

RICE *Operating Company*

112 West Taylor • Hobbs, New Mexico 88240

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

NV

April 1, 2022

Bradford Billings

New Mexico Oil Conservation Division

1220 So. St. Francis Drive

Santa Fe, New Mexico 87505

**RE: 2021 Annual Groundwater Report
Rice Operating Company – Justis SWD System
Justis P-2 vent (1R423-18): UL P, Section, 2, T25S, R37E**

Mr. Billings:

ROC is the service provider (agent) for the Justis Saltwater Disposal System and has no ownership of any portion of the pipelines, wells, or facilities. The Justis 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 4 miles northeast of Jal, New Mexico at UL/P, Sec. 2, T25S, R37E as shown on the Geographical Location Map. Groundwater sampling at the site indicated the depth to groundwater is approximately 76 feet below ground surface (bgs).

In 2005, ROC initiated work on the former P-2 vent junction box. The site was delineated using a backhoe to form a 30 ft x 30 ft x 6 ft deep excavation and soil samples were screened at regular intervals for both hydrocarbon and chloride. From the excavation, a 4-wall composite sample and a bottom composite sample were sent to a commercial laboratory for analysis, resulting in elevated chloride concentrations. At 6 – 5 ft bgs, a one ft thick clay barrier was installed. The clay layer will provide a barrier that will inhibit the downward migration of chloride to groundwater. Clean, imported soil was blended with the remaining soil and the excavation was backfilled to the ground surface. On October 20th, 2006, the site was seeded with a blend of native vegetation.

To further investigate the depth of chloride presence, a soil bore was installed on November 5th, 2009. Soil samples were collected at regular intervals and representative samples were sent to a commercial laboratory for analysis. The entire borehole was plugged with bentonite to ground surface. NMOCD was notified of potential groundwater impact on November 20th, 2009. A junction box disclosure report was submitted to NMOCD with all the 2010 junction box closures and disclosures.

An Investigation and Characterization Plan (ICP) was submitted to NMOCD on March 8th, 2010 and approved on August 18th, 2010. According to the ICP, a total of seven soil bores were installed at the site on March 15th, 16th, and 17th, 2010. An additional five soil bores were drilled on January 30th and 31st, 2012, and an additional four bores were drilled on April 24th and 27th, 2012. Soil

samples were collected at regular intervals and representative samples were sent to a commercial laboratory for analysis. Each borehole was plugged with bentonite to the ground surface.

On March 16th, 2010, a near-source monitoring well, MW-1, was installed approximately 90 ft southeast of the former junction box. Soil samples were collected at regular intervals and representative samples were sent to a commercial laboratory for analysis. An up-gradient monitoring well, MW-2, was installed on January 30th, 2012, and soil samples were collected at regular intervals.

An ICP Report and Corrective Action Plan (CAP) was submitted to NMOCD on June 21st, 2018 and is currently pending NMOCD response. The ICP Report and CAP proposed ROC install a 20-mil, reinforced liner at a depth of 4-5 ft bgs. The report also proposed a chloride mass calculation for groundwater recovery.

The wells have been sampled regularly per NMOCD guidelines since installation. The most recent sampling event resulted in a chloride concentration of 3,070 mg/L in MW-1 and 530 mg/L in MW-2. BTEX concentrations have remained below detectable limit in each well since installation. The samples collected from the up-gradient well (MW-2) suggests a non-ROC, up-gradient source has contributed to the degradation of groundwater quality. On February 2nd, 2022, NMOCD granted approval to cease BTEX and sulfate analyses. NMOCD also requested an abatement plan be submitted to address the source. ROC will review the previously submitted ICP Report and CAP and resubmit to NMOCD via the portal and will 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 the well at the site, and a graph showing recent laboratory results.
4. The laboratory analytical results for 2021.

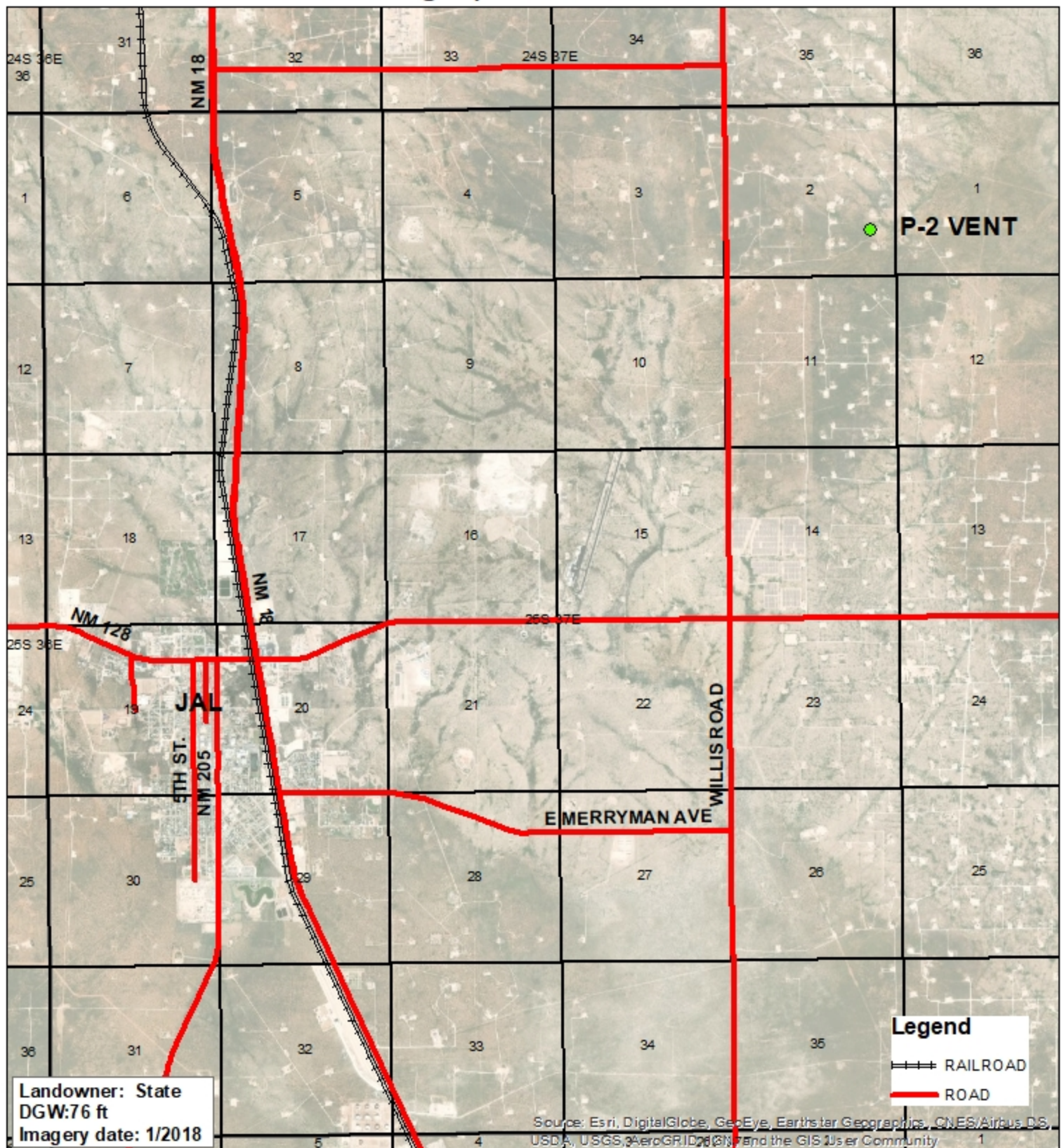
Thank you for your consideration concerning this summary of groundwater monitoring information. If you have any questions, please do not hesitate to contact me at (575) 393-9174 or Edward Hansen at (505) 920-4965.

Sincerely,



Katie Davis
Environmental Manager
RICE Operating Company (ROC)

Cc – Edward J. Hansen (ROC)
appendix



JUSTIS
P-2 VENT
1R423-18

UL I SECTION 2
T-25-S R-37-E
LEA COUNTY, NM

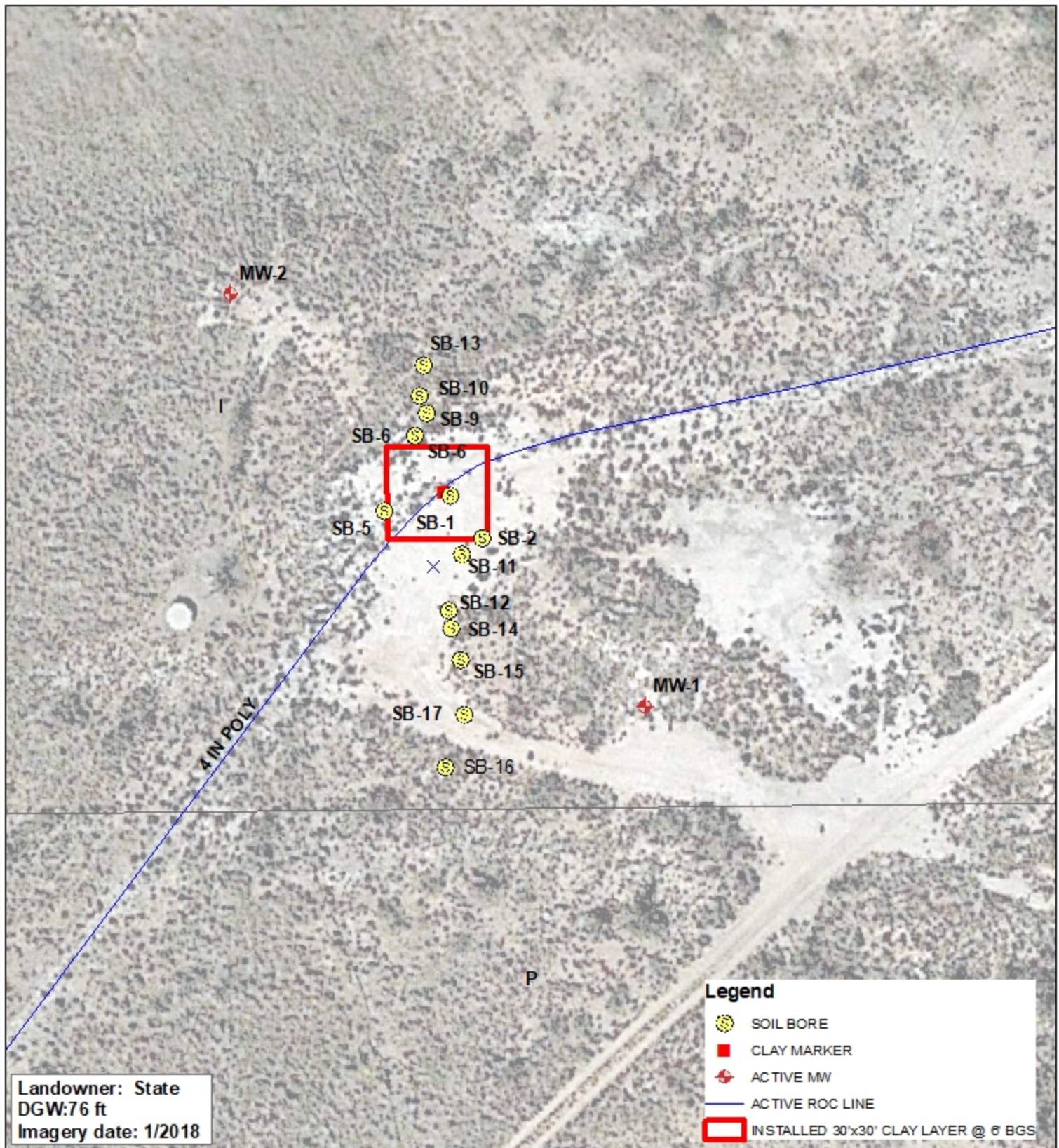
GPS: -103.127671 32.155972
NAD 83 STATE PLANE PROJECTION
NM EAST ZONE

0 2,500 5,000

Feet

Drawing date: 3/4/21
Drafted by: T. Grieco





JUSTIS
P-2 VENT
1R423-18

UL I SECTION 2
T-25-S R-37-E
LEA COUNTY, NM

GPS: -103.127671 32.155972
NAD 83 STATE PLANE PROJECTION
NM EAST ZONE

0 25 50
Feet

Drawing date: 3/8/21
Drafted by: T. Grieco



ROC - Justis P-2 vent (1R423-18)**Unit Letter P, Section 2, T25S, R37E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	77.45	88.65	1.8	10	4/11/2010	760	1,740	<0.001	<0.001	<0.001	<0.003	90.7	Clear No odor
1	77.47	88.65	1.8	10	6/3/2010	920	2,940	<0.001	<0.001	<0.001	<0.003	82	Clear No odor
1	77.31	88.65	1.8	10	8/24/2010	1,010	2,110	<0.001	<0.001	<0.001	<0.003	93.1	Clear No odor
1	77.22	88.65	1.8	10	12/1/2010	860	1,650	<0.001	<0.001	<0.001	<0.003	113	Clear No odor
1	76.99	88.65	1.9	10	3/10/2011	900	2,140	<0.001	<0.001	<0.001	<0.003	81.5	Clear No odor
1	76.66	88.65	1.9	10	6/15/2011	960	2,230	<0.001	<0.001	<0.001	<0.003	99.7	Clear No odor
1	76.54	88.65	1.9	10	9/14/2011	1,000	2,320	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
1	76.37	88.65	2	10	12/8/2011	1,120	2,270	<0.001	<0.001	<0.001	<0.003	92.9	Clear No odor
1	76.14	88.65	2	10	3/8/2012	1,040	2,490	<0.001	<0.001	<0.001	<0.003	94.9	Clear No odor
1	75.98	88.65	2	10	6/5/2012	1,240	2,520	<0.001	<0.001	<0.001	<0.003	94.3	Clear No odor
1	75.87	88.65	2	10	9/19/2012	1,240	2,710	<0.001	<0.001	<0.001	<0.003	99.7	Clear No odor
1	75.81	88.65	2.1	10	11/27/2012	1,280	2,510	<0.001	<0.001	<0.001	<0.003	94.6	Clear No odor
1	75.77	88.65	2.1	10	2/27/2013	1,560	2,460	<0.001	<0.001	<0.001	<0.003	107	Clear No odor
1	75.38	88.65	2.1	10	6/14/2013	1,180	2,390	<0.001	<0.001	<0.001	<0.003	99	Clear No odor
1	75.26	88.65	2.1	10	9/12/2013	1,260	2,820	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
1	75.14	88.65	2.2	10	11/21/2013	1,220	2,990	<0.001	<0.001	<0.001	<0.003	104	Clear No odor
1	75.07	88.65	2.2	10	3/18/2014	1,300	2,530	<0.001	<0.001	<0.001	<0.003	90.7	Clear No odor
1	74.86	88.65	2.2	10	6/20/2014	1,040	2,740	<0.001	<0.001	<0.001	<0.003	91.1	Clear No odor
1	74.73	88.65	2.2	10	8/29/2014	1,180	3,040	<0.001	<0.001	<0.001	<0.003	90	Clear No odor
1	74.68	88.65	2.2	10	12/16/2014	1,220	2,560	<0.001	<0.001	<0.001	<0.001	53.4	Clear No odor
1	74.44	88.65	2.3	10	3/11/2015	1,100	2,790	<0.001	<0.001	<0.001	<0.003	65.8	Clear No odor
1	74.23	88.65	2.3	10	6/10/2015	1,140	2,800	<0.001	<0.001	<0.001	<0.003	82.3	Clear No odor
1	74.13	88.65	2.3	10	8/27/2015	1,240	3,300	<0.001	<0.001	<0.001	<0.003	64	Clear No odor
1	73.98	88.65	2.3	10	11/25/2015	1,320	3,220	<0.001	<0.001	<0.001	<0.003	88.4	Clear No odor
1	73.75	88.65	2.3	10	3/23/2016	1,930	3,910	<0.001	<0.001	<0.001	<0.003	79	Clear No odor
1	73.7	88.65	2.4	10	6/7/2016	1,670	3,830	<0.001	<0.001	<0.001	<0.003	101	Clear No odor
1	73.62	88.65	2.4	10	9/19/2016	1,680	4,040	<0.001	<0.001	<0.001	<0.003	97	Clear No odor
1	73.58	88.65	2.4	10	12/2/2016	1,600	3,200	<0.001	<0.001	<0.001	<0.003	135	Clear No odor
1	73.43	88.65	2.4	10	3/10/2017	2,030	3,920	<0.001	<0.001	<0.001	<0.003	92.6	Clear No odor

ROC - Justis P-2 vent (1R423-18)**Unit Letter P, Section 2, T25S, R37E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	73.49	88.65	2.4	10	6/20/2017	1,700	4,130	<0.001	<0.001	<0.001	<0.003	82.7	Clear No odor
1	73.2	88.65	2.5	15	9/22/2017	2,030	4,000	<0.001	<0.001	<0.001	<0.003	129	Clear No odor
1	73.08	88.65	2.5	15	12/13/2017	1,940	4,180	<0.001	<0.001	<0.001	<0.003	102	Clear No odor
1	72.92	88.65	2.5	15	3/15/2018	2,330	3,450	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
1	72.78	88.65	2.5	15	6/13/2018	2,020	4,280	<0.001	<0.001	<0.001	<0.003	91	Clear No odor
1	72.69	88.65	2.6	15	9/13/2018	2,230	4,290	<0.001	<0.001	<0.001	<0.003	95	Clear No odor
1	72.58	88.65	2.6	15	12/4/2018	2,570	3,310	<0.001	<0.001	<0.001	<0.003	116	Clear No odor
1	72.44	88.65	2.6	15	3/21/2019	2,370	4,010	<0.001	<0.001	<0.001	<0.003	102	Clear No odor
1	72.4	88.65	2.6	15	6/18/2019	2,350	3,960	<0.001	<0.001	<0.001	<0.003	107	Clear No odor
1	72.42	88.65	2.6	15	9/19/2019	2,570	4,730	<0.001	<0.001	<0.001	<0.003	101	Clear No odor
1	71.96	88.65	2.7	15	12/4/2019	2,540	4,260	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
1	71.92	88.65	2.7	10	3/13/2020	2,770	4,500	<0.001	<0.001	<0.001	<0.003	114	Clear No odor
1	71.59	88.65	2.7	10	9/24/2020	3,100	4,860	XXX	XXX	XXX	XXX	91.8	Clear No odor
1	71.49	88.65	2.7	15	3/24/2021	3,250	5,930	<0.001	<0.001	<0.001	<0.003	122	Clear No odor
1	71.39	88.65	2.8	15	6/22/2021	3,100	5,330	<0.001	<0.001	<0.001	<0.003	150	Clear No odor
1	71.43	88.65	2.8	15	9/22/2021	3,330	7,660	<0.001	<0.001	<0.001	<0.003	92	Clear No odor
1	71.4	88.65	2.8	15	11/30/2021	3,070	5,310	<0.001	<0.001	<0.001	<0.003	123	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	71.84	93.7	3.5	15	3/8/2012	272	887	<0.001	<0.001	<0.001	<0.003	108	Clear No odor
2	79.74	93.7	2.2	15	6/5/2012	284	876	<0.001	<0.001	<0.001	<0.003	97	Clear No odor
2	79.6	93.7	2.3	15	9/19/2012	452	1,250	<0.001	<0.001	<0.001	<0.003	119	Clear No odor
2	79.61	93.7	2.3	15	11/27/2012	500	1,300	<0.001	<0.001	<0.001	<0.003	108	Clear No odor
2	79.47	93.7	2.3	15	2/27/2013	308	878	<0.001	<0.001	<0.001	<0.003	122	Clear No odor
2	79.14	93.7	2.3	15	6/14/2013	360	1,180	<0.001	<0.001	<0.001	<0.003	127	Clear No odor
2	79.03	93.7	2.3	15	9/12/2013	364	1,160	<0.001	<0.001	<0.001	<0.003	98	Clear No odor
2	78.9	93.7	2.4	15	11/21/2013	450	1,270	<0.001	<0.001	<0.001	<0.003	135	Clear No odor

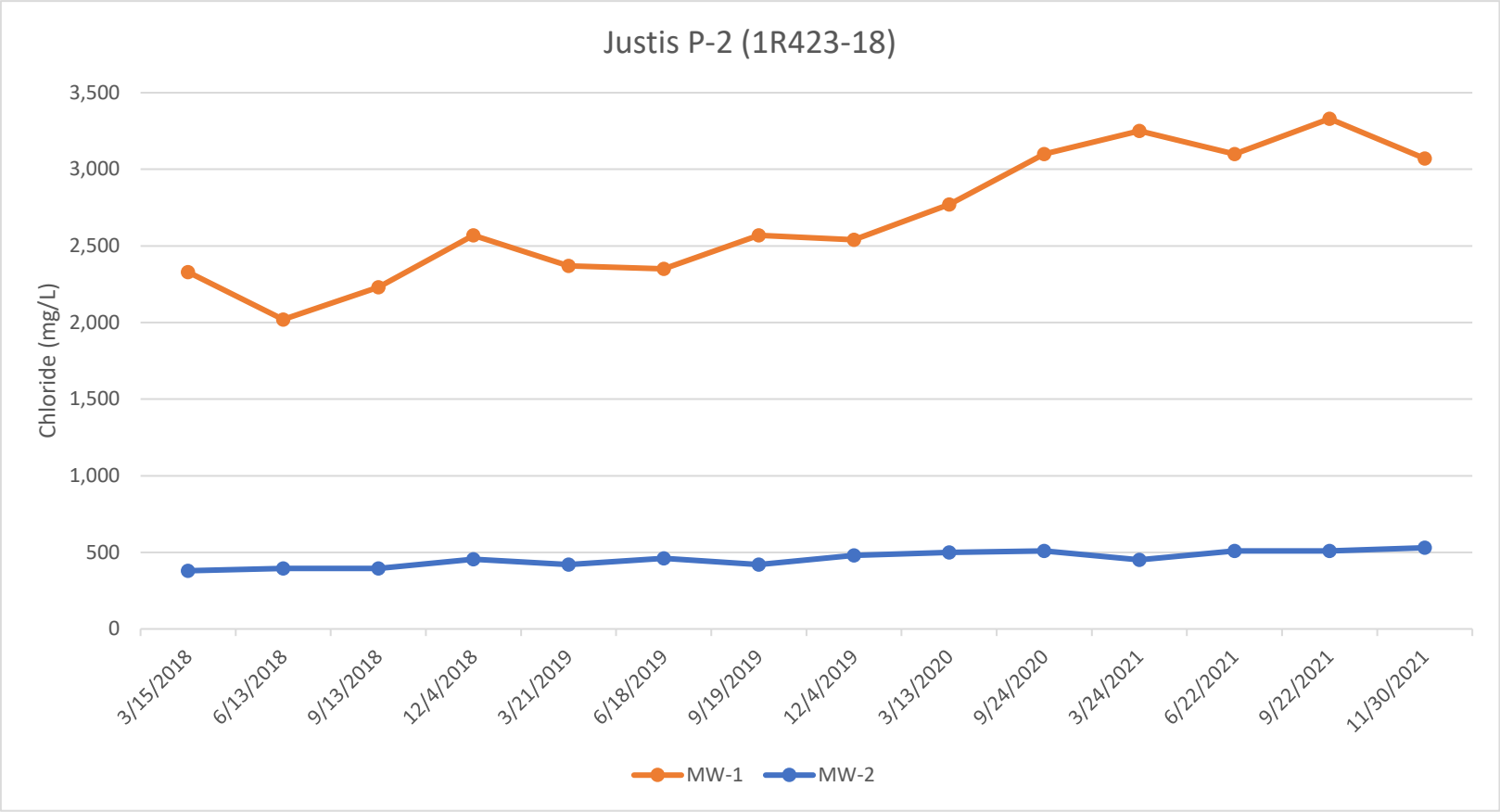
ROC - Justis P-2 vent (1R423-18)

Unit Letter P, Section 2, T25S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	78.81	93.7	2.4	15	3/18/2014	336	910	<0.001	<0.001	<0.001	<0.003	106	Clear No odor
2	78.62	93.7	2.4	15	6/20/2014	268	838	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
2	78.44	93.7	2.4	15	8/29/2014	320	938	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
2	78.37	93.7	2.5	15	12/16/2014	288	920	<0.001	<0.001	<0.001	<0.003	97.3	Clear No odor
2	78.16	93.7	2.5	15	3/11/2015	288	854	<0.001	<0.001	<0.001	<0.003	67	Clear No odor
2	78.01	93.7	2.5	15	6/10/2015	388	1,220	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
2	77.89	93.7	2.5	15	8/27/2015	360	1,090	<0.001	<0.001	<0.001	<0.003	77	Clear No odor
2	77.75	93.7	2.6	15	11/25/2015	388	1,000	<0.001	<0.001	<0.001	<0.003	109	Clear No odor
2	77.52	93.7	2.6	15	3/23/2016	352	936	<0.001	<0.001	<0.001	<0.003	98	Clear No odor
2	77.54	93.7	2.6	15	6/7/2016	344	1,020	<0.001	<0.001	<0.001	<0.003	124	Clear No odor
2	77.37	93.7	2.6	15	9/19/2016	376	1,190	<0.001	<0.001	<0.001	<0.003	146	Clear No odor
2	77.33	93.7	2.6	15	12/2/2016	352	916	<0.001	<0.001	<0.001	<0.003	107	Clear No odor
2	77.13	93.7	2.6	15	3/10/2017	340	998	<0.001	<0.001	<0.001	<0.003	106	Clear No odor
2	77.16	93.7	2.6	15	6/20/2017	372	1,100	<0.001	<0.001	<0.001	<0.003	108	Clear No odor
2	76.89	93.7	2.7	15	9/22/2017	256	956	<0.001	<0.001	<0.001	<0.003	106	Clear No odor
2	76.79	93.7	2.7	15	12/13/2017	312	886	<0.001	<0.001	<0.001	<0.003	147	Clear No odor
2	76.63	93.7	2.7	15	3/15/2018	380	986	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
2	76.49	93.7	2.8	15	6/13/2018	396	698	<0.001	<0.001	<0.001	<0.003	109	Clear No odor
2	76.43	93.7	2.8	15	9/13/2018	396	1,200	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
2	76.31	93.7	2.8	15	12/4/2018	456	1,110	<0.001	<0.001	<0.001	<0.003	131	Clear No odor
2	76.15	93.7	2.7	15	3/21/2019	420	1,080	<0.001	<0.001	<0.001	<0.003	99	Clear No odor
2	76.12	93.7	2.8	15	6/18/2019	460	1,280	<0.001	<0.001	<0.001	<0.003	113	Clear No odor
2	76.14	93.7	2.8	15	9/19/2019	420	1,190	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
2	75.71	93.7	2.9	15	12/4/2019	480	1,240	<0.001	<0.001	<0.001	<0.003	114	Clear No odor
2	75.62	93.7	2.9	15	3/13/2020	500	1,080	<0.001	<0.001	<0.001	<0.003	119	Clear No odor
2	75.32	93.7	2.9	15	9/24/2020	510	1,200	XXX	XXX	XXX	XXX	105	Clear No odor
2	75.16	93.7	3	15	3/24/2021	452	1,180	<0.001	<0.001	<0.001	<0.003	121	Clear No odor
2	75.1	93.7	3	15	6/22/2021	510	1,340	<0.001	<0.001	<0.001	<0.003	104	Clear No odor
2	75.12	93.7	3	15	9/22/2021	510	1,520	<0.001	<0.001	<0.001	<0.003	91.4	Clear No odor

ROC - Justis P-2 vent (1R423-18)
Unit Letter P, Section 2, T25S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	75.1	93.7	3	15	11/30/2021	530	1,320	<0.001	<0.001	<0.001	<0.003	129	Clear No odor





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

March 31, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS P-2 VENT

Enclosed are the results of analyses for samples received by the laboratory on 03/26/21 16:15.

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 fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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:	03/26/2021	Sampling Date:	03/24/2021
Reported:	03/31/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H210765-01)

BTEX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2021	ND	0.022	108	0.0200	2.10	
Toluene*	<0.001	0.001	03/30/2021	ND	0.020	101	0.0200	1.61	
Ethylbenzene*	<0.001	0.001	03/30/2021	ND	0.021	103	0.0200	2.49	
Total Xylenes*	<0.003	0.003	03/30/2021	ND	0.063	105	0.0600	2.72	
Total BTEX	<0.006	0.006	03/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 58.2-133

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	3250	4.00	03/29/2021	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*	122	25.0	03/31/2021	ND	22.0	110	20.0	0.273	

TDS 160.1		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	5930	5.00	03/30/2021	ND	475	95.0	500	16.3	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	03/26/2021	Sampling Date:	03/24/2021
Reported:	03/31/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H210765-02)

BTEX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	03/30/2021	ND	0.022	108	0.0200	2.10	
Toluene*	<0.001	0.001	03/30/2021	ND	0.020	101	0.0200	1.61	
Ethylbenzene*	<0.001	0.001	03/30/2021	ND	0.021	103	0.0200	2.49	
Total Xylenes*	<0.003	0.003	03/30/2021	ND	0.063	105	0.0600	2.72	
Total BTEX	<0.006	0.006	03/30/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 58.2-133

Chloride, SM4500CI-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	452	4.00	03/29/2021	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	03/31/2021	ND	22.0	110	20.0	0.273		

TDS 160.1		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1180	5.00	03/30/2021	ND	475	95.0	500	16.3		

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*=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

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

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

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

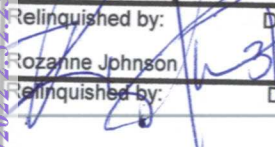
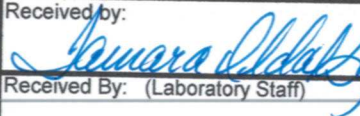
LAB Order ID # _____

Company Name: RICE Operating Company		BILL TO Company: RICE Operating Company		PO#	
Project Manager: Katie Jones		Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240			
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240		Phone#: (575) 393-9174		Fax#: (575) 397-1471	
Phone #: (575) 393-9174		Fax #: (575) 397-1471			
Project #:		Project Name: Justis P-2 Vent			
Project Location: T25S-R37E-Sec2 P ~ Lea County - New Mexico					
Sampler Signature:  Rozanne Johnson (575) 831-9310					

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX				PRESERVATIVE METHOD				SAMPLING		MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Sulfates	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours		
				WATER	SOIL	AIR	SLUDGE	HCL (4 40ml VOA)	HNO3	NaHSO4	H2SO4	ICE (1-1Liter HDPE)	NONE																							DATE (2021)	TIME
1	Monitor Well #1	G	5	X				4				1	3/24	12:15	X																		X	X	X		
2	Monitor Well #2	G	5	X				4				1	3/24	10:40	X																		X	X	X		

Relinquished by:  Rozanne Johnson	Date: 3/26/2021 Time: 16:15	Received by:  Tamara Aldaberto	Date: 3-26-21 Time: 16:15
Relinquished by:	Date: Time:	Received By: (Laboratory Staff)	Date: Time:
Delivered By: (Circle One) Sampler	UPS - Bus - Other:	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: (Initials) JA

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

REMARKS:

Email Results: kjones@riceswd.com
rozzanne@sdacres.com



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

June 30, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS P-2 VENT

Enclosed are the results of analyses for samples received by the laboratory on 06/24/21 15:10.

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:	06/24/2021	Sampling Date:	06/22/2021
Reported:	06/30/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H211647-01)

BTEX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/28/2021	ND	0.020	101	0.0200	1.59	
Toluene*	<0.001	0.001	06/28/2021	ND	0.019	96.1	0.0200	1.26	
Ethylbenzene*	<0.001	0.001	06/28/2021	ND	0.019	95.2	0.0200	1.42	
Total Xylenes*	<0.003	0.003	06/28/2021	ND	0.059	99.0	0.0600	1.61	
Total BTEX	<0.006	0.006	06/28/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 77.1-124

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	3100	4.00	06/25/2021	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*	105	25.0	06/28/2021	ND	21.2	106	20.0	3.51	

TDS 160.1		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	5330	5.00	06/28/2021	ND	515	103	500	0.0280	

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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:	06/24/2021	Sampling Date:	06/22/2021
Reported:	06/30/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H211647-02)

BTEX 8021B		mg/L		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	06/28/2021	ND	0.020	101	0.0200	1.59		
Toluene*	<0.001	0.001	06/28/2021	ND	0.019	96.1	0.0200	1.26		
Ethylbenzene*	<0.001	0.001	06/28/2021	ND	0.019	95.2	0.0200	1.42		
Total Xylenes*	<0.003	0.003	06/28/2021	ND	0.059	99.0	0.0600	1.61		
Total BTEX	<0.006	0.006	06/28/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 77.1-124

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	510	4.00	06/25/2021	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*	104	25.0	06/28/2021	ND	21.2	106	20.0	3.51	

TDS 160.1		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1340	5.00	06/30/2021	ND	520	104	500	1.65		

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

Celey D. Keene, Lab Director/Quality Manager

Cardinal Laboratories, Inc.

BILL TO	Company:	PO#
RICE Operating Company		
Address:		(Street, City, Zip)
122 W Taylor Street ~ Hobbs, New Mexico 88240		
Phone#:		Fax#:
(575) 393-9174		(575)397-1471

Sampler Signature: Rozanne Johnson (575)631-9310

[illegible]

Received by: Tamara Alldredge Date: 6-24-21 Time: 1510
Received By: (Laboratory Staff) Date: _____ Time: _____

Sample Condition		Cool	Intact
Yes	<input checked="" type="checkbox"/>	Yes	<input checked="" type="checkbox"/>
No	<input type="checkbox"/>	No	<input type="checkbox"/>

(Initials)
T.O.

LAB Order ID # _____

(Circle or Specify Method No.)

	X	MTBE	8021B/602	
	X	BTEX	8021B/602	
		TPH	418.1/TX1005 / TX1005 Extended (C35)	
		PAH	8270C	
		Total Metals Ag As Ba Cd Cr Pb Se Hg	6010B/200.7	
		TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
		TCLP Volatiles		
		TCLP Semi Volatiles		
		TCLP Pesticides		
		RCI		
		GC/MS Vol.	8260B/624	
		GC/MS Semi. Vol.	8270C/625	
		PCB's	8082/608	
		Pesticides	8081A/608	
		BOD, TSS, pH		
		Moisture Content		
		Cations (Ca, Mg, Na, K)		
		Anions (Cl, SO ₄ , CO ₃ , HCO ₃)		
	X	Sulfates		
	X	Total Dissolved Solids		
	X	Chlorides		
		Turn Around Time ~ 24 Hours		

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

Email Results: kjones@riceswd.com
rozanne@sdacres.com

Sampler - UPS - Bus - Other:

Page 5 of 5

Turn Around Time ~ 24 Hours

Released to Imaging: 4/10/2023 3:33:25 PM



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

October 05, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS P-2 VENT

Enclosed are the results of analyses for samples received by the laboratory on 09/27/21 14:25.

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". 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:	09/27/2021	Sampling Date:	09/22/2021
Reported:	10/05/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H212681-01)

BTEX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/01/2021	ND	0.021	106	0.0200	1.47	
Toluene*	<0.001	0.001	10/01/2021	ND	0.020	100	0.0200	1.44	
Ethylbenzene*	<0.001	0.001	10/01/2021	ND	0.020	99.2	0.0200	1.50	
Total Xylenes*	<0.003	0.003	10/01/2021	ND	0.061	102	0.0600	1.56	
Total BTEX	<0.006	0.006	10/01/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 77.1-124

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	3330	4.00	09/28/2021	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*	92.0	25.0	09/28/2021	ND	19.8	99.0	20.0	11.1		

TDS 160.1		mg/L		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	7660	5.00	09/29/2021	ND	268	89.3	300	2.79		

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:	09/27/2021	Sampling Date:	09/22/2021
Reported:	10/05/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H212681-02)

BTEX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/01/2021	ND	0.021	106	0.0200	1.47	
Toluene*	<0.001	0.001	10/01/2021	ND	0.020	100	0.0200	1.44	
Ethylbenzene*	<0.001	0.001	10/01/2021	ND	0.020	99.2	0.0200	1.50	
Total Xylenes*	<0.003	0.003	10/01/2021	ND	0.061	102	0.0600	1.56	
Total BTEX	<0.006	0.006	10/01/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 77.1-124

Chloride, SM4500Cl-B		mg/L		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	510	4.00	09/28/2021	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*	91.4	25.0	09/28/2021	ND	19.8	99.0	20.0	11.1	

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1520	5.00	09/30/2021	ND	268	89.3	300	2.79		

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

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

Cardinal Laboratories, Inc.

Page 1 of 1

Page 5 of 5

Company Name:

RICE Operating Company

BILL TO

Company:

PO#

RICE Operating Company

Project Manager:

Katie Jones

Address:

(Street, City, Zip)

122 W Taylor Street ~ Hobbs, New Mexico 88240

Address:

(Street, City, Zip)

Phone#:

Fax#:

(575) 393-9174

(575) 397-1471

Phone #:

(575) 393-9174

Fax #:

(575) 397-1471

Project #:

Project Name:

Justis P-2 Vent

Project Location:

T25S-R37E-Sec2 P ~ Lea County - New Mexico

Sampler Signature:

Rozanne Johnson (575) 631-9310

H212681
LAB #

(LAB USE ONLY)

FIELD CODE

(G)rab or (C)omp

CONTAINERS

MATRIX

PRESERVATIVE
METHOD

SAMPLING

WATER

SOIL

AIR

SLUDGE

HCL (4-40ml VOA)

HNO₃NaHSO₄H₂SO₄

ICE (1-1 Liter HDPE)

NONE

DATE (2021)

TIME

MTBE 8021B/602

BTEX 8021B/602

TPH 418.1/TX1005 / TX1005 Extended (C35)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

RCI

GC/MS Vol. 8260B/624

GC/MS Semi. Vol. 8270C/625

PCB's 8082/608

Pesticides 8081A/608

BOD, TSS, pH

Moisture Content

Cations (Ca, Mg, Na, K)

Anions (Cl, SO₄, CO₃, HCO₃)

Sulfates

Total Dissolved Solids

Chlorides

Turn Around Time ~ 24 Hours

Inquired by:

Date:

Time:

Inquired by:

Date:

Time:

Received by:

Date:

Time:

Received By: (Laboratory Staff)

Date:

Time:

Phone Results

Yes

No

Fax Results

Yes

No

Additional Fax Number:

REMARKS:

Email Results:

kjones@riceswd.comrozanne@sdacres.com

Delivered By: (Circle One)

Sample Condition

Cool

Intact

Yes

Yes

Yes

No

No

No

CHECKED BY:

(Initials)

Sampler - UPS - Bus - Other:



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

December 08, 2021

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS P-2 VENT

Enclosed are the results of analyses for samples received by the laboratory on 12/03/21 8:35.

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". 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:	12/03/2021	Sampling Date:	11/30/2021
Reported:	12/08/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H213472-01)

BTEX 8021B		mg/L		Analyzed By: MS/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	12/03/2021	ND	0.021	103	0.0200	2.67		
Toluene*	<0.001	0.001	12/03/2021	ND	0.019	96.8	0.0200	0.108		
Ethylbenzene*	<0.001	0.001	12/03/2021	ND	0.019	96.7	0.0200	1.38		
Total Xylenes*	<0.003	0.003	12/03/2021	ND	0.061	101	0.0600	1.09		
Total BTEX	<0.006	0.006	12/03/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 77.1-124

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	3070	4.00	12/06/2021	ND	100	100	100	4.08		

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	123	25.0	12/06/2021	ND	23.6	118	20.0	0.636		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	5310	5.00	12/07/2021	ND	501	100	500	0.398		

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:	12/03/2021	Sampling Date:	11/30/2021
Reported:	12/08/2021	Sampling Type:	Water
Project Name:	JUSTIS P-2 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T25S-R37E-SEC2 P-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H213472-02)

BTX 8021B		mg/L		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/03/2021	ND	0.021	103	0.0200	2.67	
Toluene*	<0.001	0.001	12/03/2021	ND	0.019	96.8	0.0200	0.108	
Ethylbenzene*	<0.001	0.001	12/03/2021	ND	0.019	96.7	0.0200	1.38	
Total Xylenes*	<0.003	0.003	12/03/2021	ND	0.061	101	0.0600	1.09	
Total BTX	<0.006	0.006	12/03/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 77.1-124

Chloride, SM4500CI-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	530	4.00	12/06/2021	ND	100	100	100	4.08	

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	129	25.0	12/06/2021	ND	23.6	118	20.0	0.636		

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	1320	5.00	12/07/2021	ND	501	100	500	0.398	

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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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A handwritten signature in black ink, appearing to read "C. D. Keene", is 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.)

Project Location: T25S-R37E-Sec2 P ~ Lea County - New Mexico
 Sampler Signature: Rozanne Johnson (575) 631-9310

[illegible]

Relinquished by: <i>[Signature]</i>	Date: <i>12/3/2021</i>	Time: <i>7:25</i>	Received by: <i>[Signature]</i>	Date: <i>12/3/2021</i>	Time: <i>7:26</i>
<i>Joanne Johnson</i>					
Relinquished by: <i>[Signature]</i>	Date: <i>12/3/2021</i>	Time: <i>8:32 AM</i>	Received By: (Laboratory Staff)	Date: <i>12-3-21</i>	Time: <i>0835</i>
<i>[Signature]</i>			<i>[Signature]</i>		
Delivered By: (Circle One)			Sample Condition		

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition

	Cool	Intact
Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
No	<input type="checkbox"/>	<input type="checkbox"/>

CHECKED BY:

(Initials)

MTBE 8021B/602

BTEX 8021B/602

TPH 418.1/TX1005 / TX1005 Extended (C35)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

1701

GC/MS Vol. 8260B/624

GC/MS Semi. Vol. 8270C/625

PCB's 8082/608

Pesticides 8081A/608

BOD, TSS, pH

Moisture Content

Cations (Ca, Mg, Na, K)

Anions (Cl, SO₄, CO₃, HCO₃)

Sulfates

Total Dissolved Solids

Chlorides

Turn Around Time ~ 24 Hours

Released to Imaging: 4/10/2023 3:33:25 PM

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 90559

CONDITIONS

Operator: RICE OPERATING COMPANY 122 W Taylor Hobbs, NM 88240	OGRID:	19174
	Action Number:	90559
	Action Type:	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Accepted for the record. See app ID 202294 for most updated status.	4/10/2023