

# L Peter Galusky, Jr PE

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April 1<sup>st</sup>, 2025

## Michael Buchanan

New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87504

Re: **2024 Annual Report**

Rice Operating Company – Vacuum SWD System

**Vacuum L-26 Vent** (1R425-66): UL L, Sec 26, T17S, R35E

NMOCD Application ID: pEJH0935760500, Incident ID: nAPP2110350096

Sent via E-mail

## Mr. Buchanan:

This letter summarizes progress made over the past calendar year pursuant to the NMOCD's approved Corrective Action Plan and Addendum of April 4<sup>th</sup>, 2011, for this site, and NMOCD's email of December 31<sup>st</sup>, 2024 (Appendix, Exhibit 1). The site is operated by Rice Operating Company (ROC) and is located approximately 2.5 miles east of Buckeye, New Mexico in unit L, section 26, T17S, R35E, as shown in the site location map in Appendix, Figure 1. A site schematic diagram is given in the Appendix, Figure 2 and a Groundwater Flow Map is given in the Appendix, Figure 3. The depth to groundwater (water table) averaged approximately 60 +/- ft below ground surface across the site in 2024.

## Background and Previous Work

In 2008, ROC conducted field investigation on the former junction box. Soil samples were collected at regular intervals, creating a 30x30x12 ft deep excavation. Based on this investigation, a 30x30-ft geo-synthetic liner was installed at approximately 5 ft bgs. The liner was padded with six inches of blow sand both above and below. The excavation was backfilled with blended, excavated soil and contoured to the surrounding area. NMOCD was notified of potential groundwater impact on December 1<sup>st</sup>, 2008, and a disclosure report was submitted with all the 2008 Junction Box Closures and Disclosures.

## Rice Operating Company – Vacuum L-26 Vent Annual Report

Deeper soil sampling was initiated in 2010 which indicated elevated levels of soil chlorides throughout the vadose zone. This was summarized in the September 14<sup>th</sup>, 2010, Initial Characterization Report and Corrective Action Plan submitted to NMOCD and which recommended the installation of a near-source monitor well. A subsequent Corrective Action Plan and Addendum of April 1<sup>st</sup>, 2011 was submitted to NMOCD which proposed the installation of a 64x63-ft sub-surface synthetic liner to isolate and prevent the downward migration of residual soil chlorides (Appendix – Figure 2), and the installation additional monitor wells to further delineate groundwater quality. This was approved by NMOCD on April 4<sup>th</sup>, 2011 and two additional monitoring wells were installed on April 11<sup>th</sup>, 2011. The liner installation was completed in the summer of 2011. A report detailing this work was submitted on August 2<sup>nd</sup>, 2011 and NMOCD granted soil closure on October 13<sup>th</sup>, 2011. According to the Additional Groundwater Monitoring and CAP for Groundwater, MW-1 was plugged and replaced with a 4 inch well (MW-1R). Groundwater removal began in July 2012 and continued through 2019. In 2020, NMOCD granted approval to temporarily cease groundwater recovery and recovery resumed in 2021.

### Results of Groundwater Monitoring

Results of groundwater sampling from 2009 through 2024 are given in the Appendix (Figure 4, Table 1 (data summary) & Table 2 (full dataset)). Average annual groundwater chloride concentrations in the up-gradient monitor well (MW-2) dropped slightly from 122 mg/l in 2023 to 114 mg/l in 2024. Groundwater chloride concentrations in the near-source pumping well (MW-1R) dropped significantly, from 267 mg/l in 2023 to 197 mg/l in 2024. Groundwater chloride concentrations in the down-gradient monitor well (MW-3) were essentially unchanged at 351 mg/l in 2023 vs 359 mg/l in 2024. Sampling for BTEX was suspended after early 2020, with NMOCD permission, as concentrations were consistently below detectable limits in all monitor wells since sampling began in 2010. A total of 38,892 bbls of groundwater have been withdrawn from MW-1R since pumping began in 2012 resulting in the removal of approximately 819 kg of groundwater chloride. The withdrawn groundwater has been used for a purposeful use.

### Path Forward

Groundwater chloride levels in the near-source monitor well (MW-1) dropped precipitously and quickly following groundwater removal from this well in 2012, and they have mostly stayed below 250 mg/l since then. In contrast, groundwater chloride concentrations in the downgradient monitor well (MW-3) have remained consistent with 351 mg/l in 2023 and 359 mg/l in 2024.

We will continue quarterly groundwater sampling and recovery through 2025 and report to NMOCD as we have been doing.

## Rice Operating Company – Vacuum L-26 Vent Annual Report

ROC is the service provider (agent) for the Vacuum 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. The Vacuum system is now abandoned.

We submit this report for your review and consideration.

Please contact either Katie Davis at Rice Operating Company or me if you have any questions or need additional information.

Thank you.

Sincerely,



L. Peter Galusky, Jr. P.E.  
NM Prof. Engineer No. 22561

Copy: Rice Operating Company

Attachments: ... as noted in text

**L Peter Galusky, Jr PE**

**Page 3**

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Katie Jones](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 327882  
**Date:** Tuesday, December 31, 2024 10:21:42 AM

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To whom it may concern (c/o Katie Davis for RICE OPERATING COMPANY),

The OCD has approved the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nAPP2110350096, with the following conditions:

- **Review of the 2023 Annual Report submitted for ROC, Vacuum L-26 Vent (1R425-66): content satisfactory** 1. Continue to sample MW-1R, MW-2, and MW-3 until all COCs; sulfate, chloride, and TDS are below the WQCC human health standards in Title 20 of the NMAC. 2. If ROC believes that these COCs are naturally occurring in the geological area, this may be demonstrated by submitting a work plan to establish a background level by installing a monitoring well upgradient of the incident, in an undisturbed area. If the intent is to close the incident sooner, this may be an option, but it must be proposed. 3. Otherwise, please continue to submit groundwater monitoring reports with sampling occurring as prescribed and approved by the OCD. 4. Submit the 2024 groundwater monitoring report to OCD by--or before--April 1, 2025.

The signed GROUND WATER ABATEMENT can be found in the OCD Online: Imaging under the incident ID (n#).

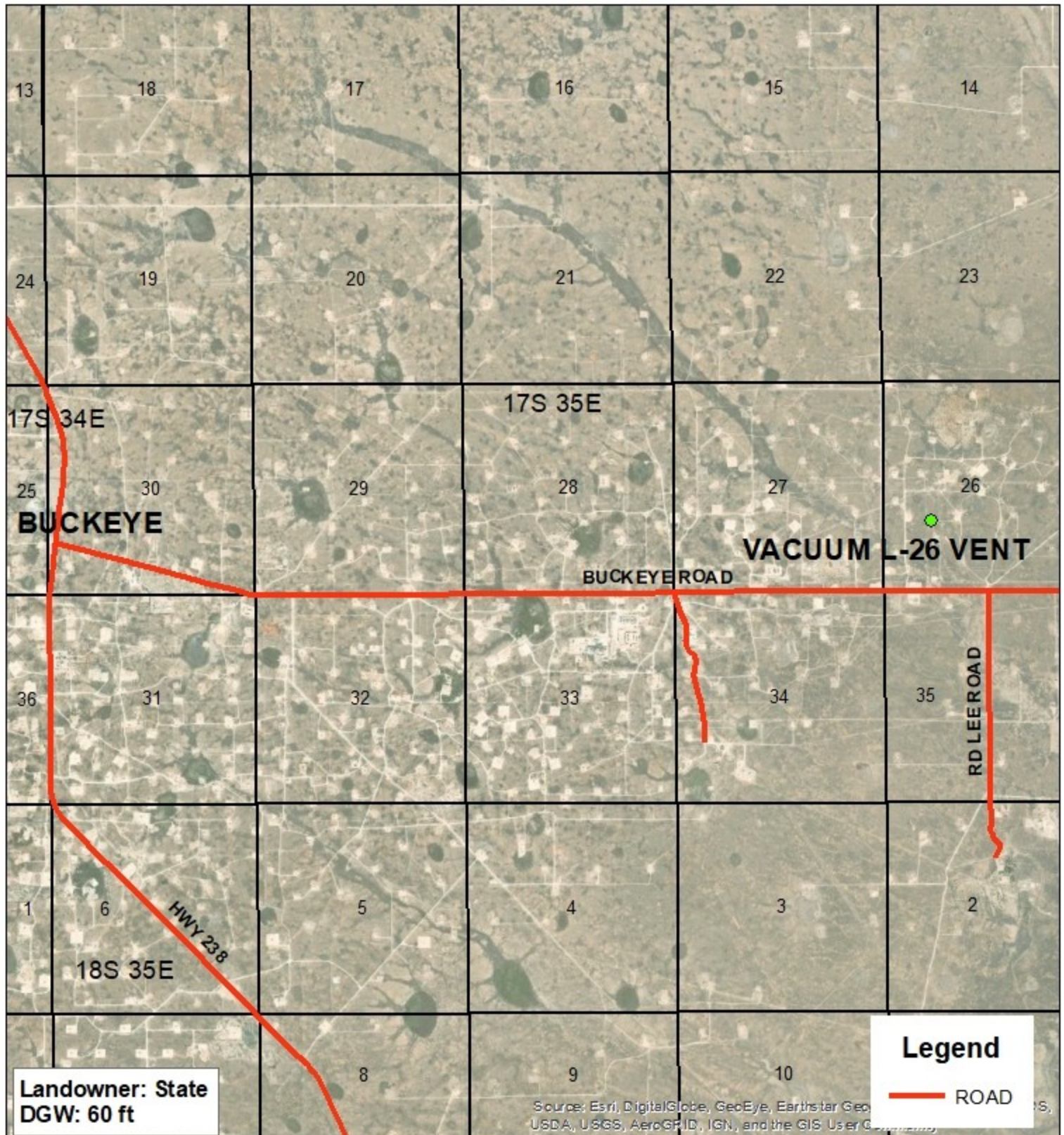
If you have any questions regarding this application, please contact me.

Thank you,  
Michael Buchanan  
Environmental Specialist  
505-490-0798  
[Michael.Buchanan@emnrd.nm.gov](mailto:Michael.Buchanan@emnrd.nm.gov)

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



## Geographic Location



**VACUUM  
L-26 VENT**  
1R425-66

UL L SECTION 26  
T17S R35E  
LEA COUNTY, NM

GPS: 32.803423 -103.432869  
NAD83 STATE PLANE PROJ  
NM EAST ZONE

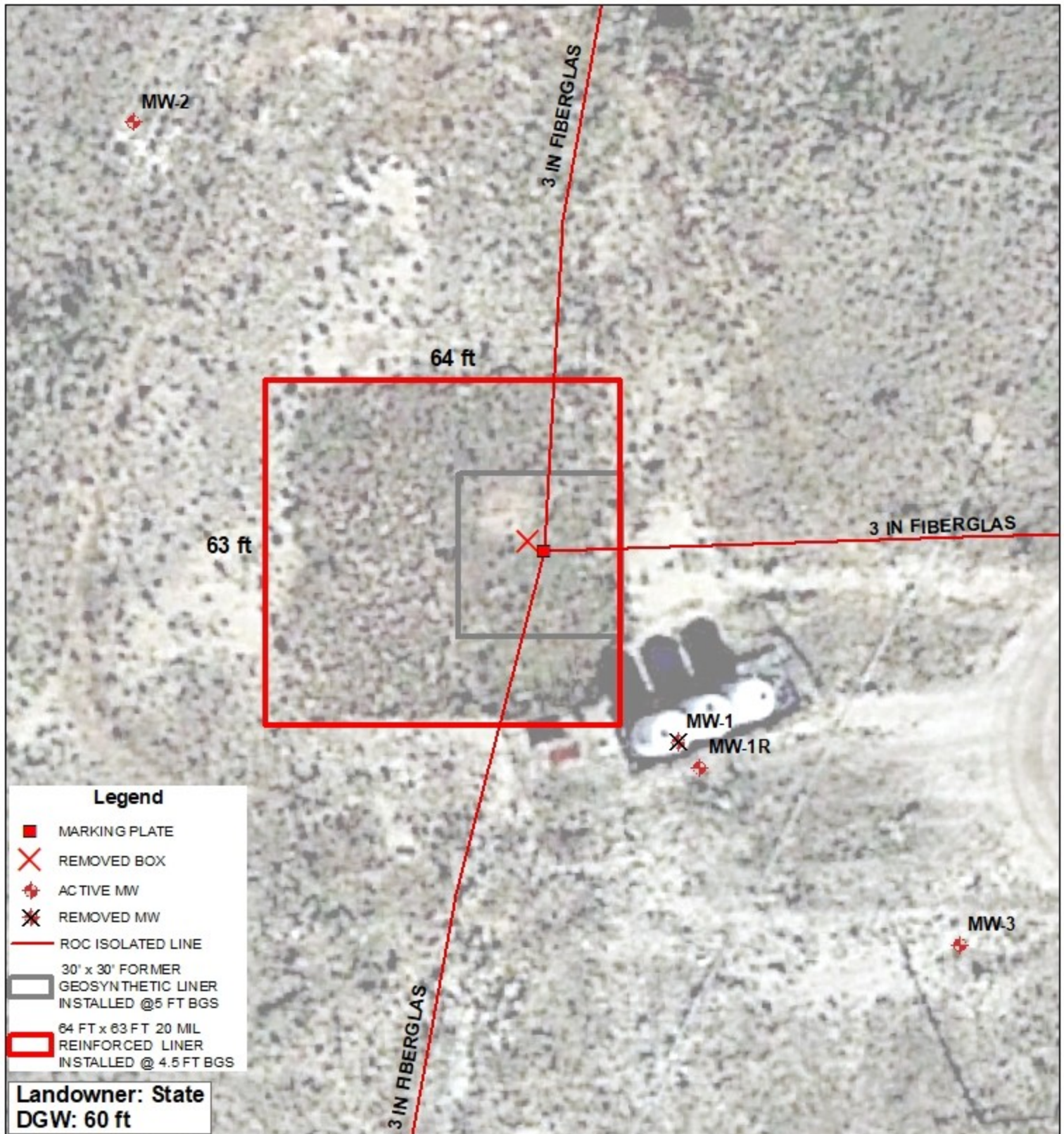
0 0.5 1  
Miles

Drawing date: 1/27/25  
Drafted by: T. Grieco



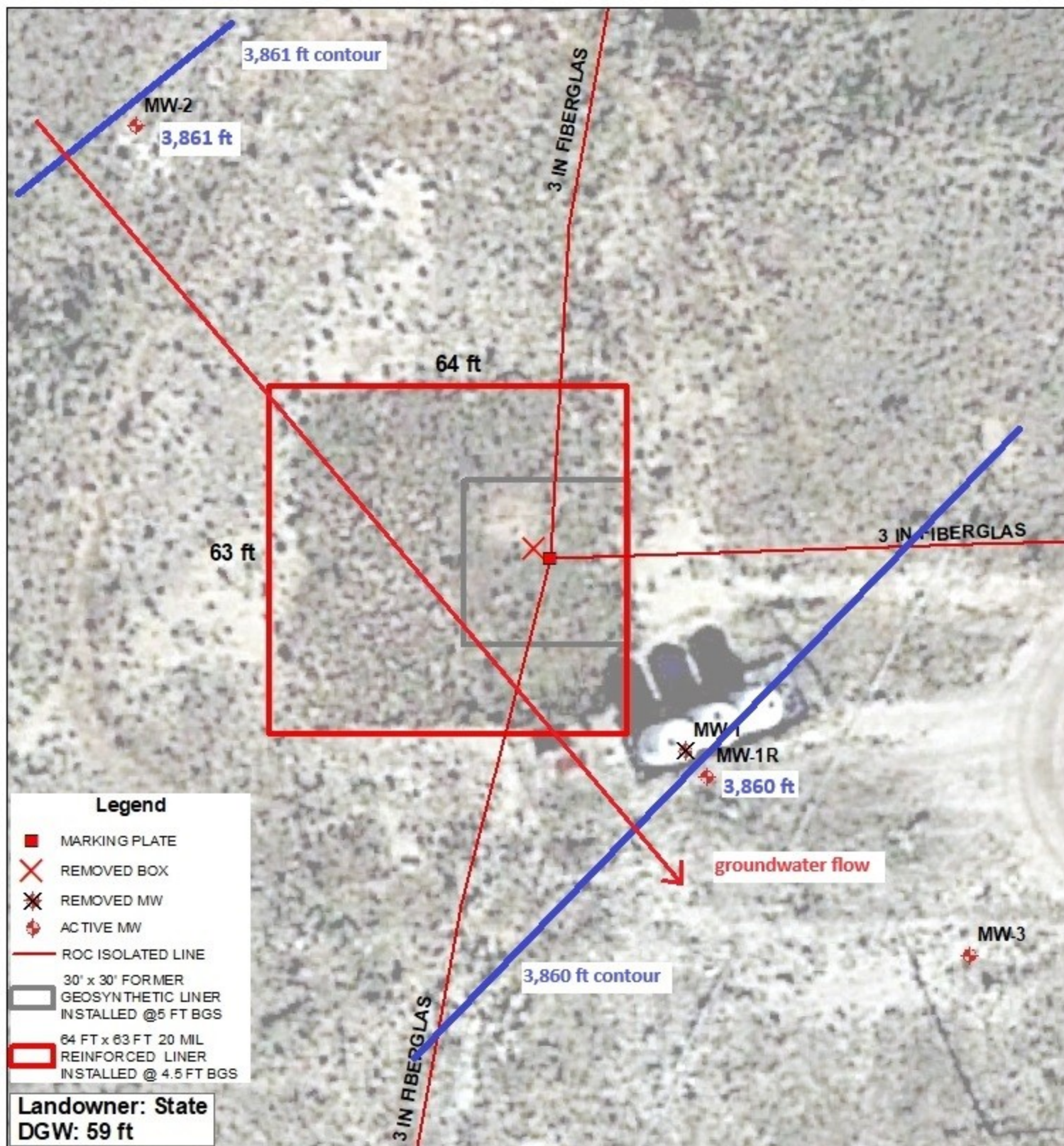


## Site Map





## Site Map and Groundwater Gradient



# VACUUM L-26 VENT

1R425-66

UL L SECTION 26  
T-17-S R-35-E  
LEA COUNTY, NM

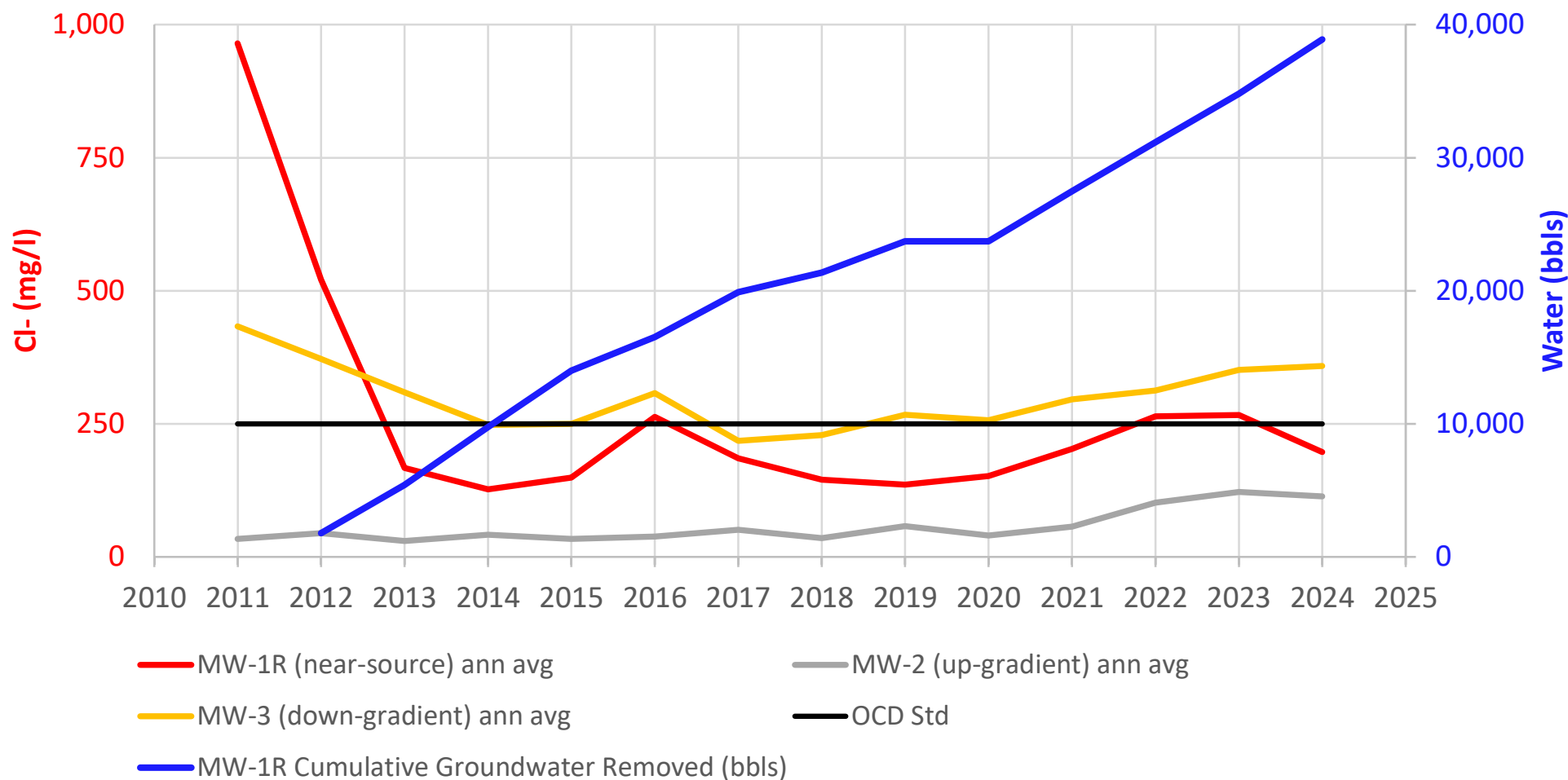
GPS: 32.803423 -103.432869  
NAD83 STATE PLANE PROJ  
NM EAST ZONE

0 10 20  
Feet

Drawing date: 2/5/20  
Drafted by: T. Grieco



### Vacuum L-26 Vent Groundwater Average Annual Chloride Concentrations and Cumulative Groundwater Removal





**Vacuum L-26 Vent Groundwater Chloride Annual Averages (mg/l)  
and Groundwater Annual Volumes (bbls) and Chloride Mass (kg) Removed**

Year	MW-1R (near- source) ann avg	MW-2 (up- gradient) ann avg	MW-3 (down- gradient) ann avg	OCD Std	MW-1R Cumulative Groundwater Removed (bbls)	MW-1R Cumulative Cl- Removed (kg)
2010						
2011	965	34	433	250		
2012	521	45	372	250	1,783	37
2013	167	30	309	250	5,424	97
2014	127	42	248	250	9,762	154
2015	149	34	250	250	14,007	259
2016	263	38	308	250	16,527	300
2017	185	51	218	250	19,897	361
2018	145	35	229	250	21,357	387
2019	136	58	268	250	23,717	439
2020	152	40	257	250	23,717	439
2021	203	57	296	250	27,481	528
2022	265	102	313	250	31,163	626
2023	267	122	351	250	34,822	721
2024	197	114	359	250	38,892	819

## ROC - Vacuum L-26 vent (1R425-66)

## Unit Letter L, Section 26, T17S, R35E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	56.53	72.54	2.6	10	11/22/2010	940	2,120	<0.001	<0.001	<0.001	<0.003	79.6	Clear No odor
1	56.6	72.57	2.6	10	2/16/2011	960	2,130	<0.001	<0.001	<0.001	<0.003	64	Clear No odor
1	56.7	72.57	2.5	10	6/4/2011	1,040	2,710	<0.001	<0.001	<0.001	<0.003	64.7	Clear No odor
1	56.79	72.57	2.5	10	8/31/2011	940	2,440	<0.001	<0.001	<0.001	<0.003	67	Clear No odor
1	56.88	72.57	2.5	10	12/2/2011	920	2,230	<0.001	<0.001	<0.001	<0.003	73.7	Clear No odor
1	56.95	72.57	2.5	10	2/22/2012	970	1,930	<0.001	<0.001	<0.001	<0.003	66.3	Clear No odor
1	57.06	72.57	2.5	10	5/29/2012	710	1,910	<0.001	<0.001	<0.001	<0.003	66.4	Clear No odor
1	XXX	XXX	0	Pumping	8/24/2012	116	551	<0.001	<0.001	<0.001	<0.003	63.6	Clear No odor
1	XXX	XXX	0	Pumping	11/15/2012	288	960	<0.001	<0.001	<0.001	<0.003	59.5	Clear No odor
1	XXX	XXX	0	Pumping	2/12/2013	300	958	<0.001	<0.001	<0.001	<0.003	55.1	Clear No odor
1R	XXX	XXX	0	Pumping	5/30/2013	140	651	<0.001	<0.001	<0.001	<0.003	60	Clear No odor
1R	XXX	XXX	0	Pumping	9/6/2013	148	692	<0.001	<0.001	<0.001	<0.003	50.2	Clear No odor
1R	XXX	XXX	0	Pumping	11/19/2013	80	446	<0.001	<0.001	<0.001	<0.003	58.7	Clear No odor
1R	XXX	XXX	0	90	3/5/2014	256	806	<0.001	<0.001	<0.001	<0.003	58.6	Clear No odor
1R	XXX	XXX	0	Pumping	5/29/2014	88	490	<0.001	<0.001	<0.001	<0.003	59.3	Clear No odor
1R	XXX	XXX	0	Pumping	8/20/2014	80	468	<0.001	<0.001	<0.001	<0.003	56.4	Clear No odor
1R	XXX	XXX	0	90	11/20/2014	84	498	<0.001	<0.001	<0.001	<0.003	53.7	Clear No odor
1R	XXX	XXX	0	90	3/2/2015	140	644	<0.001	<0.001	<0.001	<0.003	46.9	Clear No odor
1R	XXX	XXX	0	Pumping	6/2/2015	44	590	<0.001	<0.001	<0.001	<0.003	37.2	Clear No odor
1R	XXX	XXX	0	Pumping	8/20/2015	196	676	<0.001	<0.001	<0.001	<0.003	42	Clear No odor
1R	XXX	XXX	0	Pumping	11/10/2015	216	654	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
1R	XXX	XXX	XXX	100	2/25/2016	200	640	<0.001	<0.001	<0.001	<0.003	60	Clear No odor
1R	XXX	XXX	XXX	100	5/18/2016	408	1,270	<0.001	<0.001	<0.001	<0.003	112	Clear No odor
1R	XXX	XXX	XXX	Running	9/12/2016	88	442	<0.001	<0.001	<0.001	<0.003	61	Clear No odor
1R	XXX	XXX	XXX	100	11/11/2016	356	1,140	<0.001	<0.001	<0.001	<0.003	56	Clear No odor
1R	XXX	XXX	XXX	100	2/21/2017	264	998	<0.001	<0.001	<0.001	<0.003	58	Clear No odor
1R	XXX	XXX	XXX	Running	5/23/2017	208	944	<0.001	<0.001	<0.001	<0.003	55	Clear No odor
1R	XXX	XXX	XXX	Running	9/8/2017	108	684	<0.001	<0.001	<0.001	<0.003	58	Clear No odor



1R	XXX	XXX	XXX	100	11/29/2017	160	796	<0.001	<0.001	<0.001	<0.003	56	Clear No odor
1R	XXX	XXX	XXX	100	2/27/2018	188	810	<0.001	<0.001	<0.001	<0.003	54.4	Clear No odor
1R	XXX	XXX	XXX	100	5/16/2018	240	960	<0.001	<0.001	<0.001	<0.003	58.5	Clear No odor
1R	XXX	XXX	XXX	100	9/6/2018	108	460	<0.001	<0.001	<0.001	<0.003	53.4	Clear No odor
1R	XXX	XXX	XXX	100	11/14/2018	44	520	<0.001	<0.001	<0.001	<0.003	54.3	Clear No odor
1R	XXX	XXX	XXX	100	3/5/2019	160	754	<0.001	<0.001	<0.001	<0.003	54	Clear No odor
1R	XXX	XXX	XXX	Running	5/28/2019	140	583	<0.001	<0.001	<0.001	<0.003	55	Clear No odor
1R	XXX	XXX	XXX	Running	8/29/2019	144	650	<0.001	<0.001	<0.001	<0.003	54	Clear No odor
1R	XXX	XXX	XXX	100	11/15/2019	100	765	<0.001	<0.001	<0.001	<0.003	46	Clear No odor
1R	XXX	XXX	XXX	100	3/5/2020	108	774	<0.001	<0.001	<0.001	<0.003	54.9	Clear No odor
1R	XXX	XXX	XXX	100	6/15/2020	128	836	XXX	XXX	XXX	XXX	62.2	Clear No odor
1R	XXX	XXX	XXX	100	9/10/2020	120	730	XXX	XXX	XXX	XXX	52.8	Clear No odor
1R	XXX	XXX	XXX	100	11/5/2020	252	972	XXX	XXX	XXX	XXX	69	Clear No odor
1R	XXX	XXX	XXX	100	3/10/2021	240	1,050	XXX	XXX	XXX	XXX	57.7	Clear No odor
1R	XXX	XXX	XXX	Running	6/10/2021	148	637	XXX	XXX	XXX	XXX	57.5	Clear No odor
1R	XXX	XXX	XXX	Running	9/10/2021	184	749	XXX	XXX	XXX	XXX	57	Clear No odor
1R	XXX	XXX	XXX	100	11/9/2021	240	978	XXX	XXX	XXX	XXX	64.6	Clear No odor
1R	XXX	XXX	XXX	100	3/1/2022	312	1,080	XXX	XXX	XXX	XXX	69.7	Clear No odor
1R	XXX	XXX	XXX	Running	6/6/2022	132	553	XXX	XXX	XXX	XXX	55.6	Clear No odor
1R	XXX	XXX	XXX	Running	9/6/2022	284	890	XXX	XXX	XXX	XXX	68.5	Clear No odor
1R	XXX	XXX	XXX	100	11/30/2022	330	1,100	XXX	XXX	XXX	XXX	52.9	Clear No odor
1R	XXX	XXX	XXX	100	3/16/2023	450	993	XXX	XXX	XXX	XXX	55.2	Clear No odor
1R	XXX	XXX	XXX	Running	6/2/2023	240	833	XXX	XXX	XXX	XXX	62	Clear No odor
1R	XXX	XXX	XXX	Running	8/16/2023	124	559	XXX	XXX	XXX	XXX	56.9	Clear No odor
1R	XXX	XXX	XXX	Running	10/12/2023	252	858	XXX	XXX	XXX	XXX	68.6	Clear No odor
1R	XXX	XXX	XXX	100	3/8/2024	332	910	XXX	XXX	XXX	XXX	64.7	Clear No odor
1R	XXX	XXX	XXX	Running	5/31/2024	172	676	XXX	XXX	XXX	XXX	75.5	Clear No odor
1R	XXX	XXX	XXX	Running	8/12/2024	144	587	XXX	XXX	XXX	XXX	51.8	Clear No odor
1R	XXX	XXX	XXX	Running	10/28/2024	140	664	XXX	XXX	XXX	XXX	45.2	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	56.93	62.78	0.9	10	8/31/2011	32	374	<0.001	<0.001	<0.001	<0.003	33.5	Clear No odor
2	57.02	62.78	0.9	10	12/2/2011	36	405	<0.001	<0.001	<0.001	<0.003	40.8	Clear No odor
2	57.09	62.78	0.9	10	2/22/2012	92	408	<0.001	<0.001	<0.001	<0.003	41.6	Clear No odor
2	57.2	62.78	0.9	10	5/29/2012	28	411	<0.001	<0.001	<0.001	<0.003	41.4	Clear No odor
2	57.44	62.78	0.9	10	8/24/2012	28	490	<0.001	<0.001	<0.001	<0.003	27.7	Clear No odor
2	54.48	62.78	1.3	10	11/15/2012	32	518	<0.001	<0.001	<0.001	<0.003	20.3	Clear No odor
2	57.49	62.78	0.8	10	2/12/2013	28	573	<0.001	<0.001	<0.001	<0.003	28.7	Clear No odor
2	57.62	62.78	0.8	10	5/30/2013	32	611	<0.001	<0.001	<0.001	<0.003	28.7	Clear No odor
2	57.75	62.78	0.8	10	9/6/2013	32	646	<0.001	<0.001	<0.001	<0.003	31	Clear No odor
2	57.81	62.78	0.8	10	11/19/2013	28	587	<0.001	<0.001	<0.001	<0.003	32.2	Clear No odor
2	57.88	62.78	0.8	10	3/5/2014	32	308	<0.001	<0.001	<0.001	<0.003	61.2	Clear No odor
2	58.03	62.78	0.8	10	5/29/2014	72	454	<0.001	<0.001	<0.001	<0.003	51.9	Clear No odor
2	58.02	62.78	0.8	10	8/19/2014	32	558	<0.001	<0.001	<0.001	<0.003	32.9	Clear No odor
2	57.16	62.78	0.9	10	11/20/2014	32	526	<0.001	<0.001	<0.001	<0.003	31.3	Clear No odor
2	57.13	62.78	0.9	10	3/2/2015	32	546	<0.001	<0.001	<0.001	<0.003	28.2	Clear No odor
2	54.44	62.78	1.3	10	6/2/2015	32	586	<0.001	<0.001	<0.001	<0.003	40.7	Clear No odor
2	57.64	62.78	0.8	10	8/20/2015	36	546	<0.001	<0.001	<0.001	<0.003	35.4	Clear No odor
2	57.82	62.78	0.79	8	11/10/2015	36	510	<0.001	<0.001	<0.001	<0.003	38.6	Clear No odor
2	57.97	62.78	0.8	8	2/25/2016	52	496	<0.001	<0.001	<0.001	<0.003	49	Clear No odor
2	58.05	62.78	0.8	6	5/18/2016	28	564	<0.001	<0.001	<0.001	<0.003	48	Clear No odor
2	58.17	62.78	0.7	6	9/12/2016	40	432	<0.001	<0.001	<0.001	<0.003	44	Clear No odor
2	58.15	62.78	0.7	8	11/11/2016	32	444	<0.001	<0.001	<0.001	<0.003	41	Clear No odor
2	58.32	62.78	0.7	10	2/21/2017	40	490	<0.001	<0.001	<0.001	<0.003	44	Clear No odor
2	57.64	62.78	0.7	10	5/23/2017	96	512	<0.001	<0.001	<0.001	<0.003	56	Clear No odor



2	58.49	62.78	0.7	10	9/8/2017	36	628	<0.001	<0.001	<0.001	<0.003	51	Clear No odor
2	58.52	62.78	0.7	10	11/29/2017	32	638	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
2	58.57	62.78	0.7	6	2/27/2018	40	622	<0.001	<0.001	<0.001	<0.003	46.9	Clear No odor
2	58.63	62.78	0.7	6	5/16/2018	32	606	<0.001	<0.001	<0.001	<0.003	50.3	Clear No odor
2	58.74	62.78	0.6	6	9/6/2018	32	532	<0.001	<0.001	<0.001	<0.003	50.1	Clear No odor
2	58.82	62.78	0.6	6	11/14/2018	36	664	<0.001	<0.001	<0.001	<0.003	52.2	Clear No odor
2	58.93	62.78	0.6	6	3/5/2019	32	512	<0.001	<0.001	<0.001	<0.003	48	Clear No odor
2	59.03	62.78	0.6	6	5/28/2019	28	673	<0.001	<0.001	<0.001	<0.003	48	Clear No odor
2	59.16	62.78	0.6	6	8/29/2019	144	622	<0.001	<0.001	<0.001	<0.003	53	Clear No odor
2	59.24	62.78	0.6	6	11/15/2019	28	606	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
2	59.34	62.78	0.6	6	3/5/2020	32	669	<0.001	<0.001	<0.001	<0.003	48.7	Clear No odor
2	59.45	62.78	0.5	6	6/15/2020	72	793	XXX	XXX	XXX	XXX	53.8	Clear No odor
2	59.56	62.78	0.5	6	9/10/2020	24	686	XXX	XXX	XXX	XXX	43.4	Clear No odor
2	59.64	62.78	0.5	6	11/5/2020	32	560	XXX	XXX	XXX	XXX	68.1	Clear No odor
2	59.72	62.78	0.5	6	3/10/2021	28	668	XXX	XXX	XXX	XXX	49.1	Clear No odor
2	59.93	62.78	0.5	6	6/10/2021	32	700	XXX	XXX	XXX	XXX	52.4	Clear No odor
2	60.02	62.78	0.4	6	9/10/2021	128	580	XXX	XXX	XXX	XXX	52.3	Clear No odor
2	59.98	62.78	0.5	6	11/9/2021	40	658	XXX	XXX	XXX	XXX	55.4	Clear No odor
2	60.27	62.78	0.4	4	3/1/2022	104	458	XXX	XXX	XXX	XXX	64.2	Clear No odor
2	60.42	62.78	0.4	4	6/6/2022	36	564	XXX	XXX	XXX	XXX	54.7	Clear No odor
2	60.49	62.78	0.4	4	9/6/2022	160	644	XXX	XXX	XXX	XXX	61.3	Clear No odor
2	59.88	62.78	0.4	4	11/30/2022	108	481	XXX	XXX	XXX	XXX	52.3	Clear No odor
2	60.74	62.78	0.3	3	3/16/2023	108	568	XXX	XXX	XXX	XXX	61.9	Clear No odor
2	60.87	62.78	0.3	1.5	6/2/2023	148	597	XXX	XXX	XXX	XXX	57.1	Clear No odor
2	60.98	62.78	0.3	3	8/16/2023	136	581	XXX	XXX	XXX	XXX	63	Clear No odor
2	61.02	62.78	0.3	1.5	10/12/2023	96	466	XXX	XXX	XXX	XXX	73.8	Clear No odor
2	61.09	62.78	0.3	3	3/8/2024	112	456	XXX	XXX	XXX	XXX	62.6	Clear No odor
2	61.16	62.78	0.3	3	5/31/2024	104	451	XXX	XXX	XXX	XXX	69.2	Clear No odor
2	61.25	62.78	0.2	3	8/12/2024	132	554	XXX	XXX	XXX	XXX	58.9	Clear No odor
2	61.31	62.78	0.2	3	10/28/2024	108	529	XXX	XXX	XXX	XXX	50	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	52.24	68.92	2.7	10	8/31/2011	416	1,250	<0.001	<0.001	<0.001	<0.003	47.3	Clear No odor
3	56.34	68.92	2	10	12/2/2011	450	1,330	<0.001	<0.001	<0.001	<0.003	56.8	Clear No odor
3	56.4	68.92	2	10	2/22/2012	332	1,330	<0.001	<0.001	<0.001	<0.003	54.9	Clear No odor
3	56.57	68.92	2	10	5/29/2012	380	1,220	<0.001	<0.001	<0.001	<0.003	57.4	Clear No odor
3	56.74	68.92	1.9	10	8/24/2012	400	1,220	<0.001	<0.001	<0.001	<0.003	48.9	Clear No odor
3	56.77	68.92	1.9	10	11/15/2012	376	1,240	<0.001	<0.001	<0.001	<0.003	48.7	Clear No odor
3	56.78	68.92	1.9	10	2/12/2013	352	1,260	<0.001	<0.001	<0.001	<0.003	52.6	Clear No odor
3	56.91	68.92	1.9	10	5/30/2013	320	1,220	<0.001	<0.001	<0.001	<0.003	49	Clear No odor
3	56.91	68.92	1.9	10	9/6/2013	292	1,170	<0.001	<0.001	<0.001	<0.003	46.2	Clear No odor
3	57.1	69.92	1.9	10	11/19/2013	272	1,150	<0.001	<0.001	<0.001	<0.003	45.1	Clear No odor
3	57.17	68.92	1.9	10	3/5/2014	256	984	<0.001	<0.001	<0.001	<0.003	47	Clear No odor
3	57.33	68.92	1.9	10	5/29/2014	248	826	<0.001	<0.001	<0.001	<0.003	86.2	Clear No odor
3	57.34	68.92	1.9	10	8/19/2014	236	1,090	<0.001	<0.001	<0.001	<0.003	38.7	Clear No odor
3	56.49	68.92	2	10	11/20/2014	252	1,030	<0.001	<0.001	<0.001	<0.003	32.4	Clear No odor
3	56.43	68.92	2	10	3/2/2015	252	1,030	<0.001	<0.001	<0.001	<0.003	42	Clear No odor
3	56.78	68.92	1.9	10	6/2/2015	268	1,060	<0.001	<0.001	<0.001	<0.003	45.3	Clear No odor
3	57.01	68.92	1.9	10	8/20/2015	164	1,100	<0.001	<0.001	<0.001	<0.003	47.5	Clear No odor
3	57.23	68.92	1.87	10	11/10/2015	316	1,090	<0.001	<0.001	<0.001	<0.003	50.5	Clear No odor
3	57.25	68.92	1.9	10	2/25/2016	320	1,160	<0.001	<0.001	<0.001	<0.003	49	Clear No odor
3	57.38	68.92	1.8	8	5/18/2016	324	1,180	<0.001	<0.001	<0.001	<0.003	62.2	Clear No odor
3	57.51	68.92	1.8	10	9/12/2016	296	1,150	<0.001	<0.001	<0.001	<0.003	53	Clear No odor
3	57.48	68.92	1.8	10	11/11/2016	292	1,050	<0.001	<0.001	<0.001	<0.003	44	Clear No odor
3	57.61	68.92	1.8	10	2/21/2017	200	1,380	<0.001	<0.001	<0.001	<0.003	43	Clear No odor
3	57.64	68.92	1.8	10	5/23/2017	220	980	<0.001	<0.001	<0.001	<0.003	59	Clear No odor
3	57.85	68.92	1.8	10	9/8/2017	204	942	<0.001	<0.001	<0.001	<0.003	59	Clear No odor
3	57.88	68.92	1.8	10	11/29/2017	248	930	<0.001	<0.001	<0.001	<0.003	55	Clear No odor
3	57.86	68.92	1.8	10	2/27/2018	208	766	<0.001	<0.001	<0.001	<0.003	51.3	Clear No odor
3	57.93	68.92	1.8	10	5/16/2018	248	962	<0.001	<0.001	<0.001	<0.003	57.7	Clear No odor
3	58.12	68.92	1.7	10	9/6/2018	224	916	<0.001	<0.001	<0.001	<0.003	53.4	Clear No odor



3	58.14	68.92	1.7	10	11/14/2018	236	856	<0.001	<0.001	<0.001	<0.003	57.4	Clear No odor
3	58.24	68.92	1.7	10	3/5/2019	268	968	<0.001	<0.001	<0.001	<0.003	57	Clear No odor
3	58.4	68.92	1.7	10	5/28/2019	260	1,010	<0.001	<0.001	<0.001	<0.003	60	Clear No odor
3	58.22	68.92	1.7	10	8/29/2019	256	938	<0.001	<0.001	<0.001	<0.003	54	Clear No odor
3	58.56	68.92	1.7	10	11/15/2019	286	1,020	<0.001	<0.001	<0.001	<0.003	56	Clear No odor
3	58.68	68.92	1.6	10	3/5/2020	248	1,000	<0.001	<0.001	<0.001	<0.003	64.4	Clear No odor
3	58.78	68.92	1.6	10	6/15/2020	216	1,010	XXX	XXX	XXX	XXX	78.4	Clear No odor
3	58.87	68.92	1.6	10	9/10/2020	288	1,040	XXX	XXX	XXX	XXX	57.4	Clear No odor
3	58.93	68.92	1.6	10	11/5/2020	276	995	XXX	XXX	XXX	XXX	61.6	Clear No odor
3	59.07	68.92	1.6	10	3/10/2021	276	968	XXX	XXX	XXX	XXX	58	Clear No odor
3	59.29	68.92	1.5	10	6/10/2021	280	1,070	XXX	XXX	XXX	XXX	64.2	Clear No odor
3	59.41	68.92	1.5	10	9/10/2021	324	1,220	XXX	XXX	XXX	XXX	84.1	Clear No odor
3	59.36	68.92	1.5	10	11/9/2021	304	1,120	XXX	XXX	XXX	XXX	69	Clear No odor
3	59.59	68.92	1.5	10	3/1/2022	300	1,010	XXX	XXX	XXX	XXX	69.5	Clear No odor
3	59.79	68.92	1.5	10	6/6/2022	328	1,090	XXX	XXX	XXX	XXX	78.9	Clear No odor
3	59.85	68.92	1.5	10	9/6/2022	316	1,110	XXX	XXX	XXX	XXX	76.2	Clear No odor
3	59.88	68.92	1.4	10	11/30/2022	308	1,070	XXX	XXX	XXX	XXX	49.8	Clear No odor
3	60.07	68.92	1.4	6	3/16/2023	340	1,060	XXX	XXX	XXX	XXX	61.2	Clear No odor
3	60.22	68.92	1.4	6	6/2/2023	352	1,150	XXX	XXX	XXX	XXX	64	Clear No odor
3	60.34	68.92	1.4	6	8/16/2023	360	1,160	XXX	XXX	XXX	XXX	61.2	Clear No odor
3	60.38	68.92	1.4	6	10/12/2023	352	1,140	XXX	XXX	XXX	XXX	68.4	Clear No odor
3	60.41	68.92	1.4	6	3/8/2024	376	1,220	XXX	XXX	XXX	XXX	69.4	Clear No odor
3	60.51	68.92	1.3	6	5/31/2024	400	1,140	XXX	XXX	XXX	XXX	72.2	Clear No odor
3	60.62	68.92	1.3	6	8/12/2024	336	1,150	XXX	XXX	XXX	XXX	65.8	Clear No odor
3	60.68	68.92	1.3	6	10/28/2024	324	1,090	XXX	XXX	XXX	XXX	68.5	Clear No odor



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

March 20, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM L-26 VENT

Enclosed are the results of analyses for samples received by the laboratory on 03/13/24 11:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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:	03/13/2024	Sampling Date:	03/08/2024
Reported:	03/20/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #1R (H241285-01)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	332	4.00	03/13/2024	ND	108	108	100	3.77		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	64.7	10.0	03/14/2024	ND	18.0	90.0	20.0	0.829		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	910	5.00	03/18/2024	ND	804	80.4	1000	8.08		

**Sample ID: MONITOR WELL #2 (H241285-02)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	112	4.00	03/13/2024	ND	108	108	100	3.77		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	62.6	10.0	03/14/2024	ND	18.0	90.0	20.0	0.829		
TDS 160.1		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	456	5.00	03/15/2024	5.00	842	84.2	1000	1.64		

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\*=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:	03/13/2024	Sampling Date:	03/08/2024
Reported:	03/20/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H241285-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	376	4.00	03/13/2024	ND	108	108	100	3.77		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	69.4	10.0	03/14/2024	ND	18.0	90.0	20.0	0.829		
TDS 160.1		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1220	5.00	03/15/2024	5.00	842	84.2	1000	1.64		

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*Celey D. Keene*

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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



# Cardinal Laboratories, Inc.

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #

Company Name: <b>RICE Operating Company</b>		BILL TO Company: <b>RICE Operating Company</b>		PO#
Project Manager: <b>Katie Jones</b>		Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>		
Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>		Phone#: <b>(575) 393-9174</b>		Fax#: <b>(575)397-1471</b>
Phone #: <b>(575) 393-9174</b>		Fax #: <b>(575) 397-1471</b>		
Project #:		Project Name: <b>Vacuum L-26 Vent</b>		
Project Location: <b>T17S-R35E-Sec26 L ~ Lea County New Mexico</b>		Sampler Signature: <b>Rozanne Johnson (575)631-9310</b>		

### ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

Released to Imaging: 7/7/2025 4:29:10 PM



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

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June 10, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM L-26 VENT

Enclosed are the results of analyses for samples received by the laboratory on 06/03/24 9:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/10/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #1R (H243104-01)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	172	4.00	06/05/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	75.5	10.0	06/05/2024	ND	18.5	92.4	20.0	1.09		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	676	5.00	06/07/2024	ND	805	80.5	1000	0.317		

**Sample ID: MONITOR WELL #2 (H243104-02)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	104	4.00	06/05/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	69.2	10.0	06/05/2024	ND	18.5	92.4	20.0	1.09		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	451	5.00	06/07/2024	ND	805	80.5	1000	0.317		

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\*=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:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/10/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #3 (H243104-03)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	400	4.00	06/05/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	72.2	10.0	06/05/2024	ND	18.5	92.4	20.0	1.09		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1140	5.00	06/07/2024	ND	805	80.5	1000	0.317		

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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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**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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\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", written over a horizontal line.

---

Celey D. Keene, Lab Director/Quality Manager

# Cardinal Laboratories, Inc.

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #

## ANALYSIS REQUEST

(Circle or Specify Method No.)

Company Name: <b>RICE Operating Company</b>		BILL TO Company: <b>RICE Operating Company</b>		PO#	
Project Manager: <b>Katie Jones</b>		Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>			
Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>		Phone#: <b>(575) 393-9174</b>		Fax#: <b>(575) 397-1471</b>	
Phone #: <b>(575) 393-9174</b>		Fax #: <b>(575) 397-1471</b>			

Project #:	Project Name:
	Vacuum L-26 Vent
Project Location:	Sampler Signature: Rozanne Johnson (575)631-9310
T17S-R35E-Sec26 L ~ Lea County New Mexico	

[illegible][illegible]

Relinquished by: <i>[Signature]</i>	Date: <i>6/3/24</i>	Time: <i>7:30</i>	Received by: <i>[Signature]</i>	Date: <i>6/3/24</i>	Time: <i>7:31</i>
Relinquished by: <i>[Signature]</i>	Date: <i>6/3/24</i>	Time: <i>7:30</i>	Received By: (Laboratory Staff) <i>[Signature]</i>	Date: <i>6-03-24</i>	Time: <i>9:05</i>
Delivered By: (Circle One)			Sample Condition	CHECKED BY:	
			Cool	Intact	
			Yes <i>[X]</i>	Yes <i>[X]</i>	(Initials) <i>[Signature]</i>
			No	No	
Sampler - UPS - Bus - Other: <i>[Circle]</i>					

Phone Results	Yes	No
Fax Results	Yes	No

Additional Fax Number:

REMARKS:

Email Results: [kjones@riceswd.com](mailto:kjones@riceswd.com)  
[rozanne@sdacres.com](mailto:rozanne@sdacres.com)





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

August 27, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM L-26 VENT

Enclosed are the results of analyses for samples received by the laboratory on 08/15/24 14:24.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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:	08/15/2024	Sampling Date:	08/12/2024
Reported:	08/27/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #1R (H244964-01)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	144	4.00	08/19/2024	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*	51.8	10.0	08/27/2024	ND	21.6	108	20.0	0.922		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	587	5.00	08/20/2024	9.00	525	105	500	1.20		

**Sample ID: MONITOR WELL #2 (H244964-02)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	132	4.00	08/19/2024	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*	58.9	10.0	08/27/2024	ND	21.6	108	20.0	0.922		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	554	5.00	08/20/2024	9.00	525	105	500	1.20		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/15/2024	Sampling Date:	08/12/2024
Reported:	08/27/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #3 (H244964-03)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	336	4.00	08/19/2024	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*	65.8	10.0	08/27/2024	ND	21.6	108	20.0	0.922		
TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1150	5.00	08/16/2024	9.00	525	105	500	1.20		

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Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



# Cardinal Laboratories, Inc.

## LAB Order ID # \_\_\_\_\_

Company Name: <b>RICE Operating Company</b>		BILL TO Company: <b>RICE Operating Company</b>		PO#
Project Manager: <b>Katie Jones</b>		Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>		
Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b>		Phone#: <b>(575) 393-9174</b>		Fax#: <b>(575)397-1471</b>
Phone #: <b>(575) 393-9174</b>		Fax #: <b>(575) 397-1471</b>		
Project #:		Project Name: <b>Vacuum L-26 Vent</b>		
Project Location: <b>T17S-R35E-Sec26 L ~ Lea County New Mexico</b>		Sampler Signature: <b>Rozanne Johnson (575)631-9310</b>		

(Circle or Specify Method No.)

[illegible]

Relinquished by: <u>Rozanne Johnson</u>	Date: <u>8/15/2024</u>	Time: <u>13:00</u>	Received by: <u>[Signature]</u>	Date: <u>8/15/2024</u>	Time: <u>13:00</u>
Relinquished by: <u>[Signature]</u>	Date: <u>8/15/2024</u>	Time: <u>14:24</u>	Received By: (Laboratory Staff)	Date: <u>8/15/2024</u>	Time: <u>14:24</u>
Delivered By: (Circle One)	Sample Condition Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		CHECKED BY: <u>[Signature]</u> (Initials)		
Sampler - UPS - Bus - Other: <u>Other</u>					

Phone Results	Yes	No
Fax Results	Yes	No

Additional Fax Number:

REMARKS:

Email Results: [kjones@riceswd.com](mailto:kjones@riceswd.com)  
[rozanne@sdacres.com](mailto:rozanne@sdacres.com)



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

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November 13, 2024

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM L-26 VENT

Enclosed are the results of analyses for samples received by the laboratory on 10/31/24 14:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/31/2024	Sampling Date:	10/28/2024
Reported:	11/13/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #1R (H246654-01)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	140	4.00	11/01/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	45.2	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	664	5.00	11/08/2024	8.00	834	83.4	1000	0.184		

**Sample ID: MONITOR WELL #2 (H246654-02)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	108	4.00	11/01/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	50.0	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	529	5.00	11/08/2024	8.00	834	83.4	1000	0.184		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/31/2024	Sampling Date:	10/28/2024
Reported:	11/13/2024	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Alyssa Parras
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

**Sample ID: MONITOR WELL #3 (H246654-03)**

Chloride, SM4500Cl-B (Water)		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	324	4.00	11/01/2024	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	68.5	10.0	11/07/2024	ND	16.0	80.2	20.0	3.91		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1090	5.00	11/08/2024	8.00	834	83.4	1000	0.184		

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

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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

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager

# Cardinal Laboratories, Inc.

## LAB Order ID #

**ANALYSIS REQUEST**  
(Circle or Specify Method No.)

Sampler Signature: Rozanne Johnson (575) 631-9310

LAB #  
LAB USE ONLY

Turn Around Time ~ 24 Hours

Phone Results	Yes	No
Fax Results	Yes	No Additional Fax Number:

Email Results: [kjones@riceswd.com](mailto:kjones@riceswd.com)  
[rozanne@sdacres.com](mailto:rozanne@sdacres.com)

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 447159

CONDITIONS

Operator: RICE OPERATING COMPANY PO Box 5630 Hobbs, NM 88241	OGRID: 19174
	Action Number: 447159
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Report accepted for record.	7/7/2025
amaxwell	Continue quarterly groundwater sampling and recovery through 2025	7/7/2025
amaxwell	Submit a C-141N for all future sampling and monitoring events.	7/7/2025