BD I-18 EOL Remediation Summary & Closure Report

NMOCD Incident No. nAPP2109856086 UL "I", Sec. 18, T21S, R37E 32.477379°, -103.197098° Lea County, New Mexico

May 6, 2024



PREPARED ON BEHALF OF

Rice Operating Company, LP 112 West Taylor Hobbs, NM 88240

PREPARED BY

Tasman, Inc. 2620 W. Marland Blvd. Hobbs, NM 88240





May 6, 2024

Rice Operating Company 112 West Taylor Hobbs, NM 88240

Attn: Ms. Katie Jones Davis Email: kjones@riceswd.com

Re: Remediation Summary & Closure Report

BD I-18 EOL (1R426-13)

UL "I", Section 18, Township 21 South, Range 37 East

Lea County, New Mexico

NMOCD Incident No. nAPP2109856086

Tasman Project No. 4778

Dear Ms. Davis,

Tasman, Inc. (Tasman) is pleased to submit this Remediation Summary and Closure Report for the above referenced site. Site assessment and remediation activities were executed in accordance with the New Mexico Oil Conservation Division (NMOCD) regulations concerning the remediation of the former I-18 EOL junction box.

Tasman conducted additional assessment and remediation activities, identifying an approximately 19,832-square foot area impacted by the former junction box. Heavy equipment was used to remove approximately 3,712 cubic yards of impacted material. Based on laboratory analytical results from soil samples collected during confirmation sampling activities, impacted soil has been remediated below the applicable NMOCD Action Levels and in accordance with NMOCD standards. Additional project details are provided in the attached summary report.

Tasman appreciates the opportunity to provide environmental services to Rice Operating Company. Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely,

Tasman, Inc.

Brett Dennis Project Manager

bdennis@tasman-geo.com

Kyle Norman SW Regional Manager

knorman@tasman-geo.com

TABLE OF CONTENTS

1.0	INTRODUCTION	1
	1.1 Site Description	
	1.2 Junction Box Detail and Initial Response	
2.0	SITE CHARACTERISTICS	
	2.1 Depth to Groundwater	. 1
	2.2 Karst Potential & Subsurface Mines	. 2
	2.3 Distance to Nearest Potable Water Well	. 2
	2.4 Distance to Nearest Surface Water	. 2
	2.5 100-year Floodplain	. 2
	2.6 Residence, School, Hospital, or Institution	. 2
	2.7 Proximity to Sensitive Receptors and Site Characteristics Summary	. 3
3.0	REMEDIATION ACTION LEVELS	3
	3.1 Reclamation Levels	. 4
4.0	RELEASE ASSESSMENT	. 4
	4.1 Release Assessment Data Evaluation	4
5.0	SOIL SAMPLING PROCEDURES	. 5
	5.1 Soil Sampling Procedures for Laboratory Analysis	5
	5.2 Soil Analytical Methods	5
6.0	SUMMARY OF REMEDIAL ACTIVITIES	. 5
	6.1 Remedial Activities	
	6.2 Confirmation Data Evaluation	6
7.0	RESTORATION AND RECLAMATION	. 6
8.0	SITE CLOSURE REQUEST	7

Figures

- Figure 1 Site Location & Groundwater Map
- Figure 2 Karst Potential & Subsurface Mine Map
- Figure 3 Surface Water Map
- Figure 4 FEMA FIRMete Map
- Figure 5 Delineation Overview Map
- Figure 6 Excavation Overview Map

Tables

Table 1 – Soil Sample Analytical Summary – Confirmation Soil Samples

Appendix A – Initial Form C-141 and NMOCD Notifications

Appendix B – Depth to Groundwater Information

Appendix C – Certified Laboratory Analytical Reports

Appendix D – Photographic Log



1.0 INTRODUCTION

Tasman, Inc. (Tasman) is pleased to submit this Remediation Summary and Closure Report for the BD I-18 EOL (site) on behalf of Rice Operating Company (ROC), documenting the results of field activities conducted according to the Junction Box Work Plan.

ROC is the service provider (agent) for the BD SWD System and has no ownership of any portion of the pipeline, well, or facility. The system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

1.1 Site Description

The site is located in Unit Letter "I" of Section 18, Township 21 South, Range 37 East in Lea County, New Mexico. A junction box disclosure report was submitted to NMOCD with all the 2003 junction box closures and disclosures.

1.2 Release Detail and Initial Response

In 2003, ROC initiated work on the former I-18 EOL junction box. The site was delineated using a backhoe to form a 12x3x12-ft deep excavation and soil samples were screened at regular intervals for hydrocarbon and chloride. The deepest sample, 12 feet below ground surface (ft bgs), was sent to a commercial laboratory for analysis. The bottom sample returned a chloride reading of 6,740 mg/kg, a BTEX and a Gasoline Range Organics (GRO) reading non-detect, and a Diesel Range Organics (DRO) reading of 1,490 mg/kg. The excavation was backfilled and contoured to the surrounding area. A new water-tight junction box was installed 130 feet east of the site.

2.0 SITE CHARACTERISTICS

2.1 Depth to Groundwater

Tasman reviewed available depth to groundwater information available through the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) for registered water wells within a half-mile radius of the site. Based on the available water well data, the depth to groundwater in the vicinity of the site is approximately 104 ft bgs. The Site Location and Groundwater Map included as Figure 1 illustrates the location of the registered water wells within the vicinity of the site, and a summary of depth to groundwater information is provided as Appendix B.



2.2 Karst Potential & Subsurface Mines

Tasman utilized the publicly available karst potential map published by the Bureau of Land Management (BLM) Carlsbad Field Office (CFO) to determine the potential for encountering karst formations beneath the site. Review of the BLM CFO karst potential map indicates that the site is not located in an area of high potential to encounter karstic features.

Tasman utilized the USGS Mineral Resources database to determine that there are no subsurface mines beneath or in the vicinity of the site.

Areas of high/critical karst and subsurface mine locations are illustrated on Figure 2.

2.3 Distance to Nearest Potable Water Well

The nearest potable water well is NMOSE POD CP 01026. The well is located 0.27 miles (or approximately 1,425 feet) from the site. The wells current use is unknown. The location of POD CP 01026 is shown on the attached Figure 1.

2.4 Distance to Nearest Surface Water

Tasman reviewed aerial imagery and the National Wetland Inventory Map, published by the U.S. Fish and Wildlife Service, for wetlands and surface water in the vicinity of the site. The nearest significant surface water was identified as Stephens Lake, located 1.98 miles from the site. The location of the surface water body is illustrated on Figure 3.

2.5 100-year Floodplain

Review of flood map data published by the Federal Emergency Management Agency (FEMA) indicates the site is not located within a 100-year floodplain. A copy of the FEMA FIRMete Map can be found attached as Figure 4.

2.6 Residence, School, Hospital, or Institution

Review of aerial imagery did not show that the site is within 300 feet of an occupied permanent residence, school, hospital, or institution.



2.7 Proximity to Sensitive Receptors and Site Characteristics Summary

The table below denotes if the site is located within the minimum allowable distance from a sensitive receptor, as defined in New Mexico Administrative Code (NMAC) 19.15.29.

Site Characteristics Summary		
Approximate depth to groundwater:	~ 104	ft bgs
Within an area of high karst potential?	☐ Yes	☑ No
Within 300 ft. of any continuously flowing of significant watercourse?	☐ Yes	☑ No
Within 200 ft. of any lakebed, sinkhole, or playa lake?	☐ Yes	☑ No
Within 300 ft. of an occupied permanent residence, school, hospital, or institution?	☐ Yes	☑ No
Within 500 ft. of a spring or private, domestic fresh water well?	☐ Yes	☑ No
Within 1,000 ft. of any fresh water well?	☐ Yes	☑ No
Within the incorporated municipal boundaries or within a municipal well field?	☐ Yes	☑ No
Within 300 ft. of a wetland?	☐ Yes	☑ No
Within the area overlying a subsurface mine?	☐ Yes	☑ No
Within an unstable area?	☐ Yes	☑ No
Within a 100-year floodplain?	☐ Yes	☑ No

3.0 REMEDIATION ACTION LEVELS

NMOCD assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and proximity to sensitive receptors as established in NMAC 19.15.29. Based on site characteristics described in Section 2.0, the NMOCD Action Levels for a site with a depth to groundwater of greater than 100 ft bgs were utilized; these Action Levels are as follows:

Constituent	Remediation Action Level
Chloride	20,000 mg/kg
TPH (GRO+DRO+MRO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

 $\mathsf{TPH}-\mathsf{total}\ \mathsf{petroleum}\ \mathsf{hydrocarbons}$

DRO – diesel range organics

BTEX – benzene, toluene, ethylbenzene, total xylenes

GRO – gasoline range organics

MRO – motor/lube oil range organics

mg/kg – milligrams per kilogram



3.1 Reclamation Levels

NMAC 19.15.29.13(D) codifies, and the *Procedures for Implementation of the Spill Rule*, dated September 6, 2019, clarifies that the top four ft of the remediated area should be non-waste containing. Therefore, the NMOCD Reclamation Standards are applied to the top four ft of any area impacted by a release that is not located within an active production facility. NMOCD Reclamation Standards are as follows:

Constituent	Reclamation Standard
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

4.0 RELEASE ASSESSMENT

To further investigate the depth of chloride presence, sixteen soil bores were drilled on July 17 and 18, 2018, August 30 and 31, 2018, April 24, 2019, and June 5, 2019. Soil samples were collected at regular intervals and field screened for chloride and hydrocarbon using a PID. Representative samples from each bore were sent to a commercial laboratory for analysis of chloride and hydrocarbon.

4.1 Release Assessment Data Evaluation

Laboratory analysis of the interior bores resulted in elevated concentrations of chloride and concentrations decreased laterally as additional bores were drilled. Soil bore (SB-1) was installed at the former junction box site and was advanced to a depth of 80 ft bgs. The 40 ft and 80 ft samples were sent to a commercial laboratory for analysis, resulting in a 40 ft chloride concentration of 4,640 mg/kg and GRO/Extended DRO (EXT-DRO) concentrations of non-detect, and a DRO concentration of 47.4 mg/Kg. The 80 ft sample resulted in a chloride concentration of 2,240 mg/kg and GRO/DRO/EXT-DRO concentrations of non-detect. The bore drilled furthest North (SB-14) resulted in a chloride concentration of 1,060 mg/kg at 5 ft bgs and 320 mg/kg at 15 ft bgs. Hydrocarbon concentrations, GRO/DRO/EXT-DRO and BTEX, were below detectable limits in both the 5 ft and 15 ft samples. The bore drilled furthest west (SB-15) resulted in low concentrations throughout. The 5 ft bgs sample resulted in a chloride concentration of 96 mg/kg, GRO/DRO/EXT-DRO concentrations below detectable limit, and BTEX concentrations below detectable limit. The 15 ft bgs sample resulted in a chloride concentration of 16 mg/kg, GRO/DRO/EXT-DRO concentrations below detectable limit, and BTEX concentrations below detectable limit. The furthest soil bore to the south (SB-12) resulted in chloride concentration of 1,120 mg/kg at 5 ft bgs and 384 mg/kg at 25 ft bgs. Hydrocarbon concentrations, GRO/DRO/EXT-



DRO and BTEX, were below detectable limits in both the 5 ft and 25 ft samples. The soil bore drilled furthest East (SB-16) resulted in a chloride concentration of 1,150 mg/kg at 20 ft bgs and 368 mg/kg at 30 ft bgs. Hydrocarbon concentrations, GRO/DRO/EXT-DRO and BTEX, were below detectable limits in both the 20 ft and 30 ft samples. Each bore hole was plugged with bentonite to ground surface. A CAP and Variance Request summarizing this investigation and proposed path forward was submitted to NMOCD and approved on July 10, 2023.

5.0 SOIL SAMPLING PROCEDURES

5.1 Soil Sampling Procedures for Laboratory Analysis

The collection of soil samples for laboratory analysis was conducted in accordance with NMOCD criteria and generally approved industry standards. Collected soil samples were placed in laboratory provided containers, properly labeled, and preserved on ice pending delivery under a chain of custody form to Cardinal Laboratory in Hobbs, New Mexico.

5.2 Soil Analytical Methods

Each soil sample was analyzed using Environmental Protection Agency (EPA) methods or other NMOCD-approved methods. Laboratory analytical methods are as follows:

- Chloride EPA Method SM4500.
- Total Petroleum Hydrocarbons (TPH) gasoline, diesel, and motor/lube oil range organics (GRO+DRO+MRO) EPA Method 8015M Extended.
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) EPA Method 8021B.

6.0 SUMMARY OF REMEDIAL ACTIVITIES

6.1 Remedial Activities

From August 25 to October 17, 2023, Tasman utilized mechanical equipment to excavate impacted soil from within the delineated release margins. Excavated material was stockpiled onsite atop a polyethylene liner pending transportation to an NMOCD approved disposal facility. Copies of laboratory analysis are provided in Appendix C.

Due to the results of field testing and confirmation samples, the remedial final excavations measured approximately 184 ft long by 85 ft wide (North excavation) and 130 ft long by 70 ft wide (South excavation), at an approximate depth of 4 feet bgs. A total of 3,712 cubic yards of



excavated material was exported to Lea Land, LLC Landfill. A 20-mil, reinforced liner was installed and properly seated in each excavation prior to backfill.

Copies of solid manifests can be provided upon request and a photographic log is provided in Appendix D.

6.2 Confirmation Data Evaluation

On September 29, 2023, Tasman provided a 48-hour mobilization notice to the NMOCD via email (Appendix A). On October 5-6, 2023, Tasman mobilized to the site to collect confirmation soil samples from the sidewalls of the remedial excavation. Six confirmation soil samples were collected from the sidewalls of the excavation. Each confirmation soil sample was collected as a five-point composite representing approximately 200 ft² or less. Data can be located in Table 1.

Benzene, total BTEX and total TPH were below laboratory RDLs throughout. Chloride concentrations were detected above laboratory RDLs; however, all detected chloride concentrations were below NMOCD Action Levels.

In addition, 46 samples were collected from the base of the excavation prior to the installation of an NMOCD approved polyethylene liner. Samples were not submitted for laboratory analysis as approved by NMOCD on June 29, 2023 (Appendix A). Field tested samples were below NMOCD Action levels throughout.

7.0 RESTORATION AND RECLAMATION

On October 9 through 11, areas affected by the former junction box and associated remediation activities were restored to the condition which existed prior to impact to the maximum extent possible. Excavated areas were backfilled with a total of 4,572 cubic yards of non-impacted "like" material and contoured and/or compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable. A sample of the imported soil was submitted for laboratory analysis and provided in Table 1 and Appendix C.

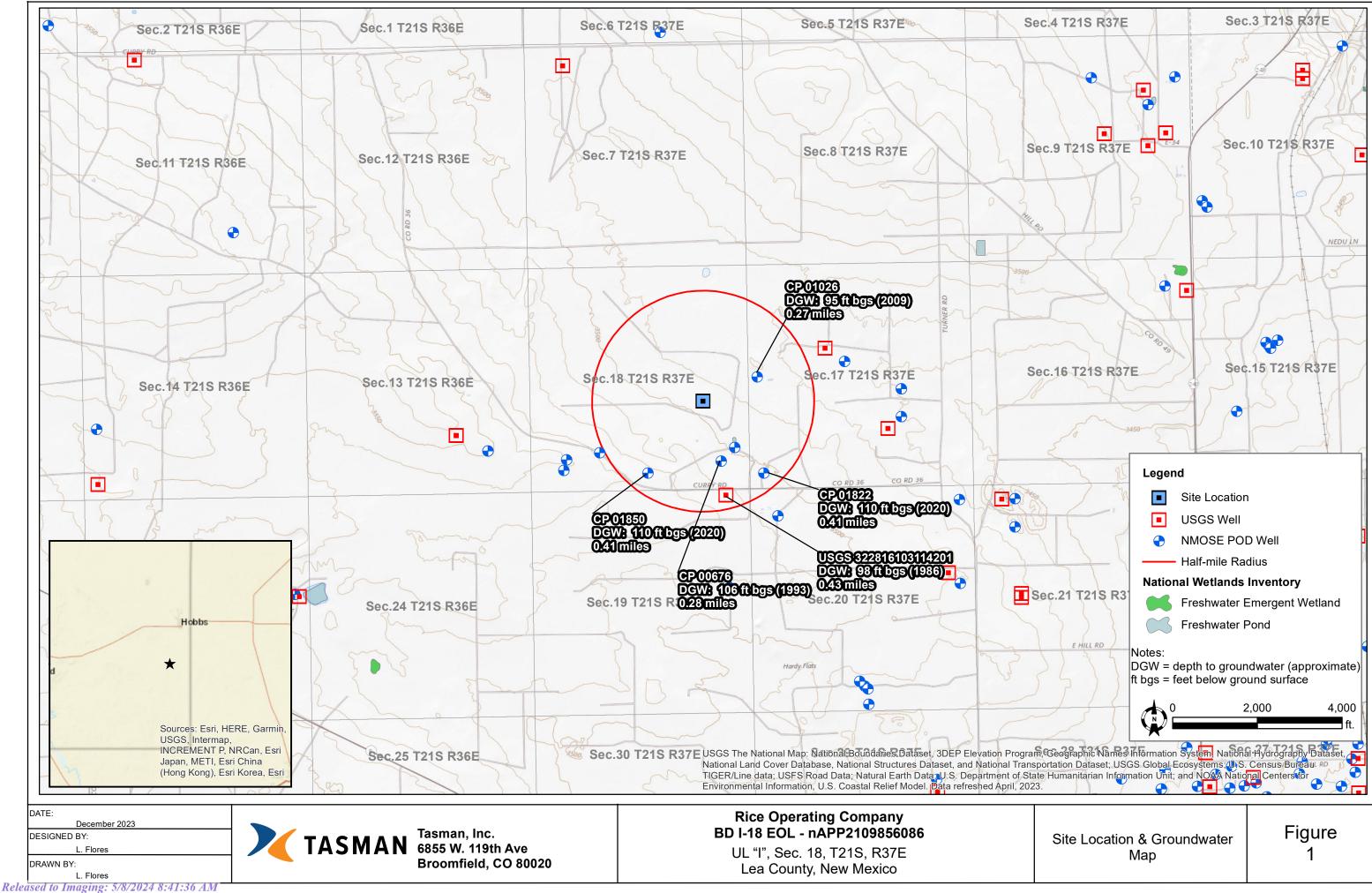
On November 13th and 14th, 2023, the site was seeded with a blend of native vegetation. Vegetation above the liner will also provide a natural infiltration barrier for the site since plants capture water through their roots, thereby reducing the volume of water moving through the vadose zone.

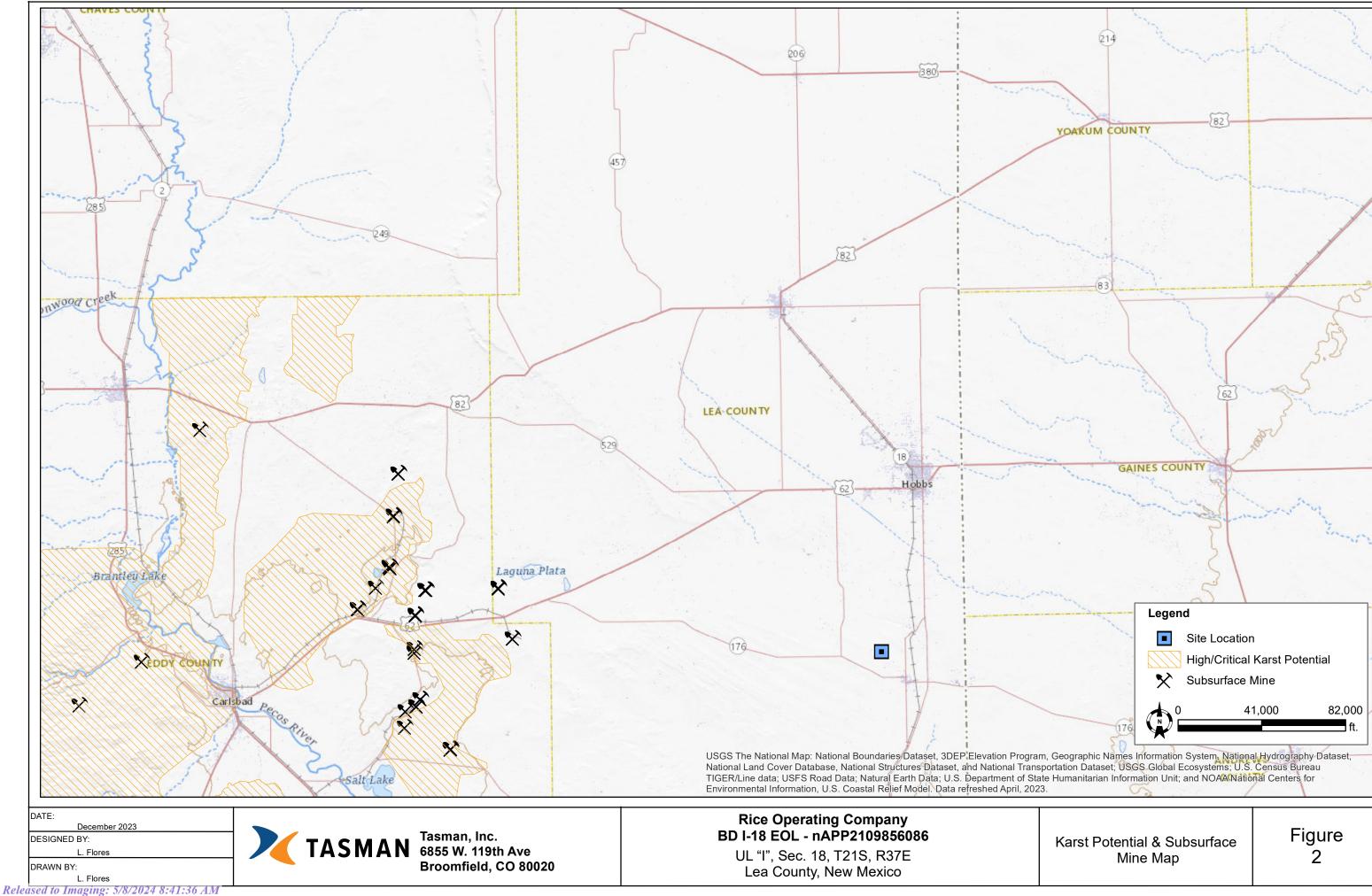


8.0 SITE CLOSURE REQUEST

Based on laboratory analytical results from soil samples collected during the confirmation sampling events, impacted soil surrounding the former junction box has been remediated below the applicable NMOCD Action Levels in accordance with NMAC 19.15.29. As such, Tasman, on behalf of ROC, respectfully requests that the site be granted closure.

Figures







DATE:

December 2023

DESIGNED BY:
L. Flores

DRAWN BY:
L. Flores

Released to Imaging: 5/8/2024 8:41:36 AM



Rice Operating Company BD I-18 EOL - nAPP2109856086

UL "I", Sec. 18, T21S, R37E Lea County, New Mexico Surface Water Map

Figure 3

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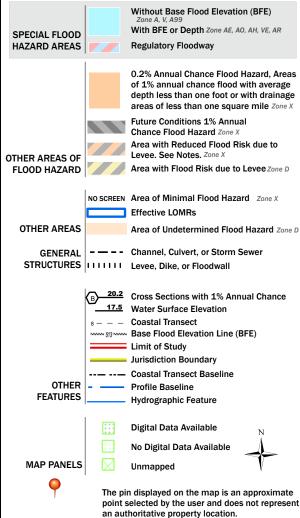
Received by OCD: 5/6/2024 3:32:56 PM National Flood Hazard Layer FIRMette



Legend

Figure 4

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



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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/27/2023 at 1:50 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



Page 16 of 63 Received by OCD: 5/6/2024 3:32:56 PM



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TASMAN Tasman, Inc. 6855 W. 119th Ave Broomfield, CO 80020

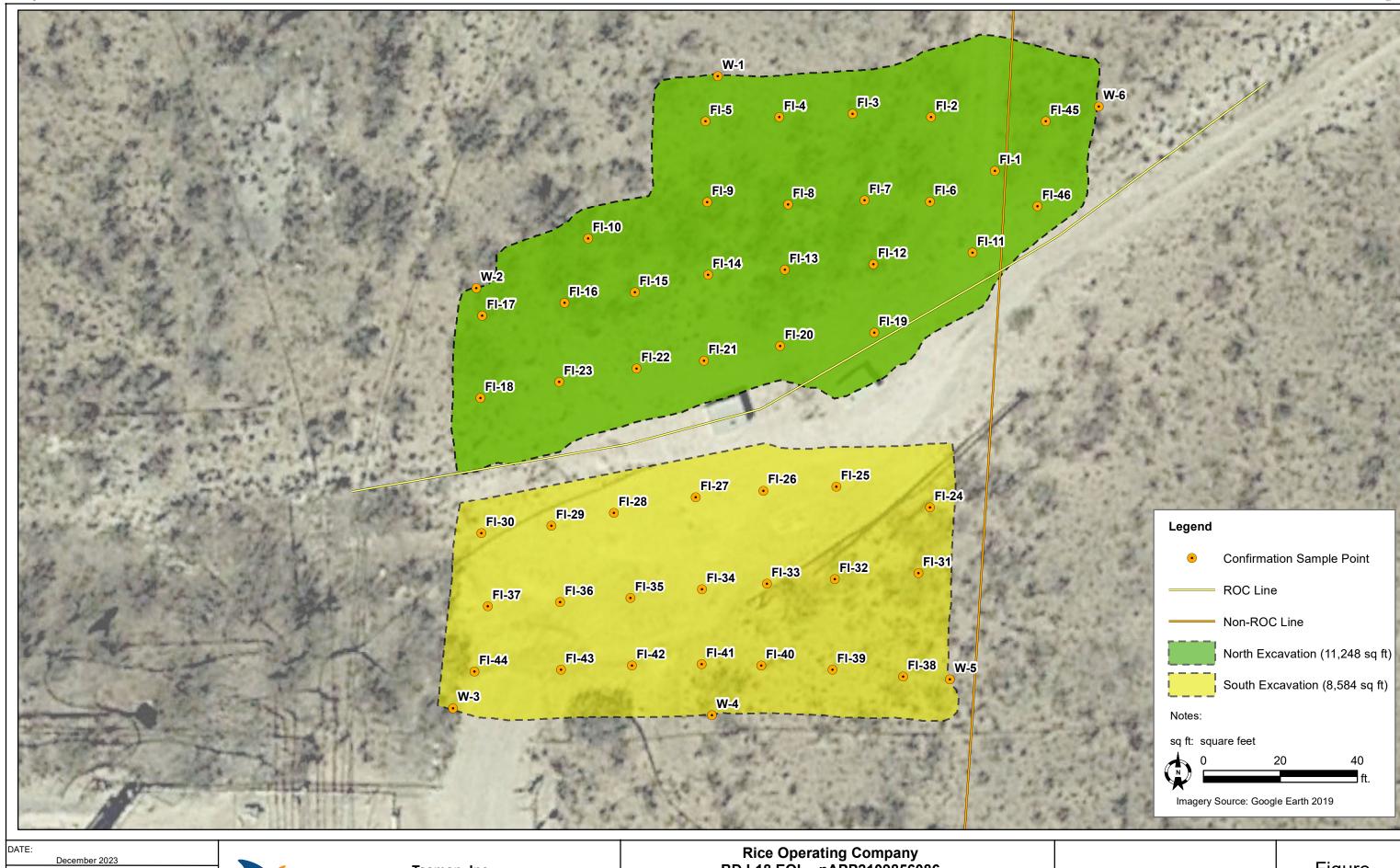
Rice Operating Company BD I-18 EOL - nAPP2109856086

Unit Letter I, Section 18, T21S, R37E, Lea County, NM

Delineation Overview Map

Figure 5

Page 17 of 63 Received by OCD: 5/6/2024 3:32:56 PM



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TASMAN Tasman, Inc. 6855 W. 119th Ave Broomfield, CO 80020 Rice Operating Company BD I-18 EOL - nAPP2109856086

Unit Letter I, Section 18, T21S, R37E, Lea County, NM

Delineation Overview Map

Figure 5

Tables

TABLE 1 CONFIRMATION SOIL ANALYTICAL SUMMARY **Rice Operating Company** BD I-18 EOL: nAPP2109856086

Sample ID	Sample	Sample Date	Soil	PID	Field Chloride	Benzene	Total BTEX ¹		TPH ² (mg/kg)		Chloride
Sample ID	Depth (bgs)	Sample Date	Status	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO	MRO	TOTAL	(mg/kg
						Imported Soil S	Samples					
IS		10/2/2023				<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
					1	Confirmation Soi						
W-1		10/5/2023	In-Situ	3.7	263	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	304
W-2		10/5/2023	In-Situ	2.5	148	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
W-3		10/5/2023	In-Situ	4.2	486	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	464
W-4		10/5/2023	In-Situ	1.6	199	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	288
W-5		10/5/2023	In-Situ	1.3	116	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	112
W-6		10/6/2023	In-Situ	1	421	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	304
FI-1		10/5/2023	In-Situ	2.0	973	_						
FI-2		10/5/2023	In-Situ	5.7	570	_						
FI-3		10/5/2023	In-Situ	20.8	742							
FI-4		10/5/2023	In-Situ	14.1	967							
FI-5		10/5/2023	In-Situ	10.7	1,039							
FI-6		10/5/2023	In-Situ	4.5	180							
FI-7		10/5/2023	In-Situ	8.3	502							
FI-8		10/5/2023	In-Situ	33.7	1,811							
FI-9		10/5/2023	In-Situ	73.9	840							
FI-10		10/5/2023	In-Situ	3.9	122	_						
FI-11		10/5/2023	In-Situ	2.9	1,888							
FI-12		10/5/2023	In-Situ	16.2	892							
Fl-13		10/5/2023	In-Situ	34.5	781							
Fl-14		10/5/2023	In-Situ	3.3	327							
FI-15		10/5/2023	In-Situ	2.8	149	-						
Fl-16		10/5/2023	In-Situ	1.5	151							
Fl-17		10/5/2023	In-Situ	1.3	120							
Fl-18		10/5/2023	In-Situ	1.8	210							
FL-19		10/5/2023	In-Situ	62.8	583							
FL-20		10/5/2023	In-Situ	2.7	600							
FL-21		10/5/2023	In-Situ	1.4	209							
FL-22		10/5/2023	In-Situ	1.2	140							
FL-23		10/5/2023	In-Situ	1.0	142							
FL-24		10/5/2023	In-Situ	0.1	222							
FL-25		10/5/2023	In-Situ	0.4	322							
FL-26		10/5/2023	In-Situ	0.3	1,505							
FL-27		10/5/2023	In-Situ	0.3	828							
FL-28		10/5/2023	In-Situ	0.6	384							
FL-29		10/5/2023	In-Situ	0.5	182							
FL-30		10/5/2023	In-Situ	0.4	174	-						
FL-31		10/5/2023	In-Situ	0.6	285							
FL-32		10/5/2023	In-Situ	0.6	615							
FL-33		10/5/2023	In-Situ	0.4	722							
FL-34		10/5/2023	In-Situ	0.5	577							
FL-35		10/5/2023	In-Situ	0.5	809							
FL-36		10/5/2023	In-Situ	0.6	271							
FL-37		10/5/2023	In-Situ	0.9	118							
FL-38		10/5/2023	In-Situ	0.7	112							
FL-39		10/5/2023	In-Situ	0.5	112							
FL-40		10/5/2023	In-Situ	0.4	111							
FL-41		10/5/2023	In-Situ	0.6	145	-						
FL-42		10/5/2023	In-Situ	4.4	111	-						
FL-43		10/5/2023	In-Situ	1.8	121							
FL-44		10/5/2023	In-Situ	1.9	90							
FI-45		10/5/2023	In-Situ	1.4	1,231							
FI-46		10/5/2023	In-Situ	2.1	1,340							
	NIMOCE	tion Levels ⁴		N/A	N/A	10	50	-1.	000	N/A	2,500	20,00
		mon Levels		IV/A	IV/A	10	30	1,				

- 1. BTEX = Benzene, toluene, ethylbenzene, and total xylenes by EPA method 8021B
- 2. TPH = Total petroleum hydrocarbons analyzed by method EPA 8015M (GRO/DRO/MRO)
- 3. Chloride Analyzed by EPA method SM4500
- 4. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards (NMAC 19.15.29.12(N)) MRO = Motor/lube oil range organics
- * = Denotes discrete/grab sample. All other samples are five-point composites

N/A = Not applicable

- Bold values denote concentrations above laboratory RDL
- Red values denote concentrations above NMOCD Action Levels

- BGS = Below ground surface
- GRO = Gasoline range organics
- DRO = Diesel range organics

- --- = Sample was not analyzed for this analyte
- <RDL = The analyte was not detected above the laboratory reported detection limit (RDL)

Appendix A – Initial C-141 and NMOCD Notifications

	Page 21 of 6.	3
Incident ID	nAPP2109856086	
District RP	1R426-13	
Facility ID	fEEM0432440158	
Application ID	pEEM0432442802	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)				
Did this release impact groundwater or surface water?	☐ Yes ⊠ No				
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No				
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No				
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No				
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No				
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No				
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No				
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No				
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No				
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No				
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No				
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No				
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.					
Characterization Report Checklist: Each of the following items must be included in the report.					
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wel Field data Data table of soil contaminant concentration data 	ls.				
Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release					

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

Boring or excavation logs

Topographic/Aerial maps

Photographs including date and GIS information

☐ Laboratory data including chain of custody

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Incident ID	nAPP2109856086
District RP	1R426-13
Facility ID	fEEM0432440158
Application ID	pEEM0432442802

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

Printed Name: Katie Davis Title: Environmental Manager

Signature: Date: 3/14/2023

Telephone: (575) 393-9174

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

OCD Only			
Received by:	Jocelyn Harimon	Date:	03/14/2023

32:56 PM tate of New Mexico

Incident ID	nAPP2109856086
District RP	1R426-13
Facility ID	fEEM0432440158
Application ID	pEEM0432442802

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.
 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
Extents of contamination must be fully delineated.
Contamination does not cause an imminent risk to human health, the environment, or groundwater.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: Katie Davis Title: Environmental Manager Signature: Date: 3/14/2023 Date: 3/14/2023
OCD Only
Received by: Jocelyn Harimon Date:03/14/2023
Approved
Signature: Velson Velez Date: 07/10/2023

Remediation Plan is approved on the following conditions;

1. Liner installation is approved as written. 2. OCD does not approve the sampling plan for excavated soils to be used as backfilled. 3. Variance requested is voided since the applicable closure standards beyond 4 feet (ft.) below ground surface (bgs) is for groundwater greater than 50 ft. bgs. 4. Rice Operating has 90-days (Remediation Due date: 10/10/2023) to submit a final closure report or time extension request along with furnishing an up-to-date status of the remediation being conducted.

Re: [EXTERNAL] BD I-18 EOL (1R426-13) CAP and Variance Request - Incident ID nAPP2109856086

Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov>

Thu 6/29/2023 12:11 PM

To:Katie Jones <kjones@riceswd.com>

Good afternoon Katie,

Thank you for the correspondence. OCD approves your variance request as written.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv Environmental Bureau | EMNRD - Oil Conservation Division 1000 Rio Brazos Road | Aztec, NM 87410 (505) 469-6146 | nelson.velez@emnrd.nm.gov http://www.emnrd.state.nm.us/OCD/



From: Katie Jones <kjones@riceswd.com> Sent: Thursday, June 29, 2023 10:51 AM

To: Velez, Nelson, EMNRD < Nelson. Velez@emnrd.nm.gov>

Subject: [EXTERNAL] BD I-18 EOL (1R426-13) CAP and Variance Request - Incident ID nAPP2109856086

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mr. Velez,

Per our conversation, ROC submits the following Variance Request Addendum to the BD I-18 (1R426-13) CAP and Variance Request submitted to NMOCD on March 14, 2023.

- ROC acknowledges the BD I-18 EOL site falls under the Tier 2 category of delineation standards listed on Table 1 of NMAC 19.15.29.12 based on the depth to groundwater. The site has been fully delineated to concentrations listed in Table 1, as such, ROC will delineate the upper 4 ft of the vadose zone to the reclamation standards listed in NMAC 19.15.29.13, Section C. Hydrocarbons were not observed in any samples collected from soil bores; therefore, ROC requests to only sample for chloride going forward.
- ROC requests to defer the remediation of the upper 4 ft of the vadose zone immediately surrounding the active, buried 8 inch poly line and the existing concrete junction boxes, along with a 5 ft buffer on each side of the active poly line and a 5 ft buffer surrounding the concrete boxes. ROC requests this deferral according to NMAC 19.15.29.12, Section C, Paragraph 2. Excavating the buried 8 inch poly line and near the concrete junction box could pose potential safety risks to field personnel. As such, ROC proposes to excavate an area of approximately 8,920 sq ft south of the active line and approximately 2,688 sq ft north of the pipeline to a depth of 4 ft bgs. Any impact within the 5 ft buffer on either side of the active line, underneath the active line, within the 5 ft buffer around the concrete junction boxes, or beneath the junction boxes will be addressed at system abandonment once the pipelines and concrete boxes are removed.
- Once the 8,920 sq ft an the 2,688 sq ft areas have been excavated to a depth of 4 ft bgs, ROC will collect a 5 pt composite wall sample sample every 100 lateral feet (400 sq ft).
- Excavated soil will be analyzed for use as backfill. A 5 pt composite sample will be collected for every 50 cubic yards of excavated soil.
 The composite samples will be analyzed for chloride only and any soil used as backfill will have a chloride concentration of 600 mg/kg or lower.

Site	Case #	PO Number	Submission ID	Reference ID	Incident ID	App Number	Report
BD I-18 EOL	1R426-13	OC7LT-230314-C- 1410	196835	nAPP2109856086	nAPP2109856086	pEEM0432442802	CAP

Thank you for your time and consideration. Please let me know if you have any questions or require any additional information.

Thank you,

Katie Davis Environmental Manager RICE Operating Company From: <u>Kyle Norman</u>

To: <u>Velez, Nelson, EMNRD; "EMNRD-OCD-District1spills@emnrd.nm.gov"</u>

Cc: Kjones@riceswd.com; Laura Flores; Brett Dennis

Subject: nAPP2109856086 - Notice of Confirmation Sampling BD I-18 EOL

Date: Friday, September 29, 2023 9:06:00 AM

Attachments: <u>image001.png</u>

Mr. Velez,

We will begin collecting confirmation soil samples on Thursday October 5th at approximately 9am for the Rice Operating BD I-18 EOL_ nAPP2109856086. We will keep you updated, should the anticipated schedule change.

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

Thank you.

Kyle Norman

Regional Project Manager

Tasman, Inc.

2620 W. Marland Blvd. Hobbs, NM 88240 C: 575-318-5017

knorman@tasman-geo.com

www.tasman-geo.com



Appendix B – Depth to Groundwater Information



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

		POD Sub-		Q	Q	Q								V	ater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDe	pthWellDep	thWater Co	lumn
<u>CP 00447 POD1</u>		CP	LE	2	4	4	18	21S	37E	669647	3594451*	403	95		
<u>CP 00448 POD1</u>		CP	LE	2	4	4	18	21S	37E	669647	3594451*	403	100		
<u>CP 01026 POD1</u>		CP	LE	1	1	3	17	21S	37E	669809	3594958	429	167	95	72
<u>CP 00676</u>		CP	LE		4	4	18	21S	37E	669548	3594352*	450	140	106	34
CP 01850 POD1		CP	LE	3	3	4	18	21S	37E	669023	3594266	650	200	110	90
CP 01822 POD1		CP	LE	3	3	3	17	21S	37E	669855	3594265	677	162	110	52
<u>CP 01245 POD1</u>		CP	LE			4	18	21S	37E	668676	3594411	829	220		

Average Depth to Water:

105 feet

Minimum Depth:

95 feet

Maximum Depth:

110 feet

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 669417.427 **Northing (Y):** 3594783.122 **Radius:** 850

*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.

12/27/23 10:55 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

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

Click to hideNews Bulletins

- Explore the NEW USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News 🔊

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs site_no list =

• 322816103114201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 322816103114201 21S.37E.18.442123

Lea County, New Mexico Latitude 32°28'16", Longitude 103°11'42" NAD27 Land-surface elevation 3,513 feet above NAVD88 The depth of the well is 125 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

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

Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1954-01-10		D	62610		3412.13	NGVD29	1	Z			
1954-01-10		D	62611		3413.30	NAVD88	1	Z			A
1954-01-10		D	72019	99.70			1	Z			A
1968-03-13		D	62610		3412.91	NGVD29	1	Z			A
1968-03-13		D	62611		3414.08	NAVD88	1	Z			A
1968-03-13		D	72019	98.92			1	Z			A
1970-12-15		D	62610		3412.17	NGVD29	1	Z			A
1970-12-15		D	62611		3413.34	NAVD88	1	Z			A
1970-12-15		D	72019	99.66			1	Z			A
1981-02-27		D	62610		3413.01	NGVD29	1	Z			A
1981-02-27		D	62611		3414.18	NAVD88	1	Z			A
1981-02-27		D	72019	98.82			1	Z			A
1986-03-18		D			3412.98	NGVD29	1	Z			A
1986-03-18		D			3414.15	NAVD88	1	Z			A
1986-03-18		D	72019	98.85			1	Z			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	Α	Approved for publication Processing and review completed.

Questions or Comments
Automated retrievals
Help
Data Tips
Explanation of terms
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Accessibility FOIA Privacy Policies and Notices

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

Title: Groundwater for USA: Water Levels

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

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

Page Last Modified: 2023-12-27 13:08:53 EST

0.29 0.25 nadww01



Appendix C – Certified Laboratory Analytical Reports



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

October 06, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: 4778_BD I-18 EOL

Enclosed are the results of analyses for samples received by the laboratory on 10/02/23 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 10/02/2023 Sampling Date: 10/02/2023 Reported: 10/06/2023 Sampling Type: Soil

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact Project Number: NAPPP2109856086 Sample Received By: Tamara Oldaker

Project Location: NONE GIVEN

Sample ID: IS (H235352-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/04/2023	ND	2.01	100	2.00	2.18	
Toluene*	<0.050	0.050	10/04/2023	ND	2.00	100	2.00	5.28	
Ethylbenzene*	<0.050	0.050	10/04/2023	ND	2.05	102	2.00	4.64	
Total Xylenes*	<0.150	0.150	10/04/2023	ND	6.23	104	6.00	5.09	
Total BTEX	<0.300	0.300	10/04/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.8	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/04/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/03/2023	ND	199	99.3	200	0.386	
DRO >C10-C28*	<10.0	10.0	10/03/2023	ND	212	106	200	1.00	
EXT DRO >C28-C36	<10.0	10.0	10/03/2023	ND					
Surrogate: 1-Chlorooctane	91.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	111 9	% 49.1-14	8						

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.

Celeg D. Freene

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 4 of

(E)

ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	(505) 393-2326 FAX (505) 39 Rice Operating		,-				П	BILL TO						ANALYSIS REQUEST										
	: Katie Jones / Kyle Norman						1	P.O. #:																
Address:	Ratic sories / Ryle Horrian							Company: Rice Operating								દ								
City:	State:	Zi	p:					Attn: Katie Jones									.b							
Phone #:	Fax #:							Address:								Cations/Anions								
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Project Name: 4778_BD I-18 EOL							Pho	ne #		-		1.5	801	Ή	່ິ	ati	TDS							
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Sampler Name: FOR LAB USE ONLY		T	T	T	M	ATRI	X	P	RES	ERV.	SAMPLI	NG	Ö	PH		Le	e							
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[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



October 06, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: 4778_BD I-18 EOL

Enclosed are the results of analyses for samples received by the laboratory on 10/05/23 14:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 10/05/2023 Sampling Date: 10/05/2023 Reported: 10/06/2023 Sampling Type: Soil

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact Project Number: NAPPP2109856086 Sample Received By: Tamara Oldaker

Project Location: NONE GIVEN

Sample ID: W - 1 (H235437-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2023	ND	2.07	104	2.00	0.243	
Toluene*	<0.050	0.050	10/05/2023	ND	2.08	104	2.00	1.36	
Ethylbenzene*	<0.050	0.050	10/05/2023	ND	2.01	101	2.00	0.217	
Total Xylenes*	<0.150	0.150	10/05/2023	ND	6.06	101	6.00	1.04	
Total BTEX	<0.300	0.300	10/05/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.5	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/05/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	213	106	200	1.73	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	246	123	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	89.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107 9	% 49.1-14	8						

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. Keine



Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 10/05/2023 Sampling Date: 10/05/2023

Reported: 10/06/2023 Sampling Type: Soil
Project Name: 4778_BD I-18 EOL Sampling Condition: Coo

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact
Project Number: NAPPP2109856086 Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: NONE GIVEN

mg/kg

Sample ID: W - 2 (H235437-02)

BTEX 8021B

	9,	9	7	7					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/05/2023	ND	2.07	104	2.00	0.243	
Toluene*	<0.050	0.050	10/05/2023	ND	2.08	104	2.00	1.36	
Ethylbenzene*	<0.050	0.050	10/05/2023	ND	2.01	101	2.00	0.217	
Total Xylenes*	<0.150	0.150	10/05/2023 ND		6.06	101	6.00	1.04	
Total BTEX	<0.300	0.300	10/05/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.5	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/05/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	213	106	200	1.73	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	246	123	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	95.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112	% 49.1-14	8						

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Celey D. Keine



Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Received: 10/05/2023 Sampling Date: 10/05/2023 Reported: 10/06/2023 Sampling Type: Soil

Fax To:

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact Sample Received By: Project Number: NAPPP2109856086 Tamara Oldaker

(575) 397-1471

Project Location: NONE GIVEN

Sample ID: W - 3 (H235437-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/06/2023	ND	2.07	104	2.00	0.243	
Toluene*	<0.050	0.050	10/06/2023	ND	2.08	104	2.00	1.36	
Ethylbenzene*	<0.050	0.050	10/06/2023	ND	2.01	101	2.00	0.217	
Total Xylenes*	<0.150	0.150	10/06/2023	ND	6.06	101	6.00	1.04	
Total BTEX	<0.300	0.300	10/06/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.9	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	10/05/2023	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	213	106	200	1.73	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	246	123	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	109 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	126	% 49.1-14	8						

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Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Fax To: (575) 397-1471

Received: 10/05/2023 Sampling Date: 10/05/2023

Reported: 10/06/2023 Sampling Type: Soil

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact
Project Number: NAPPP2109856086 Sample Received By: Tamara Oldaker

Analyzed By: MS

Project Location: NONE GIVEN

mg/kg

Sample ID: W - 4 (H235437-04)

BTEX 8021B

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/06/2023	ND	2.07	104	2.00	0.243	
Toluene*	<0.050	0.050	10/06/2023	ND	2.08	104	2.00	1.36	
Ethylbenzene*	<0.050	0.050	10/06/2023	ND	2.01	101	2.00	0.217	
Total Xylenes*	<0.150	0.150	10/06/2023	ND	6.06	101	6.00	1.04	
Total BTEX	<0.300	0.300	10/06/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	10/05/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	213	106	200	1.73	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	246	123	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	118	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	137	% 49.1-14	8						

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Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240

Received: 10/05/2023 Sampling Date: 10/05/2023

Reported: 10/06/2023 Sampling Type: Soil

Fax To:

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact
Project Number: NAPPP2109856086 Sample Received By: Tamara Oldaker

Analyzed By: MS

(575) 397-1471

Project Location: NONE GIVEN

mg/kg

Sample ID: W - 5 (H235437-05)

BTEX 8021B

	<u> </u>	<u> </u>							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/06/2023	ND	2.07	104	2.00	0.243	
Toluene*	<0.050	0.050	10/06/2023	ND	2.08	104	2.00	1.36	
Ethylbenzene*	<0.050	0.050	10/06/2023	ND	2.01	101	2.00	0.217	
Total Xylenes*	<0.150	0.150	10/06/2023	ND	6.06	101	6.00	1.04	
Total BTEX	<0.300	0.300	10/06/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.4	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/05/2023	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	213	106	200	1.73	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	246	123	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	87.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102	% 49.1-14	8						

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Celey D. Keene



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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ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Nan									B	ILL TO						ANA	LYSI	S RF	QUE	ST	
Project Manag	er: Katie Jones / Kyle Norman						P.	O. #:				T	T	T				T	T	T	$\overline{}$
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Sampler Name	: Chris Flores							x #:						F	Texas	a	TDS	Hour	Hour		
FOR LAB USE ONLY		T	T		MAT	RIX	1	PRESI	ERV.	SAMPLI	NG	남	TP.	<u> </u>	X		_	크	무		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER		SLUDGE	OTHER:	ACID/BASE:	OTHER:	DATE	TIME		L			Complete		24	48		
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affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of wh

Relinquished By: /	Data: D :		upon any of the above stated re-	sons or otherwise.	
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[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



October 09, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: 4778_BD I-18 EOL

Enclosed are the results of analyses for samples received by the laboratory on 10/06/23 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Rice Operating Company KATIE JONES 112 W. Taylor Hobbs NM, 88240 Fax To: (575) 397-14

Fax To: (575) 397-1471

Received: 10/06/2023 Sampling Date: 10/06/2023
Reported: 10/09/2023 Sampling Type: Soil

Project Name: 4778_BD I-18 EOL Sampling Condition: Cool & Intact
Project Number: NAPPP2109856086 Sample Received By: Shari Cisneros

Project Location: NONE GIVEN

Sample ID: W - 6 (H235459-01)

BTEX 8021B	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/06/2023	ND	2.14	107	2.00	4.28	
Toluene*	<0.050	0.050	10/06/2023	ND	2.18	109	2.00	5.04	
Ethylbenzene*	<0.050	0.050	10/06/2023	ND	2.08	104	2.00	4.34	
Total Xylenes*	<0.150	0.150	10/06/2023	ND	6.27	105	6.00	4.77	
Total BTEX	<0.300	0.300	10/06/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	94.0	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/09/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/06/2023	ND	192	96.1	200	7.64	
DRO >C10-C28*	<10.0	10.0	10/06/2023	ND	208	104	200	18.1	
EXT DRO >C28-C36	<10.0	10.0	10/06/2023	ND					
Surrogate: 1-Chlorooctane	107	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	129	% 49.1-14	8						

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Celey D. Keine



Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

Page 4 of

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Phone #:		r.					C	ity:					"	Σ		エ	S/		Q _a				
Project #: nAPF							Si	tate:			Zip:		Chlorides	8015	×	Texas TPH	Cations/Anions	m					
	778_BD I-18 EOL						Р	hone	e #:				ΙΞ	90	BTEX	်တ	ati	TDS	Long				
Project Location							F	ax #:	:				岩	I	В	×			9				
Sampler Name: FOR LAB USE ONLY		T	Г		MAT	RIX		PR	ESE	RV.	SAMPLIN	IG	O	TPH		e	ete						
Lab I.D. H2354 <i>5</i> 9	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	SOIL	OIL	LUDGE	ACID/BASE:	ICE / COOL	THER:	DATE	TIME					Complete		40				
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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 apservice. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,

Relinquished By:	Date: /0.6.23 Time: /5	Pau Cimeros eceived By:	Phone Result:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	-0.2°	Sample Condition Cool Intagt Yes Yes No No	CFlores@tasman-geo.com BDennis@tasman-geo.com

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Appendix D – Photographic Log



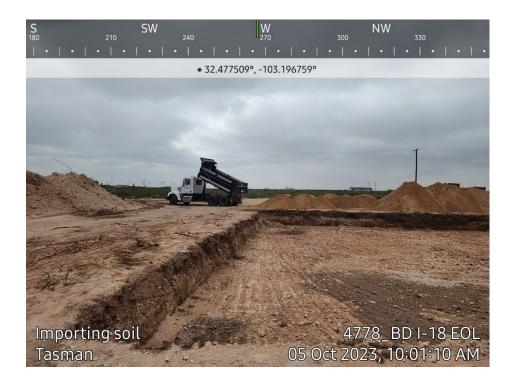






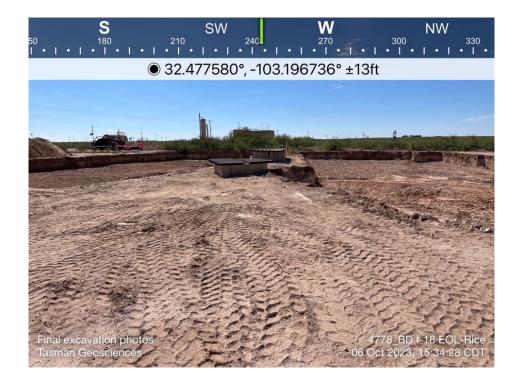
































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State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 341369

QUESTIONS

Operator:	OGRID:
RICE OPERATING COMPANY	19174
122 W Taylor	Action Number:
Hobbs, NM 88240	341369
	Action Type:
	[C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites									
Incident ID (n#)	nAPP2109856086								
Incident Name	NAPP2109856086 RICE BD I-18 EOL @ 0								
Incident Type	Produced Water Release								
Incident Status	Remediation Plan Approved								

Location of Release Source		
Please answer all the questions in this group.		
Site Name	RICE BD I-18 EOL	
Date Release Discovered	07/14/2003	
Surface Owner	Private	

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water 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 Not answered.		
Produced Water Released (bbls) Details	Not answered.	
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.	
Condensate Released (bbls) Details	Not answered.	
Natural Gas Vented (Mcf) Details	Not answered.	
Natural Gas Flared (Mcf) Details	Not answered.	
Other Released Details	Cause: Other (Specify) Released: 0 (Unknown Released Amount) Recovered: 0 Lost: 0	
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Historical site being worked under case number 1R426-13. Initial investigation was conducted according to the NMOCD approved Junction Box Workplan. A Disclosure Report was submitted with all the 2003 junction box reports.	

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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 2

Action 341369

OHEST	ONS (continued)
Operator: RICE OPERATING COMPANY	OGRID: 19174
122 W Taylor	Action Number:
Hobbs, NM 88240	341369 Action Type:
	[C-141] Initial C-141 (C-141-v-Initial)
QUESTIONS	•
Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
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.
Initial Response The responsible party must undertake the following actions immediately unless they could create a second content of the country of the cou	safety hazard that would result in injury.
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for relethe OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Katie Davis Title: Environmental Manager Email: kjones@riceswd.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, Page 3

Action 341369

QUESTIONS (continued)

Operator:	OGRID:
RICE OPERATING COMPANY	19174
122 W Taylor	Action Number:
Hobbs, NM 88240	341369
	Action Type:
	[C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approva release discovery date.	l and beyond). This information must be provided to the appropriate district office no later than 90 days after the
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	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release ar	nd the following surface areas:
A continuously flowing watercourse or any other significant watercourse	Between 1 and 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 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 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	None
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	No
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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CONDITIONS

Action 341369

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	5/8/2024