batch ID: 46669 TestCode: EPA Method 300.0: Anions

RunNo: 61993

LowLimit

110

Analyte

Analysis Date: 8/8/2019 SPK value SPK Ref Val %REC LowLimit HighLimit **PQL** 

1.5

0

SPK value SPK Ref Val

SeqNo: 2104085

Units: mg/Kg

%RPD

**RPDLimit** Qual

Chloride

Result ND

Result

14

Batch ID: 46669

SampType: Ics

TestCode: EPA Method 300.0: Anions

SeqNo: 2104086

RunNo: 61993

Units: mg/Kg

110

Qual

Analyte

Analysis Date: 8/8/2019 POL

1.5

SPK value SPK Ref Val 15.00

O

%REC 94.3

LowLimit 90

HighLimit %RPD **RPDLimit** 

Chloride

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit

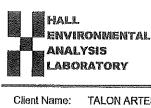
Practical Quanitative Limit % Recovery outside of range due to dilution or matrix Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits Sample pH Not In Range

Reporting Limit

Page 5 of 5



Hall Environmental Analysis Laboratory
4901 Hawkins NE

Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Wahrita: www.hallonviiocennostal.com

#### Sample Log-In Check List

	RECORD & SOLE II	Website: www	v.hallenvi	ronmeni	al.com		
Client Name:	TALON ARTESIA	Work Order Num	ber: 190	8235		ReptNo	: 1
Received By:	Desiree Dominguez	8/6/2019 9:00:00 A	M		The state of the s		
Completed By:	Michelle Garcia	8/6/2019 11:10:40	AM		Minute C	intern >	
Reviewed By:	LB	8/6/19			• -		
Chain of Cus	stody						
1. Is Chain of C	Custody complete?		Yes	$\checkmark$	No 🗌	Not Present 🗌	
2. How was the	sample delivered?		<u>Cou</u>	<u>rier</u>			•
<u>Log In</u>							
3. Was an atten	npt made to cool the sample	\$?	Yes	V	No 🗌	NA 🗌	
4. Were all sam	ples received at a temperatu	re of >0° C to 6.0°C	Yes	V	No 🗌	NA □	
5. Sample(s) in	proper container(s)?		Yes	<b>V</b>	No 🗌		
6, Sufficient san	nple volume for indicated tes	(s)?	Yes	<b>✓</b>	No 🗌		
7. Are samples (	(except VOA and ONG) prop	erly preserved?	Yes	V	No 🗌		
8. Was preserva	tive added to bottles?		Yes		No 🔽	NA 🗆	
9. VOA vials hav	/e zero headspace?		Yes		No 🗆	No VOA Vials 🗹	
10, Were any sar	mple containers received bro	ken?	Yes		No 🗹	# of preserved bottles checked	
	ork match bottle labels? ancies on chain of custody)		Yes	V	No □	for pH:	12 unless noted)
	correctly identified on Chain	of Custody?	Yes	V	No 🗌	Adjusted2	·
13. Is it clear wha	t analyses were requested?		Yes	✓	No 🗆		1 ,
	ng times able to be met? ustomer for authorization.)		Yes	<b>V</b>	No 🗌	Checked by:	m 8/4/19
Special Handl	ling (if applicable)				4	•	·
15. Was client no	of all discrepancies wit	h this order?	Yes		No 🗌	NA 🗹	_
Person	Notified:	Date:					
By Who	P 1	Via:	eMa	ali 🗌	Phone 🔲 Fax	n Person	
Regard							
	nstructions:						
16. Additional rea	marks:						
17. Cooler Infor	Temp ℃ Gondition	Seal Intact   Seal No.	Seal D	ate :	Signed By		
<u> </u>	1						

Received by OCD: 7/6/2020 8:40:58 AM

	THE THEORY CONTON	ð	- Atbuqu	300	(†) (O) (A)	W / WE	39) OH OH	1 TPH (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1 60 H 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1	THEX + MTE  THEX + MTE	88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	· ~~\	700		000		800	500	010		.0	3	ime emi
Turn-Around Time:		5000 m 10000		701 484, 009, 01	j.		D. ADVINS	Sampler: Michael GerreR On fee: B-Yes   No	Temperature:	attive	GLASS   ICE  COC				The state of the s				(1435 ) KE COOL	-		Kecelved by	Received links	Cocal records
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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

Received by OCD: 7/6/2020 8:40:58 AM



August 20, 2019

DAVID ADKINS

TALON LPE

408 W, TEXAS AVE,

ARTESIA, NM 88210

RE: BARR NONE FED #1

Enclosed are the results of analyses for samples received by the laboratory on 08/19/19 13:38.

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.

Celey D. Keena

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

Released to Imaging: 3/23/2021 3:06:53 PM

Released to Imaging: 3/23/2021 3:06:53 PM



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

#### Analytical Results For:

TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

08/19/2019

Sampling Date:

08/01/2019

Reported:

08/20/2019

Sampling Type:

Soil

Project Name: Project Number: BARR NONE FED #1

Sampling Condition:

Cool & Intact

701484.009.01

Sample Received By:

Tamara Oldaker

Project Location:

JUDAH OIL - LEA CO NM

#### Sample ID: S-11 0'-1' (H902837-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	08/20/2019	ND	400	100	400	0.00	

Cardinal Laboratories

Received by OCD: 7/6/2020 8:40:58 AM

\*=Accredited Analyte

PLEASE NOTE: Libblity and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tost, shall be linked to the amount paid by clent for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in willing and received by Cardinal willing thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of or loss of profits incurred by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise, Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Labor

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

#### **Notes and Definitions**

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

Received by OCD: 7/6/2020 8:40:58 AM

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's Rability and client's exclusive remedy for any claim arising, whether based in contract or text, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (20) days after completion of the applicable service. In no event shall Cardinal be limited to the including those for negligence and not be limited to the applicable service. In no event shall Cardinal be limited to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal laboratories.

Clay D. Kana

Page 4 of 4

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: TALON LOE		ANALYSIS REQUEST
	P.O. # 758° 701484.00% 01	
Address: 408 W. TEXAS AUE.	Company: TRON LAS	
City: ACTESIA State: NM Zip: 88210	Aftin: D. ADEINS	
Phone # 575-441-4835 Fax ※	Address:	
Project # 101484, 009, 01 Project Owner Jung H 51	Oity:	
Project Name: BARK NONE FED!	State: Zip:	
Project Location: LEA COUNTY	李	
Sampler Name: MICHAEL GULER	Fair#	
	PRESERY SAMPLING	
RAB OR (C)OMFONTAINERS DUNDWATER BYEWATER L	DGE IER: DJBASE: /COOL IER:	
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PLEASENCY - LINKING and Changes Creditation in interest of clear, we will also change to the control of the con	and particular training in the companies which by the princes for the	

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

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rolyses. Al Calans Including hase for negligence and any other cause whalsouver shall be deemed waved unless made in willing and nearlyed by Cardinal Within 30 days after competen is the applicable.

Exist. In so event at all Cardinal be Robe for heidenful or consequental damages, including without limitation, business interruptions, loss of use, or loss of partie incursed by client, its subsidistics,

Sampler - UPS - Bus - Other:



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

October 23, 2019

David Adkins
Talon Artesia
408 West Texas Ave
Artesia, NM 88210
TEL:
FAX

RE: Barr None Federal 001

OrderNo.: 1910694

#### Dear David Adkins:

Hall Environmental Analysis Laboratory received 11 sample(s) on 10/11/2019 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 18, 2019.

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. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Received by OCD: 7/6/2020 8:40:58 AM

Albuquerque, NM 87109

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**Analytical Report** Lab Order: 1910694

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/23/2019

	Talon Artesia Barr None Federal 001		Lab Order: 1910694
Lab ID:	1910694-001		Collection Date: 10/8/2019 1:00:00 PM
Client Sample ID:	S-5A 20'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	1900	Analyst: <b>CJS</b> 60 mg/Kg 20 10/17/2019 12:27:37 AM 48202
Lab ID:	1910694-002		Collection Date: 10/8/2019 1:20:00 PM
Client Sample ID:	S-5A 25'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	400	Analyst: <b>CJS</b> 60 mg/Kg 20 10/17/2019 12:40:01 AM 48202
Lab ID:	1910694-004		Collection Date: 10/8/2019 10:30:00 AM
Client Sample ID:	S-6A 301		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	2100	Analyst: <b>CJS</b> 60 mg/Kg 20 10/17/2019 1:04:50 AM 48202
Lab ID:	1910694-005		Collection Date: 10/8/2019 10:50:00 AM
Client Sample ID:	S-6A 35'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	280	Analyst: <b>CJS</b> 60 mg/Kg 20 10/17/2019 1:42:03 AM 48202
Lab ID:	1910694-006	Open a superior de la company de la comp	Collection Date: 10/8/2019 11:05:00 AM
Client Sample ID:	S-6A 40'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	0.0: ANIONS		Analyst: MRA
Chloride		71	60 mg/Kg 20 10/17/2019 2:59:04 PM 48223

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Sample pH Not In Range
- RL Reporting Limit

Page 1 of 3

Analytical Report Lab Order: 1910694

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/23/2019

	Talon Artesia Barr None Federal 001		<b>Lab Order:</b> 1910694
Lab ID:	1910694-007		Collection Date: 10/8/2019 11:30:00 AM
Client Sample ID:	L-7A 20'		Matrix: SOIL
Analyses	77.000	Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	D.0: ANIONS	1100	Analyst: <b>MRA</b> 60 mg/Kg 20 10/17/2019 4:01:08 PM 48223
Lab ID:	1910694-008		Collection Date: 10/8/2019 11:50:00 AM
Client Sample ID:	L-7A 25'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	180	Analyst: <b>MRA</b> 60 mg/Kg 20 10/17/2019 4:13:32 PM 48223
Lab ID:	1910694-009		Collection Date: 10/8/2019 3:10:00 PM
Client Sample ID:	S-10A 10'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	510	Analyst: <b>MRA</b> 60 mg/Kg 20 10/17/2019 4:25:58 PM 48223
Lab ID:	1910694-010	North Committee of the	Collection Date: 10/8/2019 3:30:00 PM
Client Sample ID:	S-10A 15'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	180	Analyst: <b>MRA</b> 60 mg/Kg 20 10/17/2019 4:38:22 PM 48223
Lab ID:	1910694-011		Collection Date: 10/8/2019 3:50:00 PM
Client Sample ID:	S-10A 20'		Matrix: SOIL
Analyses		Result	RL Qual Units DF Date Analyzed Batch ID
EPA METHOD 300	).0: ANIONS	***	Analyst: MRA
Chloride		240	60 mg/Kg 20 10/17/2019 4:50:46 PM 48223

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

Qualifiers:

Received by OCD: 7/6/2020 8:40:58 AM

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- D Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- 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

Page 2 of 3

# Received by OCD: 7/6/2020 8:40:58 AM

#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1910694

23-Oct-19

Client:

Talon Artesia

Project:

Barr None Federal 001

Sample ID:	MB-48202
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Prep Date: 10/16/2019

Sample ID: LCS-48202

Prep Date: 10/16/2019

Client ID: LCSS

SampType: mblk

Client ID: PBS

Batch ID: 48202 Analysis Date: 10/16/2019

RunNo: 63729

SeqNo: 2178963

TestCode: EPA Method 300.0: Anions

Units: mg/Kg

**RPDLimit** Qual

Chloride

**PQL** 

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

Analyte

ND

SampType: Ics

TestCode: EPA Method 300.0: Anions

Analysis Date: 10/16/2019

Result

Batch ID: 48202

1.5

RunNo: 63729

SeqNo: 2178964

Units: mg/Kg

110

Analyte Chloride

Result PQL

14

SPK value SPK Ref Val 15.00

%REC 96.2 LowLimit HighLimit 90

%RPD **RPDLimit** 

%RPD

Qual

Sample ID: MB-48223 PBS

Prep Date: 10/17/2019

Sample ID: LCS-48223

Client ID: LCSS

SampType: mblk

1.5

TestCode: EPA Method 300.0: Anions

RunNo: 63756

Units: mg/Kg

Analyte

Client ID:

Result

Analysis Date: 10/17/2019 **PQL** 

1.5

Batch ID: 48223

SPK value SPK Ref Val %REC LowLimit

SeqNo: 2180412

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

ND

SampType: Ics

PQL

1.5

TestCode: EPA Method 300.0: Anions

RunNo: 63756

Analyte Chloride

Prep Date: 10/17/2019

Batch ID: 48223 Analysis Date: 10/17/2019

Result

14

SeqNo: 2180413

Units: mg/Kg

**RPDLimit** 

Qual

SPK value SPK Ref Val 15.00

%REC 94.2

0

LowLimit HighLimit 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit Practical Quantitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range Reporting Limit

Page 3 of 3

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: TALON ARTESIA	Work Order Num	ber: 1910694		ReptNo:	1
Received By R 10 11119	10/11/2019 9:20:00	MA C			
Completed By: Anne Thorne	10/11/2019 (0:59:4	12 AM	anne A.		
Reviewed By:	10/11/19		Cane Si		
	,0(-)			-	
Chain of Custody	•				
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
How was the sample delivered?		<u>Courier</u>	•		
Log In				•	
3. Was an attempt made to cool the sample	s?	Yes 🗸	No 🗌	NA 🗌	
·			· —	, ,	
4. Were all samples received at a temperatu	re of >0° C to 6.0°C	Yes 🛂	No 🗌	na 🗌	,
S. Complete in the second section of NO		٠.	· 🖂		
. Sample(s) in proper container(s)?		Yes 🗹 .	No L		•
Sufficient sample volume for indicated tes	t(s)?	Yes 🗹	No 🗌		.*
7. Are samples (except VOA and ONG) prop	erly preserved?	Yes 🗸	No 🗌		
3. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
,		F <del></del> 1	,	,	
O. VOA vials have zero headspace?		Yes 📙	No 📙	No VOA Vials 🗹	
Were any sample containers received bro	ken?	Yes $\square$	No 🗹	# of preserved	are a second
Does paperwork match bottle labels?		Yes 🗸	No 🗌	bottles checked for pH;	
(Note discrepancies on chaln of custody)			,,,	(<2.or	>12 unless note
2. Are matrices correctly identified on Chain	of Custody?	Yes 🔽	No 🗌	Adjusted?	
3, is it clear what analyses were requested?		Yes 🔽	No 🗌	Observation 5	700 101×1
4. Were all holding times able to be met? (If no, notify customer for authorization.)	•	Yes 🔽	No 🗌	Checked by:	AHO WINI
pecial Handling (if applicable)					
5. Was client notified of all discrepancies wi	th this order?	Yes 🗌	No 🗆	na 🗹	
Person Notified:	Date	William branch and the	THE THEOLOGY		
By Whom:	. Via:	<b>'</b>	hone   Fax	☐ In Person	
Regarding:			_	CHARACHE AND	
Client Instructions:			APATE DE BACKÉTAT PARTE TO	COLOR MATERIAL DESCRIPTION OF THE PARTY OF T	
6. Additional remarks:					
7. Cooler Information					
	Seal Intact   Seal No	Seal Date	Signed By	• Providence	
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Received by OCD: 7/6/2020 8:40:58 AM

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			Project #:		Tel.	05-34	Tel. 505-345-3975	ir.	505	Fax 505-345-4107	4107			
Phone #: 57	-964-56	3-8768	10,600,484107					Analysis Request	s Rec	yuest	Polymorea (1984)	egi ekstemiyi isiga		
email or Fax#: dad		kins@ tolon lpe.com	Project Manager:	.(1	(0)			<sup>þ</sup> OS		(jue		- NASHTANIDA		
QA/QC Package: र्षि Standard		☐ Level 4 (Full Validation)	David Adkins	S08) <i>8</i> '	PCB's	<b>⇒</b> 3	SWIS0	PO4, 5		əsdA\tn	57		<u>.</u>	
Accreditation: □ NELAC		mpliance	Sampler: Brandon Sincla	- MT	AG / OF	(1.40		' NO <sup>s</sup> '	(∀(		१ : उठ	·····	<del>- 9,</del> 3.1	
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10/8/19 13:00	00 50; 1	5-5A 20'	402 jar ice	JØ.										
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If necessary, samples submitted to Hall Environmental may be subdefineded of the accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

## APPENDIX VI BACKGROUND, PREVIOUS REPORTS

#### 1RP-2958

HOBBS OCD <u>District J</u> 1625 N. French Dr., Hobbs, NM 88240

State of New Mexico

Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

District II 811 S. First St., Artesia, NM 88210

JUL 2 5 2013

District IV 1220 S. St. Francis Dr., Santa Fe, NM 8750SECEIVED

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

Submit 1 Copy to appropriate District Office in accordance with 19.15,29 NMAC.

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Release Notification and Corrective Action  OPERATOR  X Initial Report											Final Report	
Name of Co	mpany	Judah Oil,	LLC					ella		!	<u> </u>	
								1280				
Facility Nar	ne Barr N	lone Federal	#1		l.	Facility Typ	e Oil Well				ma.a	
Surface Ow	ner BLM			· Mineral C	)wner	BLM			APINo	. 30-025-	32221	
		•		LOCA	OITA	N OF REI	LEASE					
Unit Letter	Section	Township	Range				·	East/V	Vest Line	County		
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			161									
						7-21-2013	12:00 pm		7-22-2013	3 1:30 pm	•	
Was Immedia	ate Notice C		Yes 🔲	No 🔲 Not Rec	quired	If YES, To	Whom? Maxey	Brown	NMOCD	Dist I (Left	messa	ge)
By Whom? Ja	ames B Car	npanella				Date and I-	lour 7-22-2013	2:20 pm	1			
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If a Watercou	irse was lm	pacted, Descri	be Fully	a SUNYKLO		eRM						
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riole in metal	2 110W III	c. Replaced v	vanz po	ny mie.	•							
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Describe Are	a Affected a	and Cleanup /	ction Tak	cen.*								
		·			Pl. tu				1 11 100	mp ti		
excavated cor	on south si ntaminated	ge of location soil and run se	rtuid tra sid sample	iveled down trails 's	. Fluid	soaked into g	round, none was	recover	ed. Had II	VI Backhoe	make	one call to
, j			•			•						
I hereby certi	fy that the i	nformation ei	ven ahove	is true and comp	lete to t	he hest of my	knowledge and u	nderstar	nd that nurs	nant to NM	OCD r	ulae and
regulations al	l operators	are required to	report ar	nd/or file certain r	elease n	otifications ar	id perform correc	tive acti	ions for reh	eases which	may e	ndanger
public health	or the envi	ronment. The	acceptance	ce of a C-141 repo	rt by th	e NMOCD m	arked as "Pinal R	eport" d	loes not reli	ieve the oper	ator of	fliability
should their o	perations h	ave failed to a	dequately	investigate and re	emediai roport d	e contaminati	on that pose a thr	eat to gr	round water	, surface wa	iter, hu	man health
federal, state,	or local lav	vs and/or regu	lations.	Mance of a C-141	i opori u	OCS HOLICHUY	e the operator of	responsi	initity for c	omphance v	an an	y other
							OIL CON	SERV	ATION	DIVISIO	N	
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Printed Name	: James B	Campanella	<u> </u>	<del></del>					ronment	al Specia	list	<u>U</u>
Title: Memb	er/Manager	r				Approval Dat	e:9 18 13	1				3
E-mail Addre	ss: jbc@ju	ıdahoil.com				Conditions of	Approval: Deci	NEATT	₽ <b>Ę</b>	Attached	L_J	
Date: 7-22-2	2013		Ď.	one:575-746-1280		KEMBDIA	eper ocd (	anidri Baldri	uines	17		2000 /
Attach Addit		ets If Necess		MC.313-140-1260	<u> </u>	ovvinii [	1104- C-141	12 Y	-	1 104-4	13-2	2958

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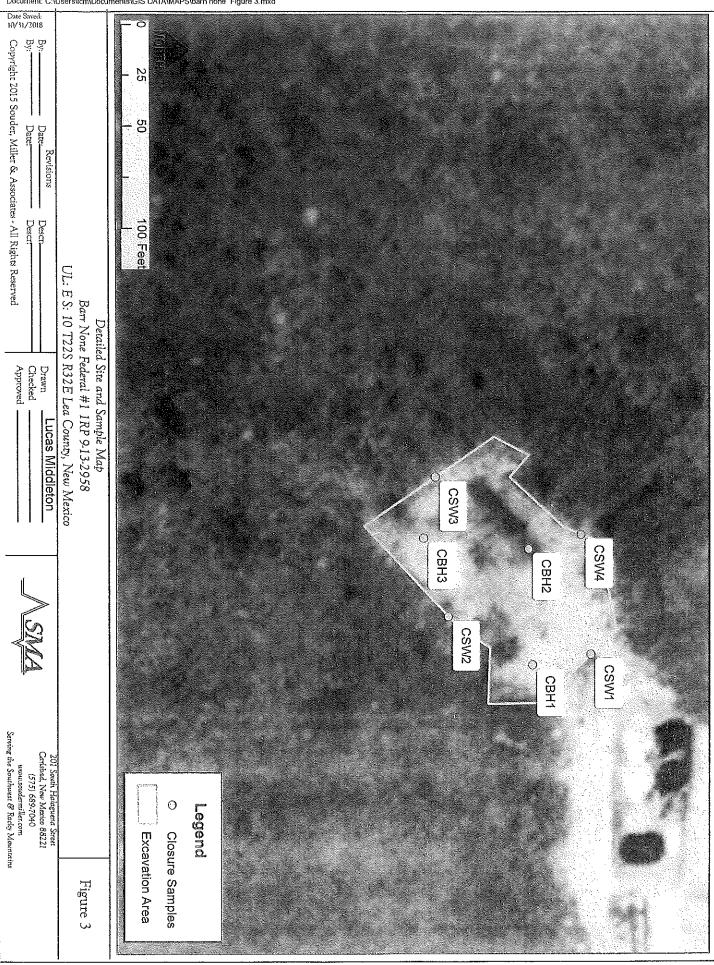
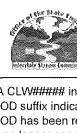


Table 3: Summary of Sample Results

Judah Oil LLC Barr None Federal #1 (RP1-9-13-2958)

Sample ID	Sample Date	Depth (feet bgs)	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMO	CD Closure	Criteria	50	10	. 10	00		2500	20,000
CSW1	10/9/2018	0.5	<0.219	<0.024	<4.9	<10	<50	<64.9	99
CSW2	10/9/2018	0.5	<0.213	<0.024	<4.7	<9.6	<48	<62.3	<30
CSW3	10/9/2018	0.5	<0.220	<0.024	<4.9	<9.7	<48	<62.6	<30
CSW4	10/9/2018	0.5	<0.224	<0.025	<5.0	11	<49	11	<30
CBH1	10/9/2018	0.5	<0.210	<0.023	<4.7	<9.6	<48	<62.3	<30
CBH2	10/9/2018	0,5	<0.216	<0.024	<4.8	<9.8	<49	<63.6	130
CBH3	10/9/2018	0.5	<0.210	<0.023	<4.7	<9.7	<48	<62.4	<30

<sup>&</sup>quot;--" = Not Analyzed



### 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 Sub-		a	o c							Denth	Denth	Water
	Code basin									Distance	-	-	1.1
C 03717 POD1	С	LE	4	4 1	i 09	228	32E	624094	3586365 🧼	1069	650		
C 02096	CUB	ED		2 3	3 14	22S	32E	627204	3584464*	2843	435	360	75
C 02821	С	LE	2	2 3	3 14	22S	32E	627303	3584563*	2849	540	340	200

Average Depth to Water:

350 feet

Minimum Depth:

340 feet

Maximum Depth:

360 feet

#### Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 625160.84

Northing (Y): 3586441.4

Radius: 3200

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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USGS Home Contact USGS Search USGS

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#### National Water Information System: Web Interface

HCCC	Motor	Recource	s 60

Data Category:	Geographic Area:	
Groundwater ~	United States V	GO
Laurence de la company de la c		ļ

Click to hideNews Bulletins

- Please see news on new formats
- Tuesday, October 30, approximately 7.5 percent of USGS streamgages are still not transmitting due to an issue with the telemetry system that records and transmits streamgage data. The USGS continues to work on bringing the streamgages back online as quickly as possible. The data on the streamgages is being preserved for download and has not been lost. Read more
- Full News 🔊

Groundwater levels for the Nation

Search Results -- 1 sites found

site\_no list =

322314103384301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

#### USGS 322314103384301 22S.32E.14.32322

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°23'23", Longitude 103°38'53" NAD27
Land-surface elevation 3,717.00 feet above NGVD29
The depth of the well is 435 feet below land surface.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

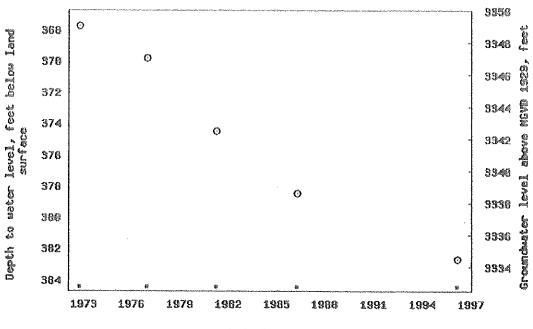
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Graph of data

Reselect period

USGS 522314168584501 223.32E.14.32322



Period of approved data

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

Accessibility

Plug-Ins

FOIA

Privacy

Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2018-10-31 12:20:26 EDT

1.06 0.93 nadww01

USA.gov

\* Attach Additional Sheets If Necessary

HOBBS OCD <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II

JUL 2 5 2013

State of New Mexico

**Energy Minerals and Natural Resources** 

Form C-141 Revised August 8, 2011

811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410

Oil Conservation Division 1220 South St. Francis Dr. Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505RECEIVED

Santa Fe. NM 87505

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			Rele	ease Notific	ation	and Co	rrective A	ction				
						<b>OPER</b>	ATOR.		X Initia	l Report		Final Report
Name of Co	mpany	Judah Oil,	LĿC		(	Contact Jar	nes B Campane	lla				
Address I		68				Telephone N	lo. 575-7486-	1280				
Facility Nan			#1			Facility Typ						
racinty ran	ne Dan I	Total Cacian				קני נאווייאי					-	
Surface Ow	ner BLM			Mineral C	)wner	BLM			API No	. 30-025-	32221	
				LOCA	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County		
E	10	228	32E	1980'	Non	h	660'	We	st	Lea		
										,		h
			La	titude		_ Longitud	e					
				NAT	URE	OF RELI	EASE					
Type of Relea	ase oil and	l produced wa	1er			Volume of	Release 11 oil 1	8 wtr	Volume R	ecovered	0	
Source of Rel							our of Occurrenc		Date and	Hour of Dis	covery	
							12:00 pm			1:30 pm		
Was Immedia	ne Notice (		Yes 🔲	No 🔲 Not Rec	quired		Whom? Maxey	Brown			messag	3e)
By Whom? Ja	omes B Car	unanella				Date and H	our 7-22-2013	2.26 nn:				
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was a water	coarse rear		Yes X	No		11 120, 10	rame impacting t	iic irai	icourse.			
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Describe Cau							·					ļ
Hole in metal	2" flow lir	ic. Replaced i	with 2" po	ıly line.	•							į
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Describe Are	a Affected	and Cleanup /	Action Tak	cen.*		•						
			D		m							
				weled down trails	. Fluid	soaked into g	round, none was	recover	ed. Had II	VT Backho	make	one call to
excavated cor	ntaminated	soil and run s	oil sample	es .								
*	0 1 1 1				<del></del>							****
				is true and comp								
regulations at	l operators	are required to	o report ar	nd/or file certain r	cicase n	otifications ai	id perform correc	tive act	ons for rel	cases which	may er	ndanger
				ce of a C-141 repo								
				investigate and r								
				otance of a C-141	report de	oes not reliev	c the operator of i	respons	bility for c	ompliance s	vith any	y other
federal, state,	or local las	ws and/or regu	ilations.				<del></del>					
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Printed Name	: James B	Campanella						Envi	ronment	al Specia	dist	<u> </u>
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E-mail Addre	ss. joc(a)	ucanon.com				CONGRESS OF	'Approval: <b>Dec 1</b> 1 E PAR OCD (	ひとりへい	I A	Attached		
Date: 7-22-2	2013	•	Pka	one:575-746-1280	,	SUBMIT F	inal C-141	RV	410EZ			2050/

SEP 2 8 2013

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TNT BACKHOE SERVICE 1701 North 1st ARTESIA, NM 88210 575-746-6063 575-365-7827

575-746-0807 FAX

8-16-2013

Carlsbad Field Office
Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220
Jennifer VanCuren
Jvancuren@blm.gov

On 8-15-2013 Judah Oil, LLC contact TNT Backhoe service (TNT) concerning a spill at the Barr None Federal #1 – Rural LEA, Township: 22s Range: 32e Section 10, 1980'FNL & 660'FWL, API #30-025-32221.

On 7-21-2013 at 12:00pm a crude oil release was discovered at the Barr None Federal #1 Tank Battery, the leak resulted from a crack in a flow line going into the tank which subsequently has been repaired.

The surface owner, US Bureau of Land Management (BLM) was informed, and subsequently a C-141 was filed with the New Mexico Oil & Division (NMOCD). The estimated quantity of release was reported as eleven barrels oil & thirteen barrels of water, of which none was immediately recovered.

Jennifer VanCuren "BLM" requested that a scope of work be done in writing and that, Geoffrey R Leking:

TNT BACKHOE SERVICE 1701 North 1st ARTESIA, NM 88210 575-746-6063 575-365-7827

#### 575-746-0807 FAX

Environmental Engineer, (NMOCD) in Hobbs is informed as well; the location is in Lea County.

If approved; TNT Backhoe Service will set up the time and date the job will began. Mr. Leking and Miss/Mrs. VanCuren will be given the information in case they wish to be present when the work begins.

RE: Remediation of the Judah Oil LLC, Barr Bone Federal #1 pipe line release.

On behalf of Judah Oil LLC, (TNT) is seeking permission to start remediation services at the Barr None Federal #1. The spill came from a broken flow line behind one of the tanks; running through a weak spot on the berm at the south/west corner of the location, "see map and pictures for visual."

The estimated spill is 75'x 176' running south/west, fingering out in different directions. The flow paths average between 3' to 20' in width. (TNT) would like to use a backhoe to remove the majority of the spill to be trucked to Sundance Services, Inc, near Eunice.

Once the majority of the spill is removed, (TNT) would begin to run preliminary sampling to determine how deep Released to Imaging: 3/23/2021 3:06:53 PM

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TNT BACKHOE SERVICE 1701 North 1st ARTESIA, NM 88210 575-746-6063 575-365-7827

#### 575-746-0807 FAX

& wide the spill traveled. Field samples will be taken at various spots to determine the chloride count using "Chloride strips," anything lower than 500 ppm will be sent to Cardinal Laboratories in Hobbs for the final analysis, which will include BTEX, GRO/DRO, and the chloride count. Included background samples taken around the spill.

Once it's determine how deep the spill is, (TNT) Submits two scenarios. The first would depend on the depth of the spill, if it is less than five to six feet, remove all contaminate to this point.

Calichie will be trucked in and used to backfill within a foot of ground level. Native soil will be used to finish bringing the excavated areas to ground level, contoured back into the surrounding area in a way as to promote revegetation, drainage and stop soil erosion.

Native seed approved by (BLM) will be seeded, by "hand broad casting" & raked into the soil. If deemed too late to seed at this time (TNT) would seed the following summer.

The second scenario would be in case the spill goes deeper than six feet, once its determine how deep seepage went, permission to take contaminate down four feet, cover with TNT BACKHOE SERVICE 1701 North 1st ARTESIA, NM 88210 575-746-6063 575-365-7827

#### 575-746-0807 FAX

a 20mil liner, backfill within a foot of ground level. Native soil will be used to finish bringing the excavated areas to ground level, contoured back into the surrounding area in a way as to promote re-vegetation, drainage and to discourage soil erosion.

Native seed approved by (BLM) will be seeded, using the "hand broad cast system" then raked into the soil. If it's deemed too late to seed at this time (TNT) would seed the following summer. If you have any question please feel contact Ray Martin at 575-365-7827.

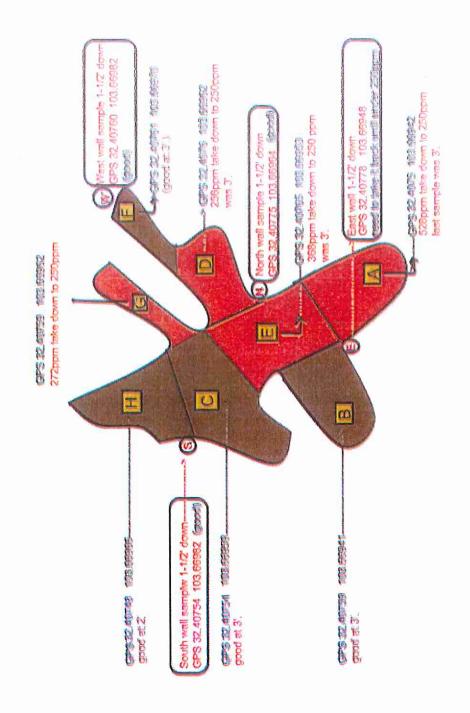
Respectfully Submitted

Gary Smith
TNT Backhoe Service
Office 575-746-6063
E-mail tntbackhoeservice@pvtn.net

Released to Imaging: 3/23/2021 3:06:53 PM

Judath Oil LLC
Barr None Federal #1
1980FNL 660FWL
Sec 10 T 22s R32e - Eddy County

\$ + w



Received by OCD: 7/6/2020 8:40:58 AM



September 24, 2013

**GARY SMITH** 

TNT Backhoe Service

P.O. Box 133

Artesia, NM 88211

RE: BARR NONE FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 09/18/13 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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.tceg.texas.gov/field/ga/lab accred certif.html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Kenne

Celey D. Keene

Lab Director/Quality Manager

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TNT Backhoe Service
GARY SMITH
P.O. Box 133
Artesia NM, 88211
Fax To: (505) 746-1885

Received: Reported: 09/18/2013

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Date:

09/18/2013 Soil

ype:

Cool 9

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

#### Sample ID: A-3' DEEP (H302276-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	< 0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	111 9	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	09/19/2013	ND	416	104	400	3 77	

Cardinal Laboratories

\*=Accredited Analyte

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Coly D. Kuns



TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact

09/18/2013

Jodi Henson

Soil

#### Sample ID: B-3' DEEP (H302276-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6,00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	108 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/19/2013	ND	416	104	400	3.77	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received: 09/18/2013 Reported: 09/24/2013

Project Name: BARR NONE FEDERAL #1 Project Number: NONE GIVEN

Project Location: LEA COUNTY, NM Sampling Date:

Sampling Type:

Sample Received By:

09/18/2013 Soil

Sampling Condition:

Cool & Intact

Jodi Henson

#### Sample ID: C-3' DEEP (H302276-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	108	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/19/2013	ND	416	104	400	3.77	

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\*=Accredited Analyte

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Colog D. Keens



TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211

Fax To:

(505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM

Sampling Date: Sampling Type: 09/18/2013

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

#### Sample ID: D-3' DEEP (H302276-04)

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	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (P1L	107	% 89.4-12	6						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	09/19/2013	ND	416	104	400	3.77	

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Celey D. Keene



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#### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM

Sampling Date:

09/18/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

#### Sample ID: E-3' DEEP (H302276-05)

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	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106	% 89.4-12	6	<del> </del>					
hloride, SM4500Cl-B mg/kg		Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	09/19/2013	ND	416	104	400	3.77	

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Coly D. Kuna

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211

Fax To:

(505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1 NONE GIVEN

Project Location:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition:

Sample Received By:

09/18/2013

Soil

Cool & Intact Jodi Henson

Sample ID: F-3' DEEP (H302276-06)

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	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						

Analyte	mg	тд/кд		Analyzed By: AP					
	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	09/19/2013	ND	416	104	400	3.77	

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Celly D. Keene





### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name:

BARR NONE FEDERAL #1

Project Number: Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

09/18/2013 Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

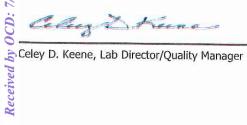
### Sample ID: G-3' DEEP (H302276-07)

BTEX 8021B	mg,	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	107 9	% 89.4-12	6						_
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	09/19/2013	ND	416	104	400	3.77	Ξ.

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# Reteased to Imaging: 3/23/2021 3:06:53 PM



### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received: Reported:

09/18/2013

09/24/2013

Project Name:

BARR NONE FEDERAL #1

Project Number: Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 09/18/2013

Soil

Cool & Intact

Jodi Henson

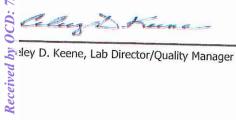
### Sample ID: H-2' DEEP (H302276-08) BTFX 8021B

B1EX 8021B	mg	/kg	Analyz	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	Qualifier
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	< 0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	< 0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND			02° 250	1172	
Surrogate: 4-Bromofluorobenzene (PIL	109 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	0 15
Chloride	224	16.0	09/19/2013	ND	416	104	400	3.77	Qualifier

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### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received: Reported: 09/18/2013

09/24/2013

BARR NONE FEDERAL #1 NONE GIVEN

Project Number: Project Location:

Project Name:

LEA COUNTY, NM

Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: Soil

Cool & Intact Jodi Henson

09/18/2013 (

Sample ID: NORTH WALL-1 1/2 DEEP (H302276-09)

BTEX 8021B	mg/l	⟨g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	108 %		6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	240	16.0	09/19/2013	ND	416	104	400	3.77	

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Celley L. Kenne-



### **CARDINAL** Laboratories

### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM

Sampling Date:

09/18/2013

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

### Sample ID: SOUTH WALL 1 1/2 DEEP (H302276-10)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	< 0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	< 0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2013	ND	432	108	400	0.00	

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7/6/2020

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Colog & Kuna



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### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received: 09/18/2013

Reported: 09/24/2013

Project Name: BARR NONE FEDERAL #1 Project Number: NONE GIVEN

Project Location: LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 09/18/2013 Soil Cool & Intact

Jodi Henson

Sample ID: EAST WALL - 1 1/2 DEEP (H302276-11)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	< 0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	110 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	09/23/2013	ND	432	108	400	0.00	

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7/6/2020

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Colog D. Kiene

Celey D. Keene, Lab Director/Quality Manager



# Received by OCD: 7/6/2020



### Analytical Results For:

TNT Backhoe Service **GARY SMITH** P.O. Box 133 Artesia NM, 88211 Fax To: (505) 746-1885

Received:

09/18/2013

Reported:

09/24/2013

Project Name: Project Number: BARR NONE FEDERAL #1

Project Location:

NONE GIVEN LEA COUNTY, NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: 09/18/2013

Cool & Intact

Jodi Henson

Sample ID: WEST WALL - 1 1/2 DEEP (H302276-12)

BTEX 8021B	mg,	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2013	ND	2.11	105	2.00	5.45	
Toluene*	<0.050	0.050	09/20/2013	ND	1.97	98.7	2.00	5.19	
Ethylbenzene*	<0.050	0.050	09/20/2013	ND	1.98	99.2	2.00	4.79	
Total Xylenes*	<0.150	0.150	09/20/2013	ND	6.02	100	6.00	4.72	
Total BTEX	<0.300	0.300	09/20/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	110 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg,	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2013	ND	432	108	400	0.00	

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## 7/6/2020



### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

Relative Percent Difference RPD

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

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Celly & Keens



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 15 of 16

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

O CONTRACTOR OF THE PROPERTY O	o the emount paid by the client for th	any claim arising whether based in contract or tort, shall be limited t	T-L-ASE AVI II: Liability and Demages, Cardina's liability and clarify and clarify or any claim arising whether based in contract or fort, shall be limited to the mount paid by the client for the	PLEASE NOIE: Clability and
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	) )0;42	<u>'</u>	F- 3' Deep	6
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	1 10:28	\ \	D- 3' deep	Ę
	\ //:42	<u> </u>	C - 3/	W
	/ /0:/3	<	3-3' Secs	7
	948-13 9:46		A-3' deep	jesis5)
B. C.	DATE TIME	# CONT		H352576
100		: ASE; DOL	Sample I.D.	<u>5</u>
	SAMPLING			FOX DAB USE ONLY
-		Fa	Coary Smith	Sampler Name:
t		Phone #:	₹	Project Location:
	State: 1011 Zip: 88210		L'Sorr Nove Federal #11	Project Name:
	sic		•	Project#: 525
	f		5-7-3-10-4 7 Fax #1-505. 746-0802	Phone #: 517
	Attn: Alblise Campanelle	State: NM Zip: 882/0 Attn: Allais	Antesia state: NM	city: Ani
	sock oil	Company: 1400k		Address:
- 1	-	P.O. #:		Project Manager:
ANALYSIS REQUEST	011116		" TNT Eachhor Service	Company Name:

environmental Cardinal be liable for include and any successor winasserver small de decined waved unless made in writing and deceived by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal the liable for inclinental or consequential damages, including without liablation, beiness interruptions, loss of use, or loss of profits incurred by client, las subsidiaries, affiliable or successors affairs out of or related to the performance of send-ress fueruries by Cardinal regardless of whother such calculations are only a short of the short of the context of the performance of send-ress fueruries by Cardinal regardless of whother such calculations are of the short of the context of

	,			Total Andrews	7,6
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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 16 of 16

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

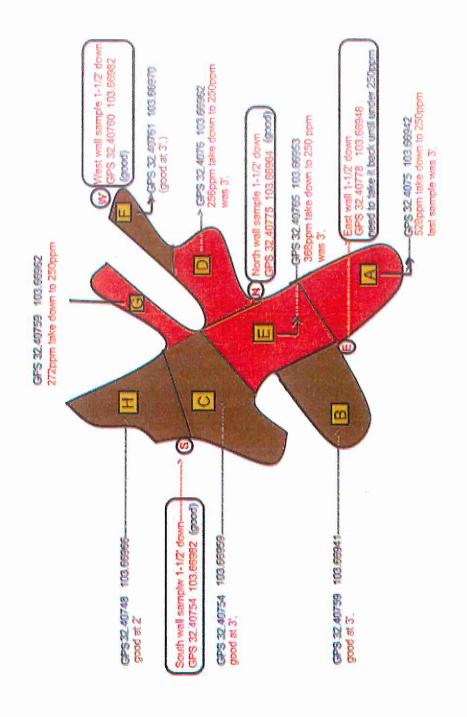
Company Name: Ta) Cochos Service		ANALYSIS REQUEST
Project Manager: (30ry Smith	P.O. #:	
Address: 1701 North 1st	Company: Just oil	
City: Ate 816 State: Non		
Phone #: 575-746- Cod Fax #: 575-	Fax #: \? - 746 - 0807 Address:</td <td></td>	
Project #: Project Owner:	City: A. tasia	
Project Name: Barr Nove Federal #1		
Project Location: 100 County		
Sampler Name: Expry Smith	Fax #:	
FOR LAB USE ONLY	MATRIX PRESERV SAMPLING	<i>Se</i>
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H302276	# CON	<i>C</i>
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Judah Oii LL.C Barr None Federal #1 1980FNL 660FWL Sec 10 T 22s R32e - Eddy County

× × × × ×



Souder, Miller & Associates 201 S. Halagueno St. Carlsbad, NM 88220 (575) 689-8801

#5E26837-BG4

November 1, 2018

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

SUBJECT: Remediation Closure Report for the Barr None Federal #1 Release (1RP—9-13-2958), Lea County, New Mexico

Dear Ms. Hernandez:

On behalf of Judah Oil, LLC (Judah), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes release documentation and confirmation sampling of a release of liquids related to oil and gas production activities at the Barr None Federal #1 site. The site is in Unit E, Section 10, Township 22S, Range 32E, Lea County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

	Table 1: Release Inform	nation and Closure	e Criteria
Name	Barr None Federal #1	Company	Judah Oil LLC
API Number	30-025-2221	Location	32.4080124 -103.6690445
Incident Number		1RP-9-13-2958	
Estimated Date of Release	July 21, 2013	Date Reported to NMOCD	July 22, 2013
Land Owner	Federal	Reported To	NMOCD District 1
Source of Release	Flowline		
Released Volume	29 bbl	Released Material	11 bbl oil, 18 bbl produce water
Recovered Volume	0 bbl	Net Release	29 bbl
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	October 9, 2018		

Barr None Federal #1 Remediation Closure Report (1RP-9-13-2958) November 1, 2018

Page 2 of 3

### 1.0 Background

On July 21, 2013, a release was discovered at the Barr None Federal #1 site due to a hole in a metal 2-inch flowline. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The C-141 form is included in Appendix A.

### 2.0 Site Information and Closure Criteria

The Barr None Federal #1 is located approximately 32 miles east of Carlsbad, New Mexico on Federal (BLM) land at an elevation of approximately 3,804 feet above mean sea level (amsl).

Based upon NMOSE and USGS data (Appendix B), depth to groundwater in the area is estimated to be 437 feet below grade surface (bgs). There are zero (0) known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose\_pod\_locations/; accessed 10/31/2018). The nearest significant watercourse is an unnamed playa, located approximately 885 feet to the southwest. Figure 2 illustrates the site with 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.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

### 3.0 Release Characterization Activities and Findings

In the workplan dated August 16, 2013, TNT Backhoe Service (TNT) proposed excavating and removing contaminated soil in the impacted area. On September 9, 2013, NMOCD received the workplan. On September 18, 2013, TNT conducted confirmation sampling of the walls and base of the excavation. Sample depths ranged from 1.5 to 3 feet bgs. NMOCD received a copy the Cardinal Laboratories report on September 26, 2013 (included in Appendix C). SMA has not found or received any further documentation regarding this release.

At the request of Judah, SMA collected confirmation samples from the apparent release and excavation area. On October 9, 2018, SMA conducted confirmation sampling of the area of impact. Confirmation samples were comprised of five-point composites.

A total of seven (7) sample locations (composite sidewall samplesCSW1-CSW4, composite bottom-hole samples CBH1-CBH3) were collected using a hand-auger, to depths of six (6) inches bgs. A total of seven (7) samples were collected for laboratory analysis 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. Locations for all samples are depicted on Figure 3.

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).

Figure 3 shows the apparent extent of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

SMA recommends no further action for the Barr None Federal release (1RP-9-13-2958).

Barr None Federal #1 Remediation Closure Report (1RP-9-13-2958) November 1, 2018

Page 3 of 3

### **Scope and Limitations** 4.0

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES

Smean Muchdelle

Reviewed by:

Lucas C. Middleton Staff Scientist

Shawna Chubbuck Senior Scientist

Nauna Chubbuck

### **ATTACHMENTS:**

### Figures:

Figure 1: Vicinity and Well Head Protection Map

Figure 2: Surface Water Radius Map Figure 3: Site and Sample Location Map

### Tables:

Table 2: NMOCD Closure Criteria Justification

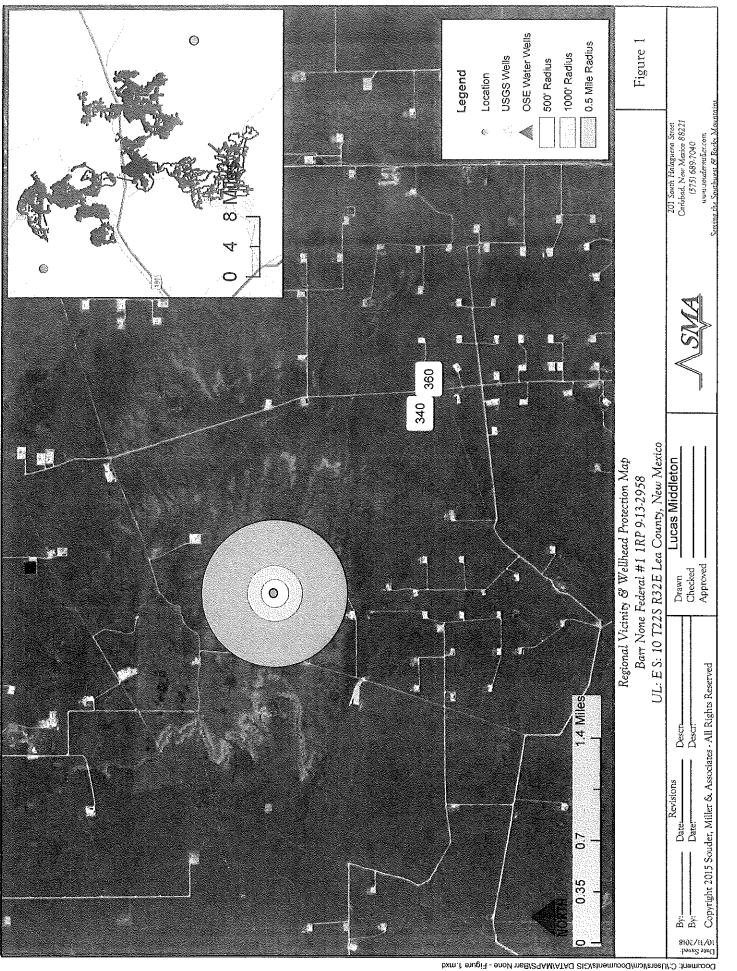
Table 3: Summary of Sample Results

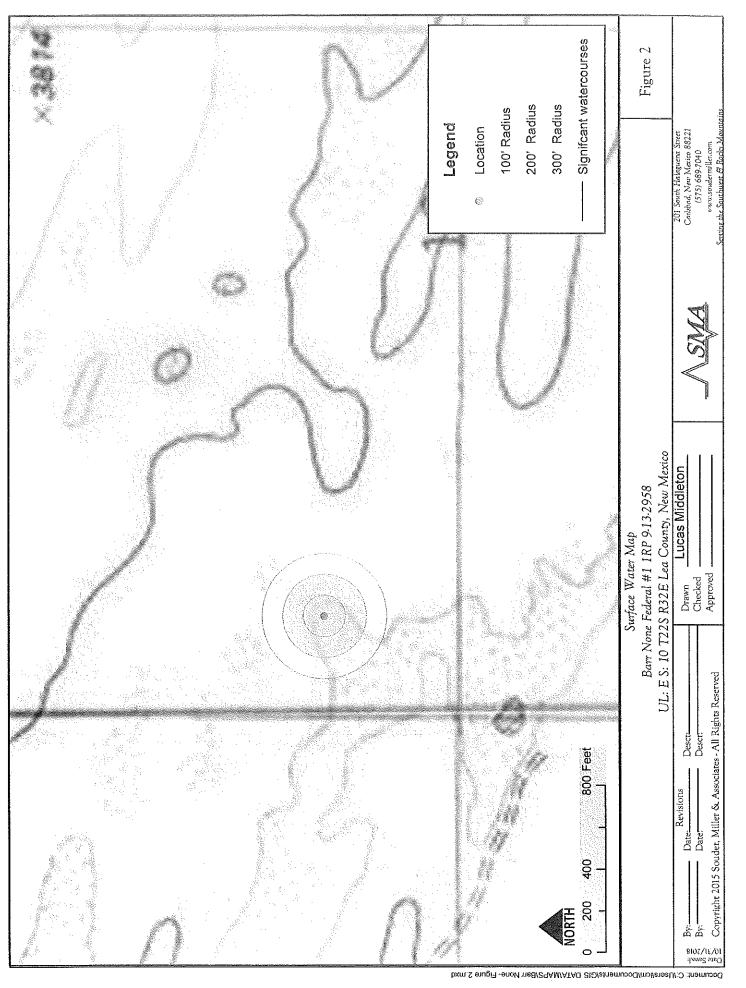
### Appendices:

Appendix A: Form C141

Appendix B: NMOSE Wells Report

Appendix C: Laboratory Analytical Reports







Received by OCD: 7/6/2020 8:40:58 AM

### **TABLES**

Closure Criteria (19.15.	29.12.B(4) and	d Table 1 NMAC)				
		Clos	ure Criteria	(units in n	ng/kg)	
, Depth to Groundwater		Chloride *numerical limit or background, whichever is greater	ТРН	GRO + DRO	втех	Benzene
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'	Χ	20000	2500	1000	50	10
Surface Water	yes or no		if ye	s, then		
<300' from continuously flowing watercourse or other significant watercourse?	No		·			
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No	1				
Human and Other Areas	•	600	100		50	10
<300' from an occupied permanent residence, school, hospital, Institution or church?	No					
within incorporated municipal boundaries or within a defined municipal						
fresh water well field?	No					
<100' from wetland?	No	]				
within area overlying a subsurface mine	No					1
within an unstable area?	No					
within a 100-year floodplain?	No					

Table 3: Summary of Sample Results

Judah Oil LLC Barr None Federal #1 (RP1-9-13-2958)

Sample ID	Sample Date	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	CI- mg/Kg
NMOCD Closure Criteria		50	10	10	00		2500	20,000	
CSW1	10/9/2018	0.5	<0.219	<0.024	<4.9	<10	<50	<64.9	99
CSW2	10/9/2018	0.5	<0.213	<0.024	<4.7	<9.6	<48	<62.3	<30
CSW3	10/9/2018	0.5	<0.220	<0.024	<4.9	<9.7	<48	<62.6	<30
CSW4	10/9/2018	0.5	<0.224	<0.025	<5.0	11	<49	11	<30
CBH1	10/9/2018	0.5	<0.210	<0.023	<4.7	<9.6	<48	<62.3	<30
CBH2	10/9/2018	0.5	<0.216	<0.024	<4.8	<9.8	<49	<63.6	130
CBH3	10/9/2018	0.5	<0.210	<0.023	<4.7	<9.7	<48	<62.4	<30

"--" = Not Analyzed



November 1, 2018

#5E26837-BG4

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

SUBJECT: Remediation Closure Report for the Barr None Federal #1 Release (1RP-9-13-2958), Lea County, New Mexico

Dear Ms. Hernandez:

On behalf of Judah Oil, LLC (Judah), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes release documentation and confirmation sampling of a release of liquids related to oil and gas production activities at the Barr None Federal #1 site. The site is in Unit E, Section 10, Township 22S, Range 32E, Lea County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

	Table 1: Release Informa	ation and Closure	Criteria
Name	Barr None Federal #1	Company	Judah Oil LLC
API Number	30-025-2221	Location	32.4080124 -103.6690445
Incident Number		1RP-9-13-2958	
Estimated Date of Release	July 21, 2013	Date Reported to NMOCD	July 22, 2013
Land Owner	Federal	Reported To	NMOCD District 1
Source of Release	Flowline		
Released Volume	29 bbl	Released Material	11 bbl oil, 18 bbl produce water
Recovered Volume	0 bbl	Net Release	29 bbl
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	October 9, 2018		

1.1		1.	1.	10	Correspondance dates	Correspondance dates	Closure report submitted	Work Plan Submitted	7,1	C141- Initial Resubmitted	C141 - Initial Submitted	Order Date by OCD 9/	9	Judah Requesting Approval for Remediation 8/	Spill date 7,	API Number 30	Timeline2 1
11/20/2018 12/4/2018	11/6/2018	11/4/2018	11/1/2018	9/26/2013 10/6/2018				NA	7/25/2013			9/18/2013	9/9/2013	8/16/2013	7/21/2013	300253221	1RP-2958
Middleton emailed Judah (James Campanella) & Wes @ energy Resources with Closure Reports to re-submit to brad billings at NMOCD. Middleton emailed closure report to Pike Energy	Yu emailed Middleton to advise the release would need to be evaluated by Jim Griswold (Griswold not copied on Yu's email)	Email response from Yu to Engallina's 10-30-2018; 1RP-2958; does not have closure approval from NMOCD or BLM. NMOCD states that the area needs reevaluated for closure.	Closure Report to Christina Hernandez	NMOCD recieves Cardinal Lab Reporots  Middleton emailed OCD (10/8/18) 48 hour notification (closure samples) w/ request to "get an update on closure for other RP on this site. 1RP-4574					Received by Hobbs OCD			Received by Hobbs OCD		Per TNT Backhoe Service			Explanation (1RP-2958)

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## APPENDIX B NMOSE & USGS WELLS REPORT



### 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) (NA

(NAD83 UTM in meters)

(In feet)

	POD Sub-		Q	Q C	)			and the second			Denth	Denth "	Mater
POD Number C 03717 POD1	Code basin	County	64 '	16 4	Sec	Tws	Rng	Х	y 3586365 ∰	Distance		Water C	
C 02096	CUB	ED		2 3	3 14	22S	32E	627204	3584464*	2843	435	360	75
C 02821	С	LE	2	2 3	3 14	22S	32E	627303	3584563*	2849	540	340	200

Average Depth to Water:

350 feet

Minimum Depth:

340 feet

Maximum Depth:

360 feet

### Record Count: 3

### UTMNAD83 Radius Search (in meters):

Easting (X): 625160.84

Northing (Y): 3586441.4

Radius: 3200

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Received by OCD: 7/6/2020 8:40:58 AM



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

		en-
11565	Water	Resources

Data Category:	Geographic Area:	,
		GO

### Click to hideNews Bulletins

- Please see news on new formats
- Tuesday, October 30, approximately 7.5 percent of USGS streamgages are still not transmitting due to an issue with the telemetry system that records and transmits streamgage data. The USGS continues to work on bringing the streamgages back online as quickly as possible. The data on the streamgages is being preserved for download and has not been lost. Read more
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site\_no list =

322314103384301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

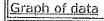
### USGS 322314103384301 22S.32E.14.32322

Available data for this site Groundwater: Field measurements V GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°23'23", Longitude 103°38'53" NAD27
Land-surface elevation 3,717.00 feet above NGVD29
The depth of the well is 435 feet below land surface.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

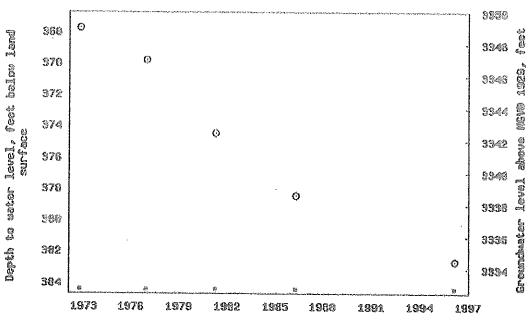
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Reselect period

USGS 522914169594501 225.52E.14.52522



Period of approved data

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

Accessibility

Plug-Ins

**FOIA** 

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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team

Page Last Modified: 2018-10-31 12:20:26 EDT

1.06 0.93 nadww01

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TISA,gov\_

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## APPENDIX C LABORATORY ANALYTICAL REPORTS



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

IEL: 303-343-39/3 FAX: 303-343-410/ Website: <u>www.hallenvironmental.com</u>

OrderNo.: 1810662

October 18, 2018

Austin Weyant Souder, Miller & Associates 201 S Halagueno Carlsbad, NM 88221 TEL: (575) 689-7040

FAX

RE: Bar None

### Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/11/2018 for the analyses presented in the following report.

\_

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

## Received by OCD: 7/6/2020 8:40:58 AM

Hall Environmental Analysis Laboratory, Inc.

**Analytical Report** Lab Order 1810662

Date Reported: 10/18/2018

CLIENT: Souder, Miller & Associates

Project: Bar None

Lab ID: 1810662-001 Client Sample ID: CSW 1

Collection Date: 10/9/2018 10:00:00 AM

Received Date: 10/11/2018 8:50:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	smb
Chloride	99	30	mg/Kg	20	10/16/2018 12:15:50 PM	√ 41028
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst	: Irm
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/12/2018 2:27:09 PM	40959
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/12/2018 2:27:09 PM	40959
Surr: DNOP	74.6	50.6-138	%Rec	1	10/12/2018 2:27:09 PM	40959
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/12/2018 5:45:22 PM	40955
Surr: BFB	88.9	15-316	%Rec	1	10/12/2018 5:45:22 PM	40955
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	10/12/2018 5:45:22 PM	40955
Toluene	ND	0.049	mg/Kg	1	10/12/2018 5:45:22 PM	40955
Ethylbenzene	ND	0.049	mg/Kg	1	10/12/2018 5:45:22 PM	40955
Xylenes, Total	ND	0.097	mg/Kg	1	10/12/2018 5:45:22 PM	40955
Surr: 4-Bromofluorobenzene	104	80-120	%Rec	1	10/12/2018 5:45:22 PM	40955

Matrix: SOIL

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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 12
- Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1810662

Date Reported: 10/18/2018

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates Client Sample ID: CSW 2

 Project:
 Bar None
 Collection Date: 10/9/2018 10:05:00 AM

 Lab ID:
 1810662-002
 Matrix: SOIL
 Received Date: 10/11/2018 8:50:00 AM

Analyses	Result	PQL	Qual U	nits	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	smb
Chloride	ND	30	m	ng/Kg	20	10/16/2018 12:53:05 P	VI 41028
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst	: lrm
Diesel Range Organics (DRO)	ND	9.6	m	ng/Kg	1	10/12/2018 3:56:00 PM	40959
Motor Oil Range Organics (MRO)	ND	48	m	ng/Kg	1	10/12/2018 3:56:00 PM	40959
Surr: DNOP	61.3	50.6-138	%	6Rec	1	10/12/2018 3:56:00 PM	40959
EPA METHOD 8015D: GASOLINE RANGE						Analys	: RAA
Gasoline Range Organics (GRO)	ND	4.7	m	ng/Kg	1	10/12/2018 6:53:11 PM	40955
Surr: BFB	93.8	15-316	%	6Rec	1	10/12/2018 6:53:11 PM	40955
EPA METHOD 8021B: VOLATILES						Analys	: RAA
Benzene	ND	0.024	m	ng/Kg	1	10/12/2018 6:53:11 PM	40955
Toluene	ND	0.047	m	ng/Kg	1	10/12/2018 6:53:11 PM	40955
Ethylbenzene	ND	0.047	m	ng/Kg	1	10/12/2018 6:53:11 PM	40955
Xylenes, Total	ND	0.095	m	ng/Kg	1	10/12/2018 6:53:11 PM	40955
Surr: 4-Bromofluorobenzene	110	80-120	%	6Rec	1	10/12/2018 6:53:11 PM	40955

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

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- 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 Page 2 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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

### Analyte detected in the associated Method Blank

E Sample Diluted Due to Matrix

Value exceeds Maximum Contaminant Level. Đ

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8015M/D: DIESEL RANGE ORGANICS

Matrix: SOIL

Result

ND

ND

67.2

ND

90.3

ND

ND

ND

ND

106

CLIENT: Souder, Miller & Associates

Bar None

**EPA METHOD 300.0: ANIONS** 

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Gasoline Range Organics (GRO)

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

**EPA METHOD 8015D: GASOLINE RANGE** 

1810662-003

Project:

Lab ID:

Analyses

Chloride

Surr: DNOP

Surr: BFB

Benzene

Toluene

Qualifiers:

Ethylbenzene

Xylenes, Total

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Value above quantitation range

Analyte detected below quantitation limits Page 3 of 12J

Analytical Report Lab Order 1810662

Client Sample ID: CSW 3

mg/Kg

mg/Kg

mg/Kg

%Rec

mg/Kg

%Rec

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%Rec

1

1

1

1

1

1

PQL Qual Units

30

9.7

48

4.9

15-316

0.024

0.049

0.049

0.098

80-120

50.6-138

Collection Date: 10/9/2018 11:01:00 AM

Received Date: 10/11/2018 8:50:00 AM

**DF** Date Analyzed

Date Reported: 10/18/2018

Batch

Analyst: smb

Analyst: Irm

Analyst: RAA

Analyst: RAA

10/16/2018 1:05:30 PM 41028

10/12/2018 4:18:08 PM 40959

10/12/2018 4:18:08 PM 40959

10/12/2018 4:18:08 PM 40959

10/12/2018 8:01:04 PM 40955

Р Sample pH Not In Range

RLReporting Detection Limit

Sample container temperature is out of limit as specified

Received by OCD: 7/6/2020 8:40:58 AM

Analytical Report Lab Order 1810662

Date Reported: 10/18/2018

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Project: Bar None

Lab ID: 1810662-004

Client Sample ID: CSW 4

Collection Date: 10/9/2018 10:15:00 AM

Received Date: 10/11/2018 8:50:00 AM

Analyses	Result	PQL	Qual U	Inits	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	smb
Chloride	ND	30	n	ng/Kg	20	10/16/2018 1:17:54 PM	41028
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst:	lrm
Diesel Range Organics (DRO)	11	9.9	m	ng/Kg	1	10/12/2018 4:40:13 PM	40959
Motor Oil Range Organics (MRO)	ND	49	n	ng/Kg	1	10/12/2018 4:40:13 PM	40959
Surr: DNOP	74.5	50.6-138	%	6Rec	1	10/12/2018 4:40:13 PM	40959
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	RAA
Gasoline Range Organics (GRO)	ND	5.0	n	ng/Kg	1	10/12/2018 8:23:45 PM	40955
Surr: BFB	90.9	15-316	9	6Rec	1	10/12/2018 8:23:45 PM	40955
EPA METHOD 8021B: VOLATILES						Analyst	RAA
Benzene	ND	0.025	n	ng/Kg	1	10/12/2018 8:23:45 PM	40955
Toluene	ND	0.050	n	ng/Kg	1	10/12/2018 8:23:45 PM	40955
Ethylbenzene	ND	0.050	n	ng/Kg	1	10/12/2018 8:23:45 PM	40955
Xylenes, Total	ND	0.099	n	ng/Kg	1	10/12/2018 8:23:45 PM	40955
Surr: 4-Bromofluorobenzene	106	80-120	9	%Rec	1	10/12/2018 8:23:45 PM	40955

Matrix: SOIL

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 Page 4 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1810662

Date Reported: 10/18/2018

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Project: Bar None

Lab ID: 1810662-005

Client Sample ID: CBH 1

Collection Date: 10/9/2018 10:30:00 AM

Received Date: 10/11/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	smb
Chloride	ND	30		mg/Kg	20	10/16/2018 1:30:18 PM	41028
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst:	lrm
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/12/2018 5:02:06 PM	40959
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/12/2018 5:02:06 PM	40959
Surr: DNOP	83.6	50.6-138		%Rec	1	10/12/2018 5:02:06 PM	40959
EPA METHOD 8015D: GASOLINE RANGE						Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/12/2018 8:46:23 PM	40955
Surr: BFB	90.7	15-316		%Rec	1	10/12/2018 8:46:23 PM	40955
EPA METHOD 8021B: VOLATILES						Analyst:	RAA
Benzene	ND	0.023		mg/Kg	1	10/12/2018 8:46:23 PM	40955
Toluene	ND	0.047		mg/Kg	1	10/12/2018 8:46:23 PM	40955
Ethylbenzene	ND	0.047		mg/Kg	1	10/12/2018 8:46:23 PM	40955
Xylenes, Total	ND	0.093		mg/Kg	1	10/12/2018 8:46:23 PM	40955
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	10/12/2018 8:46:23 PM	40955

Matrix: SOIL

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 Page 5 of 12
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client:

### QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1810662 18-Oct-18

Souder, Miller & Associates

Project: Bar None

Sample ID LCS-40959	SampTyp	e. LCS	3	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch II	Batch ID: 40959			unNo: 5	4831					
Prep Date: 10/11/2018	Analysis Date: 10/12/2018			S	eqNo: 1	822521	Units: mg/Kg				
Analyte	Resuit f	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	42	10	50.00	0	83.7	70	130				
Sure: DNOP	4.6		5.000		91.7	50.6	138				

Sample ID MB-40959	SampT	ype: ME	3LK	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS	Batch	1D: 40	959	F	RunNo: 5	4831				
Prep Date: 10/11/2018	Analysis D	ate: 10	0/12/2018	5	SegNo: 1	822522	Units: mg/K	(g		
Analyle	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10		10. 10. 10. 10. 10. 10. 10. 10. 10. 10.	×					
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.0	50.6	138			

Sample ID 1810662-001AMS	SampT	ype: MS	3	Tes	lCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: CSW 1	Batch	ID: 40	959	F	tunNo: 5	4831				
Prep Date: 10/11/2018	Analysis D	ate: 10	)/12/2018	S	SeqNo: 1	822526	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.5	47.53	0	100	53.5	126			
Sure DNOD	4.2		4 752		077	E0 6	120			

Sample ID 1810662-001AMS	<b>D</b> SampT	SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: CSW 1	Batch	1D: 40	959	F	lunNo: 5	4831					
Prep Date: 10/11/2018	Analysis D	ate: 10	)/12/2018	S	SeqNo: 1	822527	Units: mg/F	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	46	9.4	47.13	0	96.7	53.5	126	4.17	21.7		
Surr: DNOP	3.3		4.713		70.0	50.6	138	0	0		

Sample ID LCS-41021	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 41021	RunNo: 54899		
Prep Date: 10/16/2018	Analysis Date: 10/16/2018	SeqNo: <b>1824731</b>	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: DNOP	3.2 5.00	64.4 50.6	138	

Sample ID MB-41021	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 41021	RunNo: 54899
Prep Date: 10/16/2018	Analysis Date: 10/16/2018	SeqNo: 1824732 Units: %Rec
Analyte	Result PQL SPK value SPk	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Ε Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Page 9 of 12

Released to Imaging: 3/23/2021 3:06:53 PM

### QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1810662

18-Oct-18

Client:

Souder, Miller & Associates

Project:

Bar None

Sample ID MB-41021

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 41021

RunNo: 54899

Prep Date: 10/16/2018 Analysis Date: 10/16/2018

Units: %Rec

PQL

SeqNo: 1824732

HighLimit

%RPD **RPDLimit** 

Qual

Surr: DNOP

Analyte

Result 7.2

10.00

SPK value SPK Ref Val

%REC 72.4

50.6

LowLimit

138

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits

Page 10 of 12

- Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Received by OCD: 7/6/2020 8:40:58 AM

### QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

SampType: MSD

WO#:

1810662

18-Oct-18

Client:

Souder, Miller & Associates

Project:

Bar None

Sample ID 1810662-001AMSD

Sample ID 1810662-00	1AMS Samp	Type: MS	3	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID: CSW 1	Bato	h ID: 40	955	F	RunNo: 5	4829				
Prep Date: 10/11/201	8 Analysis I	Date: 10	0/12/2018	8	SeqNo: 1	823257	Units: mg/F	<b>⟨</b> g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GF	RO) 26	4.9	24,68	0	104	77.8	128			
Surr BER	1100		987.2		114	15	316			

Client ID: CSW 1	Batch	1D: 40	955	F	RunNo: 5	4829				
Prep Date: 10/11/2018	Analysis D	ate: 10	/12/2018	8	SeqNo: 1	B23258	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.41	0	99.5	77.8	128	5.75	20	
Surr: BFB	1100	***************************************	976.6		110	. 15	316	0	0	

TestCode: EPA Method 8015D: Gasoline Range

Sample ID LCS-40955	SampT	ype: LC	S	Tes	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch	1D: 40	955	F	RunNo: 5	4829						
Prep Date: 10/11/2018	Analysis D	ate: 10	0/12/2018	8	SeqNo: 1	823271	Units: mg/h	<b>⟨</b> g				
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	75.9	131					
Surr: BFB	1100		1000		105	15	316					

Sample ID MB-40955	SampT	ype: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch	1D: <b>40</b>	955	R	RunNo: 5	4829				
Prep Date: 10/11/2018	Analysis D	ate: 16	0/12/2018	S	SeqNo: 1	823272	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								7 18 111
Surr: BFB	930		1000		92.7	15	316			

### Qualifiers:

Received by OCD: 7/6/2020 8:40:58 AM

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- Analyte detected below quantitation limits
- Sample pH Not In Range Reporting Detection Limit
- Sample container temperature is out of limit as specified

Е Value above quantitation range

Page 11 of 12

### QC SUMMARY REPORT

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1810662 18-Oct-18

Client:

Souder, Miller & Associates

Project:

Bar None

Project:	Bar None	,									
Sample ID	1810662-002AMS	SampT	ype: MS	3	Tes	tCode: E	PA Method	8021B: Vola	tiles	- THE MITTHEW THE PARTY OF THE	
Client ID:	CSW 2	Batch	n ID: 40	955	F	RunNo: 5	4829				
Prep Date:	10/11/2018	Analysis D	)ate: 10	0/12/2018	S	SeqNo: 1	823401	Units: mg/f	<b>〈</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.024	0.9407	0.004290	118	68.5	133			377737 110323120
Toluene		1.1	0.047	0.9407	0.003362	121	75	130			
Ethylbenzene		1.1	0.047	0.9407	0	119	79.4	128			
Xylenes, Total		3.3	0.094	2.822	0	117	77.3	131			
Surr: 4-Brom	ofiuorobenzene	1.0		0.9407		108	80	120			
Sample ID	1810662-002AMSI	) SampT	ype: MS	SD	Tes	tCode: Ei	PA Method	8021B: Vola	tiles		
Client iD:	CSW 2	Batch	Batch ID: 40955			RunNo: 5	4829				
Prep Date:	10/11/2018	Analysis D	)ate: 10	)/12/2018	8	SeqNo: 1	823402	Units: mg/l	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.024	0.9443	0.004290	118	68.5	133	0.0833	20	
Toluene		1.1	0.047	0.9443	0.003362	121	75	130	0.304	20	
Ethylbenzene		1.1	0.047	0.9443	0	118	79.4	128	0.924	20	
Xylenes, Total		3.3	0.094	2.833	0	117	77.3	131	0.774	20	
Surr: 4-Brom	ofluorobenzene	1.0		0.9443		107	80	120	0	0	
Sample ID	LCS-40955	SampT	ype: LC	:S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batch	1D: <b>40</b>	955	F	RunNo: 5	4829				
Prep Date:	10/11/2018	Analysis D	ate: 10	)/12/2018	S	SeqNo: 1	823414	Units: mg/l	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	·	1.1	0.025	1.000	0	108	77.3	128			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date: 10/11/2018	Analysis (	Date: 10	0/12/2018	SeqNo: 1823415 Units: mg/Kg				(g		
Client ID: PBS	Bato	h ID: 40	955	F	RunNo: 54829					
Sample ID MB-40955	SampType: MBLK			Tes						
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	81.6	129			
Ethylbenzene	1.1	0.050	1.000	0	106	80.7	127			
loluene	1.1	0.050	1.000	0	110	79.2	125			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

### Qualifiers:

Received by OCD: 7/6/2020 8:40:58 AM

- \* 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
- QL 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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 12 of 12

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

### Sample Log-In Check List

Client Name:	SNA-CARLSBAD	Work Order Numb	ber: 181	0562		ReptNo	σ <b>1</b>
Received By.	Victoria Zellar	10/11/2018 8:50 00	AM		Noteria, Gel	lar	
Completed By:		10/11/2018 10:12:4			Uktria Gib UKK		
Reviewed By:		1 1			r. C. d. r. s. C.		
10.		10/11/18					
Theorem Branch of managements		na na ilihawikaniwa					
Chain of Cus	SIOOV Sustody complete?		Yes	. [2]	No 🗍	Not Present	
					140, 1777)	INTO TO SOUR CO.	
2. How was inc	Sparavilab elqmee e		Cou	<u>rier</u>			
<u>Log In</u>							
3. Was en atter	mpt made to cool the sa	mplee?	Yes	V	No 🗌	NV [	
					F3		
4, Were all sam	ples received at a temp	erature of >0° C to 6.0°C	Yes	V	No L	NA 🗀	
5. Samole/s) in	proper container(s)?		Yes	V	No 📋		
~ ~ · · · · · · · · · · · · · · · · · ·					. ,		
6, Sufficient sar	mple volume for indicate	d test(s)?	Yes	V	No 🗀		
7. Are samples	(except VOA and ONG)	properly preserved?	Yës	V	No 🗌		
8. Was preserve	ative added to bottles?		Yes		No 🔽	NA 🗆	
<b>6</b> 100 ( ) 1					🗀	w was a 🖼	
	ve zero headspace?	**	Yes	-	No []	No VOA Vials 🔽	<u> </u>
10, vvere any sa	mple containers receive	d broken?	Yes		No 🗹	# of preserved	
11. Does paperw	ork match bottle labels?		Yes	<b>7</b>	No []	bottles checked for pH:	10/11/18
	ancies on chain of custo	ody)	, 00			મું	r≥12 unless noted)
12. Are matrices	correctly identified on CI	nain of Custody?	Yes	V	No 🗌	Adjusted?	and the second second
	at analyses were request		Yes	<u>v</u>	No 🖂		
	ing times able to be met sustomer for authorizatio		Yes	<b>✓</b> i	No 🗀	Checked by:	
		·rs į					
Special Hand	ling (if applicable)						
15. Was client n	otified of all discrepancie	s with this order?	Yes	_	No	NA V	
Person	Notified: Austin	Weyant Date:	Tioli	गीरह	ekantelizasinatan kanantelia isteman ekatabi.		:
By Wh	programme and the second secon	u Gallegos Via:	Ma eM	ail 🗌	Phone 🗌 Fax	n Person	
Regard	ling: Collec	tion date on	. low:	S Ve	ad 1000 lo	9/16,CDC 11	uado 10/09/18
Client I	Instructions: Sam	pus were c	ollic	Hed	10 09	(8	•
16. Additional re	imarks:					. 0	
17. <u>Cooler Info</u>	rmetion						
Cooler No	Temp °C   Condition		Seal D	ate	Signed By		
1	4.6 Good	Yes					

Received by OCD: 7/6/2020 8:40:58 AM

ENVIRONMENTAL YSIS LABORATORY lenvironmental.com Albuquerque, NM 87109 Fax 505-345-4107	(N to Y) selddu BilA	
ENVIRONMENT, YSIS LABORATO shvironmental.com Albuquerque, NM 87109 Fax 505-345-4107	(AOV-Ime8) 07S8	
MAL ENVIRONN INALYSIS LABO  www.hallenvironmental.com  ns NE - Albuquerque, NM 87- 5-3975 Fax 505-345-4107	RCRA 8 Metals Anions (FQ)VO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) 8081 Pestleides / 8082 PCB's 8081 Pestleides / 8082 PCB's	
SIS SIS Wiconn buque	Os, bOq, Od, sON, bO(D) anoinA	3
	RCRA 8 Metals	
<u></u>	(8MI's 0YS8 10 0188) e'HA9	
ANAL ANAL www.hall kins NE -	EDB (Wethod 604.1)	
ANA WWW.h6 4901 Hawkins NE Tel. 505-345-3975	(1,814 borlleM) H9T	5
304 T	(ORM \ OAG \ DRO \ B8108 H9T	
94 1	(Vlno see) H9T + 38TM + X3T8	Signal of the state of the stat
	BTEX)- MTBE + TMB's (8021)	Remarks:
Turn-Around Time:  Standard & Rush S d.  Project Name:  1/5_r Nonc  Project #:	Project Manager:  Australia Australi	-002 -003 -005 -005 -005 -007 -007 -007 -007 -007
Chain-of-Custody Record Client: 5M4  Mailing Address: Phone #:	email or Fax#:  CA/QC Fackage:  E. Standard  Accreditation  Accreditation  In NELAP  CI EDD (Type)  Date  Time  Matrix  Sample Request ID  CONTANTIANT  CONTANTIA	1005 (55 2 1010 (55 2) 1015 (55 4) 1025 (10214 2 1025 (10214 2 (1025 (10214 2) 1027 (102

### 1RP-4574

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

Office in NMAC.

Form C-141 Revised August 8, 2011

Released to Imaging: 3/23/2021 3:06:53 PM

Oil 122 Santa Fe, NM 87505

Conservation Division	Submit 1 Copy to appropriate District 0 accordance with 19.15.29
20 South St. Francis Dr.	accordance with 19.15.29

		The state of the s	Rele	ease Notific	ation	and Co	rrec	tive A	ction	en ante en que <del>mone l</del> ectulos en está de la constante en entre en entre en entre en entre en entre en entre en e		e Fairtan eth Aberta Siderati Larridorpera	and the state of t
						OPERA'				🛛 Initia	l Report		Final Report
Name of Co			<u> </u>			Contact Jan Felephone I			20				
Facility Nar			<del> </del>			acility Typ		Oil We					
Surface Ow	ner	BLI	M	Mineral O	wner B	LM				API No	. 30-025	-32221	
				LOCA	TION	OF RE	EAS	TF:					
Unit Letter E	Section 10	Township 22S	Range 32E	Feet from the 1980'	North/	South Line Vorth		rom the	1	Vest Line West	County	Lea	
			Latitud	le32.40793									
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No						E	By O	livia Y	'u at	3:48 p	m, Fe	b 03,	2017
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Describe Are	a Affected :	and Cleanun A	Action Tak	ren *									
				feet wide. Sample:	s will be	taken and w	ork plai	n submitte	d for cle	ean up.			
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Signature:						Approved by	Enviro	nmental Sp	pecialisi	t:		()	
Printed Name	: James B (	Campanella											,
Title: Membe	r/ Manager				I	Approval Dat	e: 2/	/3/2017		Expiration l	Date:		
E-mail Addre	ss: jbc@juc	lahoil.com			0	Conditions of					Attach	ed 🔯	
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Attach Addit	ional Shee	ts If Necess	ary		•	1RP-45	74	pOY1	7034	57251	InO	(1703	457016
											] [		

From:

Tucker, Shelly

image001.png

To:

Yu. Olivia, EMNRD

Cc:

<u>Lucas Middleton; jbc@judahoil.com; Oberding, Tomas, EMNRD</u>
Re: Closure approval request BARR NONE FEDERAL #1, 1RP-4574

Subject: Date:

Re. Closure approval request BARR NONE FEDERAL #1, 1RP

Attachments:

Monday, March 13, 2017 1:08:29 PM

Lucas,

BLM accepts your closure request as written and will close this release in our system.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly G'Tucker

Environmental Protection Specialist O&G Spill/Release Coordinator

Bureau of Land Management 620 E. Greene St Carlsbad, NM 88220

575.234.5905 - Direct 575.361.0084 - Cellular

575.234.6235 - Emergency Spill Number

stucker@blm.gov

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

Confidentiality Warning: This message along with any attachments are intended only for use of the individual or entity to which it is addressed and may contain information that is privileged or confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

On Tue, Mar 7, 2017 at 3:37 PM, Yu, Olivia, EMNRD < Olivia. Yu@state.nm.us > wrote:

Dear Mr. Middleton:

NMOCD requests that a complete delineation occur at L7, which is in a drill pit. Therefore, this incident 1RP-4574 remains open. NMOCD's position is that any spill, which occurred

From: Yu, Olivia, EMNRD

To: "Lucas Middleton"; "jbc@judahoil.com"
Cc: Oberding, Tomas, EMNRD; "Tucker, Shelly"

Subject: RE: Closure approval request BARR NONE FEDERAL #1, 1RP-4574

**Date:** Tuesday, March 7, 2017 3:37:00 PM

Attachments: image001.png

### Dear Mr. Middleton:

NMOCD requests that a complete delineation occur at L7, which is in a drill pit. Therefore, this incident 1RP-4574 remains open. NMOCD's position is that any spill, which occurred over an existing pit, must be delineated and remediated.

Olivia Yu Environmental Specialist NMOCD, District I Olivia.yu@state.nm.us 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Yu, Olivia, EMNRD

Sent: Monday, March 6, 2017 11:13 AM

To: 'Lucas Middleton' < lucas.middleton@soudermiller.com>; 'jbc@judahoil.com'

<jbc@judahoil.com>

Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>; Tucker, Shelly <stucker@blm.gov>

Subject: RE: Closure approval request BARR NONE FEDERAL #1, 1RP-4574

Dear Mr. Middleton:

I have reviewed the closure report for 1RP-4574 although the delineation workplan was not approved beforehand. The report indicated that bottom and sidewall confirmation samples were taken before backfilling. Were the samples sent to a laboratory for analyses? Of particular concern is L7. Please inspect the liner. The Responsible Party needs to provide NMOCD with a concise report of the inspection with affirmation the liner has and will continue to contain liquids.

Thanks,

Olivia Yu Environmental Specialist NMOCD, District I Olivia.yu@state.nm.us 575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Lucas Middleton [mailto:lucas.middleton@soudermiller.com]

**Sent:** Tuesday, February 14, 2017 9:15 AM **To:** Yu, Olivia, EMNRD < Olivia, Yu@state.nm.us>

**Cc:** Oberding, Tomas, EMNRD <<u>Tomas.Oberding@state.nm.us</u>>; Tucker, Shelly <<u>stucker@blm.gov</u>>

Subject: Closure approval request BARR NONE FEDERAL #1, 1RP-4574

Olivia Yu,

I have attached a closure report for approval on a Judah Oil, LLC location named the BARR NONE FEDERAL #1, 1RP-4574, API# 30-025-32221, LEA COUNTY, NEW MEXICO .

Call or Email with any question or comments.

Thank you and have a great day

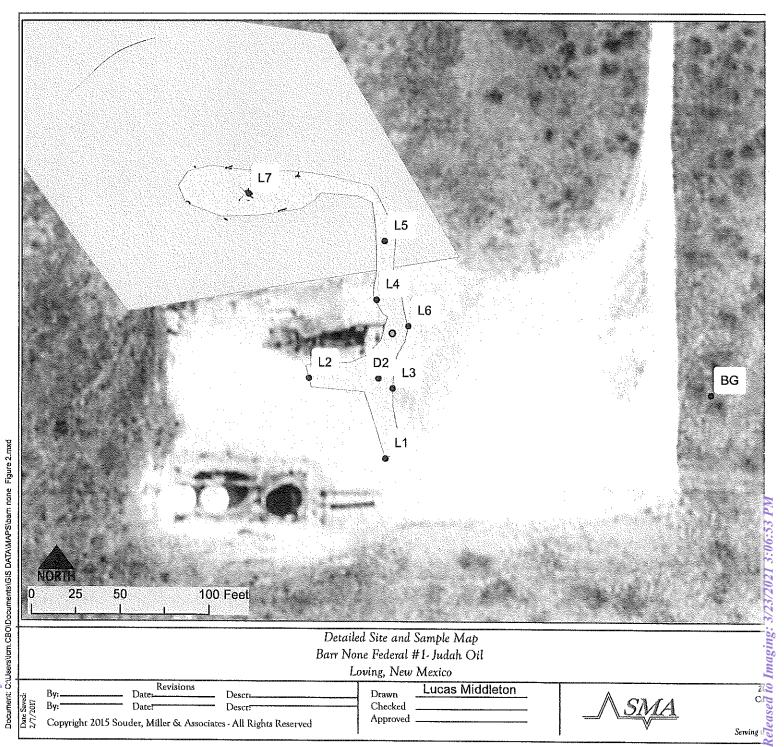
Lucas Middleton Staff Scientist (575) 689-5351 (mobile)

NSMA

Souder, Miller & Associates
Engineering Environmental Surveying
201 S. Halagueno
Carlsbad, NM 88220
www.soudermiller.com

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Document: C:USersVam.CBOlDocuments/GIS DATA/MAPS/bam none Figure 2.mxd

Loving, New Mexico

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	֊	Ву:	Revisions Date:	Descr	Drawn	Lucas Middletor
	Saved: 2017	By:	Date:	Descr:	Checked	
	Date 7/7/	Copyright 2015 Sou	ider, Miller & Associate	es - All Rights Reserved	Approved	

	·	FIELD SCREENING RES	SULTS SUMMAI	RY	
Date .	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N
12/13/2016	10:00	L1	Surface	256	Y
12/13/2016	10:00	L2	Surface	244	Υ
12/13/2016	10:00	L3	Surface	632	Υ
12/13/2016	10:00	L5	Surface	575	Y
12/13/2016	10:00	L7	Surface	2870	Υ
12/12/2016	10:00	D2-3	3 Feet	301	Υ
12/12/2016	10:00	D2-2	2 Feet	313	Υ
12/13/2016	10:00	L4	Surface	667	Υ
12/13/2016	10:00	L6	Surface	530	Υ



Adalytical Report- 1612A79	Sample Number on Figure 1 Mar.	Sample Date	Depth	BTEX ppm	Benzeлe mg/Кg	GRO mg/Kg	DRO mg/Kg	CI- mg/Kg
1612B63- 001	L1	12/13/2016	Surface	N/A	N/A	N/A	N/A	170
1612B63- 002	L2	12/13/2016	Surface	N/A	N/A	N/A	N/A	210
1612B63- 003	L3	12/13/2016	Surface	NA	N/A	N/A	N/A	290
1612B63- 004	L5	12/13/2016	Surface	N/A	N/A	N/A	N/A	72
1612B63- 005	L.7	12/13/2016	Surface	N/A	N/A	N/A	N/A	4,500
1612B63- 006	D2-3	12/13/2016	3 Feet	<0.055	<0.024	<4.9	<9.2	420
1612B63- 007	D2-2	12/13/2016	2 Feet	N/A	N/A	N/A	N/A	230
1612B63- 008	L4	12/13/2016	Surface	N/A	N/A	N/A	N/A	35
1612B63- 009	L6	12/13/2016	Surface	N/A	N/A	N/A	N/A	600

**Analytical Report** 

Lab Order 1612B53

Date Reported: 1/6/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Barr None

Project:

Lab ID:

1612B53-005

Matrix: SOIL

Client Sample ID: L7

Collection Date: 12/13/2016 10:00:00 AM Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qua	al Units	DF Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>				Analys	t: MRA
Chloride	4500	150	mg/Kg	100 1/3/2017 1:32:17 PM	29432

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

- 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
  - R RPD outside accepted recovery limits
  - 8 % 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 Page 5 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### INFORMATION ONLY

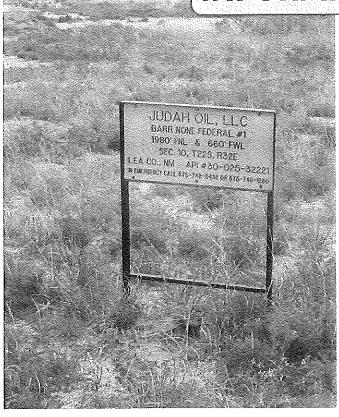


Photo 1: Location Sign

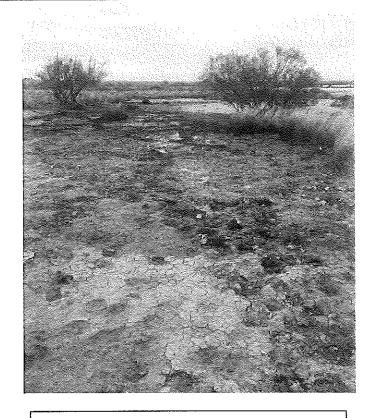


Photo 2: Release Area over pit

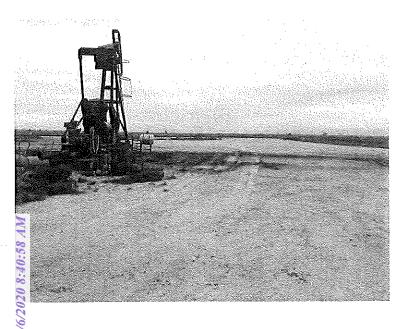


Photo 3: Release Area on pad



Photo 4: Spill Pile



Photo 5: Release Area over pit

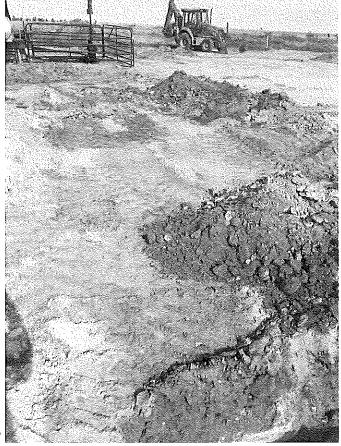


Photo 7: Excavation Activity's

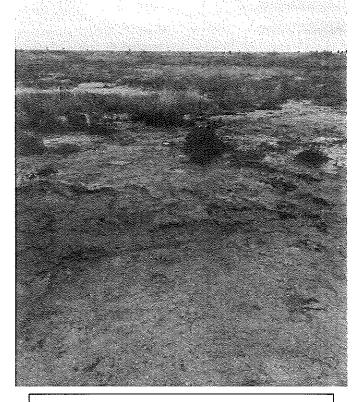


Photo 6: Release Area over pit

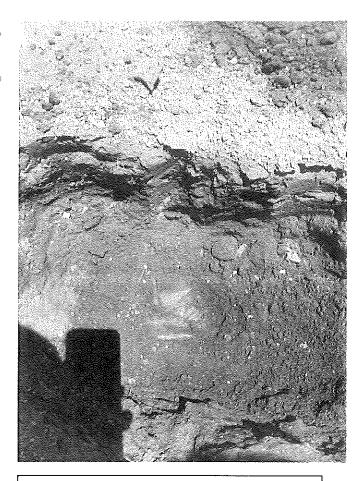


Photo 8: Liner Spot 1

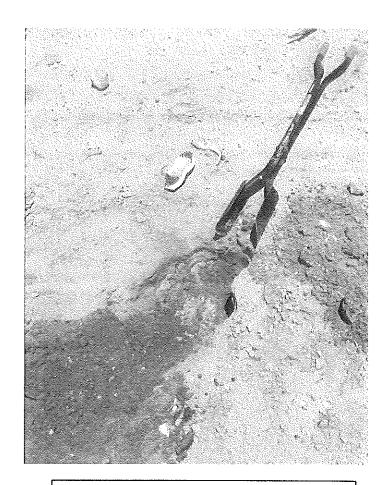


Photo 9: Liner Spot 2



February 7, 2017

#5B25501-BG4

NMOCD District I Olivia Yu 1625 N. French Dr. Hobbs, NM 88240

SUBJECT: FINAL CLOSURE REPORT FOR INCIDENT, BARR NONE FEDERAL #1 UNIT E SECTION 10-T22S-R32E NMPM, API# 30-025-32221, LEA COUNTY, NEW MEXICO

Dear Olivia Yu:

On behalf Judah Oil, LLC, Souder Miller & Associates (SMA) is pleased to submit Final Closure Report summarizing the remediation of the release site located at the Barr None Federal #1 in Lea County, New Mexico. The purpose of this Final Closure is to obtain closure from the New Mexico Oil Conservation Division (NMOCD) for the remediation of the release that occurred on Bureau of Land Management land.

SMA responded on December 3, 2016 at the request of Judah Oil, to assess and delineate the release of production fluids associated with the Barr None Federal #1 well location. The release was initially reported to NMOCD by Judah Oil. The table below summarizes information regarding the release. Results of the assessment and delineation are described in the following Soil Remediation Workplan.

Table 1: Rel	ease inform	nation and	Site Rankii	ng			
Name		Barr	None Fede	ral #1	<b></b>		
	Incident Number	API Number	Section	Section, Township, Range			
Location	1RP- 4574	30-025- 32221	SW/NE (Unit)	Section 10	T22 S, R 32E NMPM		
Estimated Date of Release	January 8	, 2016	-,		1,,,,,,,		
Date Reported to NMOCD	January 2	3, 2017					
Reported by	James Ca	mpanella					
Land Owner	Bureau of	Land Man	agement				
Reported To	NM Oil Co	onservation	n Division (	NMOCD)			
Source of Release	Flowline	oreak					
Released Material	Producte	d Water an	d Crude Oi	1			
Released Volume	30 bbls I	Produced V	Vater and 1	12 bbls Cru	de Oil		
Recovered Volume	0 bbls Pr	oduced Wa	iter and 0 l	obls Crude	Oil		





Attached is a copy of the C-141 initial located in Appendix B. For questions or comments pertaining to the release or the attached work plan please feel free to contact either of us.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

J. Austr Wegant

Austin Weyant Project Scientist Shawna Chubbuck Senior Scientist

Shawna Chubbuck

### SOIL REMEDIATION FINAL CLOSURE REPORT FOR INCIDENT 1RP-TBD

JUDAH OIL, LLC

BARR NONE FEDERAL #1
UL E, SECTION 10, T22S R32E, NMPM
API #30-025-32221
LEA COUNTY, NM



Prepared for: Judah Oil, LLC 611 West Mahone Drive # D Artesia, NM 88210 Phone: (575) 746-1280 Prepared by: Souder, Miller & Associates 201 S. Halagueno Carlsbad, NM 88221 575-689-7040

> February 7, 2017 SMA Reference 5B25501-BG4

### **Table of Contents**

1.0	Introduction	3
2.0	Site Ranking and Land Jurisdiction	3
3.0	Assessment and Initial Results	3
4.0	Soil Remediation Summary	3
5.0	Conclusions and Recommendations Error! Bookmark not defin	ıed.
6.0	Closure and Limitations	4

### Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

### Tables:

Table 1: Release Information and Site Ranking

Table 2: Summary Chloride Field Screening Results Table 3: Summary of Laboratory Analyses

### Appendices:

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

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Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

### 1.0 Introduction

On behalf of Judah Oil, LLC, Souder, Miller & Associates (SMA) has prepared this report that describes the assessment, initial delineation and remediation actions for a release associated with the Barr None Federal #1 location API# 30-025-32221. The site is located in Section 10, Township 22S, Range 32E NMPM, Lea County, New Mexico, on Bureau of Land Management property. Figure 1 illustrates the vicinity and location of the site.

### 2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 11.5 miles east of Pecos River, with an elevation of approximately 3,805 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 350 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. Zero wells are located within a one-mile radius of the site. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned a NMOCD ranking of 0 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 5000 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates site ranking rationale.

### 3.0 Assessment and Initial Results

On November 9, 2016 after receiving 811 clearance, SMA field personnel assessed the release area with soil samples collected using a gas powered auger. Samples were screened for hydrocarbons using a calibrated Photo Ionization Detector (PID), and for chlorides using a mobile chlorides titration kit (EPA method 9045D) meter. Field screening results are included in Table 2. The potentially affected area was determined to be approximately 140 feet long and 20 feet wide. The site delineation samples were taken to depths of 1.5 feet bgs. In the north area of the spill over the old pit a plastic liner was found at 8 inches bgs. Samples indicate the impacted soil does not appear to extend past one foot bgs. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map). All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analyses of BTEX (EPA Method 8021B), TPH (EPA Method 8015) and/or total chlorides (EPA Method 300.0).

Soil contaminant concentrations found during the initial delineation are included in Table 3. Laboratory reports are included in Appendix A. Photo documentation is available by request.

### 4.0 Soil Remediation Summary

Judah and its subcontractors excavated the affected soils, with approval from area utilities owners via 81. SMA continuously guide the excavation activities by collecting composite soil samples for field screening with a mobile titration unit (NRCS1:1) and a calibrated PID. Excavation occur to depths to sufficient to delineate the plume, which was estimated to be 1 feet bgs. Excavation on

Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

the pad was done to remove all the affected soils to 1 foot bgs. Excavation occurred in the north area over the old drill pit no more than 6" bgs to protect the underlying liner for the pit. Closure samples were collected at the final depth of excavation and sidewalls. Approximately 110 cubic yards of contaminated soil was removed and replaced with clean backfill material sufficient to return the contours to surface gradient. The contaminated soil was transported for proper disposal at an NMOCD permitted facility.

### 5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 0: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 5000 ppm TPH.

Laboratory analytical results for the closure sample collected was below NMOCD closure standards for benzene, BTEX, and TPH. Chlorides ranged from below detection limits (30 mg/Kg) to 3,500 mg/Kg. No further remedial activities are recommended. Soil sample locations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 3. Laboratory reports are included in Appendix A.

### 6.0 Limitations

The scope of our services consisted of the performance of initial spill assessment sampling, verification of release stabilization, regulatory liaison, and preparation of this Closure Document. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:

Reviewed by:

**SOUDER, MILLER & ASSOCIATES** 

1 Austr Wevant

Austin Weyant Project Scientist Shawna Chubbuck Senior Scientist

Shound Chubbuck

Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

### Figures:

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

### Tables:

Table 1: Release Information and Site Ranking

Table 2: Summary of Chloride Field Screening Results

Table 3: Summary of Laboratory Analyses

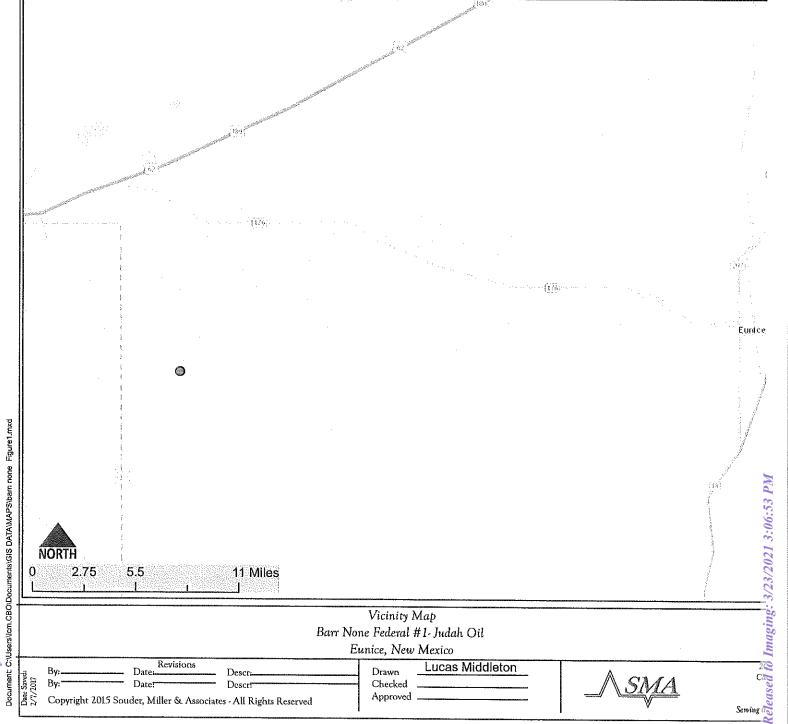
### Appendices:

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

### FIGURE 1 VICINITY MAP



Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

# FIGURE 2 DETAILED SITE AND SAMPLE MAP

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Detailed Site and Sample Map Barr None Federal #1- Judah Oil Loving, New Mexico

			Li	oving, New	Mexico
	Ву:	Revisions Date:	Descr-	Drawn	Lucas Middleton
1	By:	Dates	Descr:	Checked	
:	Copyright 2015 Sou	der, Miller & Associate	s - All Rights Reserved	Approved	

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## TABLE 1 RELEASE INFORMATION AND SITE RANKING

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Table 1: Release information and Site Ranking							
Name	Barr None Federal #1						
Location	Incident Number	API Number	Section, Township, Range				
	1RP-4574	30-025- 32221	SW/NE (Unit )	Section 10	T22 S, R 32E NMPM		
Estimated Date of Release	January 8, 2016						
Date Reported to NMOCD	January 23	, 2017					
Reported by	James Campanella						
Land Owner	Bureau of Land Management						
Reported To	NM Oil Conservation Division (NMOCD)						
Source of Release	Flowline break						
Released Material	Producted Water and Crude Oil						
Released Volume	30 bbls Produced Water and 12 bbls Crude Oil						
Recovered Volume	0 bbls Produced Water and 0 bbls Crude Oil						
Net Release	30 bbls Produced Water and 12 bbls Crude Oil						
Nearest Waterway	18.8 miles west of the location						
Depth to Groundwater	Estimated to be 300 feet						
Nearest Domestic Water Source	Greater than 1,000 feet						
NMOCD Ranking	0						
SMA Response Dates	Initial: Mitigation Activities:						
Subcontractors	MMX						
Disposal Facility	TBD						
Estimated Yd <sup>3</sup> Contaminated Soil Excavated and Disposed	110	THE STATE OF THE S		3000000	A CONTRACTOR OF THE CONTRACTOR		

Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

## TABLE 2 SUMMARY OF CHLORIDE FIELD SCREENING RESULTS

FIELD SCREENING RESULTS SUMMARY								
Date .	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N			
12/13/2016	10:00	L1	Surface	256	Υ			
12/13/2016	10:00	L2	Surface	244	Y			
12/13/2016	10:00	L3	Surface	632	Y			
12/13/2016	10:00	L5	Surface	575	Υ			
12/13/2016	10:00	L7	Surface	2870	Y			
12/12/2016	10:00	D2-3	3 Feet	301	Υ			
12/12/2016	10:00	D2-2	2 Feet	313	Y			
12/13/2016	10:00	L4	Surface	667	Y			
12/13/2016	10:00	L6	Surface	530	Υ			



Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

# TABLE 3 SUMMARY OF LABORATORY ANALYSES

**Table 3: Summary of Laboratory Analyses** 

Analytical Report- 1612A79	Sample Number on Figure 1 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1612B63- 001	L1	12/13/2016	Surface	N/A	N/A	N/A	N/A	170
1612B63- 002	L2	12/13/2016	Surface	N/A	N/A	N/A	N/A	210
1612B63- 003	L3	12/13/2016	Surface	NA	N/A	N/A	N/A	290
1612B63- 004	L5	12/13/2016	Surface	N/A	N/A	N/A	N/A	72
1612B63- 005	L7	12/13/2016	Surface	N/A	N/A	N/A	N/A	4,500
1612B63- 006	D2-3	12/13/2016	3 Feet	<0.055	<0.024	<4.9	<9.2	420
1612B63- 007	D2-2	12/13/2016	2 Feet	N/A	N/A	N/A	N/A	230
1612B63- 008	L4	12/13/2016	Surface	N/A	N/A	N/A	N/A	35
1612B63- 009	L6	12/13/2016	Surface	N/A	N/A	N/A	N/A	600

Released to Imaging: 3/23/2021 3:06:53 PM

Barr None Federal #1 Closure SMA Ref #5B24624-BG16 2/7/17

# APPENDIX A LABORATORY ANALYTICAL REPORTS



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

OrderNo.: 1612B53

January 06, 2017

Austin Weyant Souder, Miller & Associates 201 S Halagueno Carlsbad, NM 88221 TEL: (575) 689-7040 FAX

RE: Barr None

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/20/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report** Lab Order 1612B53

Date Reported: 1/6/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1

Project: Barr None Collection Date: 12/13/2016 10:00:00 AM

Lab ID: 1612B53-001

Matrix: SOIL

Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qu	al Units		Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>LGT</b>
Chloride	170	30	mg/Kg	20	12/28/2016 4:11:45 P	M 29432

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 13 J
- Sample pH Not In Range P
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Analytical Report Lab Order 1612B53

Date Reported: 1/6/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L2

 Project:
 Barr None
 Collection Date: 12/13/2016 10:00:00 AM

 Lab ID:
 1612B53-002
 Matrix: SOIL
 Received Date: 12/20/2016 9:40:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Chloride
 210
 30
 rmg/Kg
 20
 12/28/2016 4:48:59 PM
 29432

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 2 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

Lab Order 1612B53

Date Reported: 1/6/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Project: Barr None

Lab ID: 1612B53-003

Client Sample ID: L3

Collection Date: 12/13/2016 10:00:00 AM

Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>LG</b> T
Chloride	290	30	mg/Kg	20	12/28/2016 5:01:23 F	M 29432

Matrix: SOIL

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 3 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

Lab Order 1612B53

Date Reported: 1/6/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Barr None

Project:

Lab ID:

1612B53-004

souder, wither the resolution

Matrix: SOIL

Client Sample ID: L5

Collection Date: 12/13/2016 10:00:00 AM Received Date: 12/20/2016 9:40:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: LGT

 Chloride
 72
 30
 mg/Kg
 20
 12/28/2016 5:13:48 PM
 29432

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 4 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1612B53

Date Reported: 1/6/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Barr None Project:

1612B53-006 Lab ID:

Matrix: SOIL

Client Sample ID: D2-3

Collection Date: 12/13/2016 10:00:00 AM Received Date: 12/20/2016 9:40:00 AM

Analyses Result **PQL Qual Units DF** Date Analyzed Batch **EPA METHOD 300.0: ANIONS** Analyst: LGT Chioride 420 30 mg/Kg 12/28/2016 5:38:38 PM 29432 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) ND 12/28/2016 1:01:51 PM 29384 9.2 mg/Kg 1 Motor Oil Range Organics (MRO) ND 46 mg/Kg 12/28/2016 1:01:51 PM 29384 Surr: DNOP 93.8 70-130 %Rec 12/28/2016 1:01:51 PM 29384 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.9 mg/Kg 12/27/2016 10:25:59 AM 29391 Surr: BFB 96.3 68.3-144 %Rec 12/27/2016 10:25:59 AM 29391 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 mg/Kg 12/27/2016 10:25:59 AM 29391 Toluene 0.049 ND mg/Kg 12/27/2016 10:25:59 AM 29391 Ethylbenzene ND 0.049 mg/Kg 12/27/2016 10:25:59 AM 29391 Xylenes, Total ND 0.098 mg/Kg 12/27/2016 10:25:59 AM 29391 Surr: 4-Bromofluorobenzene 110 80-120 %Rec 12/27/2016 10:25:59 AM 29391

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 6 of 13 J
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

**Analytical Report** 

Lab Order 1612B53

Date Reported: 1/6/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: D2-2

 Project:
 Barr None
 Collection Date: 12/13/2016 10:00:00 AM

 Lab ID:
 1612B53-007
 Matrix: SOIL
 Received Date: 12/20/2016 9:40:00 AM

 Analyses
 Result
 PQL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: LGT

 Chloride
 230
 30
 mg/Kg
 20
 12/28/2016 9:35:05 PM
 29448

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 7 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Analytical Report** 

Lab Order 1612B53

Date Reported: 1/6/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Project: Barr None

Lab ID: 1612B53-008

D - ... XI - .. -

Matrix: SOIL

Client Sample ID: L4

Collection Date: 12/13/2016 10:00:00 AM Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qu			Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: <b>LGT</b>
Chloride	35	30	mg/Kg	20	12/28/2016 10:12:18	PM 29448

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 8 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1612B53

Date Reported: 1/6/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Barr None

1612B53-009 Lab ID:

Project:

Client Sample ID: L6

Collection Date: 12/13/2016 10:00:00 AM Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qu			Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>					Analy	/st: <b>LGT</b>
Chloride	600	30	mg/Kg	20	12/28/2016 10:24:42	PM 29448

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 9 of 13
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1612B53 06-Jan-17

Client:

Souder, Miller & Associates

Project:

Barr None

Sample ID MB-29448

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID: PBS

Batch ID: 29448

RunNo: 39709

Prep Date: 12/28/2016

Sample ID LCS-29448

Sample ID MB-29432

PBS

Client ID: LCSS

Analysis Date: 12/28/2016

SeqNo: 1244207

Units: mg/Kg

%RPD

Analyte

Result

**PQL** SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

ND 1.5

SampType: LCS Batch ID: 29448

RunNo: 39709

TestCode: EPA Method 300.0: Anions

90

110

Prep Date: 12/28/2016 Analysis Date: 12/28/2016

SegNo: 1244208

Units: mg/Kg

Analyte

**PQL** SPK value SPK Ref Val

Batch ID: 29432

1.5

%REC LowLimit

92.0

HighLimit

**RPDLimit** 

Qual

Chloride

SampType: MBLK

14

TestCode: EPA Method 300.0: Anions

RunNo: 39711

Client ID: Prep Date:

12/28/2016 Analysis Date: 12/28/2016

SeqNo: 1244304

Units: mg/Kg

Analyte

Result ND

14

SPK value SPK Ref Val %REC LowLimit PQL 1.5

15.00

HighLimit %RPD **RPDLimit** 

Qual

Chloride

TestCode: EPA Method 300.0: Anions

Sample ID LCS-29432 Client ID:

Prep Date:

LCSS

SampType: LCS Batch ID: 29432

RunNo: 39711

SeqNo: 1244305

Units: mg/Kg

Qual

Analyte Chloride

12/28/2016 Result POL

Analysis Date: 12/28/2016

SPK value SPK Ref Val %REC

0

LowLimit

HighLimit 110 %RPD

**RPDLimit** 

1.5 15.00

93.5

90

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н ND Not Detected at the Reporting Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range

Reporting Detection Limit

- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL

Sample container temperature is out of limit as specified

Qualifiers:

Received by OCD: 7/6/2020 8:40:58 AM

Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Page 10 of 13

# QC SUMMARY REPORT

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Result

ND

ND

8.7

10

50

10.00

Project:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

Motor Oil Range Organics (MRO)

Barr None

Sample ID LCS-29384	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: LCSS	Batch	Batch ID: 29384 RunNo: 39672											
Prep Date: 12/23/2016	Analysis D	lysis Date: 12/28/2016 SeqNo: 1243438						Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO)	45	10	50.00	0	89.2	63.8	116						
Surr: DNOP	4.1		5.000		82.6	70	130						
Sample ID MB-29384	SampT	уре: МЕ	BLK	Tes	Code: El	PA Method	8015M/D: Die	esel Rang	e Organics				
Client ID: PBS	Batch	ID: <b>29</b> :	384	F	lunNo: 3	9672							
Prep Date: 12/23/2016	Analysis D	ate: 12	/28/2016	S	eqNo: 1:	243440	Units: mg/K	(q					

SPK value SPK Ref Val %REC LowLimit

86.6

HighLimit

130

70

%RPD

**RPDLimit** 

Qual

#### 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
- R RPD outside accepted recovery limits
- 8 % 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

Page 11 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client: Project:

Client ID:

Prep Date:

Surr: BFB

Client ID:

Surr: BFB

Sample ID MB-29391

PBS

Gasoline Range Organics (GRO)

Sample ID LCS-29391

Prep Date: 12/23/2016

Gasoline Range Organics (GRO)

LCSS

12/23/2016

**OC SUMMARY REPORT** 

Barr None

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

Batch ID: 29391

Analysis Date: 12/27/2016

PQL

SampType: LCS

Batch ID: 29391

Analysis Date: 12/27/2016

PQL

5.0

5.0

SPK value SPK Ref Val

SPK value SPK Ref Val

n

1000

25.00

1000

Souder, Miller & Associates

Result

ND

950

Result

26

1000

TestCode: EPA Method 8015D: Gasoline Range

Units: mg/Kg

144

Units: mg/Kg

123

HighLimit

%RPD

%RPD

HighLimit

RunNo: 39665

%REC

94.8

RunNo: 39665

%REC

103

99.6

SeqNo: 1242743

SeqNo: 1242742

LowLimit

LowLimit

74.6

68.3

TestCode: EPA Method 8015D: Gasoline Range

WO#:

**RPDLimit** 

**RPDLimit** 

1612B53

06-Jan-17

Qual

Qual

Value exceeds Maximum Contaminant Level,

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 12 of 13

Released to Imaging: 3/23/2021 3:06:53 PM

Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# Received by OCD: 7/6/2020 8:40:58 AM

### **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Project:

Barr None

-	Sample ID	MB-29391
Į		

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

Client ID: PBS

Batch ID: 29391

RunNo: 39665

Prep Date: 12/23/2016

Analysis Date: 12/27/2016

SeqNo: 1242788 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

%RPD

**RPDLimit** 

**RPDLimit** 

Qual

Qual

PQL Analyte Result 0.025 Benzene ND ND 0.050 Toluene ND 0.050 Ethy/benzene Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 1.1

109 120 80

TestCode: EPA Method 8021B: Volatiles

Sample ID LCS-29391 Client ID: LCSS

SampType: LCS Batch ID: 29391

RunNo: 39665

Prep Date: 12/23/2016

Analysis Date: 12/27/2016

SeqNo: 1242789

Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Benzene	1.0	0.025	1.000	0	103	75.2	115
Toluene	0.96	0.050	1.000	0	96.4	80.7	112
Ethylbenzene	0.94	0.050	1.000	0	93.6	78.9	117
Xylenes, Total	2.8	0.10	3.000	0	94.4	79.2	115
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120

1.000

Sample ID 1612B53-006AMS

SampType: MS

Analysis Date: 12/27/2016

TestCode: EPA Method 8021B: Volatiles

Client ID: D2-3

Prep Date: 12/23/2016

Batch ID: 29391

RunNo: 39665

SeqNo: 1242792

Units: mg/Kg

Analyte	Result	₽QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	F
Benzene	0.95	0.023	0,9183	0	104	61.5	138		
Toluene	0.88	0.046	0.9183	0	96.2	71.4	127		
Ethylbenzene	0.85	0.046	0.9183	0	92.0	70.9	132		
Xylenes, Total	2.5	0.092	2.755	0	92.1	76.2	123		
Surr: 4-Bromofluorobenzene	1.1		0.9183		115	80	120		

Sample ID 1612B53-006AMSD

SampType: MSD

TestCode: EPA Method 8021B: Volatiles

Client ID:

Batch ID: 29391

RunNo: 39665

Cilent ID. D2-3	Datu	HD. 29	391	Г	Kuriivo. 3	9000				
Prep Date: 12/23/2016	Analysis D	ate: 12	2/27/2016	8	SeqNo: 1	242793	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.023	0.9217	0	91.8	61.5	138	11.7	20	
Toluene	0.84	0.046	0.9217	0	90.8	71.4	127	5.43	20	
Ethylbenzene	0.83	0.046	0.9217	0	90.2	70.9	132	1.64	20	
Xylenes, Total	2.5	0.092	2.765	0	91.0	76.2	123	0.851	20	
Surr: 4-Bromofluorobenzene	1.1		0.9217		116	80	120	0	0	

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 13 of 13

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



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: SMA-CARLSBAD Wo	ork Order Number:	1612B53		RcptNo:	1
Received by/date: AJ 12/20/16					
Logged By: LMdSey Concha 12/20	)/2016 9:40:00 AM				
Completed By: Lindsley Concha 12/	21/10				
	122/16				
Chain of Custody			· V-1004		
1. Custody seals intact on sample bottles?		Yes 🗌	No 🗆	Not Present 🗹	
2. 1s Chain of Custody complete?		Yes 🗸	No 🗆	Not Present	
3. How was the sample delivered?		Courier			
<u>Log In</u>					
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗆	na 🗆	
5. Were all samples received at a temperature of >0	0° C to 6.0°C	Yes 🗹	No 🗆	na 🗆	
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sample volume for indicated test(s)?		Yes 🗸	No 🗆		
8, Are samples (except VOA and ONG) properly pres	served?	Yes 🗸	No 🗌		
9. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗆	
10.VOA vials have zero headspace?		Yes 🗌	No □	No VOA Vials	
11. Were any sample containers received broken?		Yes	No 🗹	# of preserved	
12. Does paperwork match bottle labels?		Yes 🗹	No 🗆	bottles checked for pH:	
(Note discrepancies on chain of custody)		195 💌	140		r >12 unless noted)
13. Are matrices correctly identified on Chain of Custo	ndy?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?		Yes 🔽	No 🗀		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗔	Checked by:	
Consolal Handillon (if applicable)					
Special Handling (if applicable)  16, Was client notified of all discrepancies with this or	der?	Yes 🗌	No 🗆	NA 🗹	
Person Notified:	Date		2.2444.7a		]
By Whom:	Via: [	eMall	Phone Tax	In Person	•
Regarding:					
Client Instructions:					
17. Additional remarks:					_
18. Cooler Information					
Cooler No Temp °C Condition Seal Int	act Seal No 8	Seal Date	Signed By		
1 1.1 Good Yes	<u> </u>	l			
<u> </u>				<del></del>	

Received by OCD: 7/6/2020 8:40:58 AM

			ustody Record	Turn-Around	Time:	ugypta and a second sec				£	<b>点</b> & L	A R	E21	aes.	er e	3) <i>6</i> 74	. S2. 11 E	a.en er	in:	* A	R
Client:	SN	VA- C	webed.	t⊠ Standard			ן נ												in At		
				Project Name										lron							
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				Project #:			1			)5-3 <sup>4</sup>							<del>-4</del> 10				
Phone	#:			1			92007							/sis							
email o	rFax#:			Project Mana	ger:			3	(g)					3							T
QA/QC	Package: Idard		☐ Level 4 (Full Validation)	Ano	stry 7	Segent	+ TMB's (8021)	+ TPH (Gas only)	s/Dies					0,50	PCB's						
Accred			La Corol - V di Totadani	Sampler: / _			Š.	H	ලි	_				7,5	82	1	l				
O NEL		☐ Other	•		D⁻/c ∖SVYes	ti No	È	F	15B	8.1)	4	3		X,	/ 80		2				2
	(Type)			Sample Tem	1	1100			8	4.1	20	ď	Sig	욋	8	<u>_</u> ا	ģ				2
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE	BTEX + MTBE	TPH Method 8015B (Gas/Diesel)	1PH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (
2-13-16	17:0)	5.	Li	702		-00 l	_							文	~		Ĭ				┪
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Date:	Time:	Relinquishe	ed by:	Received by:		Date Time															

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

# APPENDIX B FORM C141 FINAL

Released to Imaging: 3/23/2021 3:06:53 PM

Analytical Report Lab Order 1612B53

Date Reported: 1/6/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Project: Barr None

Lab ID: 1612B53-009

Client Sample ID: L6

Collection Date: 12/13/2016 10:00:00 AM

Received Date: 12/20/2016 9:40:00 AM

Analyses	Result	PQL Qua			Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: <b>LGT</b>
Chloride	600	30	mg/Kg	20	12/28/2016 10:24:42	2 PM 29448

Matrix: SOIL

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

- 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
- R RPD outside accepted recovery limits
- 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 Page 9 of 13
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Hall Environmental Analysis Laboratory, Inc.

Project:

Barr None

**QC SUMMARY REPORT** 

Sample ID MB-29448

SampType: MBLK

TestCode: EPA Method 300.0: Anions

LowLimit

Client ID: PBS Batch ID: 29448

RunNo: 39709

%REC

Units: mg/Kg

Analyte

Prep Date:

Analysis Date: 12/28/2016 SPK value SPK Ref Val Result POL

SeqNo: 1244207

%RPD HighLimit

**RPDLimit** Qual

Chloride

ND 1.5

Sample ID LCS-29448

12/28/2016

SampType: LCS Batch ID: 29448 TestCode: EPA Method 300.0: Anions

Client ID: LCSS Prep Date: 12/28/2016

Analysis Date: 12/28/2016

1.5

RunNo: 39709 SeqNo: 1244208

Units: mg/Kg

Analyte Chloride

Result PQL

14

Result

SPK value SPK Ref Val 15.00

%REC LowLimit 92.0

TestCode: EPA Method 300.0; Anions

LowLimit

LowLimit

90

HighLimit 110 %RPD **RPDLimit**  Qual

Sample ID MB-29432

SampType: MBLK PBS

Batch ID: 29432

SPK value SPK Ref Val %REC

RunNo: 39711

Units: mg/Kg

Prep Date: Analyte

Client ID:

Prep Date:

Analyte

Chloride

Client ID:

12/28/2016

LCSS

12/28/2016

Analysis Date: 12/28/2016

15.00

SeqNo: 1244304

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

Sample ID LCS-29432

SampType: LCS

TestCode: EPA Method 300.0: Anions

Batch ID: 29432 Analysis Date: 12/28/2016

1.5

**PQL** 

RunNo: 39711

Result PQL SPK value SPK Ref Val

14

SeqNo: 1244305

%REC

93.5

Units: mg/Kg

HighLimit

%RPD 110

**RPDLimit** Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits J

Page 10 of 13

Released to Imaging: 3/23/2021 3:06:53 PM

P Sample pH Not In Range

RLReporting Detection Limit

Sample container temperature is out of limit as specified

Received by OCD: 7/6/2020 8:40:58 AM

# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

ND

8.7

50

10.00

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Project:

Motor Oil Range Organics (MRO)

Surr: DNOP

Barr None

Sample ID LCS-29384 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 29384 RunNo: 39672 Prep Date: 12/23/2016 Analysis Date: 12/28/2016 SeqNo: 1243438 Units: mg/Kg HighLimit %RPD **RPDLimit** Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit Qual Diesel Range Organics (DRO) 10 63,8 45 50.00 89.2 116 Surr: DNOP 5.000 82.6 4.1 130 Sample ID MB-29384 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 29384 RunNo: 39672 Prep Date: 12/23/2016 Analysis Date: 12/28/2016 SeqNo: 1243440 Units: mg/Kg Analyte Result PQL. SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) ND 10

86.6

70

130

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 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

Page 11 of 13

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Released to Imaging: 3/23/2021 3:06:53 PM

# Received by OCD: 7/6/2020 8:40:58 AM

# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Project:

Barr None

Sample ID MB-29391

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS

Batch ID: 29391

RunNo: 39665

Prep Date: 12/23/2016

Analysis Date: 12/27/2016

SeqNo: 1242742

Units: mg/Kg

SPK value SPK Ref Val

Analyte

Result **PQL** 5.0 %REC

LowLimit

Qual

ND

HighLimit

%RPD **RPDLimit** 

Gasoline Range Organics (GRO)

950

1000

94.8

68.3

144

Surr: BFB

Sample ID LCS-29391

SampType: LCS

RunNo: 39665

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Prep Date:

Analyte

12/23/2016

Batch ID: 29391

PQL

Analysis Date: 12/27/2016

SeqNo: 1242743

Units: mg/Kg

HighLimit

**RPDLimit** 

Qual

Gasoline Range Organics (GRO)

Result 26

25,00 5.0

%REC LowLimit 103 99.6

74.6

123

%RPD

Sun: BFB

1000

1000

SPK value SPK Ref Val

68.3

144

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

Е Value above quantitation range

j Analyte detected below quantitation limits

Page 12 of 13

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# Received by OCD: 7/6/2020 8:40:58 AM

# QC SUMMARY REPORT

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1612B53

06-Jan-17

Client:

Souder, Miller & Associates

Project:

Barr None

Sample ID MB-29391	Sampi	ype: ME	3LK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batcl	h ID: 29	391	F	RunNo: 3	9665				
Prep Date: 12/23/2016	Analysis [	)ate: 12	2/27/2016	S	SeqNo: 1	242788	Units: mg/k	(g		
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		109	80	120			

Sample ID LCS-29391	SampT	ype: LC	S	Tes	(Code: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	1D: <b>29</b>	391	F	RunNo: 3					
Prep Date: 12/23/2016	Analysis D	ate: 12	2/27/2016	8						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLImit	Qual
Benzene	1.0	0.025	1.000	0	103	75.2	115			
Toluene	0.96	0.050	1.000	0	96.4	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	93,6	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	94.4	79.2	115			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID 1612B53-006AM	S SampT	SampType: MS TestCode: EPA Method 8021B: Volatiles										
Client ID: D2-3	Batc	h ID: <b>29</b>	29391 RunNo: 39665									
Prep Date: 12/23/2016	ep Date: 12/23/2016 Analysis Date: 12/27/2016 SeqNo: 1242792 Units: mg/Kg											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.95	0.023	0.9183	0	104	61.5	138					
Toluene	0.88	0.046	0.9183	0	96.2	71.4	127					
Ethylbenzene	0.85	0.046	0.9183	0	92.0	70.9	132					
Xylenes, Total	2.5	0.092	2.755	0								
Surr: 4-Bromofluorobenzene	1.1		0.9183		115	80	120					

Sample ID 1612B53-006AMS	/pe: MS	D	Tes	tCode: El	PA Method	8021B: Volat	iles			
Client ID: D2-3	Batch	ID: <b>29</b> 3	391	F	RunNo: 3	9665				
Prep Date: 12/23/2016	Analysis Da	ate: 12	2/27/2016	S	SeqNo: 1	242793	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.023	0.9217	0	91.8	61.5	138	11.7	20	
Toluene	0.84	0.046	0.9217	0	90.8	71.4	127	5.43	20	
Ethylbenzene	0.83	0.046	0.9217	0	90.2	70.9	132	1.64	20	
Xylenes, Total	2.5	0.092	2.765	0	91.0	76.2	123	0.851	20	
Surr: 4-Bromofluorobenzene	1.1		0.9217		116	80	120	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

Page 13 of 13



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

Released to Imaging: 3/23/2021 3:06:53 PM

weoste: www.n	allenvironmental.	.com	and the second s	2002/
Client Name: SMA-CARLSBAD Work Order Number	r: 1612B53		RoptNo:	
Received by/date: AJ 12 20 16				
Logged By: LINDSEY CUNCHA 12/20/2016 9:40:00 A	M			
Completed By: Lindsley Concha 12/21/16				
Reviewed By: (2/22/16				
Chain of Custody		·		<u>,</u>
1. Custody seals intact on sample bottles?	Yes 🗆	No 🗆	Not Present ☑	
2. Is Chain of Custody complete?	Yes 🗹	No 🗆	Not Present	
3. How was the sample delivered?	Courier			
3. How was the sample delivered.	<u>Oodijej</u>			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗆	NA 🗆	
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗸	No 🗆	na 🗆	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗆		
7. Sufficient sample volume for indicated test(s)?	Yes 🔽	No 🗌		
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was preservative added to bottles?	Yes 🗌	No 🗹	NA 🗆	
10.VOA vials have zero headspace?	Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved	
	🗔	🗔	bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🔽	No ∐	for pH: (<2 o	>12 unless noted
13. Are matrices correctly identified on Chain of Custody?	Yes 🔽	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗆		
15. Were all holding times able to be met?	Yes 🗸	No 🗆	Checked by:	
(If no, notify customer for authorization.)				
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified: Date		- T-640-74		]
By Whom: Via:	eMail 🗍	Phone Fax	In Person	
Regarding:				
Client Instructions:		M. Carlotte Control		
17. Additional remarks:				•
18. Cooler Information				
Cooler No   Temp °C   Condition   Seal Intact   Seal No	Seal Date	Signed By		
1 1.1 Good Yes				

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Accred			☐ Level 4 (Full Validation)	<del>1</del>		· / · · · · · · · · · · · · · · · · · ·	B's	Ţ	මු					Q.	82						
□ NEL		☐ Other		Sampler: / On Ice	NYYes	⊞ No	È	4	15B	8	4	Ŧ		ž	/ 80		   a				2
	(Type)			Sample Tem		NIOO	出	뇖	8	4	9	님	tais	ž	ges	2	§				گ
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE	BTEX + MTBE	TPH Method	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metais	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
1-13-16	10:00	5.	Li	402		-001								V						一	$\uparrow$
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			/ 3	7		-003								X							
			1-5	7		-004				1	7			У					П	$\Box$	
			L7			-00S								X					П	$\Box$	
			02-3	1		-006	X		7					X		-					
			02-2			-007	2							X							
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If necessary, samples submitted to Hell Environmental may be subcontracted to other accordited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notited on the analytical report.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 9033

#### **CONDITIONS OF APPROVAL**

Operator:		OGNID.	Action Number:	Action Type:
TALON LPE 408 W T	xas Artesia, NM88210	329944	9033	C-141

OCD Reviewer	Condition
ceads	Unless data can be provided from previous sampling events that hydrocarbons are not a contaminant of concern, the responsible party will be required to sample for BTEX and TPH, along with Chlorides during confirmation sampling.
ceads	Additional samples will need to be collected from the release areas to test for BTEX and TPH at a minimum depth of 4' below ground surface. Should the responsible party find BTEX or TPH impact that exceeds Table I Closure Criteria, additional vertical delineation and rememdiation will be required with respect to BTEX and TPH.
ceads	The nearest well to this site is 3707 POD 1 registered with the NMOSE approximately.65 miles west of the incidents site. The well logs indicate depth to first encountered groundwater is 55'. Unless the responsible party chooses to drill a borehole to confirm depth to water at the incidents site, Table I Closure Criteria for incidents where depth to water is between 51' and 100' will need to be followed.
ceads	The remediation of the pit area will need to meet Table I Closure Criteria. Unless the pit is still active or used for production activities, 19.15.29.13 NMAC reclamation requirements will need to be followed.