

RICE Operating Company

112 West Taylor • Hobbs, New Mexico 88240

Phone: (575) 393-9174 • Fax: (575) 397-1471

April 1, 2024

REVIEWED
By Mike Buchanan at 3:25 pm, Aug 19, 2024

Review of the 2023 Annual Groundwater Report for ROC--BD SWD System BD Jct. B-4-2: content satisfactory
1. Continue to conduct groundwater sampling for the site as prescribed by OCD, for MW-2 and MW-3 until eight consecutive events are achieved below the WQCC human health standards for all constituents.
2. Submit the 2024 annual groundwater report to OCD by April 1, 2025.

Nelson Velez

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: **2023 Annual Groundwater Report
Rice Operating Company – BD SWD System
BD Jct. B-4-2 (1R426-204): UL/B, Sec. 4, T22S
NMOCD Incident ID: nAPP2109656364**

Mr. Velez:

RICE Operating Company (ROC) is the service provider (agent) for the 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.

Background and Previous Work

The site is located approximately 1 mile south of Eunice, New Mexico at UL/B, Sec. 4, T22S, R37E as shown on the Geographic Location Map. Monitoring wells installed at the site confirmed groundwater is located at a depth of 92 feet below ground surface (bgs).

In 2008, ROC initiated work on the former B-4-2 junction box. The site was delineated using a backhoe to form a 30x25x12-ft deep excavation and soil samples were screened at regular intervals for both hydrocarbon and chloride. The excavated soil was blended on site, and representative samples were collected from the excavation walls (4-wall comp), excavation bottom (bottom comp), and the blended excavated soil (backfill comp). Each sample was sent to a commercial laboratory for analysis of chloride and TPH, resulting in elevated concentrations. The excavation was backfilled with the blended excavated soil up to 5 ft bgs, and a 5 ft shelf was excavated to the east and west. At 5–4 ft bgs, a 40x25x1-ft thick compacted clay barrier was installed. The clay layer will provide a barrier that will inhibit the downward migration of chloride to groundwater. The remaining blended excavated soil was returned to the excavation and the site was contoured to the surrounding area.

An ICP was submitted to NMOCD on May 4th, 2015 and approved on May 7th, 2015. A total of eleven soil bores were drilled at the site on September 28th and 29th, 2015 and June 13th, 14th, 17th, 2016 and October 19th, 2016. As the bores were advanced, soil samples were collected at regular intervals and field tested for chloride and hydrocarbon. Representative samples from

each bore were sent to a commercial laboratory for confirmatory analysis. Each bore hole was plugged with bentonite to ground surface.

A Corrective Action Plan (CAP) was submitted to the NMOCD and approved on June 30th, 2017. According to the NMOCD approved CAP, a 20-mil reinforced liner with the modified dimensions of 113x70-ft was installed and properly seated at a depth of 4.5 ft bgs. The site was backfilled and seeded with a blend of native vegetation. A CAP Report and Soil Closure Request detailing this work was submitted to NMOCD on November 9th, 2017. NMOCD approved and 'Soil Closure' on December 11th, 2017.

Between November 13th-15th, 2018, three monitoring wells (MW-1, MW-2, and MW-3) were installed at the site. Lithology soil samples were collected at regular intervals. The wells were developed and have been sampled quarterly since installation. Groundwater chloride concentrations have remained low in each well. The most recent sampling event resulted in a chloride concentration of 400 mg/L in MW-1, 124 mg/L in MW-2, and 264 mg/L in MW-3. BTEX concentrations have remained below detectable limit in each well since installation. In 2020, ROC received NMOCD approval to cease BTEX sampling. On February 4th, 2022, NMOCD granted approval to cease sampling of both MW-2 and MW-3. ROC will continue quarterly sampling in 2024 and will continue to grab samples from MW-2 and MW-3, as necessary.

Attached is the Appendix, which contains:

1. A Geographic Location Map.
2. A map showing well locations and groundwater gradient.
3. A table presenting all laboratory results and depth to groundwater for each well at the site, and a graph showing recent laboratory results.
4. The laboratory analytical results for 2023.

Rice Operating Company appreciates the opportunity to work with you on this project. Please contact me at (575) 393-9174 if you have any questions or wish to further discuss this site. Thank you for your time and consideration.

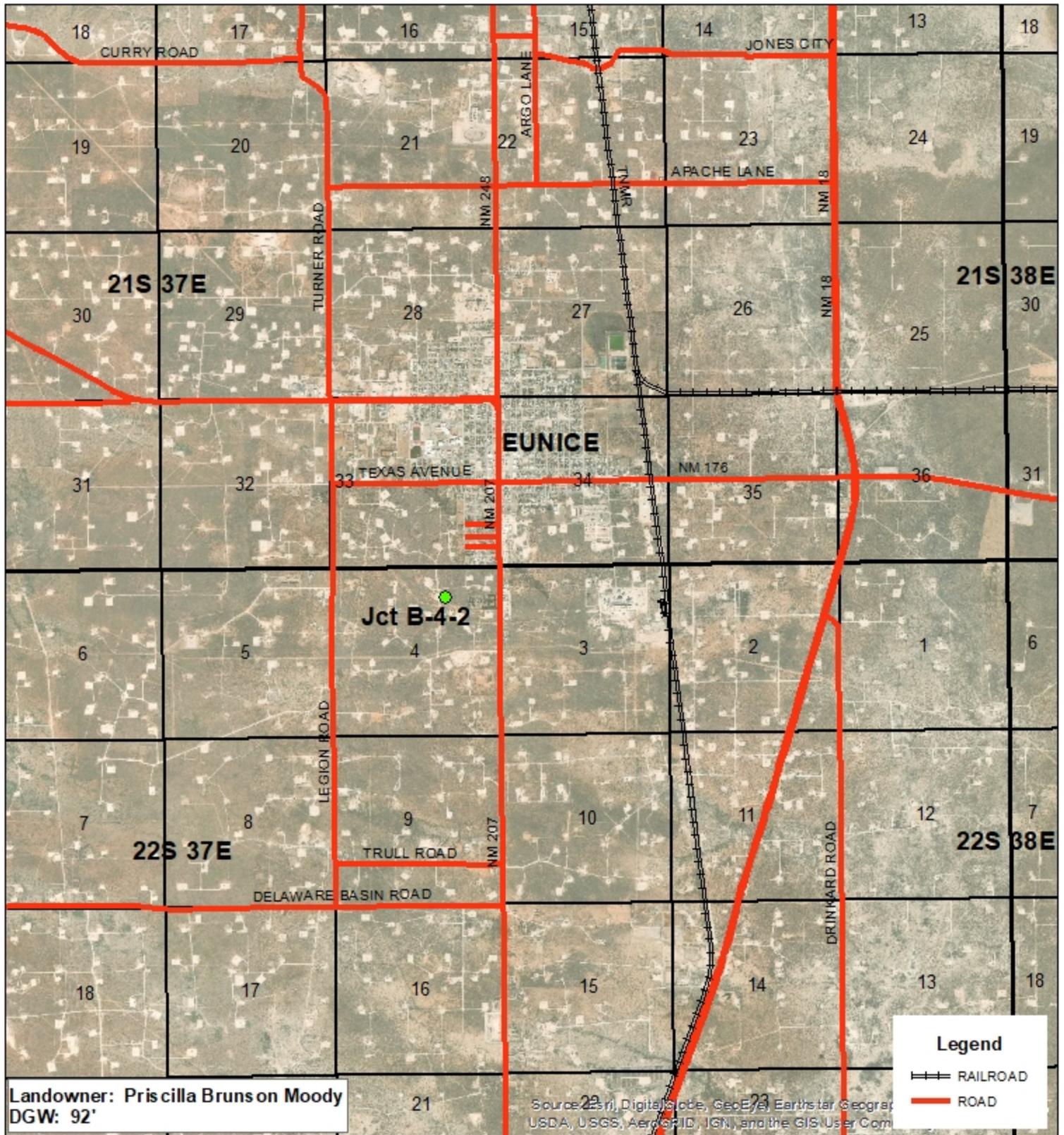
Sincerely,



Katie Davis
Environmental Manager
RICE Operating Company

appendix

Geographic Location Map



Landowner: Priscilla Bruns on Moody
DGW: 92'

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- RAILROAD
- ROAD



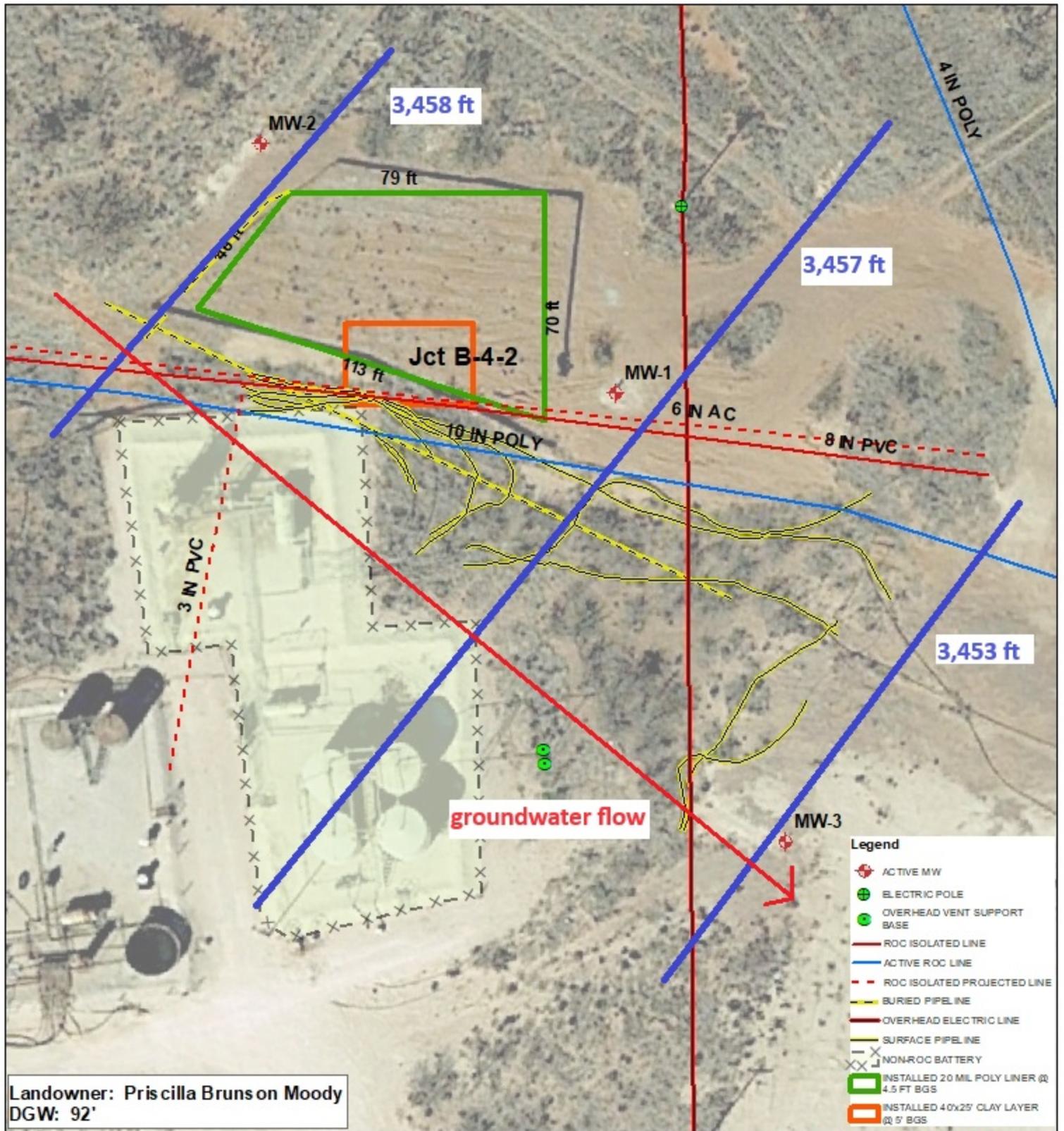
BD
JCT B-4-2
 1R426-204

UL B, SECTION 4
 T-22-S, R-37-E
 LEA COUNTY, NM

GPS: 32.424613 -103.164313
 NAD 83 STATE PLANE PROJ.
 NEW MEXICO EAST ZONE

0 0.5 1
 Miles

Drawing date: 3/11/2015
 Drafted by: S. Edwards



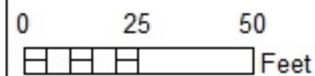
Landowner: Priscilla Bruns on Moody
DGW: 92'



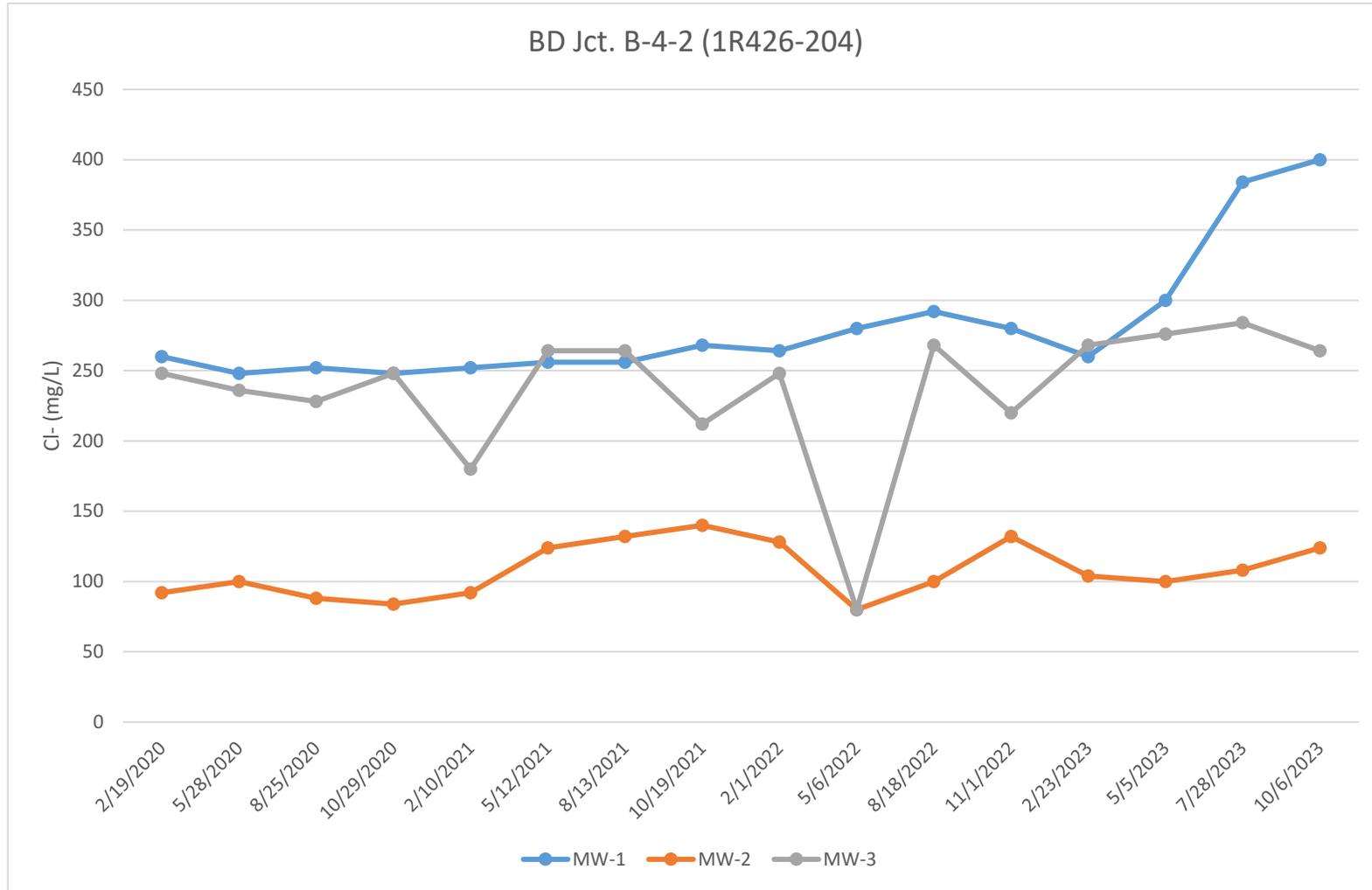
BD
JCT B-4-2
 1R426-204

UL B, SECTION 4
 T-22-S, R-37-E
 LEA COUNTY, NM

GPS: 32.424613 -103.164313
 NAD 83 STATE PLANE PROJ.
 NEW MEXICO EAST ZONE



Drawing date: 3/21/24
 Drafted by: T. Grieco



**ROC - BD Jct. B-4-2 (1R426-204)
Unit Letter B, Section 4, T22S, R37E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	92.83	137.9	30	100	12/24/2018	180	759	<0.001	<0.001	<0.001	<0.003	272	Clear No odor
1	92.5	137.9	29.5	100	2/7/2019	188	841	<0.001	<0.001	<0.001	<0.003	349	Clear No odor
1	92.63	137.9	29.4	100	4/24/2019	232	866	<0.001	<0.001	<0.001	<0.003	151	Clear No odor
1	92.56	137.9	29.5	100	7/24/2019	200	1,030	<0.001	<0.001	<0.001	<0.003	291	Clear No odor
1	92.41	137.9	29.6	100	10/29/2019	176	963	<0.001	<0.001	<0.001	<0.003	253	Clear No odor
1	92.4	137.9	29.6	100	2/19/2020	260	983	<0.0005	<0.0005	<0.0005	<0.002	117	Clear No odor
1	92.43	137.9	29.6	100	5/28/2020	248	751	XXX	XXX	XXX	XXX	189	Clear No odor
1	92.34	137.9	29.6	100	8/25/2020	252	1,010	XXX	XXX	XXX	XXX	196	Clear No odor
1	92.35	137.9	29.6	100	10/29/2020	248	871	XXX	XXX	XXX	XXX	137	Clear No odor
1	92.29	137.9	30	100	2/10/2021	252	965	XXX	XXX	XXX	XXX	191	Clear No odor
1	92.3	137.9	30	100	5/12/2021	256	1,020	XXX	XXX	XXX	XXX	227	Clear No odor
1	92.28	137.9	30	100	8/13/2021	256	1,000	XXX	XXX	XXX	XXX	182	Clear No odor
1	92.15	137.9	30	100	10/19/2021	268	986	XXX	XXX	XXX	XXX	146	Clear No odor
1	92.19	137.9	30	100	2/1/2022	264	968	XXX	XXX	XXX	XXX	204	Clear No odor
1	92.23	137.9	30	100	5/6/2022	280	977	XXX	XXX	XXX	XXX	147	Clear No odor
1	92.35	137.9	30	100	8/18/2022	292	1,010	XXX	XXX	XXX	XXX	160	Clear No odor
1	92.39	137.9	30	100	11/1/2022	280	1,070	XXX	XXX	XXX	XXX	175	Clear No odor
1	92.01	137.9	29.8	100	2/23/2023	260	944	XXX	XXX	XXX	XXX	168	Clear No odor
1	92.49	137.9	29.5	100	5/5/2023	300	1,130	XXX	XXX	XXX	XXX	194	Clear No odor
1	92.54	137.9	29.5	100	7/28/2023	384	1,260	XXX	XXX	XXX	XXX	251	Clear No odor
1	92.59	137.9	29.5	100	10/6/2023	400	1,190	XXX	XXX	XXX	XXX	204	Clear No odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	93.92	100.85	1.1	5	12/24/2018	120	574	<0.001	<0.001	<0.001	<0.003	179	Clear No odor
2	93.52	100.85	1.2	5	2/7/2019	92	650	<0.001	<0.001	<0.001	<0.003	155	Clear No odor
2	93.65	100.85	1.2	5	4/24/2019	88	646	<0.001	<0.001	<0.001	<0.003	124	Clear No odor

**ROC - BD Jct. B-4-2 (1R426-204)
Unit Letter B, Section 4, T22S, R37E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	93.6	100.85	1.2	5	7/24/2019	80	577	<0.001	<0.001	<0.001	<0.003	180	Clear No odor
2	93.38	100.85	1.2	5	10/29/2019	80	569	<0.001	<0.001	<0.001	<0.003	101	Clear No odor
2	93.38	100.85	1.2	5	2/19/2020	92	598	<0.0005	<0.0005	<0.0005	<0.002	80.2	Clear No odor
2	93.41	100.85	1.2	5	5/28/2020	100	704	XXX	XXX	XXX	XXX	179	Clear No odor
2	93.32	100.85	1.2	5	8/25/2020	88	647	XXX	XXX	XXX	XXX	134	Clear No odor
2	93.38	100.85	1.2	5	10/29/2020	84	500	XXX	XXX	XXX	XXX	117	Clear No odor
2	92.29	100.85	1.2	5	2/10/2021	92	593	XXX	XXX	XXX	XXX	130	Clear No odor
2	93.34	100.85	1.2	5	5/12/2021	124	522	XXX	XXX	XXX	XXX	113	Clear No odor
2	93.33	100.85	1.2	5	8/13/2021	132	645	XXX	XXX	XXX	XXX	87.8	Clear No odor
2	93.21	100.85	1.2	5	10/19/2021	140	635	XXX	XXX	XXX	XXX	78.2	Clear No odor
2	93.18	100.85	1.5	5	2/1/2022	128	596	XXX	XXX	XXX	XXX	115	Clear No odor
2	93.25	100.85	1.5	5	5/6/2022	80	606	XXX	XXX	XXX	XXX	113	Clear No odor
2	93.36	100.85	1.2	5	8/18/2022	100	666	XXX	XXX	XXX	XXX	137	Clear No odor
2	93.4	100.85	1.2	5	11/1/2022	132	666	XXX	XXX	XXX	XXX	111	Clear No odor
2	93.09	100.85	1.2	5	2/23/2023	104	577	XXX	XXX	XXX	XXX	133	Clear No odor
2	93.56	100.85	1.2	5	5/5/2023	100	658	XXX	XXX	XXX	XXX	135	Clear No odor
2	93.59	100.85	1.2	5	7/28/2023	108	558	XXX	XXX	XXX	XXX	92.1	Clear No odor
2	93.65	100.85	1.2	5	10/6/2023	124	605	XXX	XXX	XXX	XXX	134	Clear No odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	89.58	101.35	1.9	6	12/24/2018	220	807	<0.001	<0.001	<0.001	<0.003	187	Clear No odor
3	89.28	101.35	1.9	6	2/7/2019	216	916	<0.001	<0.001	<0.001	<0.003	177	Clear No odor
3	89.38	101.35	1.9	6	4/24/2019	228	906	<0.001	<0.001	<0.001	<0.003	144	Clear No odor
3	89.34	101.35	1.9	6	7/24/2019	236	915	<0.001	<0.001	<0.001	<0.003	158	Clear No odor
3	89.19	101.35	1.9	6	10/29/2019	236	900	<0.001	<0.001	<0.001	<0.003	191	Clear No odor
3	89.15	101.35	2	6	2/19/2020	248	892	<0.0005	<0.0005	<0.0005	<0.002	91.2	Clear No odor

ROC - BD Jct. B-4-2 (1R426-204)
Unit Letter B, Section 4, T22S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	89.17	101.35	1.9	6	5/28/2020	236	944	XXX	XXX	XXX	XXX	188	Clear No odor
3	89.07	101.35	2	6	8/25/2020	228	936	XXX	XXX	XXX	XXX	140	Clear No odor
3	89.13	101.35	2	6	10/29/2020	248	824	XXX	XXX	XXX	XXX	141	Clear No odor
3	89.05	101.35	2	6	2/10/2021	180	890	XXX	XXX	XXX	XXX	259	Clear No odor
3	89.05	101.35	2	6	5/12/2021	264	965	XXX	XXX	XXX	XXX	206	Clear No odor
3	89.02	101.35	2	6	8/13/2021	264	1,310	XXX	XXX	XXX	XXX	152	Clear No odor
3	88.88	101.35	2	6	10/19/2021	212	825	XXX	XXX	XXX	XXX	117	Clear No odor
3	88.97	101.35	2	6	2/1/2022	248	977	XXX	XXX	XXX	XXX	194	Clear No odor
3	89.02	101.35	2	6	5/6/2022	260	963	XXX	XXX	XXX	XXX	164	Clear No odor
3	89.11	101.35	2	6	8/18/2022	268	1,020	XXX	XXX	XXX	XXX	169	Clear No odor
3	89.15	101.35	2	6	11/1/2022	220	959	XXX	XXX	XXX	XXX	161	Clear No odor
3	88.79	101.35	2	6	2/23/2023	268	969	XXX	XXX	XXX	XXX	170	Clear No odor
3	89.29	101.35	1.9	6	5/5/2023	276	1,090	XXX	XXX	XXX	XXX	169	Clear No odor
3	89.32	101.35	1.9	6	7/28/2023	284	1,020	XXX	XXX	XXX	XXX	153	Clear No odor
3	89.38	101.35	1.9	6	10/6/2023	264	944	XXX	XXX	XXX	XXX	247	Clear No odor



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

March 06, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD JUNCTION B-4-2

Enclosed are the results of analyses for samples received by the laboratory on 02/23/23 15:20.

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/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:

Rice Operating Company
 KATIE JONES
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received:	02/23/2023	Sampling Date:	02/23/2023
Reported:	03/06/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H230858-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	260	4.00	02/24/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	168	50.0	03/02/2023	ND	18.7	93.4	20.0	2.77		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	944	5.00	02/28/2023	ND	812	81.2	1000	1.02		

Sample ID: MONITOR WELL #2 (H230858-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	104	4.00	02/24/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	133	25.0	03/02/2023	ND	18.7	93.4	20.0	2.77		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	577	5.00	02/28/2023	ND	812	81.2	1000	1.02		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Rice Operating Company
 KATIE JONES
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received:	02/23/2023	Sampling Date:	02/23/2023
Reported:	03/06/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H230858-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	268	4.00	02/24/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	170	50.0	03/02/2023	ND	18.7	93.4	20.0	2.77		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	969	5.00	02/28/2023	ND	812	81.2	1000	1.02		

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



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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

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

May 16, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD JUNCTION B-4-2

Enclosed are the results of analyses for samples received by the laboratory on 05/09/23 13:07.

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/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:

Rice Operating Company
 KATIE JONES
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received:	05/09/2023	Sampling Date:	05/05/2023
Reported:	05/16/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H232300-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	300	4.00	05/10/2023	ND	104	104	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	194	50.0	05/10/2023	ND	19.1	95.6	20.0	5.59		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1130	5.00	05/12/2023	ND	827	82.7	1000	1.83		

Sample ID: MONITOR WELL #2 (H232300-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	100	4.00	05/10/2023	ND	104	104	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	135	50.0	05/10/2023	ND	19.1	95.6	20.0	5.59		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	658	5.00	05/12/2023	ND	827	82.7	1000	1.83		

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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:	05/09/2023	Sampling Date:	05/05/2023
Reported:	05/16/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H232300-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	276	4.00	05/10/2023	ND	104	104	100	3.92	
Sulfate 375.4		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	169	50.0	05/10/2023	ND	19.1	95.6	20.0	5.59	
TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	1090	5.00	05/12/2023	ND	827	82.7	1000	1.83	

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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

Celey D. Keene, Lab Director/Quality Manager



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

August 08, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD JUNCTION B-4-2

Enclosed are the results of analyses for samples received by the laboratory on 08/02/23 14:32.

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/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:

Rice Operating Company
 KATIE JONES
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received:	08/02/2023	Sampling Date:	07/28/2023
Reported:	08/08/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H234080-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	384	4.00	08/03/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	251	50.0	08/07/2023	ND	22.6	113	20.0	1.83		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1260	5.00	08/07/2023	ND	814	81.4	1000	2.49		

Sample ID: MONITOR WELL #2 (H234080-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	108	4.00	08/03/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	92.1	25.0	08/07/2023	ND	22.6	113	20.0	1.83		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	558	5.00	08/07/2023	ND	814	81.4	1000	2.49		

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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:	08/02/2023	Sampling Date:	07/28/2023
Reported:	08/08/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H234080-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	284	4.00	08/03/2023	ND	100	100	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	153	50.0	08/07/2023	ND	22.6	113	20.0	1.83		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1020	5.00	08/07/2023	ND	814	81.4	1000	2.49		

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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



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

October 18, 2023

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD JUNCTION B-4-2

Enclosed are the results of analyses for samples received by the laboratory on 10/11/23 16:03.

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/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:

Rice Operating Company
 KATIE JONES
 112 W. Taylor
 Hobbs NM, 88240
 Fax To: (575) 397-1471

Received:	10/11/2023	Sampling Date:	10/06/2023
Reported:	10/18/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H235549-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	400	4.00	10/12/2023	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	204	50.0	10/12/2023	ND	22.6	113	20.0	13.7		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1190	5.00	10/17/2023	ND	404	80.8	500	2.41		

Sample ID: MONITOR WELL #2 (H235549-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	124	4.00	10/12/2023	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	134	25.0	10/12/2023	ND	22.6	113	20.0	13.7		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	605	5.00	10/17/2023	ND	404	80.8	500	2.41		

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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:	10/11/2023	Sampling Date:	10/06/2023
Reported:	10/18/2023	Sampling Type:	Water
Project Name:	BD JUNCTION B-4-2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	T22S-R37E-SEC2 B-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H235549-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	264	4.00	10/12/2023	ND	100	100	100	3.92	
Sulfate 375.4		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	247	50.0	10/12/2023	ND	22.6	113	20.0	13.7	
TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	944	5.00	10/17/2023	ND	404	80.8	500	2.41	

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

District I
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 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

CONDITIONS

Action 327834

CONDITIONS

Operator: RICE OPERATING COMPANY 122 W Taylor Hobbs, NM 88240	OGRID: 19174
	Action Number: 327834
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2023 Annual Groundwater Report for ROC--BD SWD System BD Jct. B-4-2: content satisfactory 1. Continue to conduct groundwater sampling for the site as prescribed by OCD, for MW-2 and MW-3 until eight consecutive events are achieved below the WQCC human health standards for all constituents. 2. Submit the 2024 annual groundwater report to OCD by April 1, 2025.	8/19/2024