

RICE *Operating Company*

112 West Taylor • Hobbs, New Mexico 88240

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

REVIEWED

By Nelson Velez at 1:01 pm, Dec 16, 2022

April 1, 2022**Bradford Billings**

Environmental Bureau, Oil Conservation Division

New Mexico Energy, Minerals, & Natural Resources Department

1220 S. St. Francis Drive

Santa Fe, New Mexico 87505

Review of 2021 Annual Groundwater Report: **Content**
satisfactory

1. Continue sampling on a semi-annual schedule at a minimum
2. Submit next annual report to OCD no later than March 31, 2023.

RE: **2021 Annual Groundwater Report**
Rice Operating Company – BD SWD System
BD J-30 vent (1R426-217): UL/J, Sec. 30, T21S, R37E

Mr. Billings:

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.

Background and Previous Work

The site is located approximately 2.3 miles northwest of Eunice, New Mexico at UL/J, Sec. 30, T21S, R37E as shown on the Geographical Location Map. Groundwater sampling at the site indicated the depth to groundwater is approximately 106 feet below ground surface (bgs).

In 2007, ROC initiated work on the former J-30 vent junction box. The site was delineated using a backhoe to form a 30x30x12-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 and excavation bottom and sent to a commercial laboratory for analysis, resulting in elevated chloride concentrations and low hydrocarbon concentrations. The excavation was backfilled with the blended soil to 6 ft below ground surface (bgs). At 6-5 ft bgs, a 1 ft thick clay barrier was installed. The remaining backfill was blended with clean, imported soil and used to backfill the remainder of the excavation to ground surface and contoured to the surrounding area. On March 16th, 2007, the site was seeded with a blend of native vegetation. To further investigate the presence of chloride, two soil bores were drilled on April 18th, 2007. Soil samples were collected at regular intervals and field titrated for chlorides. Representative samples from each bore were sent to a commercial laboratory resulting in elevated chloride concentrations. Each bore hole was plugged with bentonite to ground surface. NMOCD was notified of potential groundwater impact on August 5th, 2008. A junction box disclosure report was submitted to NMOCD with all the 2009 junction box closures and disclosures.

An Investigation and Characterization Plan (ICP) was submitted to NMOCD on February 17th, 2015 and approved on February 20th, 2015. According to the ICP, nine soil bores were drilled to further delineate the vadose zone. Representative samples were collected from each bore and were sent to a commercial laboratory for analysis of chloride and hydrocarbon, resulting in elevated chloride concentrations. Each soil bore was plugged with bentonite to ground surface.

A Corrective Action Plan (CAP) was submitted and approved by NMOCD on August 12th, 2015. According to the NMOCD approved CAP, a 20-mil reinforced liner measuring 84x91-ft was installed and properly seated at 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 August 24th, 2017. The report also requested monitoring wells installation. NMOCD approved this report and granted 'Soil Closure' on August 24th, 2017.

On December 11-12th, 2018, ROC installed two monitor wells. MW-3 was installed down-gradient well and MW-1 was installed as a near-source monitoring well. On April 26th, 2019, an up-gradient monitor well (MW-2) was installed. Lithology soil samples were collected from each well at regular intervals. The wells were developed and have been sampled regularly since installation. The most recent sampling event resulted in a chloride concentration of 1,440 mg/L in MW-1, 60 mg/L in MW-2, and 56 mg/L in MW-3. BTEX concentrations remained below detectable limits since the wells were installed. In 2020, ROC received NMOCD approval to cease BTEX sampling. On February 4th, 2022, NMOCD granted approval to cease sampling of MW-3, along with approval to cease sulfate sampling in all monitoring wells. ROC will suspend sulfate analysis and continue quarterly sampling in 2022.

Attached is the Appendix, which contains:

1. A Geographical Location Map.
2. A map showing well locations.
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 2021.

Rice Operating Company appreciates the opportunity to work with you on this project. Please contact me at (575) 393-9174 or Edward Hansen at (505) 920-4965 if you have any questions or wish to further discuss this site. Thank you for your time and consideration.

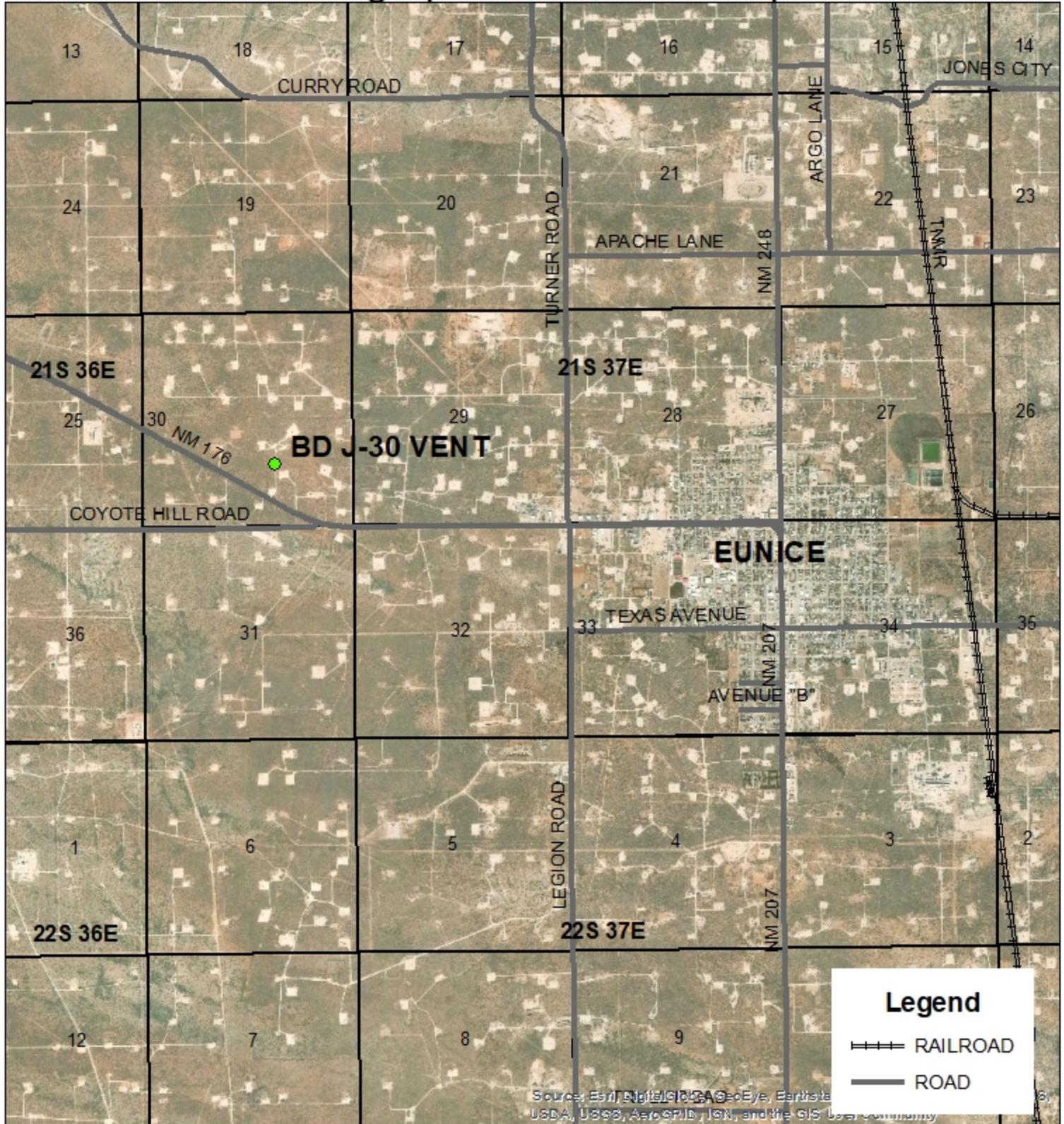
Sincerely,



Katie Davis
Environmental Manager
RICE Operating Company (ROC)

Cc – Edward J. Hansen (ROC)
appendix

Geographical Location Map



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

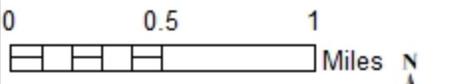
Legend

- RAILROAD
- ROAD

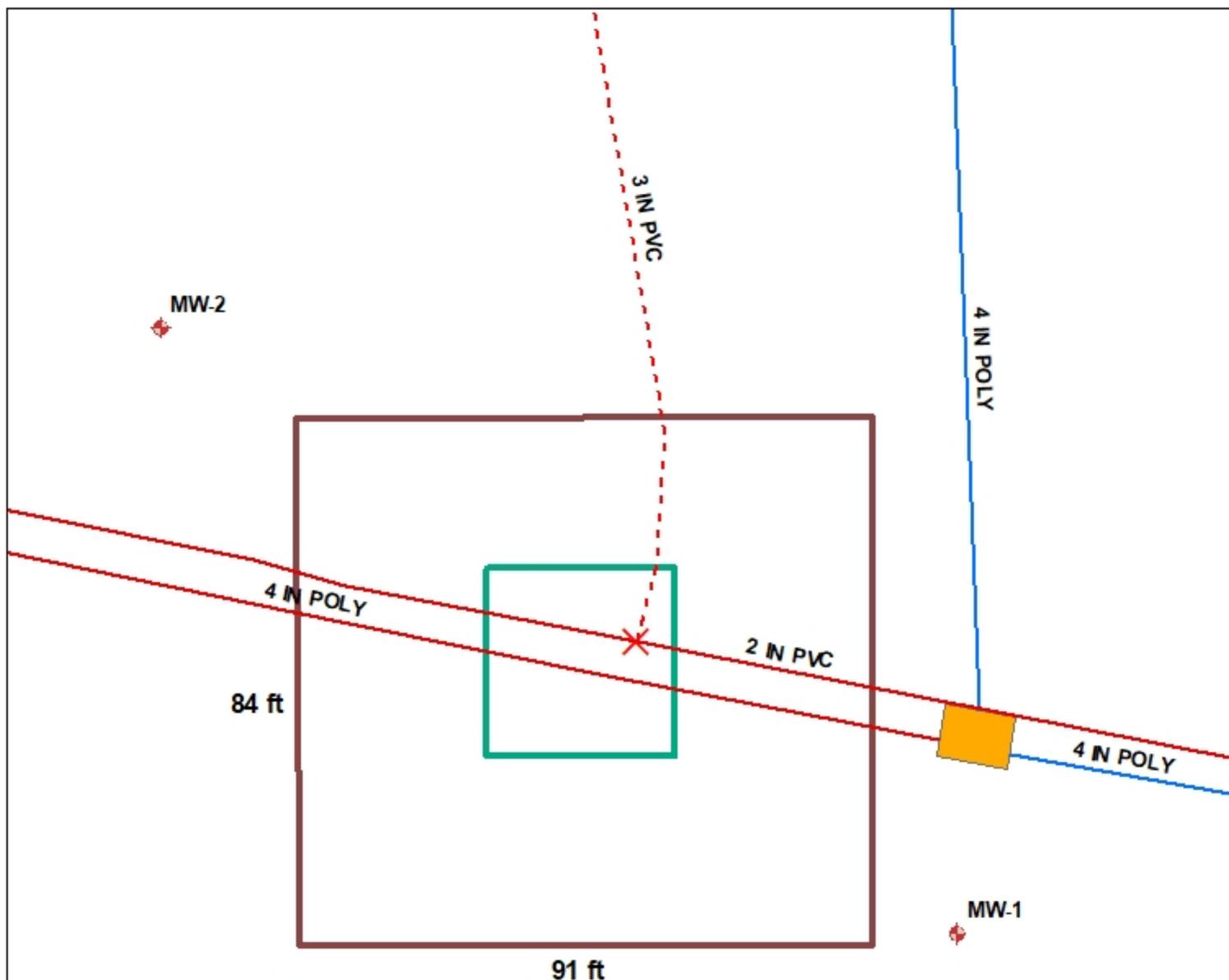


BD J-30 VENT
 1R426-217
 LEGALS: UL J SECTION 30
 T-21-S R-37-E
 LEA COUNTY, NM

GPS: 32.446879, -103.199905
 NAD 83 STATE PLANE PROJ
 NM EAST ZONE



Drawing date: 1/28/20
 Drafted by: T. Grieco



Legend

- REMOVED BOX NM
- ACTIVE MW
- REMOVED MW
- ACTIVE ROC LINE
- ROC ISOLATED LINE
- ROC ISOLATED PROJECTED LINE
- ACTIVE CONCRETE JCT BOX
- INSTALLED 30'x30' CLAY LINER @ 5' BGS
- INSTALLED 84'x91', 20-MIL REINFORCED LINER @ 4.5 FT BGS

Landowner: Chevron USA
DGW: 106 ft



BD J-30 VENT
 1R426-217
 LEGALS: UL J SECTION 30
 T-21-S R-37-E
 LEA COUNTY, NM

GPS: 32.446879, -103.199905
 NAD 83 STATE PLANE PROJ
 NM EAST ZONE

0 10 20
 Feet

Drawing date: 2/3/20
 Drafted by: T. Grieco

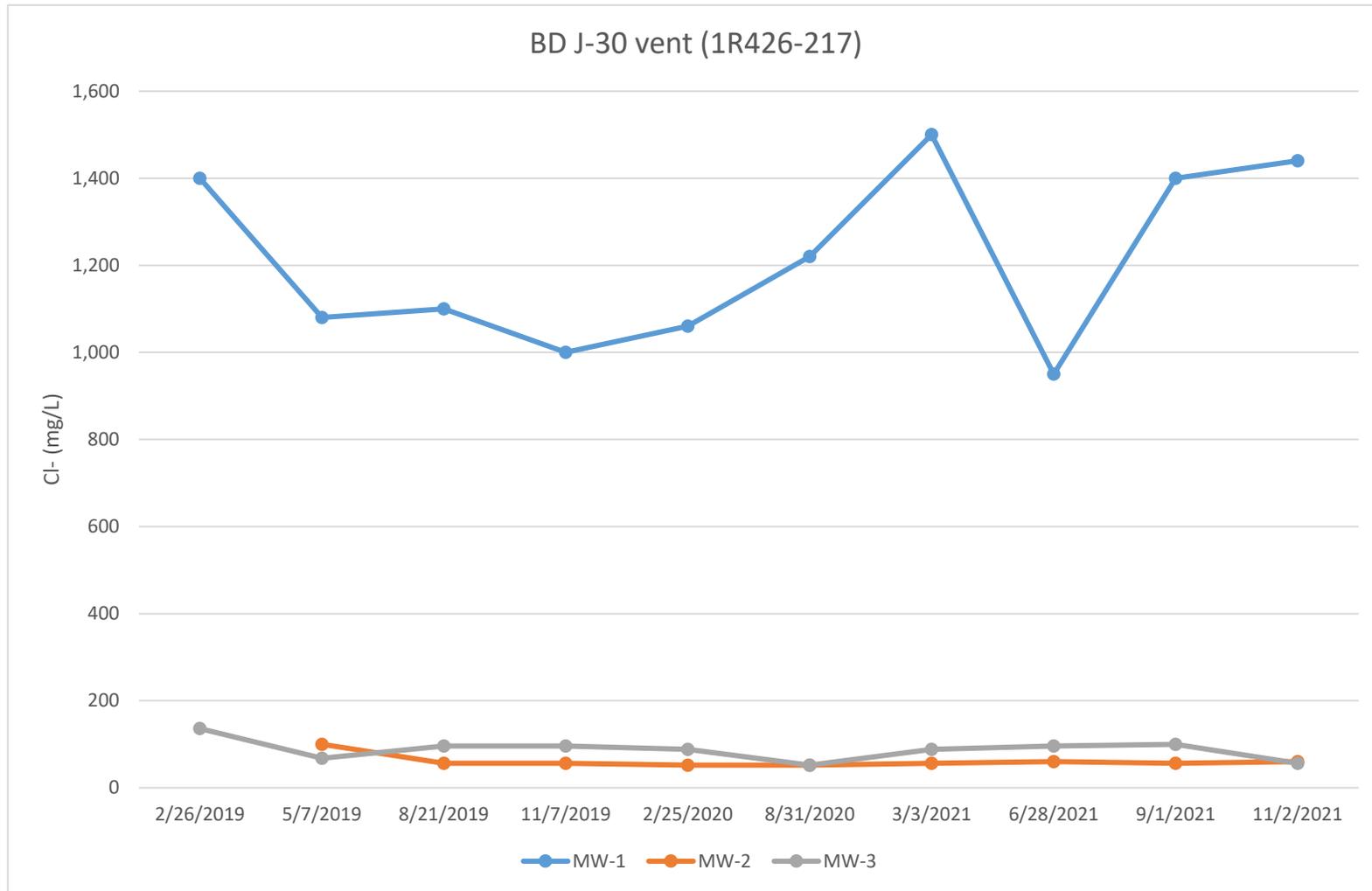
ROC - BD J-30 vent (1R426-217)
Unit Letter J, Section 30, T21S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	106.38	141.6	23	75	12/26/2018	248	664	<0.001	<0.001	<0.001	<0.003	157	Clear No odor
1	106.51	141.6	23	75	2/26/2019	1,400	1,900	<0.001	<0.001	<0.001	<0.003	52	Clear No odor
1	106.5	141.6	23	75	5/7/2019	1,080	2,120	<0.001	<0.001	<0.001	<0.003	65	Clear No odor
1	106.5	141.6	23	75	8/21/2019	1,100	2,220	<0.001	<0.001	<0.001	<0.003	53	Clear No odor
1	106.54	141.6	23	75	11/7/2019	1,000	2,000	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
1	106.47	141.6	22.8	75	2/25/2020	1,060	2,030	<0.001	<0.001	<0.001	<0.003	59	Clear No odor
1	106.47	141.6	22.8	75	8/31/2020	1,220	2,400	XXX	XXX	XXX	XXX	92	Clear No odor
1	106.44	141.6	23	75	3/3/2021	1,500	2,610	XXX	XXX	XXX	XXX	108	Clear No odor
1	106.48	141.6	23	75	6/28/2021	950	2,010	XXX	XXX	XXX	XXX	96.5	Clear No odor
1	106.45	141.6	23	75	9/1/2021	1,400	2,500	XXX	XXX	XXX	XXX	114	Clear No odor
1	106.46	141.6	23	75	11/2/2021	1,440	2,530	XXX	XXX	XXX	XXX	109	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	107.52	120.05	2	6	5/7/2019	100	459	<0.001	<0.001	<0.001	<0.003	91	Clear No odor
2	107.51	120.05	2	6	8/21/2019	56	400	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
2	107.55	120.05	2	6	11/7/2019	56	411	<0.001	<0.001	<0.001	<0.003	69	Clear No odor
2	107.51	120.05	2	6	2/25/2020	52	454	<0.001	<0.001	<0.001	<0.003	81.8	Clear No odor
2	107.5	120.05	2	3	8/31/2020	52	457	XXX	XXX	XXX	XXX	76.7	Clear No odor
2	107.47	120.05	2	6	3/3/2021	56	440	XXX	XXX	XXX	XXX	88	Clear No odor
2	107.52	120.05	2	6	6/28/2021	60	474	XXX	XXX	XXX	XXX	91.9	Clear No odor
2	107.48	120.05	2	6	9/1/2021	56	459	XXX	XXX	XXX	XXX	91.2	Clear No odor
2	107.45	120.05	2	6	11/2/2021	60	407	XXX	XXX	XXX	XXX	89.1	Clear No odor

ROC - BD J-30 vent (1R426-217)
Unit Letter J, Section 30, T21S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	106.38	110.38	0.6	3	12/27/2018	116	321	<0.001	<0.001	<0.001	<0.003	107	Clear No odor
3	106.38	110.38	0.6	3	2/26/2019	136	478	<0.001	<0.001	<0.001	<0.003	86	Clear No odor
3	106.38	110.38	0.6	3	5/7/2019	68	531	<0.001	<0.001	<0.001	<0.003	83	Clear No odor
3	106.37	110.38	0.6	3	8/21/2019	96	536	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
3	106.41	110.38	0.6	3	11/7/2019	96	547	<0.001	<0.001	<0.001	<0.003	78	Clear No odor
3	106.34	110.3	0.6	3	2/25/2020	88	459	<0.001	<0.001	<0.001	<0.003	85.7	Clear No odor
3	106.33	110.3	0.6	3	8/31/2020	52	452	XXX	XXX	XXX	XXX	72.7	Clear No odor
3	106.3	110.38	0.6	3	3/3/2021	88	368	XXX	XXX	XXX	XXX	70.6	Clear No odor
3	106.35	110.38	0.6	3	6/28/2021	96	552	XXX	XXX	XXX	XXX	78.7	Clear No odor
3	106.32	110.38	0.6	3	9/1/2021	100	562	XXX	XXX	XXX	XXX	121	Clear No odor
3	106.3	110.38	0.6	3	11/2/2021	56	423	XXX	XXX	XXX	XXX	87.8	Clear No odor





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

March 11, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD J-30 VENT

Enclosed are the results of analyses for samples received by the laboratory on 03/09/21 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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:	03/09/2021	Sampling Date:	03/03/2021
Reported:	03/11/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H210567-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	1500	4.00	03/10/2021	ND	104	104	100	3.92	QM-07	
Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	108	25.0	03/10/2021	ND	22.3	111	20.0	17.3		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2610	5.00	03/11/2021	ND	576	115	500	1.25		

Sample ID: MONITOR WELL #2 (H210567-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	56.0	4.00	03/10/2021	ND	104	104	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*	88.0	25.0	03/10/2021	ND	22.3	111	20.0	17.3		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	440	5.00	03/11/2021	ND	576	115	500	1.25		

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/09/2021	Sampling Date:	03/03/2021
Reported:	03/11/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H210567-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	88.0	4.00	03/10/2021	ND	104	104	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*	70.6	25.0	03/10/2021	ND	22.3	111	20.0	17.3	
TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	368	5.00	03/11/2021	ND	576	115	500	1.25	

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*=Accredited Analyte

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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

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*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

July 02, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD J-30 VENT

Enclosed are the results of analyses for samples received by the laboratory on 06/29/21 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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.

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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Sincerely,

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

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:	06/29/2021	Sampling Date:	06/28/2021
Reported:	07/02/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H211685-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	950	4.00	06/30/2021	ND	104	104	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*	96.5	25.0	06/30/2021	ND	22.0	110	20.0	17.3		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2010	5.00	07/02/2021	ND	520	104	500	1.65		

Sample ID: MONITOR WELL #2 (H211685-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	60.0	4.00	06/30/2021	ND	104	104	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*	91.9	25.0	06/30/2021	ND	22.0	110	20.0	17.3		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	474	5.00	07/02/2021	ND	520	104	500	1.65		

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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:	06/29/2021	Sampling Date:	06/28/2021
Reported:	07/02/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H211685-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	96.0	4.00	06/30/2021	ND	104	104	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*	78.7	25.0	06/30/2021	ND	22.0	110	20.0	17.3	
TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	552	5.00	07/02/2021	ND	520	104	500	1.65	

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Celey D. Keene, Lab Director/Quality Manager



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

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- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

September 13, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD J-30 VENT

Enclosed are the results of analyses for samples received by the laboratory on 09/07/21 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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:	09/07/2021	Sampling Date:	09/01/2021
Reported:	09/13/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H212439-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	1400	4.00	09/08/2021	ND	104	104	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*	114	25.0	09/10/2021	ND	22.0	110	20.0	13.4		
TDS 160.1		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2500	5.00	09/10/2021	ND	244	81.3	300	2.31		

Sample ID: MONITOR WELL #2 (H212439-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	56.0	4.00	09/08/2021	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*	91.2	25.0	09/10/2021	ND	22.0	110	20.0	13.4		
TDS 160.1		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	459	5.00	09/10/2021	ND	244	81.3	300	2.31		

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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:	09/07/2021	Sampling Date:	09/01/2021
Reported:	09/13/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H212439-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	100	4.00	09/08/2021	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*	121	25.0	09/10/2021	ND	22.0	110	20.0	13.4	
TDS 160.1		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	562	5.00	09/10/2021	ND	244	81.3	300	2.31	

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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

November 10, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD J-30 VENT

Enclosed are the results of analyses for samples received by the laboratory on 11/04/21 16:16.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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:	11/04/2021	Sampling Date:	11/02/2021
Reported:	11/10/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H213140-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	1440	4.00	11/05/2021	ND	104	104	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*	109	25.0	11/05/2021	ND	23.1	116	20.0	5.60		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	2530	5.00	11/09/2021	ND	852	85.2	1000	1.96		

Sample ID: MONITOR WELL #2 (H213140-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	60.0	4.00	11/05/2021	ND	104	104	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*	89.1	25.0	11/05/2021	ND	23.1	116	20.0	5.60		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	407	5.00	11/09/2021	ND	852	85.2	1000	1.96		

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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:	11/04/2021	Sampling Date:	11/02/2021
Reported:	11/10/2021	Sampling Type:	Water
Project Name:	BD J-30 VENT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T21S-R37E-SEC30 J-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H213140-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	56.0	4.00	11/05/2021	ND	104	104	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*	87.8	25.0	11/05/2021	ND	23.1	116	20.0	5.60		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	423	5.00	11/09/2021	ND	852	85.2	1000	1.96		

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
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Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 90538

CONDITIONS

Operator: RICE OPERATING COMPANY 122 W Taylor Hobbs, NM 88240	OGRID: 19174
	Action Number: 90538
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2021 Annual Groundwater Report: Content satisfactory 1. Continue sampling on a semi-annual schedule at a minimum 2. Submit next annual report to OCD no later than March 31,2023.	12/16/2022