APPROVED

RICE Operating Company
112 West Taylor • Hobbs, New Mexico 88240
Phone: (575) 393-9174 • Fax: (575) 397-1471

Review of 2020 Annual Groundwater Report: **Content satisfactory**

1. Continue sampling on a quarterly schedule
2. OCD pre-approves the elimination of BTEX and sulfate from further laboratory analysis.
3. Submit summarized activities completed and their results in a 2021 Annual Report. Submittal to OCD expected no later than March 31,2022.
4. OCD requires an abatement plan be submitted for pre-approval to address the source and down gradient areas to effectively reduce chloride & total dissolved solids (TDS) in groundwater. OCD suggest arranging a meeting to discuss alternative methods in order to mitigate the elevated values.

April 1, 2021

Bradford Billings
New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

RE: **2020 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. The wells have been sampled regularly since installation. The most recent sampling event resulted in a chloride concentration of 3,100 mg/L in MW-1 and 510 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. ROC will continue quarterly sampling in 2021.

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 2020.

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,

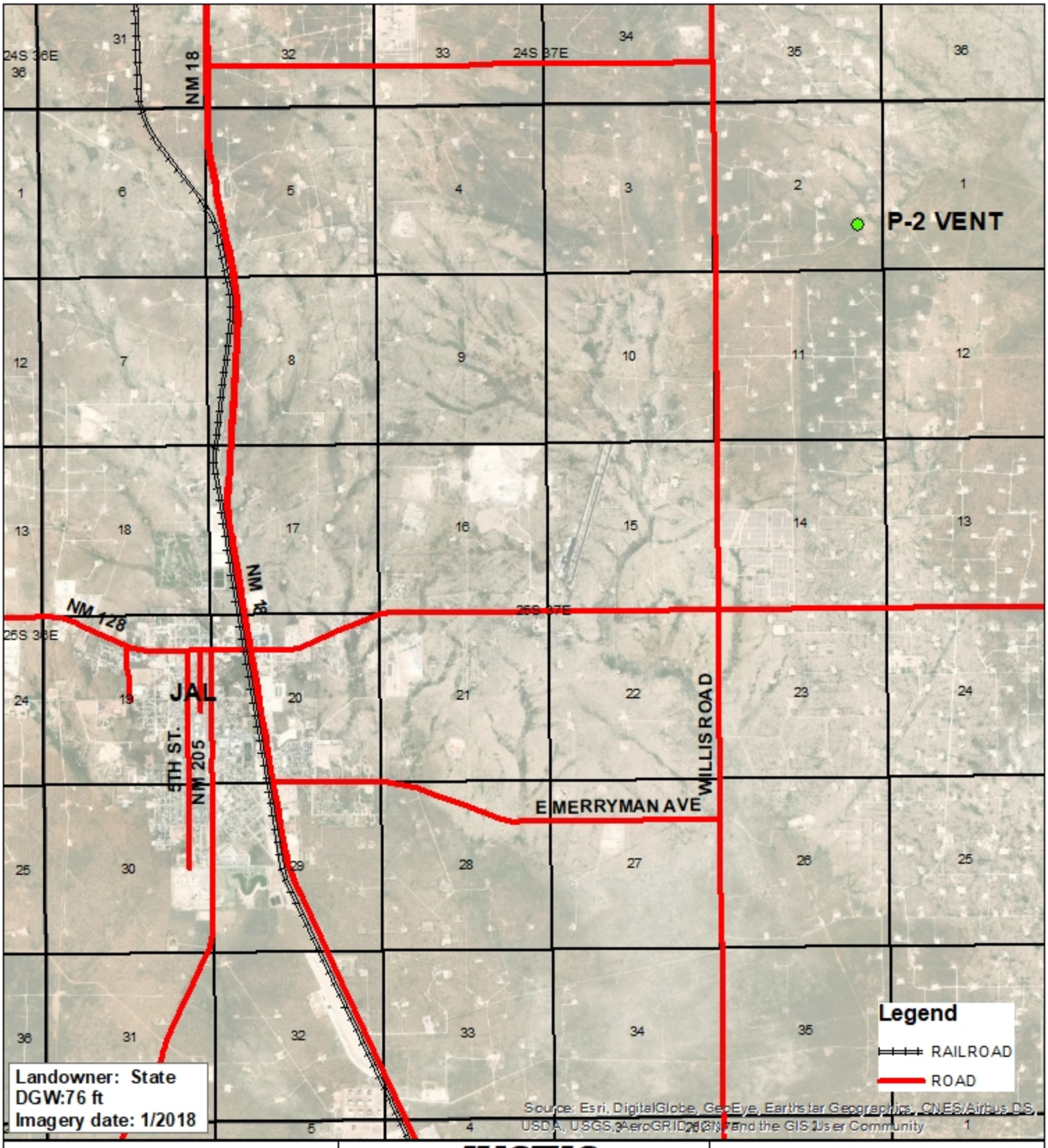
Katie Davis

Katie Davis
Environmental Manager
RICE Operating Company (ROC)

Cc – Edward J. Hansen (ROC)

appendix

Geographic Location



RICE OPERATING COMPANY
ROC
SINCE 1955

JUSTIS
P-2 VENT
1R423-18

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

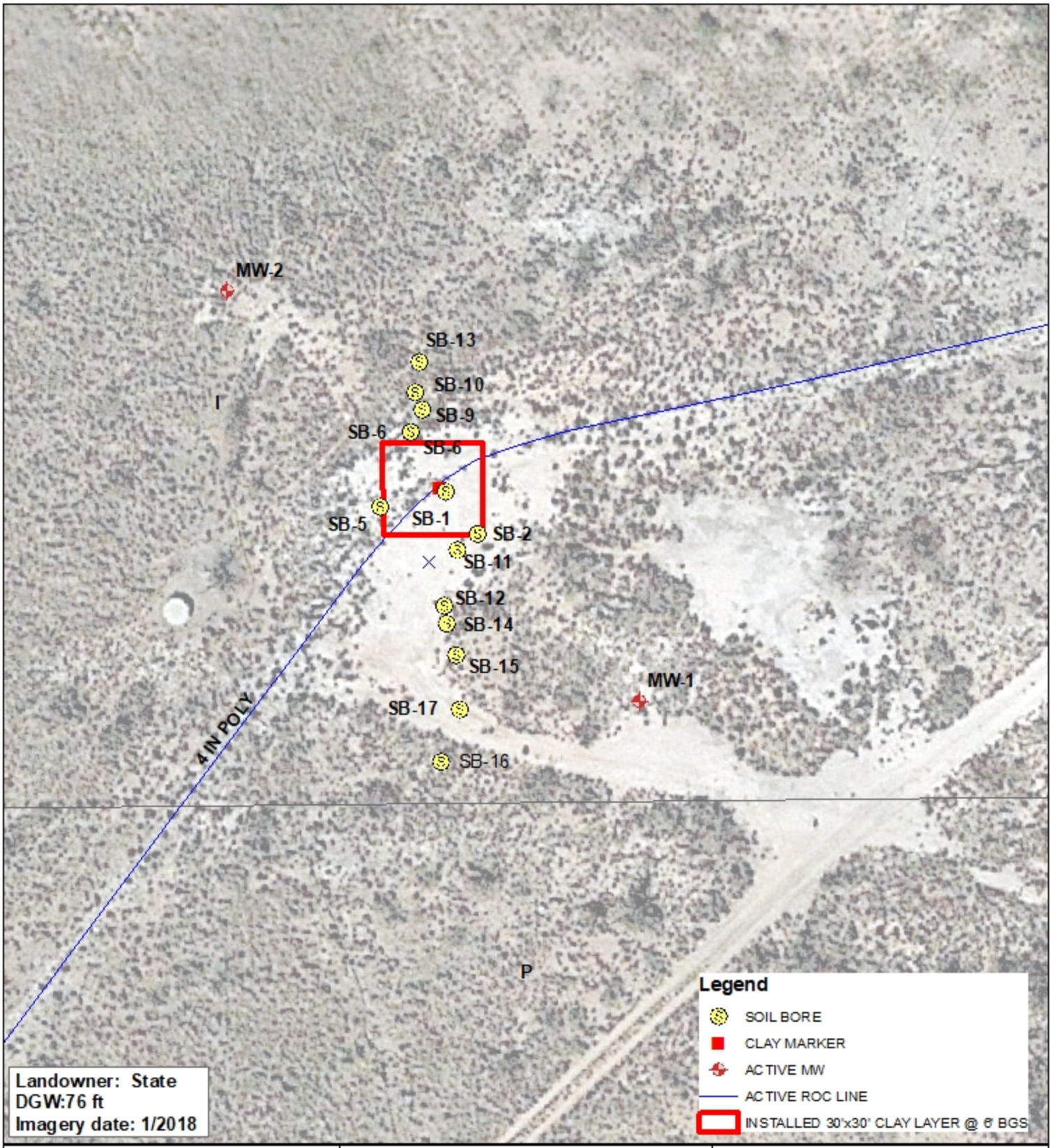
GPS: -103.127671 32.155972
NAD 83 STATE PLANE PROJECTION
NM EAST ZONE

0 2,500 5,000
Feet

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

N
W E
S

Installed Monitor Wells



RICE OPERATING COMPANY
ROC
SINCE 1955

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

N W E S

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

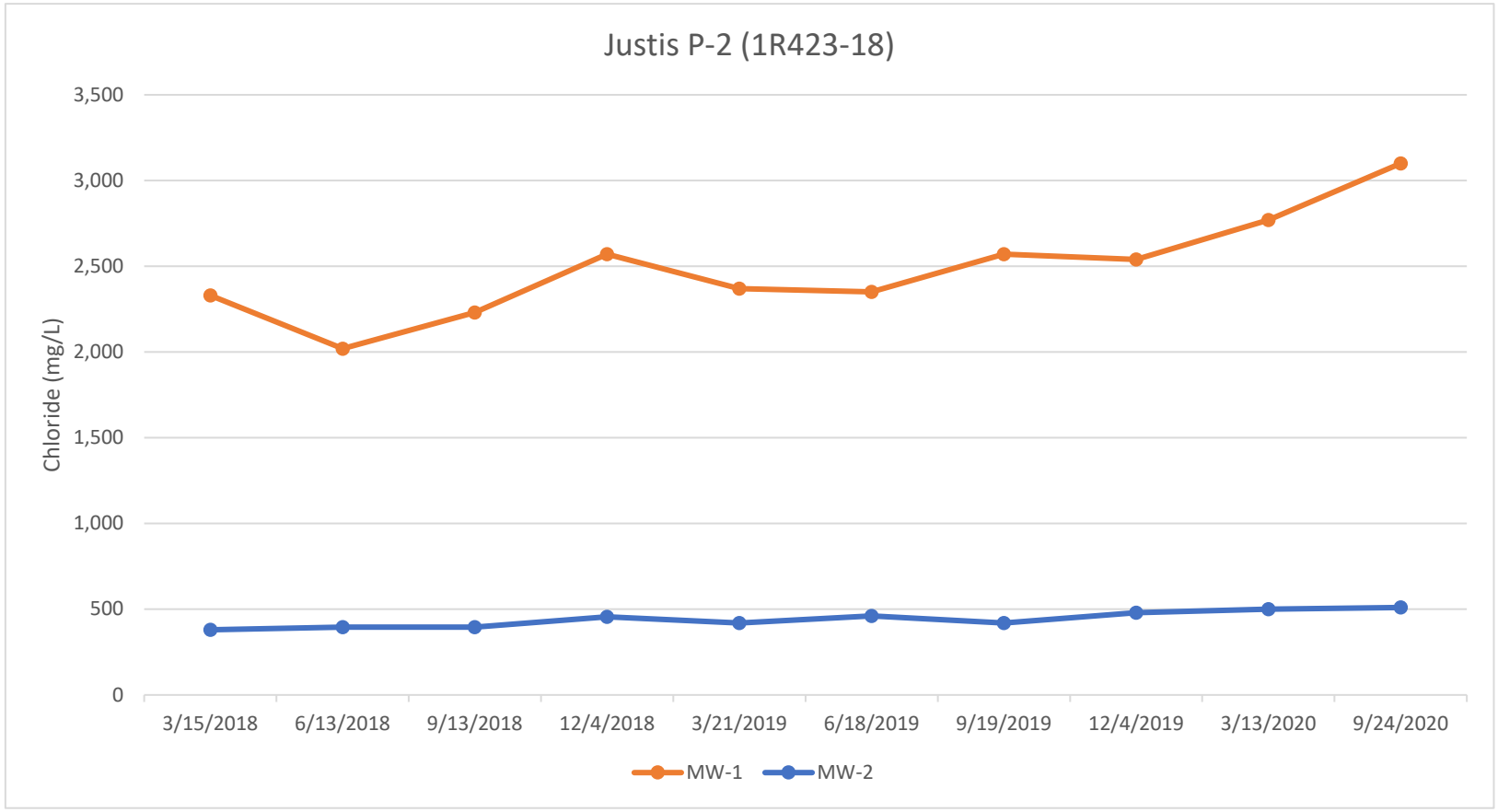
ROC - Justis P-2 vent (1R423-18)
Unit Letter P, Section 2, T25S, R37E

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

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
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

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	78.16	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


Justis P-2 (1R423-18)
Chloride (mg/L)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
3/15/2018
6/13/2018
9/13/2018
12/4/2018
3/21/2019
6/18/2019
9/19/2019
12/4/2019
3/13/2020
9/24/2020
MW-1
MW-2

CARDINAL Laboratories

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

March 24, 2020

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 03/18/20 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. 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 accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

CARDINAL Laboratories

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:	03/18/2020	Sampling Date:	03/13/2020
Reported:	03/24/2020	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 (H000846-01)

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	03/20/2020	ND	0.020	102	0.0200	0.694	
Toluene*	<0.001	0.001	03/20/2020	ND	0.020	99.6	0.0200	1.42	
Ethylbenzene*	<0.001	0.001	03/20/2020	ND	0.020	101	0.0200	1.17	
Total Xylenes*	<0.003	0.003	03/20/2020	ND	0.059	98.4	0.0600	0.916	
Total BTEX	<0.006	0.006	03/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**2770**	4.00	03/19/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**114**	25.0	03/19/2020	ND	21.6	108	20.0	10.1	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**4500**	5.00	03/23/2020	ND	547	109	500	2.80	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	03/18/2020	Sampling Date:	03/13/2020
Reported:	03/24/2020	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 (H000846-02)

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	03/20/2020	ND	0.020	102	0.0200	0.694	
Toluene*	<0.001	0.001	03/20/2020	ND	0.020	99.6	0.0200	1.42	
Ethylbenzene*	<0.001	0.001	03/20/2020	ND	0.020	101	0.0200	1.17	
Total Xylenes*	<0.003	0.003	03/20/2020	ND	0.059	98.4	0.0600	0.916	
Total BTEX	<0.006	0.006	03/20/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *58.2-133*

Chloride, SM4500Cl-B mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**500**	4.00	03/19/2020	ND	100	100	100	0.00	

Sulfate 375.4 mg/L Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**119**	25.0	03/19/2020	ND	21.6	108	20.0	10.1	

TDS 160.1 mg/L Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1080**	5.00	03/23/2020	ND	547	109	500	2.80	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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)631-9310

H000846 LAB # (LAB USE ONLY)

	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2020)	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
1	Monitor Well #1	G	3	X					2				1		3/13	13:00		X																X	X	X	
2	Monitor Well #2	G	3	X					2				1		3/13	11:15		X																X	X	X	

Relinquished by: Rozanne Johnson	Date: 3/18/2020	Time: 15:40	Received by: [signature]
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool: Yes / No; Intact: Yes / No		CHECKED BY: (Initials) J.O.

Date: 3-18-20 Time: 1540

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

REMARKS:

Email Results: kjones@riceswd.com
rozanne11@windstream.net

CARDINAL Laboratories

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

October 05, 2020

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 09/28/20 14:25.

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

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

Accreditation applies to public drinking water matrices.

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

CARDINAL Laboratories

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:	09/28/2020	Sampling Date:	09/24/2020
Reported:	10/05/2020	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 (H002560-01)

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	09/29/2020	ND	100	100	100	3.92	QM-07

Sulfate 375.4 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**91.8**	25.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**4860**	5.00	10/02/2020	ND	535	107	500	1.08	

Sample ID: MONITOR WELL #2 (H002560-02)

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	09/29/2020	ND	100	100	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*	**105**	25.0	09/30/2020	ND	18.4	92.2	20.0	11.6	

TDS 160.1 mg/L **Analyzed By: GM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1200**	5.00	10/02/2020	ND	535	107	500	1.08	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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)631-9310

H002560

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (4 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2020)	TIME
1	Monitor Well #1	G	1	X								1		9/24	12:00
2	Monitor Well #2	G	1	X								1		9/24	10:15

ANALYSIS REQUEST
(Circle or Specify Method No.)

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
																		X	X	X	
																		X	X	X	

Relinquished by: Rozanne Johnson	Date: 9/28/20	Time: 14:25	Received by: Tamara Oldaker	Date: 9-28-20 Time: 1425
Relinquished 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.com
rozanne@sdacres.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool: Yes [X] No [ ] Intact: Yes [X] No [ ]

CHECKED BY: (Initials) T.O.

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 24233

CONDITIONS

Operator: RICE OPERATING COMPANY 122 W Taylor Hobbs, NM 88240	OGRID: 19174
	Action Number: 24233
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 Annual Groundwater Report: Content satisfactory 1. Continue sampling on a quarterly schedule 2. OCD pre-approves the elimination of BTEX and sulfate from further laboratory analysis. 3. Submit summarized activities completed and their results in a 2021 Annual Report. Submittal to OCD expected no later than March 31,2022. 4. OCD requires an abatement plan be submitted for pre-approval to address the source and down gradient areas to effectively reduce chloride & total dissolved solids (TDS) in groundwater. OCD suggest arranging a meeting to discuss alternative methods in order to mitigate the elevated values.	2/2/2022