

**Document 10. Release Volume Calculation**

Location of spill:		Mattie Price Battery Flowline, North Hobbs, NM						Date of Spill:		Observed 01/25/2024						
										Site Soil Type:		Silt , Caliche, Gravelly Sand				
Impacted Soil Volume Calculations:																
Area	Area		Range		Thickness		Soil volume		Soil Type	Porosity	Residual Moisture content (%)	Available Porosity (%)	Volume liquid		Soil Type	Porosity
	sq. ft.	sq. ft.	ft.	ft.	ft.	ft.	cu. ft.	cu. ft.					cu. ft.	cu. ft.		
Area #1	2149	sq. ft.	0-1.5	ft.	1.5	ft.	3,224	cu. ft.	Silt	0.16	0.05	0.11	355	cu. ft.	Clay	0.15
Area #2	2698	sq. ft.	1.5-13	ft.	11.5	ft.	31,027	cu. ft.	Caliche	0.12	0.08	0.04	1,241	cu. ft.	Peat	0.40
Area #3	1427	sq. ft.	13-15	ft.	2	ft.	2,854	cu. ft.	Caliche	0.12	0.08	0.04	114	cu. ft.	Glacial Sediments	0.13
Area #4	168	sq. ft.	15-18	ft.	3	ft.	504	cu. ft.	Gravelly Sand	0.26	0.06	0.20	101	cu. ft.	Sandy Clay	0.12
Area #5	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Silt	0.16
Area #6	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Loess	0.25
Area #7	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Fine Sand	0.16
Total thickness:					18	ft.									Medium Sand	0.25
Total Solid Volume:							37,609	cu. ft.			Total Liquid Volume:		1,811	cu. ft.	Coarse Sand	0.26
Total Solid Volume (cu. yds):							1,393								Gravelly Sand	0.26
Estimated Volumes Spilled																
											36% OIL		64% H2O			
Volume Liquid in Soil:					1,811	cu. ft.	322.5	BBL			116.1		206.4		Coarse Gravel	0.18
Liquid Recovered (water) :					2	BBL					0.0		2.0		Sandstone	0.25
Total Spill Liquid:							324.5	BBL			116.1		208.4		Shale	0.05
Limestone																0.13
Basalt																0.19
Volcanic Tuff																0.20
Standing Liquids																

# Osborn Heirs Company

**Mattie Price Flowline Release  
Section 06, Township 17S, Range 38E  
Lea County, New Mexico**

**Remediation Report,  
Request for Backfill Approval and Closure  
nAPP2402549174**

**April 24, 2024**



**Prepared for:**

**Osborn Heirs Company  
PO Box 17968  
San Antonio, TX 78217**

**By:**

**Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
Hobbs, New Mexico 88240  
(575) 397-0510**

## I. Company Contacts

Representative	Company	Telephone	E-mail
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Bob Allen	Safety & Environmental Solutions, Inc.	575-397-0510	<a href="mailto:ballen@sesi-nm.com">ballen@sesi-nm.com</a>

## II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Osborn Heirs Company representatives to assess site impacts and perform remediation following an oil/produced water release from a steel flow line from the Mattie Price #2 well to the Mattie Price Battery. The release was first observed on January 25, 2024 and a clamp was applied to the pipe to prevent further discharge. The release was reported to the NM OCD via a digital C-141 form on the date of discovery, January 25. The OCD has assigned a reference number of nAPP2402549174 to the release.

The volume of the release was initially estimated as 3 barrels of oil and 7 barrels of water. The estimated volume will be updated in this report. The surface area of the release was mapped using a Trimble Juno GPS handheld device resulting in an impacted area of 2,149 sq. ft.

The location of the release and battery is shown in Document 1: Vicinity Map. The GPS location of flowline release is at 32.867401°N, -103.180678°W; the Mattie Price battery is at 32.867865 N, -103.179849 W. The distance from the release point to the southwest corner of the battery is 170 feet. The release is located in a cattle pasture owned by Mr. Phillip Berry of Hobbs.

The BLM Cave Karst Map is provided in Document 2; the purple coloration of the overlay shows BLM's evaluation of the area as having a low potential for underlying karst sediments.

## III. Soils, Surface and Ground Water

Soils in this area are characterized as a Kimbrough-Lea association: Nearly level and gently sloping, gravelly and loamy soils that are very shallow to moderately deep to indurated caliche. The soils in this association are used as range, wildlife habitat and recreational areas. They are also a source of caliche for construction.

No surface water or springs are present in the vicinity of the Mattie Price Battery. Ground water information is provided by the New Mexico Office of the State Engineer. Depth to groundwater records were researched for Sections 5 and 6, Township 17S, and Range 38E. The nearest Section 6 POD number, L 00904, is located approximately 1 mile from the Mattie Price Battery. Depth to water in 1972 was recorded as 75 feet. The nearest Section 5 POD number, L-00709, was drilled in 1951 with a depth to water of 40 feet and is located approximately 1,340 from the battery. POD information is included in Document 3: OSE Information.

On May 17, 2023, SESI personnel were onsite at the windmill owned by Mr. Phillip Berry with his permission to provide current groundwater information for use in Table 1, Closure Criteria, for remediation work ongoing at the adjacent battery. Staff gained access to the well and, using a 100 foot water level meter, attempted to determine the top of the groundwater. The tape was fully extended to 101 feet below ground surface and no water was encountered at that level in the well. The well is located 725 feet south of the release point and 900 feet south-southwest of the battery. The well location is shown on the Vicinity Map (Document 1). The memorandum and photographs documenting the visit and the lack of water at 101 feet are provided in Document 4: TOW Determination Memo.

**IV. Characterization**

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	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
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

\*Or other test methods approved by the division.

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

\*\*\*This applies to releases of produced water or other fluids, which may contain chloride.

[19.15.29.12 NMAC - N, 8/14/2018]

Though groundwater is deeper than 100 feet, the target cleanup levels are determined using the NMAC 19.15.29.12C revisions dated July 24, 2018 for releases within “1000 feet of any fresh water well or spring.” The applicable Recommended Remediation Action Levels (RRAL) are 600 mg/Kg, 10 mg/Kg Benzene, 50 mg/Kg combined Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX), 100 mg/Kg combined GRO+DRO+MRO Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level below 600 ppm also is required for pasture impact.

**V. Work Performed**

Prior to beginning delineation and excavation work, drone photography of the site was performed (Document 5: Drone Photo, February 6, 2024). The contractor for excavation and transport was Custom Welding Inc. of Hobbs (CW). Before excavation commenced CW performed the required NM One Call to locate any buried utilities on location; except for the steel flowline no utilities are in the excavation area.

Due to the impacted surface area being saturated with oil, the area was allowed to dry before excavation. On February 8, 2024, SESI began excavation work at the release location. This involved excavation of impacted soil material and stockpiling for transport to an OCD approved disposal facility. Initial excavation was by a backhoe.

On February 9, five locations were chosen for field sampling with a hand auger (Document 6: Initial Sampling Locations). However, the hand auger could not penetrate more than about 1.5 feet due to hard caliche. Instead three samples, SP-2,-4 and -6, were collected from the backhoe bucket at depths between 4 and 5.5 ft. below land surface and field tested for TPH and chloride. TPH results ranged from 2,230 to 2,700 ppm. SP-6 was the only sample field tested for chloride with a resultant concentration of 1,906 ppm.

Osborn Heirs Company Mattie Price Flowline Release Soil Sample Field Test Results (ppm), Backhoe Bucket Sampling, 02/09/2024			
Sample ID	Depth (ft.) below land surface	Total Petroleum Hydrocarbons	Chloride
SP-2	5	<b>2,230</b>	N/T
SP-4	4	<b>2,700</b>	N/T
SP-6	5.5	<b>2,600</b>	1,906

Bold – Exceeds Closure Criteria for this location

N/T – not tested

The backhoe could not make progress vertically for delineation due to the well cemented caliche. A trackhoe excavator was brought to the location on February 13 for vertical delineation and excavation of impacted soil and caliche material. Field notes taken as the trackhoe excavated were as follows: 7 ft.- hard caliche, gasoline odor; 10 ft. – still odor but less; 11- ft. color change on sidewall, white to light brown; 19 and 20 ft. – slight odor. Sampling results taken from the trackhoe bucket are shown in the table below. The Center hole location is shown on Document 6.

Osborn Heirs Company Mattie Price Flowline Release Soil Sample Results (mg/Kg), Bucket Sampling: Cardinal Laboratories H240591 Sample Date 02/13/2024								
Sample ID	Date	Chloride	GRO	DRO	EXT DRO	TPH	Total BTEX	Benzene
Center hole, 10'	02/13/24	160	301	2,100	172	<b>2,573</b>	3.52	<0.050
Center hole, 15'	02/13/24	48.0	<10.0	98.7	<10.0	98.7	<0.300	<0.050
Center hole, 20'	02/13/24	80.0	<10.0	47.4	<10.0	47.4	<0.300	<0.050

**Bold** – Exceeds Closure Criteria for this location

Excavation of impacted soil material continued through February 29. During that time impacted material was transported to the Lazy Ace Landfarm west of Eunice. The facility is an OCD approved disposal facility holding Permit #NM1-041 (facility ID fEEM0420827553). The impacted material was loaded into 20 cubic yard belly dump trucks for transport. Photographs of the completed excavation are shown in Section VIII, Supplemental Documentation, Document 12: Excavation Photographs.

Sampling was scheduled for March 5 and the required 48-hour notification to OCD was made prior to sampling (submission ID 318490).

On March 5, 2024, a representative from SESI was present at the site to collect confirmatory samples from the excavation. The impacted surface area of 2,149 sq.ft. necessitated a minimum of 11 samples be collected to meet the required minimum of one sample per each 200 square feet of area. Sample Confirmation samples were preserved, packaged, and transported to Cardinal Laboratories via Chain of Custody for analyses of the following constituents: Chloride (CL), Total Petroleum Hydrocarbons (TPH), and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). Samples were analyzed using the analytical methods described in Table 1 above. Sample locations are shown in Document 7: Confirmation Sample Locations.

The Confirmation Sampling table below includes a recap and tabulation of the March 5 results from the Cardinal Laboratories analyses: Because some samples exhibited a hydrocarbon odor, not all were sent for laboratory analysis; but were field tested on site for TPH. Seven samples had an exceedance of the maximum 100 mg/Kg TPH limit for the release at this location.

Osborn Heirs Company Mattie Price Flowline Release Confirmation Soil Sampling Results (mg/Kg), Hand Sampling: Cardinal Laboratories H241121 Sample Date 03/05/2024; H241474 Sample Date 03/20/2024								
Sample ID	Date	Chloride	GRO	DRO	EXT DRO	TPH	Total BTEX	Benzene
CS-1, 11'	03/05/24	336	<10.0	242	16.4	<b>258</b>	<0.300	<0.050
CS-1-2, 12'	03/20/24	256	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-2, 11'	03/05/24	--	--	--	--	<b>2,842*</b>	--	--
CS-2-2, 17'	03/20/24	112	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-3, 13'	03/05/24	--	--	--	--	<b>2,575*</b>	--	--
CS-3-2, 14'	03/20/24	32.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-4, 12'	03/05/24	272	<10.0	70.8	12.6	83.4	<0.300	<0.050
CS-5, 13'	03/20/24	96.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-6, 11'	03/05/24	--	--	--	--	<b>487*</b>	--	--
CS-6-2, 12'	03/20/24	272	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-7, 14'	03/05/24	224	<10.0	90.8	<10.0	90.8	<0.300	<0.050
CS-8, 14'	03/05/24	192	<10.0	51.6	<10.0	51.6	<0.300	<0.050
CS-9, 17'	03/05/24	144	<10.0	282	27.9	<b>310</b>	<0.300	<0.050
CS-9-2, 18'	03/20/24	96.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-10, 13'	03/05/24	80.0	<10.0	197	22.0	<b>219</b>	<0.300	<0.050
CS-10-2, 14'	03/20/24	32.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-11, 4.5'	03/05/24	96.0	<10.0	382	49.7	<b>432</b>	<0.300	<0.050
CS-11-2, 5'	03/20/24	64.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-12, SE wall, 10'	03/05/24	96.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-13, E wall, 10'	03/05/24	240	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-14, NNE wall, 8'	03/05/24	32.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050
CS-15, NNW wall, 10' 2"	03/05/24	48.0	<10.0	<10.0	<10.0	<10.0	<0.300	<0.050

**Bold** – Exceeds Closure Criteria for this location

\* Field TPH, not sent for laboratory testing

The results of the March 5 sampling showed that further work to remove impacted material was necessary. On March 13 and 14 additional excavation was performed at the release location. At location CS-2 an additional 6 feet of excavation was necessary. Other locations required one foot or less to meet the TPH criteria. Following this work and before further notification to OCD, test samples were collected for both field and laboratory TPH testing to ensure compliance with the limits in OCD Table 1. The results are presented below:

Osborn Heirs Company Mattie Price Flowline Release TPH Soil Sample Test Results (mg/Kg), Hand Sampling: Cardinal Laboratories H241311			
Sample ID	Date	Field TPH	Lab TPH
CS-1-2, 12 ft. BLS	03/12/2024	38	19.2
CS-2-2, 17 ft. BLS	03/12/2024	21	<10.0
CS-3-2, 14 ft. BLS	03/13/2024	N/T	15.0
CS-6-2, 12 ft. BLS	03/13/2024	35	<10.0
CS-9-2, 18 ft. BLS	03/12/2024	16	<10.0
CS-10-2, 14 ft. BLS	03/12/2024	15	22.5
CS-11-2, 5 ft. BLS	03/12/2024	N/T	15.8

N/T – not tested

The follow-up sampling event was scheduled for March 20 and the required 48-hour notification to OCD was made prior to sampling (submission IDs 323688 and 323889). Sample results from the March 20 confirmation sampling are shown in the **Confirmation Soil Sampling Results** table above and all sample results were below their respective compliance levels.

The final total for transport and disposal of impacted soil material at the Lazy Ace Landfarm was 2,304 cubic yards.

## VI. Cause of the Release and Revised Release Volume Calculation

Following discovery and clamping of the pipe on January 25, lease operator Mattie Price reported the release to NM OCD. On Friday, February 23 a replacement poly line that had been laid beside the lease road was connected to the battery and the steel line was taken out of service. The line was flushed on February 26 with the damaged section and adjacent joints cut and removed later that day to allow continued excavation. On March 21 the clamp was removed from the pipe. A photograph taken of the hole is shown in Document 8: Flow Line Pipe Showing Leak Hole. Additional photographs are included with Document 12: Excavation Photographs.

The hole in the pipe is slightly elliptical; measurements of the hole were made and the size is approximately 7/16 in. horizontally and 1/4 in. vertically. The hole is located approximately midway between the ends of a 25 foot section of pipe. No obvious external damage to the pipe was observed and the cause of the release is believed to have been internal corrosion of the steel pipe flowline.

The volume of the release was initially reported as three barrels of crude oil and seven barrels of produced water. However, OCD requires submission of fluid volumes released based on a volume calculation. In the current instance it is unknown how long the release was ongoing prior to discovery. However, January production records show a precipitous drop in crude oil production that month [Document 9: Mattie Price Six-Month Production Records]. Accordingly, a calculation was made based on surface area of the release and the type and depth of impacted soil materials that underwent excavation [Document-10: Release Volume Calculation]. The calculation makes use of soil lithology and moisture content of the soil.

In the area of the spill release the major lithologies from surface to the maximum depth of observed impact are shown below:

- 0-1.5 ft. Silt, dry with porosity of 16 percent (0.16) and residual moisture content of 5 percent (0.05).
- 1.5-15 ft. Caliche with porosity of 12 percent (0.10) and residual moisture content of 8 percent (0.08).
- 15-18 ft. Gravelly sand with porosity of 26 percent (0.26) and residual moisture content of 6 percent (0.06).

Caliche pore sizes are small, but they can receive water (or fluids with density similar to water). Capillary forces assist in moving water to near-dry pores. The porosity of caliche can vary greatly depending on the degree of cementation. Excavation at this site required hard hammering on the rock by the trackhoe bucket indicating well-cemented rock layers. Cement itself is porous, will absorb water to a certain extent and has a range from 10 to 15%. Due to its degree of cementation a caliche porosity of 12 percent was chosen.

The residual moisture content is an additional value beyond porosity needed to estimate fluid volume. Unless soil is subject to extended atmospheric drying, a small amount of moisture remains trapped in the interstitial pore spaces due to capillary forces. This value is always less than the porosity and is dependent on such factors as soil type, compaction, swelling, clogging and others. Numerous soil science publications present wide variations of this number depending on the soil type and condition. As it is of primary interest for agriculture applications, values for deeper sediments or for caliche are not readily available. Values for silt and sand are available and included in the calculation. A value for caliche is not available but based on review of values for fine grained materials, a residual moisture content of 8 percent (0.08) was chosen.

Small pore sizes limit permeability, however meaningful transmission of water is possible where there are fractures in the well-cemented layered caliche; this effect is labeled partial penetration. This effect likely resulted in unequal transmission of fluids to widely spaced areas as mapped in Document 11: Impacted Area Mapping.

The mapping involved drawing areal contours for contamination depths and using Google Earth's polygon tool to calculate square footage. The thickness of the impacted material resulted in a cubic footage volume that was assigned a porosity based on lithology. Below are the square footage thickness and volumes used in the release determination:

- 0-1.5 ft., silt, 2,149 sq.ft., volume impacted 3,224 cu.ft.
- 1.5-13 ft. caliche, 2,698 sq.ft., volume impacted 31,027 cu.ft.
- 13-15 ft. caliche, 1,427 sq.ft., volume impacted 2,851 cu.ft.
- 15-18 ft. gravelly sand, 168 sq.ft., volume impacted 504 cu.ft.

In summary, the total impacted soil volume was 37,609 cu.ft. with a fluid volume of 1,811 cu.ft. or 322.5 barrels of fluid. The vacuum truck operator reported 2 barrels of mixed fluids (mainly water) were recovered for a **total estimated loss of 324.5 barrels**. Based on operator monthly percentages of oil (36%) and water (64%), 116.1 barrels of oil and 208.4 barrels of water are estimated to have been released.

## VII. Request for Backfill Approval and Closure

At the location of the Mattie Price Flow Line release 2,304 cubic yards of impacted material have been excavated and any remaining impacted material meets the Closure Criteria of OCD Table 1 above. Remediation with the exception of backfill was deemed complete upon receipt of the March 20 soil sample results and with removal for disposal of remaining impacted soil material on April 5, 2024. Backfill material will consist of uncontaminated material, mainly caliche, provided by the landowner. Given that remediation has been completed in accordance with the requirements of 19.15.29.12.D.2 NMAC, Osborn Heirs Company respectfully requests approval for backfill and Closure of this incident.

## VIII. Supplemental Documentation

Document 1: Vicinity Map  
Document 2: BLM Cave Karst Map  
Document 3: OSE Information  
Document 4: TOW Determination Memo  
Document 5: Drone Photo, February 6, 2024  
Document 6: Initial Sampling Locations, February 9 & 13, 2024  
Document 7: Confirmation Sample Locations  
Document 8: Flow Line Pipe Showing Leak Hole  
Document 9: Mattie Price Six-Month Production Records  
Document 10: Release Volume Calculation  
Document 11: Impacted Area Mapping  
Document 12: Excavation Photographs  
Document 13: Correspondence  
Document 14: Lab Analyses

**Vicinity Map**  
Mattie Price Flow Line Release

Mattie Price Tank Battery

Mattie Price Flow Line Release

Phillip Berry Windmill

L-00709

L-00904

01

06

05

S 37E

17S 38E

79

Stepping Stone Daycare

W Stiles Rd

78

Survey  
Google Earth

07

08

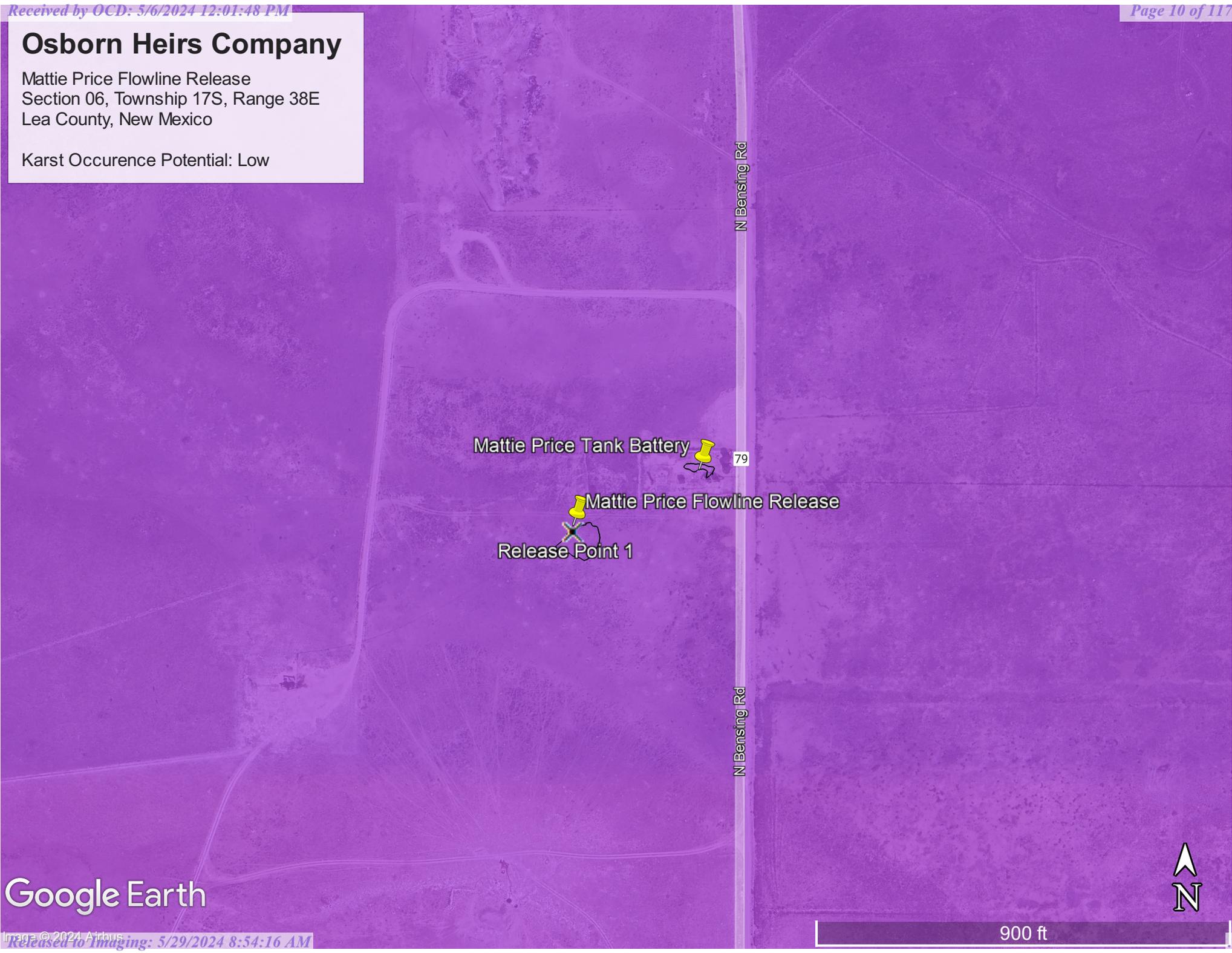


2000 ft

# Osborn Heirs Company

Mattie Price Flowline Release  
Section 06, Township 17S, Range 38E  
Lea County, New Mexico

Karst Occurrence Potential: Low



Mattie Price Tank Battery

79

Mattie Price Flowline Release

Release Point 1

N Bensing Rd

N Bensing Rd

Google Earth





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

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

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">L 00709</a>	L	LE	LE	3	3	1	05	17S	38E	670452	3637751*	130	40	90
<a href="#">L 00710</a>	L	LE	LE	1	1	05	17S	38E	670546	3638255*	130			
<a href="#">L 06961</a>	L	LE	LE	4	3	1	05	17S	38E	670652	3637751*	130	70	60

Average Depth to Water: **55 feet**  
Minimum Depth: **40 feet**  
Maximum Depth: **70 feet**

**Record Count:** 3

**Basin/County Search:**

**Basin:** Lea County      **County:** Lea

**PLSS Search:**

**Q4:** NW      **Section(s):** 5      **Township:** 17S      **Range:** 38E

\*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.

May 23, 2020

To: File

From: David G Boyer P.G.

Subject: Top of Water Determination

On Wednesday May 17 I accompanied Bob Allen, SESI President, and Hayden Able, SESI technician, to a windmill on property owned by Mr. Phillip Berry to determine if groundwater was present greater than a depth of 100 feet at that location. The location of the windmill is 900 feet from the Mattie Price battery location (see attached map). SESI had received permission from Mr. Berry to visit the windmill location.

The windmill is located at GPS decimal coordinates 32.865462 degrees North and -103.180639 degrees West. New Mexico State Plane Coordinates are SE/4 NE/4, Section 6, T17S, R38E. No record of the windmill was found in the NM Office of the State Engineer water well database.

Water level measurements were made with a Geotech Water Level meter with 101 feet of tape and a steel tip probe at the end (see photos). The meter was tested for operation before leaving the SESI office and again on arrival at the location. The probe and tape were lowered into the well to its maximum length without detecting groundwater.

As a result of this determination and location of the windmill with respect to the battery, closure criteria for remediation of impacted soils at the Mattie Price battery will be those constituent levels listed for sites having groundwater greater than 100 feet below ground surface.

David G. Boyer, P.G.

Hydrogeologist

Safety & Environmental Solutions, Inc.

703 East Clinton St.

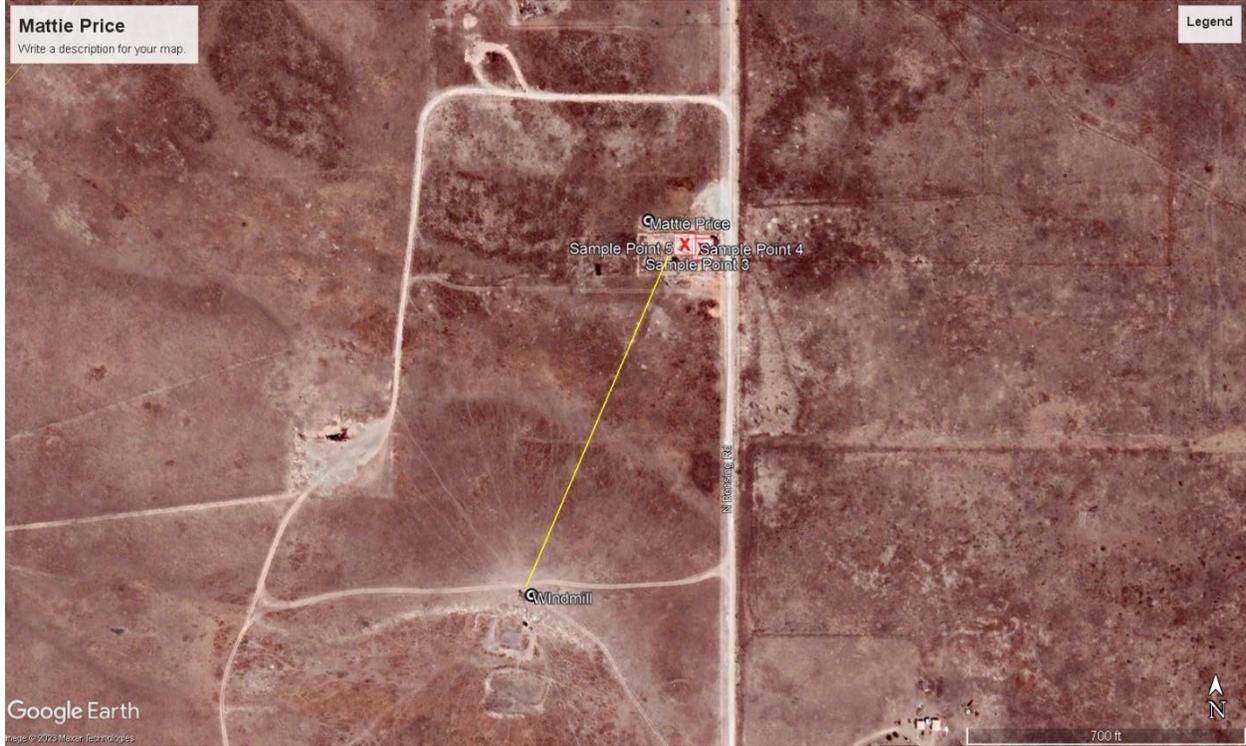
P.O. Box 1613

Hobbs, New Mexico 88241

(575) 397-0510 (office)

(575) 393-4388 (fax)

(575) 390-7067 (cell)





May 17, 2023 at 11:14:14 AM  
32° 51' 55.915" N, 103° 10' 52.301" W  
Lea County



May 17, 2023 at 11:14:31 AM  
32° 51' 55.915" N, 103° 10' 52.301" W  
Lea County







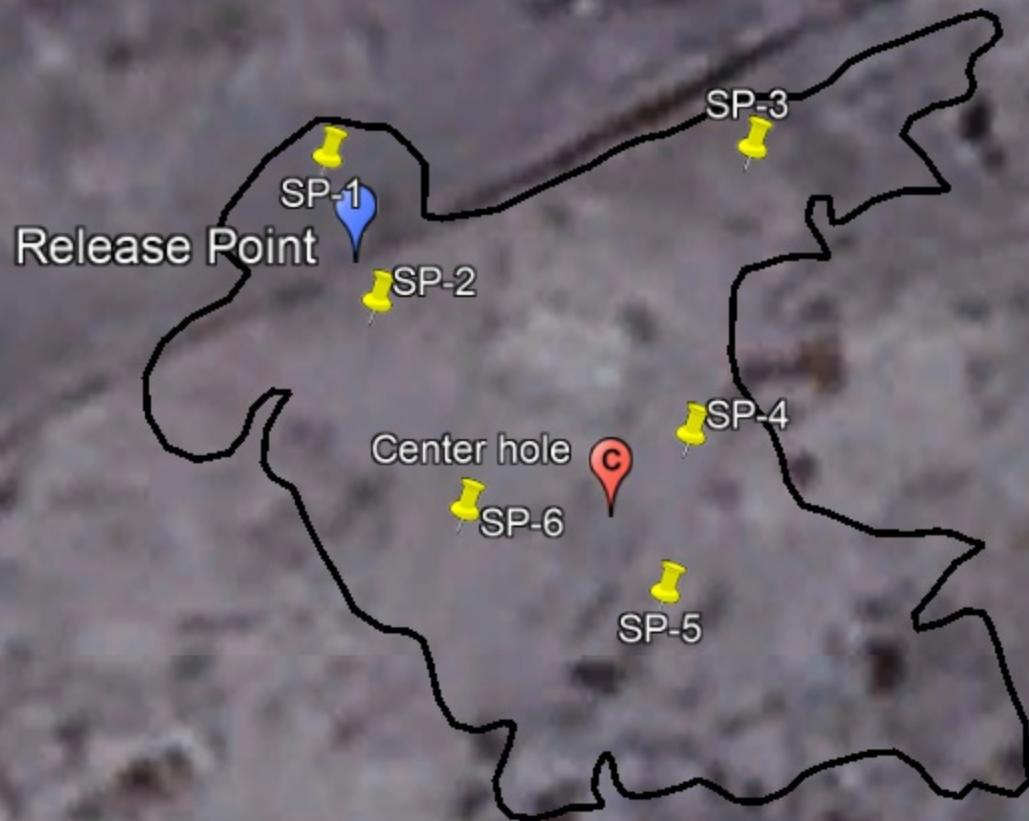


### Initial Sampling Locations

Hand Auger/Backhoe Sampling February 9  
Center Hole Trackhoe Sampling February 13

**Legend**

-  Center hole
-  Release Point
-  SP-3 Hand Auger Locations
-  Surface spill Area

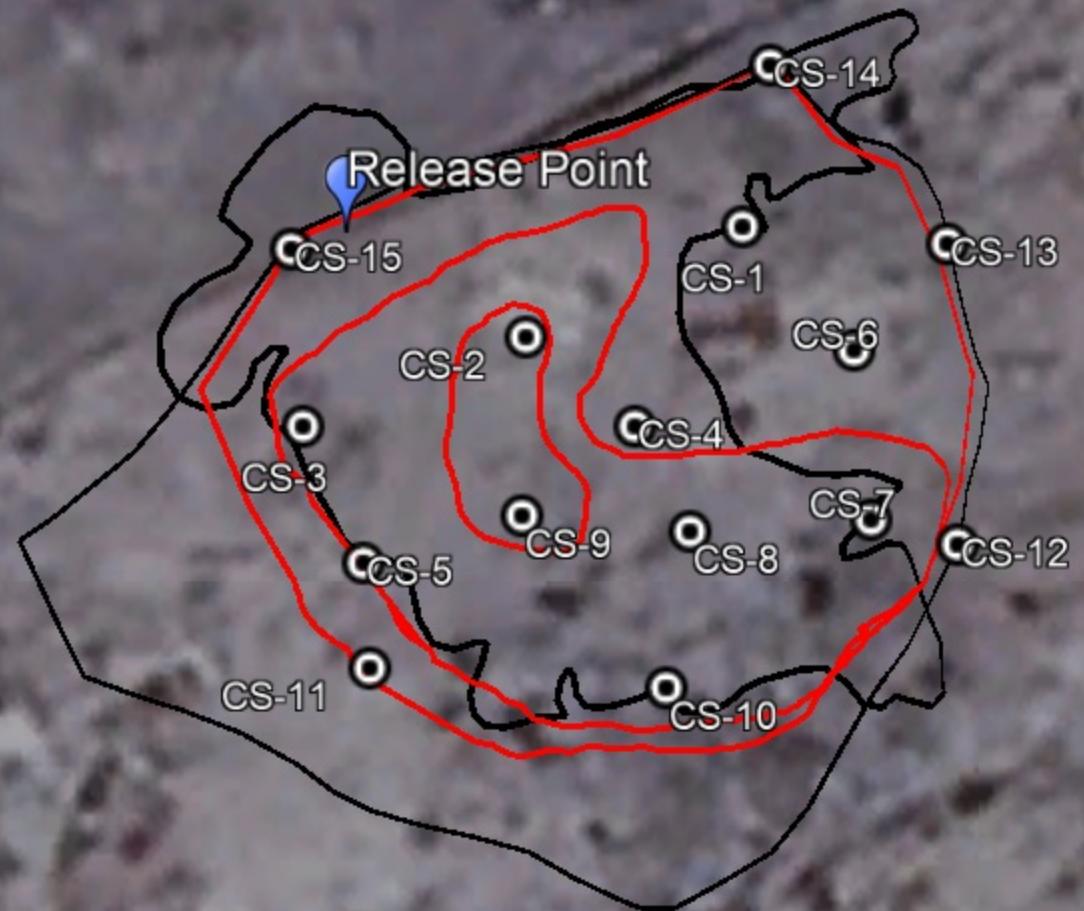


**Legend**

- Confirmation Sample Location
- Release Point

**Confirmation Sampling Locations**

March 5 and 20, 2024



Mar 21, 2024 at 2:43:36 PM  
+32.867235, -103.181049  
334° NW  
Hobbs NM 88242  
United States



<b>MATTIE PRICE MONTHLY PRODUCTION</b>						
	MONTHLY	MONTHLY		DAILY	DAILY	TOTAL
MONTH	OIL	WATER	DAY ON	OIL	WATER	FLUID
09/2023	453.0	674.0	30.0	15.1	22.5	37.6
10/2023	436.0	705.0	31.0	14.1	22.7	36.8
11/2023	357.0	680.0	30.0	11.9	22.7	34.6
12/2023	302.0	609.0	31.0	9.7	19.6	29.4
01/2024	58.0	486.0	22.0	2.6	22.1	24.7
02/2024	240.0	572.0	24.0	10.0	23.8	33.8
03/2024	248.0	417.0	19.0	13.1	21.9	35.0

**Document 10. Release Volume Calculation**

<b>Document 10. Release Volume Calculation</b>																	
<b>Location of spill:</b>		<b>Mattie Price Battery Flowline, North Hobbs, NM</b>						<b>Date of Spill:</b>		<b>Observed 01/25/2024</b>							
														<b>Site Soil Type:</b>		Silt , Caliche, Gravelly Sand	
<b>Impacted Soil Volume Calculations:</b>																	
Area	Area		Range		Thickness		Soil volume		Soil Type	Porosity	Residual Moisture content (%)	Available Porosity (%)	Volume liquid		Soil Type	Porosity	
	sq. ft.	sq. ft.	ft.	ft.	ft.	ft.	cu. ft.	cu. ft.					cu. ft.	cu. ft.			
Area #1	2149	sq. ft.	0-1.5	ft.	1.5	ft.	3,224	cu. ft.	Silt	0.16	0.05	0.11	355	cu. ft.	Clay	0.15	
Area #2	2698	sq. ft.	1.5-13	ft.	11.5	ft.	31,027	cu. ft.	Caliche	0.12	0.08	0.04	1,241	cu. ft.	Peat	0.40	
Area #3	1427	sq. ft.	13-15	ft.	2	ft.	2,854	cu. ft.	Caliche	0.12	0.08	0.04	114	cu. ft.	Glacial Sediments	0.13	
Area #4	168	sq. ft.	15-18	ft.	3	ft.	504	cu. ft.	Gravelly Sand	0.26	0.06	0.20	101	cu. ft.	Sandy Clay	0.12	
Area #5	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Silt	0.16	
Area #6	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Loess	0.25	
Area #7	0	sq. ft.	0	ft.	0	ft.		cu. ft.						cu. ft.	Fine Sand	0.16	
Total thickness:					18	ft.									Medium Sand	0.25	
Total Solid Volume:							37,609	cu. ft.							Total Liquid Volume:	1,811	cu. ft.
Total Solid Volume (cu. yds):							1,393									Coarse Sand	0.26
<b>Estimated Volumes Spilled</b>																	
											36% OIL	64% H2O					
Volume Liquid in Soil:					1,811	cu. ft.	322.5	BBL			116.1		206.4				
Liquid Recovered (water) :					2	BBL					0.0		2.0				
Total Spill Liquid:							324.5	BBL			116.1		208.4				
Fine Gravel 0.26																	
Medium Gravel 0.25																	
Coarse Gravel 0.18																	
Sandstone 0.25																	
Shale 0.05																	
Limestone 0.13																	
Basalt 0.19																	
Volcanic Tuff 0.20																	
Standing Liquids																	

### Impacted Area Mapping

Inner black line - Spill area 01/25/24 (Juno GPS)  
Outer black line - Mapped excavation April 2024  
Outer orange line - Impacted volume 1.5-13 ft.  
Intermediate orange line - Impacted volume 13-15 ft.  
Inner orange line - Impacted volume 15-18 ft.

**Legend**

- Confirmation Sample Location
- Release Point



**From:** [Gary Cunningham](#)  
**To:** [Bob Allen \(ballen@sesi-nm.com\)](mailto:ballen@sesi-nm.com)  
**Subject:** FW: Oil Conservation Division (OCD) has accepted the application, Application ID: 307851  
**Date:** Thursday, January 25, 2024 1:49:57 PM

---

Bob,

Below is the OCD Acceptance of the initial C-141 I submitted through the portal.

Gary

---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Thursday, January 25, 2024 2:40 PM  
**To:** Gary Cunningham <garyc@osbornheirs.com>  
**Subject:** {EXTERNAL} The Oil Conservation Division (OCD) has accepted the application, Application ID: 307851

To whom it may concern (c/o Gary Cunningham for OSBORN HEIRS CO),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2402549174, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2402549174, on all subsequent C-141 submissions and communications regarding the remediation of this release.

**NOTE:** As of December 2019, NMOCD has discontinued the use of the “RP” number.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

[ocd.enviro@state.nm.us](mailto:ocd.enviro@state.nm.us)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505



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

---

February 14, 2024

Bob Allen  
Safety & Environmental Solutions  
703 East Clinton  
Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/13/24 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/13/2024	Sampling Date:	02/13/2024
Reported:	02/14/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NONE GIVEN		

**Sample ID: CENTER HOLE 10' (H240691-01)**

BTEX 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/13/2024	ND	2.20	110	2.00	4.09		
Toluene*	<0.050	0.050	02/13/2024	ND	2.19	109	2.00	3.83	GC-NC	
Ethylbenzene*	<0.050	0.050	02/13/2024	ND	2.17	109	2.00	4.00		
<b>Total Xylenes*</b>	<b>3.42</b>	0.150	02/13/2024	ND	6.35	106	6.00	4.15	GC-NC1	
<b>Total BTEX</b>	<b>3.42</b>	0.300	02/13/2024	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 181 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	02/14/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS				S-06		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>301</b>	50.0	02/14/2024	ND	209	105	200	1.11		
<b>DRO &gt;C10-C28*</b>	<b>2100</b>	50.0	02/14/2024	ND	211	106	200	1.93		
<b>EXT DRO &gt;C28-C36</b>	<b>172</b>	50.0	02/14/2024	ND						

Surrogate: 1-Chlorooctane 162 % 48.2-134

Surrogate: 1-Chlorooctadecane 162 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/13/2024	Sampling Date:	02/13/2024
Reported:	02/14/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NONE GIVEN		

**Sample ID: CENTER HOLE 15' (H240691-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2024	ND	2.20	110	2.00	4.09	
Toluene*	<0.050	0.050	02/13/2024	ND	2.19	109	2.00	3.83	
Ethylbenzene*	<0.050	0.050	02/13/2024	ND	2.17	109	2.00	4.00	
Total Xylenes*	<0.150	0.150	02/13/2024	ND	6.35	106	6.00	4.15	
Total BTEX	<0.300	0.300	02/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	02/14/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2024	ND	209	105	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>98.7</b>	10.0	02/14/2024	ND	211	106	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	02/14/2024	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/13/2024	Sampling Date:	02/13/2024
Reported:	02/14/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NONE GIVEN		

**Sample ID: CENTER HOLE 20' (H240691-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/13/2024	ND	2.20	110	2.00	4.09	
Toluene*	<0.050	0.050	02/13/2024	ND	2.19	109	2.00	3.83	
Ethylbenzene*	<0.050	0.050	02/13/2024	ND	2.17	109	2.00	4.00	
Total Xylenes*	<0.150	0.150	02/13/2024	ND	6.35	106	6.00	4.15	
Total BTEX	<0.300	0.300	02/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	02/14/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2024	ND	209	105	200	1.11	
<b>DRO &gt;C10-C28*</b>	<b>47.4</b>	10.0	02/14/2024	ND	211	106	200	1.93	
EXT DRO >C28-C36	<10.0	10.0	02/14/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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

---

March 18, 2024

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: MP FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 03/13/24 16:51.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/13/2024	Sampling Date:	03/12/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MP FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	OS B - 24 - 001	Sample Received By:	Dionica Hinojos
Project Location:	N. HOBBS		

**Sample ID: CS - 1 - 2 (H241311-01)**

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	211	105	200	4.99	
<b>DRO &gt;C10-C28*</b>	<b>19.2</b>	10.0	03/14/2024	ND	206	103	200	4.92	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	88.0 %	48.2-134							
Surrogate: 1-Chlorooctadecane	88.9 %	49.1-148							

**Sample ID: CS - 9 - 2 (H241311-02)**

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	211	105	200	4.99	
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	206	103	200	4.92	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	98.5 %	48.2-134							
Surrogate: 1-Chlorooctadecane	101 %	49.1-148							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/13/2024	Sampling Date:	03/12/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MP FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	OS B - 24 - 001	Sample Received By:	Dionica Hinojos
Project Location:	N. HOBBS		

**Sample ID: CS - 11 - 2 (H241311-03)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	209	104	200	1.77	
<b>DRO &gt;C10-C28*</b>	<b>15.8</b>	10.0	03/14/2024	ND	195	97.4	200	3.24	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	81.2 %	48.2-134							
Surrogate: 1-Chlorooctadecane	81.3 %	49.1-148							

**Sample ID: CS - 2 - 2 , 17' BLS (H241311-04)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	209	104	200	1.77	
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	195	97.4	200	3.24	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	99.4 %	48.2-134							
Surrogate: 1-Chlorooctadecane	96.1 %	49.1-148							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/13/2024	Sampling Date:	03/13/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MP FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	OS B - 24 - 001	Sample Received By:	Dionica Hinojos
Project Location:	N. HOBBS		

**Sample ID: CS - 3 - 2 , 14' BLS (H241311-05)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	209	104	200	1.77	
<b>DRO &gt;C10-C28*</b>	<b>15.0</b>	10.0	03/14/2024	ND	195	97.4	200	3.24	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	95.1 %	48.2-134							
Surrogate: 1-Chlorooctadecane	90.7 %	49.1-148							

**Sample ID: CS - 6 - 2 (H241311-06)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	209	104	200	1.77	
DRO >C10-C28*	<10.0	10.0	03/14/2024	ND	195	97.4	200	3.24	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	82.6 %	48.2-134							
Surrogate: 1-Chlorooctadecane	77.9 %	49.1-148							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/13/2024	Sampling Date:	03/12/2024
Reported:	03/18/2024	Sampling Type:	Soil
Project Name:	MP FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	OS B - 24 - 001	Sample Received By:	Dionica Hinojos
Project Location:	N. HOBBS		

**Sample ID: CS - 10 - 2 (H241311-07)**

TPH 8015M	mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2024	ND	209	104	200	1.77	
<b>DRO &gt;C10-C28*</b>	<b>22.5</b>	10.0	03/14/2024	ND	195	97.4	200	3.24	
EXT DRO >C28-C36	<10.0	10.0	03/14/2024	ND					
<hr/>									
Surrogate: 1-Chlorooctane	95.2 %	48.2-134							
Surrogate: 1-Chlorooctadecane	91.3 %	49.1-148							

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**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

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Celey D. Keene, Lab Director/Quality Manager





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

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February 21, 2024

Bob Allen  
Safety & Environmental Solutions  
703 East Clinton  
Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/20/24 8:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/20/2024	Sampling Date:	02/19/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Tamara Oldaker
Project Location:	NORTH HOBBS		

**Sample ID: EAST CENTER BENCH 14' (H240803-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2024	ND	1.89	94.6	2.00	2.60	
Toluene*	<0.050	0.050	02/20/2024	ND	2.07	104	2.00	9.15	
Ethylbenzene*	<0.050	0.050	02/20/2024	ND	2.17	108	2.00	9.92	
Total Xylenes*	<0.150	0.150	02/20/2024	ND	6.41	107	6.00	10.2	
Total BTEX	<0.300	0.300	02/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/20/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2024	ND	198	98.9	200	4.55	
DRO >C10-C28*	<10.0	10.0	02/20/2024	ND	184	92.2	200	7.32	
EXT DRO >C28-C36	<10.0	10.0	02/20/2024	ND					

Surrogate: 1-Chlorooctane 77.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/20/2024	Sampling Date:	02/19/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Tamara Oldaker
Project Location:	NORTH HOBBS		

**Sample ID: CENTER BOTTOM 20' (H240803-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2024	ND	1.89	94.6	2.00	2.60	
Toluene*	<0.050	0.050	02/20/2024	ND	2.07	104	2.00	9.15	
Ethylbenzene*	<0.050	0.050	02/20/2024	ND	2.17	108	2.00	9.92	
Total Xylenes*	<0.150	0.150	02/20/2024	ND	6.41	107	6.00	10.2	
Total BTEX	<0.300	0.300	02/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	02/20/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2024	ND	198	98.9	200	4.55	
<b>DRO &gt;C10-C28*</b>	<b>171</b>	10.0	02/20/2024	ND	184	92.2	200	7.32	
EXT DRO >C28-C36	<10.0	10.0	02/20/2024	ND					

Surrogate: 1-Chlorooctane 87.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/20/2024	Sampling Date:	02/19/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Tamara Oldaker
Project Location:	NORTH HOBBS		

**Sample ID: CENTER HOLE 19' (H240803-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2024	ND	1.89	94.6	2.00	2.60	
Toluene*	<0.050	0.050	02/20/2024	ND	2.07	104	2.00	9.15	
Ethylbenzene*	<0.050	0.050	02/20/2024	ND	2.17	108	2.00	9.92	
Total Xylenes*	<0.150	0.150	02/20/2024	ND	6.41	107	6.00	10.2	
Total BTEX	<0.300	0.300	02/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	02/20/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2024	ND	198	98.9	200	4.55	
<b>DRO &gt;C10-C28*</b>	<b>213</b>	10.0	02/20/2024	ND	184	92.2	200	7.32	
<b>EXT DRO &gt;C28-C36</b>	<b>13.9</b>	10.0	02/20/2024	ND					

Surrogate: 1-Chlorooctane 98.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/20/2024	Sampling Date:	02/19/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Tamara Oldaker
Project Location:	NORTH HOBBS		

**Sample ID: UPPER EAST BENCH 11' (H240803-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2024	ND	1.89	94.6	2.00	2.60	
Toluene*	<0.050	0.050	02/20/2024	ND	2.07	104	2.00	9.15	
Ethylbenzene*	<0.050	0.050	02/20/2024	ND	2.17	108	2.00	9.92	
Total Xylenes*	<0.150	0.150	02/20/2024	ND	6.41	107	6.00	10.2	
Total BTEX	<0.300	0.300	02/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>256</b>	16.0	02/20/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2024	ND	198	98.9	200	4.55	
<b>DRO &gt;C10-C28*</b>	<b>149</b>	10.0	02/20/2024	ND	184	92.2	200	7.32	
<b>EXT DRO &gt;C28-C36</b>	<b>13.7</b>	10.0	02/20/2024	ND					

Surrogate: 1-Chlorooctane 74.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/20/2024	Sampling Date:	02/19/2024
Reported:	02/21/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Tamara Oldaker
Project Location:	NORTH HOBBS		

**Sample ID: SOUTH WALL 10' (H240803-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/20/2024	ND	1.89	94.6	2.00	2.60	
Toluene*	<0.050	0.050	02/20/2024	ND	2.07	104	2.00	9.15	
Ethylbenzene*	<0.050	0.050	02/20/2024	ND	2.17	108	2.00	9.92	
Total Xylenes*	<0.150	0.150	02/20/2024	ND	6.41	107	6.00	10.2	
Total BTEX	<0.300	0.300	02/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>176</b>	16.0	02/20/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/20/2024	ND	198	98.9	200	4.55	
<b>DRO &gt;C10-C28*</b>	<b>229</b>	10.0	02/20/2024	ND	184	92.2	200	7.32	
<b>EXT DRO &gt;C28-C36</b>	<b>10.5</b>	10.0	02/20/2024	ND					

Surrogate: 1-Chlorooctane 93.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Safety and Environmental Solutions		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>													
Project Manager: Bob Allen		P.O. #:															
Address: 703 East Clinton, PO Box 1613		Company: Same															
City: Hobbs State: NM Zip: 88240		Attn:															
Phone #: 575 397-0510 Fax #: 575 393-4388		Address:															
Project #: <u>OSB-24-001</u> Project Owner:		City:															
Project Name: <u>MATTIE PRICE FLOWLINE</u>		State: Zip:															
Project Location: <u>NORTH Hobbs</u>		Phone #:															
Sampler Name: <u>D. ROYER</u>		Fax #:															
FOR LAB USE ONLY		(GRAB OR (COMP. # CONTAINERS	MATRIX					PRESERV.		SAMPLING		DATE	TIME	BTX	TPH	BOIS	Chlorides
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:						
<u>H240803</u>									<input checked="" type="checkbox"/>								
	<u>1 East Center bench 14'</u>	<u>G 1</u>				<u>X</u>			<u>X</u>		<u>2/19</u>	<u>1035</u>	<u>X</u>	<u>X</u>	<u>X</u>		
	<u>2 Center Bottom 20'</u>											<u>1420</u>					
	<u>3 Center Hole 19'</u>											<u>1530</u>					
	<u>4 Upper East Bench 11'</u>											<u>1608</u>					
	<u>5 South Wall 10'</u>	<u>G 1</u>				<u>X</u>			<u>X</u>		<u>2/19</u>	<u>1615</u>	<u>X</u>	<u>X</u>	<u>X</u>		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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 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 use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>W. Royer</u>	Date: <u>2/20/24</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: <u>0812</u>	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Date:	Sample Condition	REMARKS: <u>Rush 24 M</u>	
Sampler - UPS - Bus - Other: <u>0.9</u>	Time:	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	email <u>dboyer@sesl-nm.com</u> <u>b.allen@sesl-nm.com</u> <u>office2@sesl-nm.com</u>	
		CHECKED BY: (Initials) <u>[Signature]</u>		



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

---

February 22, 2024

Bob Allen  
Safety & Environmental Solutions  
703 East Clinton  
Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/21/24 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/21/2024	Sampling Date:	02/20/2024
Reported:	02/22/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: N. BENCH 13' (H240841-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2024	ND	2.38	119	2.00	0.186	
Toluene*	<0.050	0.050	02/21/2024	ND	2.08	104	2.00	1.25	
Ethylbenzene*	<0.050	0.050	02/21/2024	ND	2.05	103	2.00	0.125	
Total Xylenes*	<0.150	0.150	02/21/2024	ND	5.92	98.7	6.00	1.61	
Total BTEX	<0.300	0.300	02/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/21/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2024	ND	202	101	200	1.35	
<b>DRO &gt;C10-C28*</b>	<b>29.4</b>	10.0	02/21/2024	ND	197	98.7	200	0.678	
EXT DRO >C28-C36	<10.0	10.0	02/21/2024	ND					

Surrogate: 1-Chlorooctane 74.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, 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.

Celey D. Keene, Lab Director/Quality Manager



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

\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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

---

February 26, 2024

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/23/24 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Shalyn Rodriguez
Project Location:	NORTH HOBBS		

**Sample ID: E. CENTER HOLE 11' (H240898-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/24/2024	ND	2.28	114	2.00	1.59	
Toluene*	<0.050	0.050	02/24/2024	ND	2.01	101	2.00	3.23	
Ethylbenzene*	<0.050	0.050	02/24/2024	ND	1.96	98.1	2.00	3.69	
Total Xylenes*	<0.150	0.150	02/24/2024	ND	5.53	92.2	6.00	3.65	
Total BTEX	<0.300	0.300	02/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/24/2024	ND	213	107	200	2.06	
DRO >C10-C28*	<10.0	10.0	02/24/2024	ND	232	116	200	5.02	
EXT DRO >C28-C36	<10.0	10.0	02/24/2024	ND					

Surrogate: 1-Chlorooctane 98.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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

---

March 26, 2024

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/20/24 16:44.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 1 - 2, 12' (H241474-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.0 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 2 - 2, 17' (H241474-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 93.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 3 - 2, 14' (H241474-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, 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 limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 6 - 2, 12' (H241474-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 9 - 2, 18' (H241474-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 78.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 10 - 2, 14' (H241474-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/20/2024	Sampling Date:	03/20/2024
Reported:	03/26/2024	Sampling Type:	Soil
Project Name:	MATTIE PRICE FLOWLINE RELEASE	Sampling Condition:	Cool & Intact
Project Number:	OSB-24-001	Sample Received By:	Dionica Hinojos
Project Location:	NORTH HOBBS		

**Sample ID: CS - 11 - 2, 5' (H241474-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/23/2024	ND	1.89	94.7	2.00	2.00	
Toluene*	<0.050	0.050	03/23/2024	ND	2.02	101	2.00	0.656	
Ethylbenzene*	<0.050	0.050	03/23/2024	ND	1.99	99.7	2.00	0.444	
Total Xylenes*	<0.150	0.150	03/23/2024	ND	6.03	101	6.00	0.824	
Total BTEX	<0.300	0.300	03/23/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/22/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/22/2024	ND	181	90.5	200	2.24	
DRO >C10-C28*	<10.0	10.0	03/22/2024	ND	183	91.7	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	03/22/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Safety and Environmental Solutions		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>												
Project Manager: Bob Allen		P.O. #:														
Address: 703 East Clinton, PO Box 1613		Company: Same														
City: Hobbs State: NM Zip: 88240		Attn:														
Phone #: 575 397-0510 Fax #: 575 393-4388		Address:														
Project #: CSB-24-001 Project Owner:		City:														
Project Name: McTigue Price Flowline		State: Zip:														
Project Location: N1 Hobbs		Phone #:														
Sampler Name: D Boyer		Fax #:														
FOR LAB USE ONLY		(G)RAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.	SAMPLING		DATE	TIME	TPH	BTEX	Chlorides	
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL						OTHER:
H241474											2024					
1	CS-1-2, 12'	G			X							3/24	1115	X	X	X
2	CS-2-2, 17'												1145			
3	CS-3-2, 14'												1155			
4	CS-6-2, 12'												1135			
5	CS-9-2, 18'												1050			
6	CS-10-2, 14'												1205			
7	CS-11-2, 5'	G		X					X			3/28	1205	X	X	X

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Relinquished By: <i>D Boyer</i>	Date: 3/25/24	Received By: <i>DA</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: 16:44	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	1.30c #140	Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	REMARKS: email to dboyer@jesi-nm.com ballen@jesi-nm.com office2@jesi-nm.com	
		CHECKED BY: (Initials) <i>DA</i>		



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

April 19, 2024

Bob Allen  
Safety & Environmental Solutions  
703 East Clinton  
Hobbs, NM 88240

RE: MATTIE PRICE FLOWLINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 03/06/24 13:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)  
Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)  
Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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



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

**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS - 1 11'	H241121-01	Soil	05-Mar-24 10:36	06-Mar-24 13:19
CS - 4 12'	H241121-02	Soil	05-Mar-24 10:50	06-Mar-24 13:19
CS - 5 13'	H241121-03	Soil	05-Mar-24 10:51	06-Mar-24 13:19
CS - 7 14'	H241121-04	Soil	05-Mar-24 10:56	06-Mar-24 13:19
CS - 8 14'	H241121-05	Soil	05-Mar-24 10:59	06-Mar-24 13:19
CS - 9 17'	H241121-06	Soil	05-Mar-24 11:01	06-Mar-24 13:19
CS - 10 13'	H241121-07	Soil	05-Mar-24 11:04	06-Mar-24 13:19
CS - 11 4.5'	H241121-08	Soil	05-Mar-24 11:15	06-Mar-24 13:19
CS - 12 SE WALL 10'	H241121-09	Soil	05-Mar-24 11:06	06-Mar-24 13:19
CS - 13 E WALL 10'	H241121-10	Soil	05-Mar-24 11:07	06-Mar-24 13:19
CS - 14 NNE WALL 8'	H241121-11	Soil	05-Mar-24 11:08	06-Mar-24 13:19
CS - 15 NNW WALL 10' 2"	H241121-12	Soil	05-Mar-24 11:10	06-Mar-24 13:19

04/19/24 - Client added sample depths to sample IDs (see COC). This is the revised report and will replace the one sent on 03/11/24.

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 1 11'**  
**H241121-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>336</b>		16.0	mg/kg	4	4030735	AC	08-Mar-24	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030659	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030659	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030659	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030659	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030659	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			113 %		71.5-134	4030659	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
DRO >C10-C28*	<b>242</b>		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<b>16.4</b>		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			79.0 %		48.2-134	4030705	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			73.9 %		49.1-148	4030705	MS	07-Mar-24	8015B	
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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 4 12'**  
**H241121-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>272</b>		16.0	mg/kg	4	4030735	AC	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>70.8</b>		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>12.6</b>		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			71.9 %	48.2-134		4030705	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			64.2 %	49.1-148		4030705	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 5 13'**  
**H241121-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	96.0		16.0	mg/kg	4	4030735	AC	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030705	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			81.8 %	48.2-134		4030705	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			74.3 %	49.1-148		4030705	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 7 14'**  
**H241121-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>224</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>90.8</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			87.2 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			88.2 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 8 14'**  
**H241121-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>192</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>51.6</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			111 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			110 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 9 17'**

**H241121-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>282</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>27.9</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.5 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			107 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 10 13'**  
**H241121-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>197</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>22.0</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			100 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			105 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 11 4.5'**  
**H241121-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>96.0</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>382</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>49.7</b>		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			99.5 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			110 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 12 SE WALL 10'  
H241121-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>96.0</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			98.3 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			96.9 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 13 E WALL 10'  
H241121-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	240		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			103 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

Surrogate: 1-Chlorooctane			94.1 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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Surrogate: 1-Chlorooctadecane			92.4 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 14 NNE WALL 8'**

**H241121-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			76.0 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			73.4 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**CS - 15 NNW WALL 10' 2''  
H241121-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	4030853	HM	08-Mar-24	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4030660	JH	08-Mar-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4030660	JH	08-Mar-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			104 %	71.5-134		4030660	JH	08-Mar-24	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4030706	MS	07-Mar-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			85.5 %	48.2-134		4030706	MS	07-Mar-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			83.0 %	49.1-148		4030706	MS	07-Mar-24	8015B	
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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030735 - 1:4 DI Water**

<b>Blank (4030735-BLK1)</b>		Prepared & Analyzed: 07-Mar-24								
Chloride	ND	16.0	mg/kg							
<b>LCS (4030735-BS1)</b>		Prepared & Analyzed: 07-Mar-24								
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (4030735-BSD1)</b>		Prepared & Analyzed: 07-Mar-24								
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20	

**Batch 4030853 - 1:4 DI Water**

<b>Blank (4030853-BLK1)</b>		Prepared & Analyzed: 08-Mar-24								
Chloride	ND	16.0	mg/kg							
<b>LCS (4030853-BS1)</b>		Prepared & Analyzed: 08-Mar-24								
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (4030853-BSD1)</b>		Prepared & Analyzed: 08-Mar-24								
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030659 - Volatiles**

<b>Blank (4030659-BLK1)</b>			Prepared: 06-Mar-24 Analyzed: 08-Mar-24							
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0562		mg/kg	0.0500		112	71.5-134			

<b>LCS (4030659-BS1)</b>			Prepared: 06-Mar-24 Analyzed: 08-Mar-24							
Benzene	1.94	0.050	mg/kg	2.00		97.1	82.8-130			
Toluene	2.04	0.050	mg/kg	2.00		102	86-128			
Ethylbenzene	2.00	0.050	mg/kg	2.00		100	85.9-128			
m,p-Xylene	4.07	0.100	mg/kg	4.00		102	89-129			
o-Xylene	2.01	0.050	mg/kg	2.00		100	86.1-125			
Total Xylenes	6.08	0.150	mg/kg	6.00		101	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0528		mg/kg	0.0500		106	71.5-134			

<b>LCS Dup (4030659-BSD1)</b>			Prepared: 06-Mar-24 Analyzed: 08-Mar-24							
Benzene	1.93	0.050	mg/kg	2.00		96.6	82.8-130	0.577	15.8	
Toluene	2.02	0.050	mg/kg	2.00		101	86-128	0.864	15.9	
Ethylbenzene	1.98	0.050	mg/kg	2.00		99.1	85.9-128	0.918	16	
m,p-Xylene	4.04	0.100	mg/kg	4.00		101	89-129	0.747	16.2	
o-Xylene	1.99	0.050	mg/kg	2.00		99.3	86.1-125	0.961	16.7	
Total Xylenes	6.03	0.150	mg/kg	6.00		100	88.2-128	0.818	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0531		mg/kg	0.0500		106	71.5-134			

**Batch 4030660 - Volatiles**

<b>Blank (4030660-BLK1)</b>			Prepared: 06-Mar-24 Analyzed: 08-Mar-24							
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030660 - Volatiles**

**Blank (4030660-BLK1)** Prepared: 06-Mar-24 Analyzed: 08-Mar-24

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0514		mg/kg	0.0500		103	71.5-134			

**LCS (4030660-BS1)** Prepared: 06-Mar-24 Analyzed: 08-Mar-24

Benzene	2.12	0.050	mg/kg	2.00		106	82.8-130			
Toluene	2.11	0.050	mg/kg	2.00		105	86-128			
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	85.9-128			
m,p-Xylene	4.20	0.100	mg/kg	4.00		105	89-129			
o-Xylene	2.03	0.050	mg/kg	2.00		101	86.1-125			
Total Xylenes	6.22	0.150	mg/kg	6.00		104	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0517		mg/kg	0.0500		103	71.5-134			

**LCS Dup (4030660-BSD1)** Prepared: 06-Mar-24 Analyzed: 08-Mar-24

Benzene	2.17	0.050	mg/kg	2.00		109	82.8-130	2.31	15.8	
Toluene	2.16	0.050	mg/kg	2.00		108	86-128	2.45	15.9	
Ethylbenzene	2.10	0.050	mg/kg	2.00		105	85.9-128	2.39	16	
m,p-Xylene	4.28	0.100	mg/kg	4.00		107	89-129	1.94	16.2	
o-Xylene	2.07	0.050	mg/kg	2.00		104	86.1-125	2.18	16.7	
Total Xylenes	6.35	0.150	mg/kg	6.00		106	88.2-128	2.02	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0515		mg/kg	0.0500		103	71.5-134			

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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030705 - General Prep - Organics**

<b>Blank (4030705-BLK1)</b>		Prepared & Analyzed: 07-Mar-24								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	46.3		mg/kg	50.0		92.6	48.2-134			
Surrogate: 1-Chlorooctadecane	42.7		mg/kg	50.0		85.5	49.1-148			

<b>LCS (4030705-BS1)</b>		Prepared & Analyzed: 07-Mar-24								
GRO C6-C10	194	10.0	mg/kg	200		96.8	66.4-123			
DRO >C10-C28	187	10.0	mg/kg	200		93.6	66.5-118			
Total TPH C6-C28	381	10.0	mg/kg	400		95.2	77.6-123			
Surrogate: 1-Chlorooctane	49.6		mg/kg	50.0		99.3	48.2-134			
Surrogate: 1-Chlorooctadecane	44.4		mg/kg	50.0		88.9	49.1-148			

<b>LCS Dup (4030705-BSD1)</b>		Prepared & Analyzed: 07-Mar-24								
GRO C6-C10	198	10.0	mg/kg	200		99.0	66.4-123	2.22	17.7	
DRO >C10-C28	193	10.0	mg/kg	200		96.3	66.5-118	2.86	21	
Total TPH C6-C28	391	10.0	mg/kg	400		97.7	77.6-123	2.53	18.5	
Surrogate: 1-Chlorooctane	50.0		mg/kg	50.0		100	48.2-134			
Surrogate: 1-Chlorooctadecane	43.8		mg/kg	50.0		87.6	49.1-148			

**Batch 4030706 - General Prep - Organics**

<b>Blank (4030706-BLK1)</b>		Prepared & Analyzed: 07-Mar-24								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.7		mg/kg	50.0		97.3	48.2-134			
Surrogate: 1-Chlorooctadecane	47.6		mg/kg	50.0		95.3	49.1-148			

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**Analytical Results For:**

Safety & Environmental Solutions 703 East Clinton Hobbs NM, 88240	Project: MATTIE PRICE FLOWLINE RELEASI Project Number: OSB-24-001 Project Manager: Bob Allen Fax To: (575) 393-4388	Reported: 19-Apr-24 15:18
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4030706 - General Prep - Organics**

**LCS (4030706-BS1)**

Prepared & Analyzed: 07-Mar-24

GRO C6-C10	202	10.0	mg/kg	200		101	66.4-123			
DRO >C10-C28	197	10.0	mg/kg	200		98.7	66.5-118			
Total TPH C6-C28	400	10.0	mg/kg	400		99.9	77.6-123			
Surrogate: 1-Chlorooctane	54.3		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	54.2		mg/kg	50.0		108	49.1-148			

**LCS Dup (4030706-BSD1)**

Prepared & Analyzed: 07-Mar-24

GRO C6-C10	208	10.0	mg/kg	200		104	66.4-123	2.75	17.7	
DRO >C10-C28	202	10.0	mg/kg	200		101	66.5-118	2.43	21	
Total TPH C6-C28	410	10.0	mg/kg	400		103	77.6-123	2.59	18.5	
Surrogate: 1-Chlorooctane	55.1		mg/kg	50.0		110	48.2-134			
Surrogate: 1-Chlorooctadecane	54.4		mg/kg	50.0		109	49.1-148			

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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

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 1 of 2

Company Name: Safety and Environmental Solutions		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>							
Project Manager: Bob Allen		P.O. #:		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH BDL5</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chlorides</div> </div>							
Address: 703 East Clinton, PO Box 1613		Company: Same									
City: Hobbs State: NM Zip: 88240		Attn:									
Phone #: 575 397-0510 Fax #: 575 393-4388		Address:									
Project #: 05B-24-001 Project Owner:		City:									
Project Name: Mattie Parks Flowline		State: Zip:									
Project Location: North Hobbs		Phone #:									
Sampler Name: A. Rojas		Fax #:									
FOR LAB USE ONLY											
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS)	MATRIX					PRESERV.	SAMPLING		
			GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE/COOL OTHER:	DATE	TIME					
1	CS-1 11'	G 1		X	3/5	1236	X X X				
2	CS-4 12'					1050					
3	CS-5 13'					1051					
4	CS-7 14'					1056					
5	CS-8 14'					1059					
6	CS-9 17'					1101					
7	CS-10 13'					1104					
8	CS-11 4.5'					1115					
* 9	CS-12 SE wall 10'					1106					
10	CS-13 E wall 10'	G 1	X	X	3/5	1107	X X X				

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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 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 use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>A. Rojas</i>	Date: 3/6/24	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: 13:19		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Email: ballen@ses2-nm.com dboyer@ses2-nm.com office2@ses2-nm.com	
Delivered By: (Circle One)	-1.4oz	Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	#1140	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	* Customer requested ID changes. YP	

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 2 of 2

Company Name: Safety and Environmental Solutions		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>							
Project Manager: Bob Allen		P.O. #:		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">             BTOK              TPH BOIS              Chl Prides           </div> </div>							
Address: 703 East Clinton, PO Box 1613		Company: Same									
City: Hobbs State: NM Zip: 88240		Attn:									
Phone #: 575 397-0510 Fax #: 575 393-4388		Address:									
Project #: OSR-24-001 Project Owner:		City:									
Project Name: <u>MATIE PRICE FLOWLINE</u>		State: Zip:									
Project Location: <u>Ni Hobbs</u>		Phone #:									
Sampler Name: <u>A. BOYER</u>		Fax #:									
FOR LAB USE ONLY											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.	SAMPLING		
			GROUNDWATER		DATE	TIME					
			WASTEWATER								
			SOIL								
			OIL								
			SLUDGE								
			OTHER:								
			ACID/BASE:								
			ICEY COOL:								
			OTHER:								
11	CS-14 <u>NNE well 8'</u>	G 1			3/5	1108					
12	CS-15 <u>NW well 10'2"</u>	G 1	X		3/5	1110					

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the 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 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 use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>A. Boyer</u>	Date: <u>3/5/24</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: <u>13:19</u>	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Date:	Sample Condition	REMARKS:	
Sampler - UPS - Bus - Other:	Time:	Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>email ballen@sesi-nm.com</u> <u>aboyer@sesi-nm.com</u> <u>OSR-24@sesi-nm.com</u> <u>* Customer requested TD changes.</u>	
		CHECKED BY: <u>[Signature]</u> (Initials)		

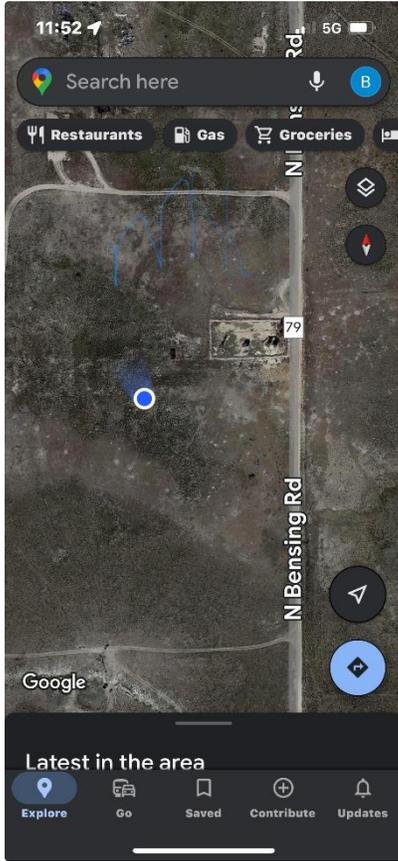
**Osborn Heirs Company  
Site photographs**

**January 25, 2024**



**Osborn Heirs Company  
Site photographs**

**January 25, 2024**



**Osborn Heirs Company  
Site photographs**

**January 30, 2024**



**Osborn Heirs Company  
Site photographs**

**February 06, 2024**



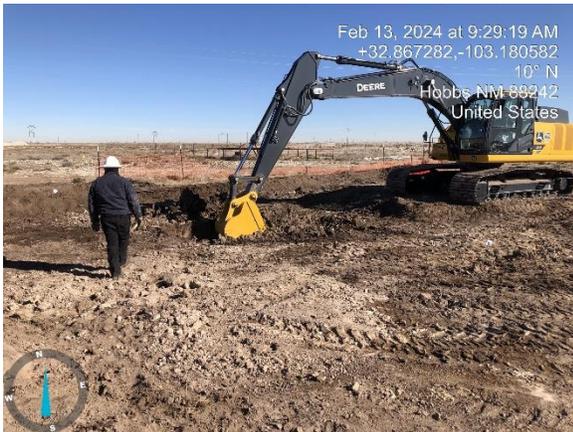
### Osborn Heirs Company Site photographs

February 08, 2024



# Osborn Heirs Company Site photographs

February 13, 2024



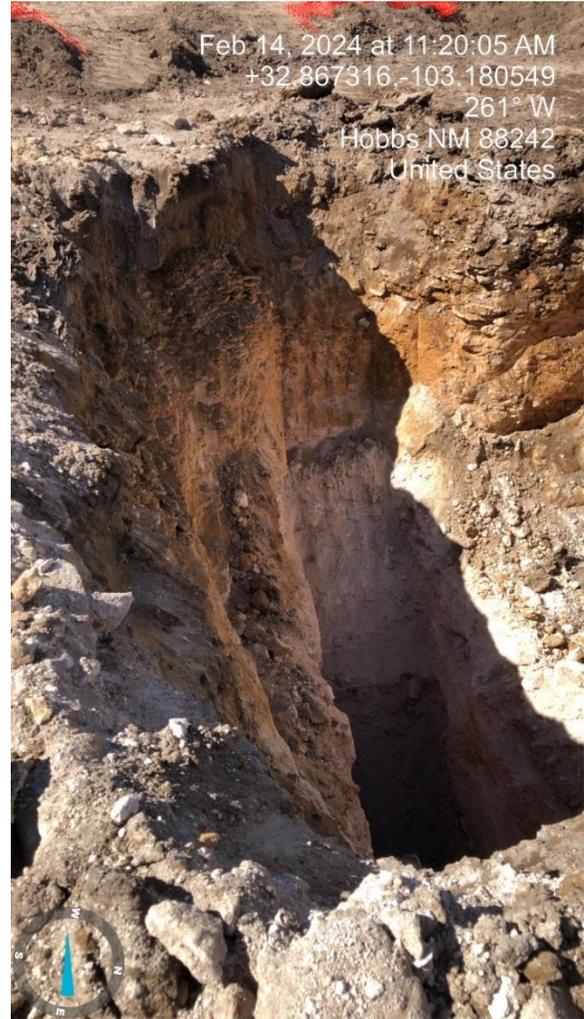
# Osborn Heirs Company Site photographs

February 13, 2024



**Osborn Heirs Company  
Site photographs**

**February 13, 2024**



**Osborn Heirs Company  
Site photographs**

**February 14, 2024**



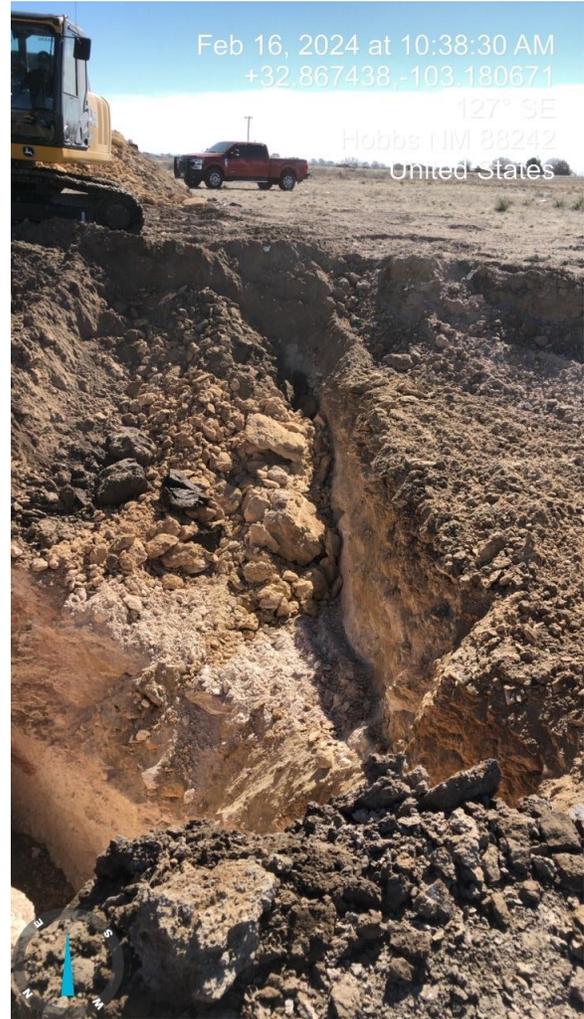
**Osborn Heirs Company  
Site photographs**

**February 14, 2024**



**Osborn Heirs Company  
Site photographs**

**February 16, 2024**



# Osborn Heirs Company Site photographs

February 19, 2024



### Osborn Heirs Company Site photographs

February 20, 2024



**Osborn Heirs Company  
Site photographs**

**February 21, 2024**



# Osborn Heirs Company Site photographs

February 22, 2024



# Osborn Heirs Company Site photographs

February 23, 2024



# Osborn Heirs Company Site photographs

## February 26, 2024



**Osborn Heirs Company  
Site photographs**

**February 26, 2024**



# Osborn Heirs Company Site photographs

February 27, 2024



# Osborn Heirs Company Site photographs

March 13, 2024



Osborn Heirs Company  
Site photographs

March 21, 2024



**Osborn Heirs Company  
Site photographs**

**April 24, 2024**



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

QUESTIONS

Action 340626

**QUESTIONS**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2402549174
Incident Name	NAPP2402549174 MATTIE PRICE LEASE @ 0
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received

**Location of Release Source**

Please answer all the questions in this group.

Site Name	MATTIE PRICE LEASE
Date Release Discovered	01/25/2024
Surface Owner	Private

**Incident Details**

Please answer all the questions in this group.

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

**Nature and Volume of Release**

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Crude Oil   Released: 116 BBL   Recovered: 0 BBL   Lost: 116 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 208 BBL   Recovered: 2 BBL   Lost: 206 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	The volume of the release was initially estimated at 3 barrels of oil and 7 barrels of produced water. At the end of the cleanup, the volume was calculated at 116 barrels of oil lost, 208 barrels of produced water released with 2 barrels of produced water recovered.

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QUESTIONS, Page 2

Action 340626

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

**Initial Response**

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

The source of the release has been stopped	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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.

I hereby agree and sign off to the above statement	Name: Gary Cunningham Title: Engineer Email: garyc@osbornheirs.com Date: 05/06/2024
--	--

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

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Site Characterization**  
*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1000 (ft.) and ½ (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 500 and 1000 (ft.)
Any other fresh water well or spring	Between 500 and 1000 (ft.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	336
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	2573
GRO+DRO (EPA SW-846 Method 8015M)	2401
BTEX (EPA SW-846 Method 8021B or 8260B)	3.5
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	02/08/2024
On what date will (or did) the final sampling or liner inspection occur	03/20/2024
On what date will (or was) the remediation complete(d)	04/05/2024
What is the estimated surface area (in square feet) that will be reclaimed	3744
What is the estimated volume (in cubic yards) that will be reclaimed	2765
What is the estimated surface area (in square feet) that will be remediated	2149
What is the estimated volume (in cubic yards) that will be remediated	1393

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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

QUESTIONS, Page 4

Action 340626

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LAZY ACE LANDFARM [fEEM0420827553]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Gary Cunningham Title: Engineer Email: garyc@osbornheirs.com Date: 05/06/2024
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 340626

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Deferral Requests Only**

*Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*

Requesting a deferral of the remediation closure due date with the approval of this submission	No
--	----

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**Santa Fe, NM 87505**

QUESTIONS, Page 6

Action 340626

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID:	16616
	Action Number:	340626
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>323688</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>03/20/2024</b>
What was the (estimated) number of samples that were to be gathered	<b>3</b>
What was the sampling surface area in square feet	<b>600</b>

<b>Remediation Closure Request</b>	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	<b>Yes</b>
Have the lateral and vertical extents of contamination been fully delineated	<b>Yes</b>
Was this release entirely contained within a lined containment area	<b>No</b>
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	<b>Yes</b>
What was the total surface area (in square feet) remediated	<b>2149</b>
What was the total volume (cubic yards) remediated	<b>1393</b>
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	<b>Yes</b>
What was the total surface area (in square feet) reclaimed	<b>3744</b>
What was the total volume (in cubic yards) reclaimed	<b>2765</b>
Summarize any additional remediation activities not included by answers (above)	The above stated area and volume are estimates based on excavation data.

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

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

I hereby agree and sign off to the above statement	Name: Gary Cunningham Title: Engineer Email: garyc@osbornheirs.com Date: 05/04/2024
--	--

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

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

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

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

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

QUESTIONS, Page 7

Action 340626

**QUESTIONS (continued)**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 340626

**CONDITIONS**

Operator: OSBORN HEIRS CO P.O. Box 17968 San Antonio, TX 78217	OGRID: 16616
	Action Number: 340626
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	None	5/29/2024