

RICE *Operating Company*

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April 1, 2020

Bradford Billings

New Mexico Oil Conservation Division

1220 So. St. Francis Drive

Santa Fe, New Mexico 87505

RE: 2019 Annual Groundwater Report

Rice Operating Company – Hobbs SWD System

Hobbs N-6, West County Road Site (1R-487): UL/N, Sec. 5&6, T19S, R38E

Mr. Billings:

ROC was the service provider (agent) for the Hobbs SWD System and has no ownership of any portion of the pipeline, well or facility. The Hobbs SWD System was owned by a consortium of oil producers, System Parties, who provide operating capital on a percentage ownership/usage basis. The Hobbs SWD System has been abandoned.

Groundwater Sampling

All wells were sampled quarterly in accordance with NMOCD guidelines. The attached tables summarize the analytical results from groundwater samples collected from the monitor wells in 2019 and depth to water, total depth of the well, volume of water in the wellbore and volume of water purged from the well.

Free Product Removal

In 1994, a leak was discovered in a buried SWD pipeline. An assessment program was completed, and a free product recovery program initiated. The free product has historically been collected from Monitor Well 1 (MW-1), initially in 1996 in conjunction with groundwater recovery, and then beginning in 2000 with product recovery only.

A biosparge well designed to maximize in-situ biodegradation and minimize volatilization of hydrocarbons was installed at the site and became operational in August 2005. Four borings were drilled on November 8 and 9, 2006 in order to evaluate hydrocarbon occurrence in the vadose zone. Based on drilling observations, a second biosparge well was installed approximately 30 feet east of the original biosparge well. The second biosparge well became operational in March 2007. In November of 2007, an additional eight soil borings (piezometers) were drilled and a third biosparge well was installed southeast of the pump house. These soil borings were located in areas between previous sampling points, outside of the previously identified core source area, and as

close as possible to previous (2006) soil borings from which samples had been collected and tested for total petroleum hydrocarbons (TPH) and total organic compounds (TOC).

In November of 2010, the air sparge system at the site was tested by collection of soil gas samples during a cycled shut down. A similar test protocol was previously performed in May/June and September/October 2007, August/September 2008 and November 2009. The soil gas samples from these testing events were analyzed for methane, carbon dioxide, oxygen and benzene, toluene, ethylbenzene and xylenes (BTEX).

A Corrective Action Plan (CAP) was submitted to the NMOCD on April 2, 2012 and an Addendum was submitted April 11, 2012. In accordance with the NMOCD approval of the CAP and subsequent Addendum, pumping of free product from Biosparge Well #1 (BS1) began on April 7, 2012. Free product was pumped from this well on weekly basis from April 7, 2012 through September 19, 2012. Based on reduced product thickness and recovery volumes, the pump was removed from the well and a product recovery absorbent sock was placed in the well. The well is bailed, and sock is changed weekly. A total of 1,900.40 gallons of free product has been removed from the well since April 7, 2012. Monitor Well #1 (MW1) also has had a product recovery absorbent sock in the well to continually remove free product. The sock is changed weekly. A total of 156.90 gallons of product have been removed from this well since April 7, 2012. Removed fluids were properly disposed of at a permitted SWD well.

Monitor Well Plugging

A Monitoring Well Plugging Request was submitted to the NMOCD on November 30, 2012, and Additional Information was submitted December 3, 2012, which was approved by the NMOCD. According to NMOCD's approval, five monitoring wells (MW-3, MW-3R, PZ-3, PZ-4 and BS-3) were plugged using a cement grout containing 1% - 3% bentonite and a 3-foot cap of cement at the surface. A monitor well plugging report detailing the plugging activities was submitted to the NMOCD on February 22, 2013.

Biosparge Well Operation and Evaluation

Evaluation of the 2007 through 2010 soil gas samples and the quarterly monitoring well data indicates that the biosparge wells are effective in the remediation of free-phase hydrocarbons at the site. Biochemical results also suggest groundwater chemistry indicative of bioremediation. Pumping the free product from BS1 in 2012 and the product recovery absorbent socks in BS1 and MW-1 and bailing of BS1 has reduced the amount of free product remaining on these wells. Chloride, TDS, BTEX, and sulfate concentrations have remained at or below WQCC standards for the last eight quarters. If product thickness in BS1 increases enough to warrant pumping, a continuous skimmer pump will be placed in BS1.

Due to the current climate, and in the interest of safety, ROC proposes to reduce groundwater monitoring from quarterly to semi-annually beginning this year. This request is only temporary and regularly scheduled groundwater monitoring will commence as soon as possible.

We are currently evaluating alternate remedial options to expedite closure of the site.

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,

A handwritten signature in cursive script that reads "Katie Davis".

Katie Davis
Environmental Manager
RICE Operating Company (ROC)

Attachments:

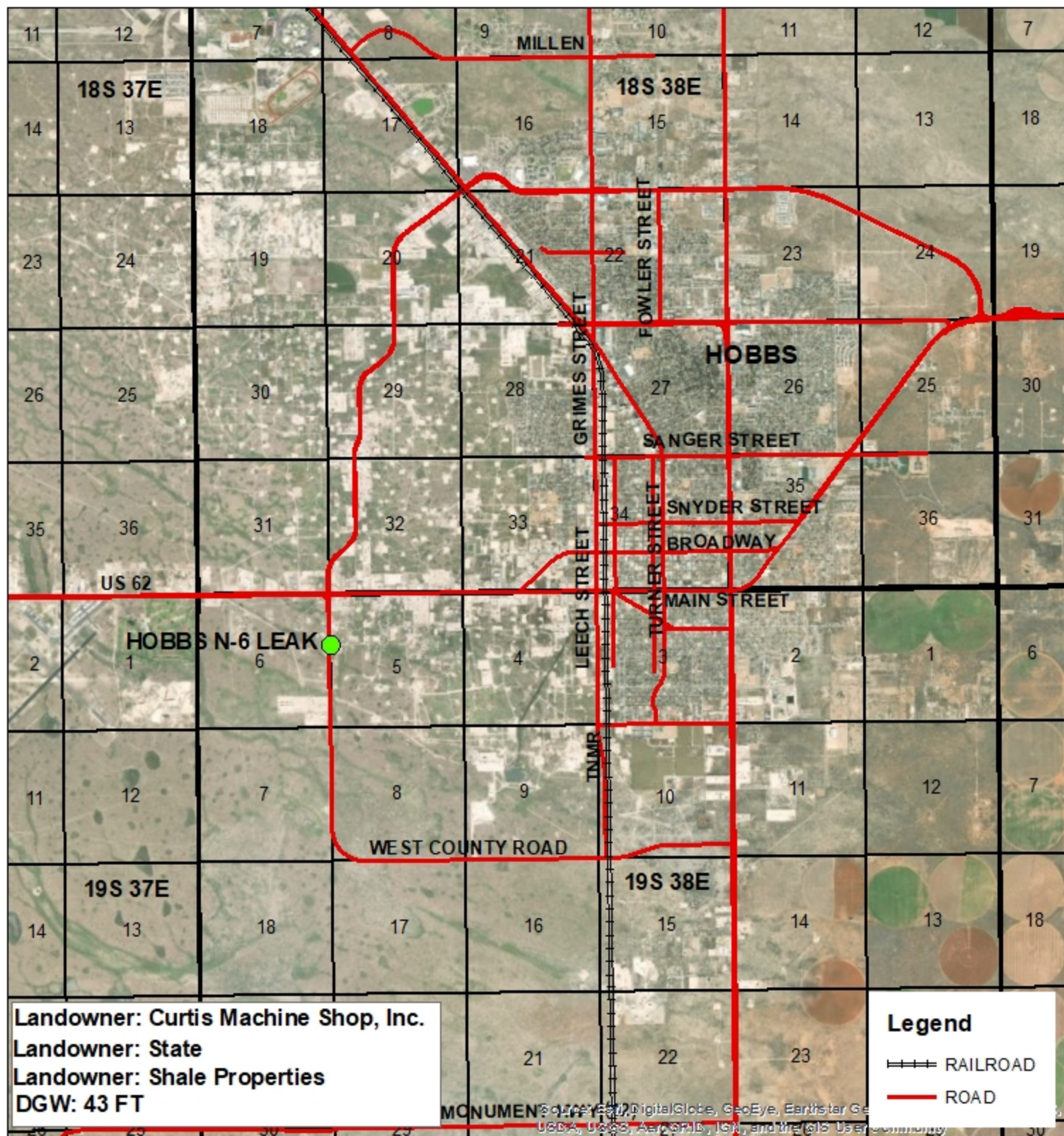
Geographic Location Map

Site Map

Data Summary Table and Graph

2019 Laboratory Results

Geographic Location

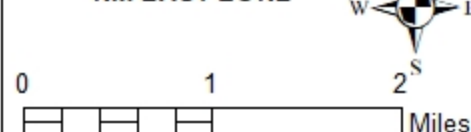


HOBBS N-6 LEAK

1R-487

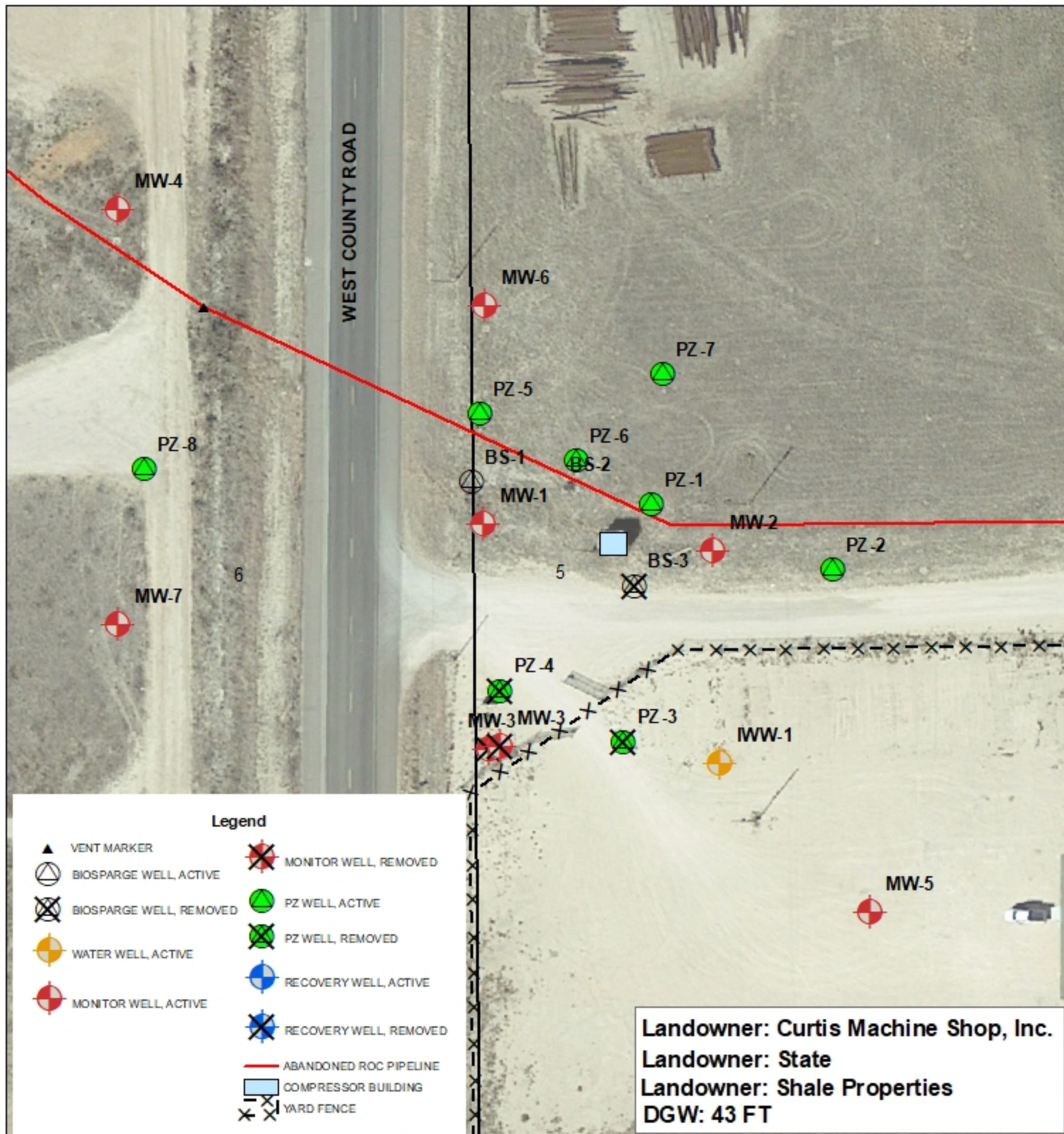
UL N SECTION 5&6
 T-19-S R-38-E
 LEA COUNTY, NM

GPS: 32.691062 -103.178954
 NAD83 STATE PLANE PROJ
 NM EAST ZONE



Drawing date: 2/4/20
 Drafted by: T. Grieco

Site Map

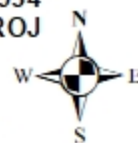


HOBBS N-6 LEAK

1R-487

UL N SECTION 5&6
T-19-S R-38-E
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NAD83 STATE PLANE PROJ
NM EAST ZONE



0 50 100
Feet

Drawing date: 2/4/20
Drafted by: T. Grieco

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	43.99	55.21	7.3	25	9/15/2009	232	840	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	44.07	55.21	7.2	25	11/20/2009	200	770	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	44.85	55.21	6.7	XXX	3/17/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product Present
1	45.05	55.21	6.6	XXX	6/7/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	44.19	55.21	7.2	XXX	9/7/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	44.74	55.21	6.8	XXX	12/8/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	45.39	55.21	6.4	XXX	3/15/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	45.73	55.21	6.2	XXX	6/23/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	45.94	55.21	6	XXX	9/22/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.08	55.21	5.9	XXX	12/12/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.25	55.21	XXX	XXX	3/21/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.52	55.21	XXX	XXX	6/14/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.12	55.21	XXX	XXX	9/11/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.25	55.21	XXX	XXX	12/13/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present
1	46.11	55.21	XXX	XXX	3/6/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Product present/PSH Recovery Sock Replaced

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	46.05	55.21	XXX	XXX	6/20/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.24	55.21	XXX	XXX	9/19/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.45	55.21	XXX	XXX	12/17/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.57	55.21	XXX	XXX	3/25/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.67	55.21	XXX	XXX	6/19/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.93	55.21	XXX	XXX	9/12/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	47.02	55.21	XXX	XXX	12/22/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.64	55.21	XXX	XXX	3/20/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present/PSH recovery sock replaced
1	46.73	55.21	XXX	XXX	6/18/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.79	55.21	XXX	XXX	9/22/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.51	55.21	XXX	XXX	12/3/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.28	55.21	XXX	XXX	3/30/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	47.00	55.21	XXX	XXX	6/28/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	46.31	55.21	XXX	XXX	9/28/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present
1	45.72	55.21	XXX	XXX	12/6/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor/Free product present

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	45.88	55.21	XXX	XXX	3/21/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.39	55.21	XXX	XXX	6/29/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.28	55.21	XXX	XXX	9/26/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	43.1	55.21	XXX	XXX	3/22/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.4	55.21	XXX	XXX	6/29/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.93	55.21	XXX	XXX	9/19/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.87	55.21	XXX	XXX	12/22/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.96	55.21	XXX	XXX	3/28/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.49	55.21	XXX	XXX	6/27/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.52	55.21	XXX	XXX	9/26/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present
1	46.58	55.21	XXX	XXX	12/12/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Strong odor Free product present

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	40.2	52.18	7.78	23.36	8/14/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
2	40.34	52.11	7.65	22.75	12/6/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
2	40.61	52.2	7.53	22.6	3/14/2003	53.2	XXX	0.003	0.001	0.006	0.004	109	
2	40.29	52.13	7.69	23.08	6/27/2003	40.8	499	<0.001	<0.001	<0.001	<0.001	112	

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	40.26	52.14	7.75	23.27	9/22/2003	31.9	504	<0.001	<0.001	<0.001	<0.001	88.8	
2	40.39	52.13	7.66	22.99	12/18/2003	44	458	<0.002	<0.002	<0.002	<0.006	37.7	
2	41.53	52.13	6.92	20.76	3/15/2004	39	484	0.00458	<0.001	0.00236	0.00193	108	
2	40.3	52.12	7.71	23.15	5/27/2004	31.9	481	0.000448	<0.001	0.000482	<0.001	89.4	
2	41.69	52.24	6.86	20.57	9/8/2004	70.9	577	0.0289	0.00219	0.0126	0.00837	91.4	
2	39.4	52.24	8.35	25.04	11/22/2004	58.1	XXX	0.0238	0.00269	0.0239	0.01051	90.2	
2	38.73	52.24	XXX	32	3/29/2005	39.1	444	0.00169	<0.001	0.00151	0.00101	93.6	
2	39.12	55	XXX	31.4	6/28/2005	42.4	515	<0.001	<0.001	<0.001	<0.001	100	
2	39.21	55	XXX	31	9/6/2005	49.5	517	<0.001	<0.001	<0.001	<0.001	69.5	
2	39.3	52.24	8.4	30	12/6/2005	58	380	0.00325	<0.001	<0.001	<0.001	107	
2	39.56	52.24	8.2	25	2/28/2006	29.5	538	<0.001	<0.001	<0.001	<0.001	56.3	
2	39.97	52.24	8	25	6/5/2006	38.5	552	<0.001	<0.001	<0.001	<0.001	76.6	
2	39.44	52.24	8.3	25	9/11/2006	31.1	428	<0.001	<0.001	<0.001	<0.001	92	
2	39.47	52.24	8.3	30	11/14/2006	33.6	442	j[0.000709]	<0.001	j[0.00609]	<0.001	91.7	test
2	39.89	52.24	8	30	3/13/2007	34.5	422	0.00134	<0.001	<0.001	<0.001	81.5	Clear No odor
2	40.26	52.24	7.8	30	6/12/2007	33.3	444	j(0.000649)	0.0016	j(0.000792)	ND	77.6	Clear
2	40.22	52.24	7.8	25	9/18/2007	36	512	0.056	0.012	0.054	0.037	100	Clear Slight odor
2	40.35	52.24	7.7	25	12/6/2007	40	454	<0.001	<0.001	<0.001	<0.003	92.7	Clear Slight odor
2	40.71	52.24	7.5	25	3/3/2008	36	442	<0.001	<0.001	<0.001	<0.003	98.4	Clear Slight odor
2	40.29	52.24	7.8	25	5/28/2008	32	523	<0.001	<0.001	<0.001	<0.003	83.2	Clear Slight odor
2	40.56	52.24	7.6	25	9/8/2008	52	455	<0.001	<0.001	<0.001	<0.003	131	Clear Slight odor
2	41.43	52.24	7	25	12/15/2008	40	493	0.001	<0.001	0.002	<0.003	98	Clear Slight odor
2	41.61	52.55	7.1	25	3/16/2009	40	492	0.005	<0.001	0.004	<0.003	91.9	Clear Slight odor
2	41.78	52.55	7	25	6/9/2009	36	516	0.003	0.001	<0.001	<0.003	81.5	Clear Slight odor
2	41.87	52.55	6.9	25	9/14/2009	40	500	0.001	0.004	0.007	0.023	85	Clear Slight odor
2	41.96	52.55	6.9	25	11/19/2009	40	425	<0.001	<0.001	<0.001	<0.003	75.8	Clear Slight odor
2	42.08	52.55	6.8	25	3/17/2010	48	669	<0.001	<0.001	<0.001	<0.003	157	Clear Slight odor
2	42.32	52.55	6.6	25	6/7/2010	40	494	<0.001	<0.001	<0.001	<0.003	80.7	Clear Slight odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	41.15	52.55	7.4	25	9/1/2010	40	479	<0.001	<0.001	<0.001	<0.003	86	Clear Slight odor
2	41.36	52.55	7.3	25	12/9/2010	56	482	<0.001	<0.001	<0.001	<0.003	87.5	Clear Slight odor
2	42.01	52.55	6.9	25	3/16/2011	56	488	<0.001	<0.001	<0.001	<0.003	92	Clear Slight odor
2	42.4	52.55	6.6	25	6/22/2011	44	461	<0.001	<0.001	<0.001	<0.003	95.6	Clear Slight odor
2	42.68	52.55	6.4	25	9/21/2011	48	464	<0.001	<0.001	<0.001	<0.003	99.3	Clear Slight odor
2	42.84	52.55	6.3	25	12/13/2011	52	493	<0.001	<0.001	<0.001	<0.003	97.1	Clear Slight odor
2	43.03	52.55	6.2	25	3/20/2012	52	505	<0.001	<0.001	<0.001	<0.003	99.3	Clear Slight odor
2	43.26	52.55	6	25	6/15/2012	68	526	<0.001	<0.001	<0.001	<0.003	95.5	Clear Slight odor
2	43.37	52.55	6	25	9/11/2012	60	512	<0.001	<0.001	<0.001	<0.003	95.7	Clear Slight odor
2	43.57	52.55	5.8	25	12/12/2012	48	473	<0.001	<0.001	<0.001	<0.003	96.4	Clear Slight odor
2	43.67	52.55	5.8	25	3/6/2013	64	454	<0.001	<0.001	<0.001	<0.003	103	Clear Slight odor
2	43.96	52.55	5.6	25	6/20/2013	60	512	<0.001	<0.001	<0.001	<0.003	87	Clear Slight odor
2	44.08	52.55	5.5	25	9/19/2013	44	477	<0.001	<0.001	<0.001	<0.003	76.1	Clear Slight odor
2	44.28	52.55	5.4	25	12/16/2013	48	458	<0.001	<0.001	<0.001	<0.003	95.4	Clear Slight odor
2	44.4	52.55	5.3	25	3/24/2014	68	532	<0.001	<0.001	<0.001	<0.003	81.4	Clear Slight odor
2	44.61	52.55	5.2	25	6/18/2014	64	512	0.001	<0.001	<0.001	<0.003	80	Clear Slight odor
2	44.85	52.55	5	25	9/11/2014	60	526	<0.001	<0.001	<0.001	<0.003	91.3	Clear Slight odor
2	44.93	52.55	5	25	12/22/2014	64	432	<0.001	<0.001	<0.001	<0.003	86	Clear Slight odor
2	44.58	52.55	5.2	25	3/19/2015	52	478	<0.001	<0.001	<0.001	<0.003	83.6	Clear Slight odor
2	44.68	52.55	5.1	25	6/17/2015	100	558	<0.001	<0.001	<0.001	<0.003	75	Clear Slight odor
2	44.75	52.55	5.1	25	9/22/2015	72	550	<0.001	<0.001	<0.001	<0.003	79.6	Clear Slight odor
2	44.48	52.55	5.2	25	12/2/2015	68	558	<0.001	<0.001	<0.001	<0.003	81	Clear Slight odor
2	44.25	52.55	5.4	25	3/29/2016	68	508	<0.001	<0.001	<0.001	<0.003	84.1	Clear Slight odor
2	44.94	52.55	4.9	25	6/27/2016	48	500	<0.001	<0.001	<0.001	<0.003	112	Clear Slight odor
2	44.29	52.55	5.4	25	9/27/2016	52	500	<0.001	<0.001	<0.001	<0.003	99	Clear Slight odor
2	43.72	52.55	5.7	25	12/6/2016	72	482	<0.001	<0.001	<0.001	<0.003	89	Clear Slight odor
2	43.84	52.55	5.7	25	3/21/2017	52	510	<0.001	<0.001	<0.001	<0.003	92	Clear Slight odor
2	44.27	52.55	5.4	25	6/28/2017	84	558	<0.001	<0.001	<0.001	<0.003	79	Clear Slight odor

ROC - Hobbs N-6 (1R-487)**SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	44.19	52.55	5.4	25	9/26/2017	60	580	<0.001	<0.001	<0.001	<0.003	91	Clear Slight odor
2	44.26	52.55	5.4	25	12/22/2017	80	586	<0.001	<0.001	<0.001	<0.003	98	Clear Slight odor
2	44.09	52.55	5.5	25	3/21/2018	72	538	<0.001	<0.001	<0.001	<0.003	94.4	Clear Slight odor
2	44.41	52.55	5.3	25	6/28/2018	108	540	<0.001	<0.001	<0.001	<0.003	71.4	Clear Slight odor
2	45.02	52.55	4.9	25	9/19/2018	72	552	<0.001	<0.001	<0.001	<0.003	93.6	Clear Slight odor
2	44.98	52.55	4.9	25	12/22/2018	44	515	<0.001	<0.001	<0.001	<0.003	115	Clear Slight odor
2	45.03	52.55	4.9	25	3/27/2019	124	427	<0.001	<0.001	<0.001	<0.003	79	Clear Slight odor
2	44.15	52.55	5.5	25	6/26/2019	144	597	<0.001	<0.001	<0.001	<0.003	74	Clear Slight odor
2	46.79	52.55	5.6	25	9/26/2019	128	614	<0.001	<0.001	<0.001	<0.003	83	Clear Slight odor
2	44.88	52.55	5.6	20	12/12/2019	52	521	<0.001	<0.001	<0.001	<0.003	94	Clear Slight odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	40.76	156	74.92	224.76	12/6/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
3	10.95	156	74.79	224.38	3/14/2003	5,850	XXX	0.06	0.001	0.001	0.003	888	
3	40.69	156	74.97	224.93	6/27/2003	5,320	10,700	0.013	<0.001	<0.001	0.001	1120	
3	40.68	156.1	75.34	226.02	9/22/2003	5,320	10,900	0.008	<0.001	<0.001	0.001	1050	
3	40.82	156	75.23	225.69	12/18/2003	5,398	10,512	0.018	<0.002	<0.002	<0.006	399	
3	41.82	156	74.57	223.73	3/15/2004	5,140	8,990	0.0354	<0.001	0.000821	0.00165	793	
3	40.83	156.1	75.23	225.71	5/27/2004	5,230	8,060	0.0131	0.000238	0.000248	0.00098	664	
3	41.93	156.2	74.27	222.73	9/8/2004	5,140	8,600	0.0152	<0.001	0.00184	0.00357	762	
3	39.64	156.2	75.73	227.19	11/23/2004	3,890	XXX	0.0281	0.000202	0.000775	0.00449	683	
3	38.73	156.2	XXX	235	3/29/2005	7,300	14,700	0.0805	<0.001	0.00291	0.00422	1030	
3	39.35	156.2	XXX	39.35	6/28/2005	7,280	8,930	0.00619	<0.001	<0.001	<0.001	2760	
3	39.43	155.8	XXX	40	9/6/2005	4,660	7,070	0.00566	<0.001	0.00219	0.00455	874	
3	39.52	156.2	75.8	230	12/6/2005	7,130	12,100	0.0529	0.000572	0.00312	<0.001	848	

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	39.82	156.2	75.6	230	2/28/2006	7,270	15,300	0.0315	0.00264	0.00535	<0.001	829	
3	40.19	156.2	75.4	230	6/5/2006	7,660	13,600	0.0171	j[0.000488]	0.00258	<0.001	914	Clear Septic odor
3	39.8	156.2	75.6	225	9/12/2006	7,390	13,100	0.0107	j[0.000587]	<0.001	<0.001	939	
3	39.67	156.2	75.7	230	11/14/2006	6,810	12,600	0.00697	j[0.000417]	j[0.000413]	<0.001	901	Strong septic odor
3	42.15	156.7	9.4	30	3/14/2007	7,810	13,500	0.00177	j[0.000597]	j[0.000405]	<0.001	916	
3	40.48	156.2	75.2	230	6/11/2007	9,390	16,100	0.0139	0.00168	0.00485	0.01006	1100	Clear
3	40.43	156.2	75.2	230	9/18/2007	7,298	14,814	0.028	0.001	<0.001	0.009	1010	Clear Strong septic odor
3	40.5	156.2	75.2	320	12/5/2007	2,700	5,870	0.052	0.001	0.001	0.003	680	Clear Strong septic odor
3	40.76	156.2	75	250	3/4/2008	7,600	14,100	0.014	<0.001	<0.001	<0.003	1110	Clear Strong septic odor
3	40.97	156.2	75	250	5/29/2008	4,100	8,170	0.007	0.004	0.003	<0.003	592	Clear Strong septic odor
3	41.26	156.2	75	250	9/5/2008	7,600	15,200	0.011	<0.001	<0.001	<0.003	978	Clear Strong septic odor
3	41.42	156.2	75	250	12/16/2008	4,250	8,710	0.006	<0.001	<0.001	<0.003	600	Clear Strong septic odor
3	41.6	156.2	74	250	3/16/2009	3,730	7,570	0.004	<0.001	<0.001	<0.003	527	Clear Strong septic odor
3	41.79	156.2	74	250	6/9/2009	3,750	7,600	0.001	<0.001	<0.001	<0.003	522	Clear Strong Septic odor
3	41.91	156.2	74	250	9/15/2009	3,700	7,480	0.002	<0.001	<0.001	<0.003	492	Clear Strong septic odor
3	42.05	156.2	74	250	11/20/2009	3,250	6,560	<0.001	<0.001	<0.001	<0.003	434	Clear Strong septic odor
3	42.17	156.2	74	250	3/18/2010	7,700	14,100	0.006	<0.001	<0.001	<0.003	1030	Clear Strong septic odor
3	42.26	156.2	74	250	6/7/2010	7,600	13,700	0.002	<0.001	<0.001	<0.003	894	Clear Strong septic odor
3	41.09	156.2	75	250	9/8/2010	2,700	5,100	0.002	<0.001	<0.001	<0.003	293	Clear Strong septic odor

ROC - Hobbs N-6 (1R-487)**SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	41.25	156.2	75	250	12/8/2010	4,150	6,650	0.001	<0.001	0.001	<0.003	470	Clear Strong septic odor
3	41.9	156.2	74	250	3/16/2011	7,800	17,100	0.005	<0.001	<0.001	<0.003	868	Clear Strong septic odor
3	42.39	156.2	74	250	6/23/2011	3,000	4,940	<0.001	<0.001	<0.001	<0.003	343	Clear Strong septic odor
3	42.52	156.2	74	250	9/22/2011	2,170	4,120	<0.001	<0.001	<0.001	<0.003	282	Clear Strong Septic odor
3	42.69	156.2	74	250	12/12/2011	2,470	5,000	<0.001	<0.001	<0.001	<0.003	327	Clear Strong septic odor
3	42.84	156.2	74	250	3/21/2012	2,930	6,170	<0.001	<0.001	<0.001	<0.003	408	Clear Strong septic odor
3	43.14	156.2	73	250	6/15/2012	2,020	4,640	<0.001	<0.001	<0.001	<0.003	249	Clear Strong septic odor
3	43.23	156.2	73	250	9/12/2012	1,470	3,530	<0.001	<0.001	<0.001	<0.003	265	Clear Strong septic odor
MW-3 plugged 12/17/2012													

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3R	41.1	55.9	2.4	10	12/8/2010	184	744	<0.001	<0.001	<0.001	<0.003	80.9	Clear No odor
3R	41.89	55.9	2.2	10	3/16/2011	204	792	<0.001	<0.001	<0.001	<0.003	76.9	Clear No odor
3R	42.33	55.9	2.2	10	6/23/2011	248	817	<0.001	<0.001	<0.001	<0.003	67.4	Clear No odor
3R	42.59	55.9	2.1	10	9/21/2011	240	795	<0.001	<0.001	<0.001	<0.003	71.2	Clear No odor
3R	42.8	55.9	2.1	10	12/12/2011	200	768	<0.001	<0.001	<0.001	<0.003	82.8	Clear No odor
3R	42.97	55.9	2.1	10	3/20/2012	212	904	<0.001	<0.001	<0.001	<0.003	81.1	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3R	43.21	55.9	2	10	6/15/2012	220	857	<0.001	<0.001	<0.001	<0.003	72.6	Clear No odor
3R	43.28	55.9	2	10	9/11/2012	252	912	<0.001	<0.001	<0.001	<0.003	68.5	Clear No odor
MW-3R plugged 12/17/2012													

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	42.42	56.65	9.24	27.74	8/14/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
4	42.6	56.66	9.14	27.42	12/6/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
4	42.84	56.63	8.96	26.89	3/14/2003	84	XXX	<0.001	<0.001	<0.001	<0.001	123	
4	42.58	56.65	9.14	27.43	6/27/2003	62	520	<0.001	<0.001	<0.001	0.002	138	
4	42.66	56.7	9.16	27.5	9/22/2003	65	569	<0.001	<0.001	<0.001	<0.001	123	
4	42.69	56.67	9.12	27.38	12/18/2003	64	547	<0.002	<0.002	<0.002	<0.006	44.8	
4	43.77	56.67	8.42	25.27	3/15/2004	124	560	0.00103	<0.001	<0.001	<0.001	127	
4	42.65	56.65	9.14	27.42	5/27/2004	50	484	<0.001	<0.001	<0.001	<0.001	107	
4	43.92	56.71	8.31	24.94	9/8/2004	50	492	0.00142	<0.001	<0.001	<0.001	114	
4	41.26	56.71	10.04	30.13	11/23/2004	55	XXX	<0.001	<0.001	<0.001	<0.001	99.2	
4	40.85	56.71	XXX	32	3/29/2005	47	424	<0.001	<0.001	<0.001	<0.001	101	
4	41.32	61.65	XXX	40	6/28/2005	45	519	<0.001	<0.001	<0.001	<0.001	102	
4	41.42	61.65	XXX	40	9/6/2005	70	523	<0.001	<0.001	<0.001	<0.001	92.5	
4	41.58	56.71	9.8	30	12/6/2005	40	370	<0.001	<0.001	<0.001	<0.001	82.2	
4	41.84	56.71	9.7	30	2/28/2006	40	556	<0.001	<0.001	<0.001	<0.001	71.7	
4	42.27	56.71	9.4	30	6/5/2006	59	476	<0.001	<0.001	<0.001	<0.001	76.2	
4	41.66	56.71	9.8	30	9/11/2006	66	588	<0.001	<0.001	<0.001	<0.001	87	
4	41.63	56.71	9.8	30	11/14/2006	93	498	<0.001	<0.001	<0.001	<0.001	90.8	
4	42.15	56.68	9.4	30	3/13/2007	95	528	<0.001	<0.001	<0.001	<0.001	82.7	Clear No odor
4	42.59	56.68	9.2	30	6/11/2007	70	516	<0.001	<0.001	<0.001	<0.001	77.6	Clear

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	42.53	56.68	9.2	30	9/18/2007	84	604	<0.001	<0.001	<0.001	<0.003	93.2	Clear No odor
4	42.65	56.68	9.1	30	12/6/2007	120	588	<0.001	<0.001	<0.001	<0.003	99.7	Clear No odor
4	42.98	56.68	8.9	30	3/3/2008	128	609	<0.001	<0.001	<0.001	<0.003	115	Clear No odor
4	43.19	56.68	8.8	30	5/28/2008	84	639	<0.001	<0.001	<0.001	<0.003	98.7	Clear No odor
4	43.47	56.68	8.6	30	9/8/2008	192	768	<0.001	<0.001	<0.001	<0.003	130	Clear No odor
4	43.67	56.68	8.5	30	12/15/2008	152	683	<0.001	<0.001	<0.001	<0.003	90.6	Clear No odor
4	43.84	56.72	8.4	30	3/17/2009	152	614	<0.001	<0.001	<0.001	<0.003	89.8	Clear No odor
4	44.21	56.72	8.1	30	6/10/2009	128	646	<0.001	<0.001	<0.001	<0.003	71.1	Clear No odor
4	44.33	56.72	8.1	30	9/14/2009	136	594	<0.001	<0.001	<0.001	<0.003	72.9	Clear No odor
4	44.28	56.72	8.1	30	11/19/2009	132	614	<0.001	<0.001	<0.001	<0.003	68.1	Clear No odor
4	44.43	56.71	8	30	3/17/2010	44	637	<0.001	<0.001	<0.001	<0.003	148	Clear No odor
4	44.56	56.71	7.9	30	6/8/2010	108	552	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
4	43.12	56.71	8.8	30	9/7/2010	120	587	<0.001	<0.001	<0.001	<0.003	71.3	Clear No odor
4	43.49	56.71	8.6	30	12/9/2010	100	468	<0.001	<0.001	<0.001	<0.003	95.7	Clear No odor
4	44.26	56.71	8.1	30	3/15/2011	88	554	<0.001	<0.001	<0.001	<0.003	79.7	Clear No odor
4	44.69	56.71	7.8	30	6/22/2011	88	544	<0.001	<0.001	<0.001	<0.003	90.2	Clear No odor
4	44.96	56.71	7.6	30	9/21/2011	80	493	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
4	45.16	56.71	7.5	30	12/13/2011	84	531	<0.001	<0.001	<0.001	<0.003	96.5	Clear No odor
4	45.33	56.71	7.4	30	3/20/2012	84	562	<0.001	<0.001	<0.001	<0.003	99.8	Clear No odor
4	45.53	56.71	7.3	30	6/14/2012	76	557	<0.001	<0.001	<0.001	<0.003	79.7	Clear No odor
4	45.61	56.71	7.2	30	9/11/2012	104	600	<0.001	<0.001	<0.001	<0.003	99.5	Clear No odor
4	45.78	56.71	7.1	30	12/12/2012	104	605	<0.001	<0.001	<0.001	<0.003	95	Clear No odor
4	45.98	56.71	7	30	3/5/2013	96	522	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
4	46.25	56.71	6.8	30	6/20/2013	36	471	<0.001	<0.001	<0.001	<0.003	76	Clear No odor
4	46.44	56.71	6.7	30	9/18/2013	80	527	<0.001	<0.001	<0.001	<0.003	73.5	Clear No odor
4	46.58	56.71	6.6	30	12/16/2013	84	510	<0.001	<0.001	<0.001	<0.003	87.7	Clear No odor
4	46.7	56.71	6.5	30	3/24/2014	88	554	<0.001	<0.001	<0.001	<0.003	94.8	Clear No odor
4	46.92	56.71	6.4	30	6/18/2014	67	510	<0.001	<0.001	<0.001	<0.001	79	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	47.16	56.71	6.2	30	9/11/2014	112	532	<0.001	<0.001	<0.001	<0.003	162	Clear No odor
4	47.24	56.71	6.2	30	12/22/2014	72	418	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
4	46.85	56.71	6.4	30	3/19/2015	68	488	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
4	46.95	56.71	6.3	30	6/18/2015	88	564	<0.001	<0.001	<0.001	<0.003	75	Clear No odor
4	47.01	56.71	6.3	30	9/23/2015	76	568	<0.001	<0.001	<0.001	<0.003	80.3	Clear No odor
4	46.76	56.71	6.5	25	12/3/2015	68	508	<0.001	<0.001	<0.001	<0.003	73	Clear No odor
4	46.52	56.71	6.6	25	3/20/2016	72	496	<0.001	<0.001	<0.001	<0.003	82.8	Clear No odor
4	47.28	56.71	6.1	20	6/28/2016	92	538	<0.001	<0.001	<0.001	<0.003	79.9	Clear No odor
4	46.56	56.71	6.6	25	9/28/2016	76	560	<0.001	<0.001	<0.001	<0.003	94	Clear No odor
4	45.9	56.71	7	25	12/7/2016	76	494	<0.001	<0.001	<0.001	<0.003	81	Clear No odor
4	46.03	56.71	6.9	25	3/22/2017	84	520	<0.001	<0.001	<0.001	<0.003	86	Clear No odor
4	46.51	56.71	6.6	25	6/29/2017	96	610	<0.001	<0.001	<0.001	<0.003	106	Clear No odor
4	46.46	56.71	6.7	25	9/27/2017	80	590	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
4	46.53	56.71	6.6	25	12/26/2017	80	588	<0.001	<0.001	<0.001	<0.003	195	Clear No odor
4	46.94	56.71	6.4	25	3/22/2018	96	488	<0.001	<0.001	<0.001	<0.003	82.5	Clear No odor
4	47.22	56.71	6.2	20	6/29/2018	92	440	<0.001	<0.001	<0.001	<0.003	77	Clear No odor
4	47.33	56.71	6.1	25	9/20/2018	100	436	<0.001	<0.001	<0.001	<0.003	73.8	Clear No odor
4	47.24	56.71	6.2	20	12/23/2018	80	396	<0.001	<0.001	<0.001	<0.003	92.3	Clear No odor
4	47.33	56.71	6.1	25	3/28/2019	132	385	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
4	47.03	56.71	6.3	25	6/27/2019	144	596	<0.001	<0.001	<0.001	<0.003	83	Clear No odor
4	46.79	56.71	6.4	25	9/27/2019	132	597	<0.001	<0.001	<0.001	<0.003	80	Clear No odor
4	47.28	56.71	6.1	20	12/13/2019	120	573	<0.001	<0.001	<0.001	<0.003	70	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
5	38.82	51.18	8.01	24.04	12/6/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	

ROC - Hobbs N-6 (1R-487)**SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
5	39.04	51.18	7.89	23.67	3/14/2003	39	XXX	<0.001	<0.001	<0.001	<0.001	105	
5	38.81	51.21	8.06	24.18	6/27/2003	35.4	513	<0.001	<0.001	<0.001	0.002	120	
5	51.2	38.77	8.11	24.35	9/22/2003	33.7	508	<0.001	<0.001	<0.001	<0.001	88.2	
5	38.91	51.19	8.01	24.05	12/18/2003	56	474	<0.002	<0.002	<0.002	<0.006	39.4	
5	40	51.19	7.3	21.92	3/15/2004	762	1620	0.0107	<0.001	0.000543	0.00088	216	
5	38.9	51.19	8.02	24.07	5/27/2004	33.7	473	<0.001	<0.001	<0.001	<0.001	94	
5	40.18	51.31	7.23	21.7	9/8/2004	35.4	517	<0.001	<0.001	<0.001	<0.001	79.4	
5	38.12	51.31	8.57	25.72	11/23/2004	57.3	XXX	<0.001	<0.001	<0.001	<0.001	85.4	
5	37.3	51.31	XXX	32	3/29/2005	35	449	<0.001	<0.001	<0.001	<0.001	83.1	
5	XXX	XXX	XXX	XXX	6/28/2005	38.1	504	<0.001	<0.001	<0.001	<0.001	95.8	
5	37.74	51.07	XXX	26.11	9/6/2005	66.8	488	<0.001	<0.001	<0.001	<0.001	103	
5	37.8	51.31	8.8	30	12/6/2005	29.6	442	0.00044	<0.001	<0.001	<0.001	67	
5	38.11	51.31	8.6	30	2/28/2006	27.9	504	<0.001	<0.001	<0.001	<0.001	62.8	
5	38.48	51.31	8.3	30	6/5/2006	37.8	484	<0.001	<0.001	<0.001	<0.001	69	
5	38.08	51.31	8.6	30	9/11/2006	39	596	<0.001	<0.001	<0.001	<0.001	81.2	
5	37.94	51.31	8.7	30	11/14/2006	30.2	430	<0.001	<0.001	<0.001	<0.001	85	
5	38.33	51.3	8.4	30	3/13/2007	36.2	420	<0.001	<0.001	<0.001	<0.001	78	Clear No odor
5	38.82	51.3	8.1	30	6/11/2007	35.2	454	<0.001	<0.001	<0.001	<0.001	71.8	Clear
5	38.78	51.3	8.1	30	9/18/2007	40	574	<0.001	<0.001	<0.001	<0.003	89.6	Clear No odor
5	38.85	51.3	8.1	30	12/6/2007	32	484	<0.001	<0.001	<0.001	<0.003	91.4	Clear No odor
5	39.15	51.3	7.9	30	3/4/2008	40	472	<0.001	<0.001	<0.001	<0.003	93.6	Clear No odor
5	39.41	51.3	7.7	30	5/28/2008	40	517	<0.001	<0.001	<0.001	<0.003	90	Clear No odor
5	39.66	51.3	7.6	30	9/8/2008	60	560	<0.001	<0.001	<0.001	<0.003	157	Clear No odor
5	39.86	51.3	7.4	30	12/15/2008	40	538	<0.001	<0.001	<0.001	<0.003	92.8	Clear No odor
5	39.98	51.3	7.4	30	3/16/2009	40	508	<0.001	<0.001	<0.001	<0.003	85	Clear No odor
5	40.34	51.3	7.1	30	6/10/2009	136	607	<0.001	<0.001	<0.001	<0.003	78.3	Clear No odor
5	40.32	51.3	7.1	30	9/14/2009	40	504	<0.001	<0.001	<0.001	<0.003	75.9	Clear No odor
5	40.43	51.3	7.1	30	11/19/2009	40	455	<0.001	<0.001	<0.001	<0.003	65	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
5	40.58	51.29	7	30	3/17/2010	192	825	<0.001	<0.001	<0.001	<0.003	111	Clear No odor
5	40.71	51.29	6.9	30	6/8/2010	40	511	<0.001	<0.001	<0.001	<0.003	91	Clear No odor
5	39.73	51.29	7.5	30	9/7/2010	40	436	<0.001	<0.001	<0.001	<0.003	70.9	Clear No odor
5	39.81	51.29	7.5	30	12/9/2010	36	486	<0.001	<0.001	<0.001	<0.003	95.2	Clear No odor
5	40.38	51.29	7.1	30	3/15/2011	40	493	<0.001	<0.001	<0.001	<0.003	81.5	Clear No odor
5	40.83	51.29	6.8	30	6/22/2011	40	439	<0.001	<0.001	<0.001	<0.003	80.6	Clear No odor
5	41.09	51.29	6.6	30	9/21/2011	40	425	<0.001	<0.001	<0.001	<0.003	84.6	Clear No odor
5	41.27	51.29	6.5	30	12/13/2011	40	517	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
5	41.48	51.29	6.4	30	3/20/2012	36	490	<0.001	<0.001	<0.001	<0.003	91.1	Clear No odor
5	41.67	51.29	6.3	30	6/14/2012	36	487	<0.001	<0.001	<0.001	<0.003	90.6	Clear No odor
5	41.87	51.29	6.1	30	9/11/2012	36	485	<0.001	<0.001	<0.001	<0.003	89.8	Clear No odor
5	41.96	51.29	6.1	30	12/12/2012	40	463	<0.001	<0.001	<0.001	<0.003	85	Clear No odor
5	42.14	51.29	5.9	30	3/5/2013	44	456	<0.001	<0.001	<0.001	<0.003	94	Clear No odor
5	42.41	51.29	5.8	30	6/20/2013	32	472	<0.001	<0.001	<0.001	<0.003	80	Clear No odor
5	42.51	51.29	5.7	30	9/18/2013	48	463	<0.001	<0.001	<0.001	<0.003	97	Clear No odor
5	42.68	51.29	5.6	30	12/16/2013	40	449	<0.001	<0.001	<0.001	<0.003	99	Clear No odor
5	42.79	51.29	5.5	30	3/25/2014	72	490	<0.001	<0.001	<0.001	<0.003	84.5	Clear No odor
5	42.41	51.29	5.8	30	6/18/2014	64	540	<0.001	<0.001	<0.001	<0.003	83	Clear No odor
5	42.66	51.29	5.6	30	9/12/2014	60	498	<0.001	<0.001	<0.001	<0.003	155	Clear No odor
5	42.75	51.29	5.6	30	12/23/2014	64	536	<0.001	<0.001	<0.001	<0.003	176	Clear No odor
5	42.38	51.29	5.8	30	3/20/2015	68	512	<0.001	<0.001	<0.001	<0.003	71	Clear No odor
5	42.41	51.29	5.8	30	6/17/2015	80	546	<0.001	<0.001	<0.001	<0.003	76	Clear No odor
5	42.49	51.29	5.7	30	9/22/2015	68	500	<0.001	<0.001	<0.001	<0.003	80.6	Clear No odor
5	42.25	51.29	5.9	30	12/2/2015	40	534	<0.001	<0.001	<0.001	<0.003	198	Clear No odor
5	42.02	51.29	6	30	3/29/2016	64	540	<0.001	<0.001	<0.001	<0.003	87.6	Clear No odor
5	42.7	51.29	5.6	20	6/27/2016	72	490	<0.001	<0.001	<0.001	<0.003	76.5	Clear No odor
5	42.07	51.29	6	25	9/27/2016	64	306	<0.001	<0.001	<0.001	<0.003	87	Clear No odor
5	41.44	51.29	6.4	25	12/6/2016	72	386	<0.001	<0.001	<0.001	<0.003	92	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
5	41.55	51.29	6.3	25	3/21/2017	60	540	<0.001	<0.001	<0.001	<0.003	91	Clear No odor
5	42.01	51.29	6	25	6/28/2017	72	558	<0.001	<0.001	<0.001	<0.003	86	Clear No odor
5	41.93	51.29	6.1	25	9/26/2017	136	688	<0.001	<0.001	<0.001	<0.003	99	Clear No odor
5	42.06	51.29	6	25	12/22/2017	68	532	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
5	42.44	51.29	5.8	25	3/21/2018	80	552	<0.001	<0.001	<0.001	<0.003	92.6	Clear No odor
5	42.65	51.29	5.6	20	6/28/2018	100	516	<0.001	<0.001	<0.001	<0.003	73.5	Clear No odor
5	43.48	51.29	5.1	25	9/19/2018	48	498	<0.001	<0.001	<0.001	<0.003	83.4	Clear No odor
5	43.42	51.29	5.1	20	12/22/2018	44	286	<0.001	<0.001	<0.001	<0.003	109	Clear No odor
5	43.42	51.29	5.1	25	12/22/2018	44	286	<0.001	<0.001	<0.001	<0.003	109	Clear No odor
5	43.49	51.29	5.1	25	3/27/2019	68	420	<0.001	<0.001	<0.001	<0.003	86	Clear No odor
5	42.07	51.29	6	25	6/25/2019	44	514	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
5	42.24	51.29	5.9	25	9/26/2019	48	499	<0.001	<0.001	<0.001	<0.003	103	Clear No odor
5	43.22	51.29	5.2	20	12/12/2019	48	490	<0.001	<0.001	<0.001	<0.003	84	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
6	41.1	53	1.9	5.71	3/14/2003	42.5	XXX	<0.001	<0.001	<0.001	<0.001	96.6	
6	40.81	53.03	1.95	5.86	6/27/2003	35.4	743	<0.001	<0.001	<0.001	<0.001	97.5	
6	40.79	52.97	1.98	5.95	9/22/2003	39	484	<0.001	<0.001	<0.001	<0.001	88.4	
6	40.93	53	1.96	5.9	12/18/2003	44	452	<0.002	<0.002	<0.002	<0.006	36.8	
6	42.02	53	1.78	5.36	3/15/2004	222	692	0.0026	<0.001	<0.001	<0.001	94.2	
6	40.91	53.01	1.97	5.91	5/27/2004	31.9	443	<0.001	<0.001	<0.001	<0.001	86.6	
6	42.16	53.1	1.75	5.25	9/8/2004	53.2	488	<0.001	<0.001	<0.001	<0.001	85	
6	39.62	53.1	2.16	6.47	11/23/2004	76.1	XXX	<0.001	<0.001	<0.001	<0.001	84	
6	39.14	53.1	XXX	8	3/29/2005	97.8	473	<0.001	<0.001	<0.001	<0.001	81.1	
6	39.6	54.49	XXX	7.6	6/28/2005	122	541	<0.001	<0.001	0.000812	0.00285	103	

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
6	39.61	61.65	XXX	10.78	9/6/2005	40.4	442	<0.001	<0.001	<0.001	<0.001	23.4	
6	39.75	53.1	2.1	7	12/6/2005	52.7	458	<0.001	<0.001	<0.001	<0.001	58.2	
6	40.06	53.1	2.1	7	2/28/2006	59.2	552	<0.001	<0.001	<0.001	<0.001	67.6	
6	40.53	53.1	2	10	6/5/2006	67.2	512	<0.001	<0.001	<0.001	<0.001	72.2	
6	40.05	53.1	2.1	10	9/11/2006	67.6	552	<0.001	<0.001	<0.001	<0.001	101	
6	39.88	53.1	2.1	8	11/14/2006	53.9	464	<0.001	<0.001	<0.001	<0.001	95.4	
6	40.34	53.1	2	8	3/13/2007	57.7	466	<0.001	<0.001	<0.001	<0.001	90.3	Clear No odor
6	40.78	53.1	2	8	6/11/2007	61.8	528	<0.001	<0.001	<0.001	<0.001	85.4	Clear
6	40.64	53.1	2	8	9/18/2007	72	566	<0.001	<0.001	<0.001	<0.002	105	Clear No odor
6	40.85	53.1	2	8	12/6/2007	76	525	<0.001	<0.001	<0.001	<0.003	111	Clear No odor
6	41.22	53.1	1.9	8	3/3/2008	76	536	<0.001	<0.001	<0.001	<0.003	110	Clear No odor
6	41.47	53.1	1.9	8	5/28/2008	72	559	<0.001	<0.001	<0.001	<0.003	87.3	Clear No odor
6	41.73	53.1	1.8	8	9/8/2008	124	668	<0.001	<0.001	<0.001	<0.003	128	Clear No odor
6	41.91	53.1	1.8	8	12/15/2008	84	568	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
6	42.06	53.1	1.8	8	3/16/2009	76	550	<0.001	<0.001	<0.001	<0.003	98	Clear No odor
6	42.26	53.1	1.7	8	6/9/2009	84	566	<0.001	<0.001	<0.001	<0.003	94.1	Clear No odor
6	42.36	53.1	1.7	8	9/14/2009	72	546	<0.001	<0.001	<0.001	<0.003	81.5	Clear No odor
6	42.49	53.1	1.7	8	11/19/2009	76	535	<0.001	<0.001	<0.001	<0.003	178	Clear No odor
6	42.65	53.1	1.7	8	3/17/2010	48	693	<0.001	<0.001	<0.001	<0.003	160	Clear No odor
6	42.93	55.21	2	XXX	6/8/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present No sample taken
6	41.56	55.21	2.2	XXX	9/7/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product present No sample taken
6	41.82	53.1	1.8	6	12/9/2010	100	549	<0.001	<0.001	<0.001	<0.003	95.2	Slight odor
6	42.49	53.1	1.7	6	3/15/2011	100	538	<0.001	<0.001	<0.001	<0.003	89.2	Heavy sheen Slight odor
6	42.93	53.1	1.6	6	6/22/2011	104	585	<0.001	<0.001	<0.001	<0.003	86.5	Heavy sheen Slight odor
6	43.19	53.1	1.6	6	9/22/2011	108	474	<0.001	<0.001	<0.001	<0.003	96.6	Slight odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
6	43.38	53.1	1.6	6	12/13/2011	80	528	<0.001	<0.001	<0.001	<0.003	97.1	Slight odor
6	43.55	53.1	1.5	6	3/20/2012	76	520	<0.001	<0.001	<0.001	<0.003	96.8	Slight odor
6	43.74	53.1	1.5	6	6/14/2012	84	529	<0.001	<0.001	<0.001	<0.003	106	Slight odor
6	43.91	53.1	1.5	6	9/11/2012	96	614	<0.001	<0.001	<0.001	<0.003	83	Slight odor
6	44.07	53.1	1.4	6	12/12/2012	88	592	<0.001	<0.001	<0.001	<0.003	105	Slight odor
6	44.23	53.1	1.4	6	3/6/2013	100	562	<0.001	<0.001	<0.001	<0.003	114	Slight odor
6	44.52	53.1	1.4	6	6/20/2013	92	564	<0.001	<0.001	<0.001	<0.003	108	Slight odor
6	44.59	53.1	1.4	6	9/19/2013	76	533	<0.001	<0.001	<0.001	<0.003	87	Slight odor
6	44.78	53.1	1.3	6	12/16/2013	80	516	<0.001	<0.001	<0.001	<0.003	89.3	Slight odor
6	44.9	53.1	1.3	6	3/24/2014	60	504	<0.001	<0.001	<0.001	<0.003	85.9	Slight odor
6	45.12	53.1	1.3	6	6/19/2014	84	546	<0.001	<0.001	<0.001	<0.003	95.2	Slight odor
6	45.35	53.1	1.2	6	9/11/2014	84	524	<0.001	<0.001	<0.001	<0.003	90.7	Slight odor
6	45.44	53.1	1.2	6	12/22/2014	64	470	<0.001	<0.001	<0.001	<0.003	97	Slight odor
6	45.06	53.1	1.3	6	3/19/2015	76	520	<0.001	<0.001	<0.001	<0.003	74.4	Slight odor
6	45.15	53.1	1.3	6	6/18/2015	100	468	<0.001	<0.001	<0.001	<0.003	98	Slight odor
6	45.22	53.1	1.3	6	9/22/2015	68	562	<0.001	<0.001	<0.001	<0.003	84	Slight odor
6	44.98	53.1	1.3	6	12/2/2015	64	546	<0.001	<0.001	<0.001	<0.003	71	Slight odor
6	44.75	53.1	1.3	6	3/29/2016	68	538	<0.001	<0.001	<0.001	<0.003	82.7	Clear Slight odor
6	45.43	53.1	1.2	6	6/27/2016	68	538	<0.001	<0.001	<0.001	<0.003	79.7	Clear Slight odor
6	44.8	53.1	1.3	6	9/27/2016	72	560	<0.001	<0.001	<0.001	<0.003	93	Clear Slight odor
6	44.19	53.1	1.4	6	12/6/2016	68	568	<0.001	<0.001	<0.001	<0.003	22	Clear Slight odor
6	44.33	53.1	1.4	6	3/21/2017	84	532	<0.001	<0.001	<0.001	<0.003	84	Slight odor
6	44.84	53.1	1.3	6	6/28/2017	76	540	<0.001	<0.001	<0.001	<0.003	88	Slight odor
6	44.72	53.1	1.3	6	9/26/2017	96	620	<0.001	<0.001	<0.001	<0.003	97	Slight odor
6	44.83	53.1	1.3	6	12/22/2017	68	562	<0.001	<0.001	<0.001	<0.003	99	Slight odor
6	45.2	53.1	1.3	6	3/21/2018	76	552	<0.001	<0.001	<0.001	<0.003	100	Slight odor
6	45.4	53.1	1.2	6	6/28/2018	100	406	<0.001	<0.001	<0.001	<0.003	75.2	Slight odor
6	45.49	53.1	1.2	6	9/19/2018	76	568	<0.001	<0.001	<0.001	<0.003	89.4	Slight odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
6	45.44	53.1	1.2	6	12/22/2018	64	486	<0.001	<0.001	<0.001	<0.003	119	Slight odor
6	45.48	53.1	1.2	6	3/27/2019	64	360	<0.001	<0.001	<0.001	<0.003	93	Slight odor
6	45.16	53.1	1.3	6	6/27/2019	72	556	<0.001	<0.001	<0.001	<0.003	90	Slight odor
6	46.21	53.1	1.1	6	9/27/2019	48	500	<0.001	<0.001	<0.001	<0.003	96	Slight odor
6	45.38	53.1	1.2	6	12/13/2019	48	484	<0.001	<0.001	<0.001	<0.003	85	Slight odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
7	40.94	47.17	0.99	2.98	12/6/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
7	41.22	47.18	0.95	2.86	3/14/2003	266	XXX	0.001	<0.001	<0.001	<0.001	XXX	
7	40.88	47.15	1	3	6/27/2003	222	802	<0.001	<0.001	<0.001	<0.001	122	
7	40.86	47.11	1.01	3.05	9/22/2003	222	861	<0.001	<0.001	<0.001	<0.001	133	
7	41.03	47.18	1	3	12/18/2003	208	827	<0.002	<0.002	<0.002	<0.006	110	
7	42.17	47.18	0.81	2.44	3/15/2004	1,080	2,220	0.0131	<0.001	<0.001	<0.001	44.4	
7	41	47.15	1	3	5/27/2004	213	986	<0.001	<0.001	<0.001	<0.001	220	
7	42.34	47.25	0.79	2.36	9/8/2004	230	731	<0.001	<0.001	<0.001	<0.001	105	
7	39.82	47.25	1.19	178.98	11/23/2004	188	XXX	<0.001	<0.001	<0.001	<0.001	111	purge vol was likely an error
7	39.33	47.25	XXX	4	3/29/2005	234	791	<0.001	<0.001	<0.001	<0.001	96.1	
7	39.6	47	XXX	3.7	6/28/2005	216	783	<0.001	<0.001	0.00114	0.0038	96.9	
7	39.86	47	XXX	3.5	9/6/2005	187	802	<0.001	<0.001	<0.001	<0.001	76.9	
7	39.93	47.25	1.2	4	12/6/2005	201	670	<0.001	<0.001	<0.001	<0.0001	85.2	
7	40.27	47.25	1.1	4	2/28/2006	202	876	<0.001	<0.001	<0.001	<0.001	72.4	
7	40.63	47.25	1.1	10	6/5/2006	225	794	<0.001	<0.001	<0.001	<0.001	74	
7	40.17	47.25	1.1	10	9/11/2006	202	710	<0.001	<0.001	<0.001	<0.001	77.9	
7	40.01	47.25	1.2	7	11/14/2006	223	764	<0.001	<0.001	<0.001	<0.001	86.5	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
7	40.53	47.31	1.1	5	3/13/2007	206	724	<0.001	<0.001	<0.001	<0.001	79.9	Clear No odor
7	40.92	47.31	1	5	6/11/2007	228	846	<0.001	<0.001	<0.001	<0.001	75.9	Clear
7	40.92	47.31	1	5	9/18/2007	252	868	<0.001	<0.001	<0.001	<0.003	97.7	Clear No odor
7	41.03	47.31	1	5	12/6/2007	256	882	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
7	41.3	47.31	1	5	3/3/2008	260	876	<0.001	<0.001	<0.001	<0.003	111	Clear No odor
7	41.56	47.31	0.9	5	5/28/2008	268	962	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
7	41.85	47.31	0.9	5	9/8/2008	260	894	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
7	41.99	47.31	0.9	5	12/15/2008	260	921	<0.001	<0.001	<0.001	<0.003	96.3	Clear No odor
7	42.18	47.35	0.8	5	3/17/2009	256	886	<0.001	<0.001	<0.001	<0.003	87.2	Clear No odor
7	42.35	47.35	0.8	5	6/10/2009	260	885	<0.001	<0.001	<0.001	<0.003	81.1	Clear No odor
7	42.49	47.35	0.8	5	9/14/2009	260	908	<0.001	<0.001	<0.001	<0.003	73.7	Clear No odor
7	42.61	47.35	0.8	5	11/19/2009	252	842	<0.001	<0.001	<0.001	<0.003	70.1	Clear No odor
7	42.77	47.35	0.7	5	3/17/2010	268	862	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
7	42.84	47.35	0.7	5	6/8/2010	248	788	<0.001	<0.001	<0.001	<0.003	54.8	Clear No odor
7	41.42	47.35	0.9	5	9/7/2010	272	886	<0.001	<0.001	<0.001	<0.003	77.4	Clear No odor
7	41.76	47.35	0.9	5	12/9/2010	272	899	<0.001	<0.001	<0.001	<0.003	169	Clear No odor
7	42.52	47.35	0.8	5	3/15/2011	268	864	<0.001	<0.001	<0.001	<0.003	94.3	Clear No odor
7	42.98	47.35	0.7	5	6/22/2011	260	854	<0.001	<0.001	<0.001	<0.003	85.1	Clear No odor
7	43.26	47.35	0.7	5	9/21/2011	260	872	<0.001	<0.001	<0.001	<0.003	80.2	Clear No odor
7	43.41	47.35	0.6	5	12/13/2011	272	919	0.003	<0.001	<0.001	<0.003	89.3	Clear No odor
7	43.65	47.35	0.6	5	3/20/2012	268	883	<0.001	<0.001	<0.001	<0.003	95.2	Clear No odor
7	43.83	47.35	0.6	5	6/14/2012	260	863	<0.001	<0.001	<0.001	<0.003	116	Clear No odor
7	43.9	47.35	0.6	5	9/11/2012	256	985	<0.001	<0.001	<0.001	<0.001	74.4	Clear No odor
7	44.08	47.35	0.5	5	12/12/2012	272	877	<0.001	<0.001	<0.001	<0.003	86	Clear No odor
7	44.22	47.35	0.5	5	3/5/2013	272	848	<0.001	<0.001	<0.001	<0.003	105	Clear No odor
7	44.56	47.35	0.4	5	6/20/2013	200	809	<0.001	<0.001	<0.001	<0.003	130	Clear No odor
7	44.63	47.35	0.4	5	9/18/2013	264	849	<0.001	<0.001	<0.001	<0.003	74.2	Clear No odor
7	44.84	47.35	0.4	5	12/16/2013	244	859	<0.001	<0.001	<0.001	<0.003	75.9	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
7	44.96	47.35	0.4	5	3/24/2014	164	660	<0.001	<0.001	<0.001	<0.003	107	Clear No odor
7	45.17	47.35	0.3	5	6/18/2014	200	830	<0.001	<0.001	<0.001	<0.003	155	Clear No odor
7	45.44	47.35	0.3	4	9/11/2014	216	868	<0.001	<0.001	<0.001	<0.003	168	Clear No odor
7	45.54	47.35	0.3	4	12/22/2014	252	748	<0.001	<0.001	<0.001	<0.003	77	Clear No odor
7	45.12	47.35	0.4	4	3/19/2015	208	788	<0.001	<0.001	<0.001	<0.003	145	Clear No odor
7	45.23	47.35	0.3	5	6/18/2015	276	924	<0.001	<0.001	<0.001	<0.003	80	Clear No odor
7	45.3	47.35	0.3	4	9/23/2015	88	560	<0.001	<0.001	<0.001	<0.003	90	Clear No odor
7	45.07	47.35	0.4	4	12/3/2015	252	876	<0.001	<0.001	<0.001	<0.003	65	Clear No odor
7	44.85	47.35	0.4	4	3/30/2016	308	978	<0.001	<0.001	<0.001	<0.003	67.4	Clear No odor
7	44.59	47.35	0.3	4	6/28/2016	248	826	<0.001	<0.001	<0.001	<0.003	77.9	Clear No odor
7	44.9	47.35	0.4	4	9/28/2016	212	826	<0.001	<0.001	<0.001	<0.003	162	Clear No odor
7	44.28	47.35	0.5	4	12/7/2016	264	876	<0.001	<0.001	<0.001	<0.003	83	Clear No odor
7	44.44	47.35	0.5	4	3/22/2017	288	904	<0.001	<0.001	<0.001	<0.003	75	Clear No odor
7	44.93	47.35	0.4	4	6/29/2017	284	1080	<0.001	<0.001	<0.001	<0.003	183	Clear No odor
7	44.83	47.35	0.4	4	9/27/2017	188	790	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
7	44.98	47.35	0.4	4	12/26/2017	256	900	<0.001	<0.001	<0.001	<0.003	167	Clear No odor
7	45.34	47.35	0.3	4	3/22/2018	268	842	<0.001	<0.001	<0.001	<0.003	85.2	Clear No odor
7	45.55	47.35	0.3	4	6/29/2018	240	830	<0.001	<0.001	<0.001	<0.003	101	Clear No odor
7	45.64	47.35	0.3	4	9/20/2018	232	844	<0.001	<0.001	<0.001	<0.003	79.2	Clear No odor
7	45.58	47.35	0.3	4	12/23/2018	80	457	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
7	45.63	47.35	0.3	4	3/28/2019	232	652	<0.001	<0.001	<0.001	<0.003	85	Clear No odor
7	45.32	47.35	0.3	4	6/27/2019	220	821	<0.001	<0.001	<0.001	<0.003	88	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
7	46.43	47.35	0.1	3	9/27/2019	208	781	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
7	45.54	47.35	0.3	3	12/13/2019	236	661	<0.001	<0.001	<0.001	<0.003	76	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
BS1	40.9	65.7	16.1	25	12/6/2005	93	608	0.0323	0.0209	0.107	0.0825	54.4	
BS1	43.33	65.7	14.5	45	3/1/2006	105	912	0.44	0.0357	0.168	0.1195		
BS1	41.08	65.7	16	50	6/5/2006	171	858	0.544	0.0125	1.142	0.03479	45	Dark Gray with Stong Pet. Odor/ Heavy skim of Oil
BS1	39.9	65.7	16.8	70	9/12/2006	142	1,010	1.15	0.0283	0.207	0.04044	z	Clear Strong Petroleum Odor
BS1	39.92	63.75	15.5	50	11/15/2006	283	1,450	1.06	0.0298	0.159	0.0772	28.6	Clear Strong Petroleum Odor
BS1	40.47	63.74	15.1	50	3/14/2007	427	2,040	1.19	0.0402	0.323	0.0958	24.2	
BS1	42.59	63.74	13.7	50	6/12/2007	346	1,580	0.569	0.00923	0.146	0.0891	24.7	Clear
BS1	42.45	63.74	13.8	45	9/18/2007	428	1,804	1.88	0.026	0.394	0.202	13.2	Clear Strong petroleum odor
BS1	44.18	63.74	12.7	45	12/6/2007	500	1,997	1.31	0.001	0.255	0.11	66.1	Clear Strong petroleum odor
BS1	XXX	63.74	XXX	XXX	3/4/2008	550	2,070	<0.001	<0.001	<0.001	<0.003	105	Hydrocarbon present Strong odor Hydrocarbon emulsion make it impossible to measure water column

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	43.29	63.74	13.3	45	5/29/2008	810	2,590	0.025	0.124	0.318	0.197	99.2	Hydrocarbons present Clear Strong odor
BS1	43.4	63.74	13.2	45	9/5/2008	710	2,270	0.736	0.004	0.238	0.117	58	Clear Strong petroleum odor
BS1	43.1	63.74	13.4	45	12/15/2008	580	2,070	0.347	0.004	0.188	0.09	76.8	Clear Strong petroleum odor
BS1	43.21	63.74	13.3	XXX	3/16/2009	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Product is present and emulsion was so thick the well could not be pumped or bailed
BS1	47.34	63.74	10.7	XXX	6/9/2009	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present Strong Odor Emulsion/Strong Petroleum Odor. Well could not be pumped or bailed
BS1	48.2	63.74	10.1	XXX	9/15/2009	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Emulsion/Strong petroleum odor Could not be sampled
BS1	48.36	63.74	10	XXX	11/20/2009	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Emulsion/Strong petroleum odor Could not be sampled
BS1	48.47	63.74	9.9	XXX	3/18/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present with Strong odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	48.83	63.74	9.7	XXX	6/7/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Emulsion Strong petroleum odor
BS1	47.38	63.74	10.6	XXX	9/8/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Emulsion Strong petroleum odor
BS1	47.49	63.74	10.6	XXX	12/8/2010	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	47.93	63.74	10.3	XXX	3/16/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	48.22	63.74	10.1	XXX	6/23/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	48.51	63.74	9.9	XXX	9/22/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	48.63	63.74	9.8	XXX	12/12/2011	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	48.79	63.74	9.7	XXX	3/21/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	48.96	63.74	9.6	XXX	6/14/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Emulsion present Strong petroleum odor
BS1	46.03	63.74	11.5	XXX	9/12/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present with Strong Petroleum odor
BS1	45.67	63.74	11.7	XXX	12/13/2012	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present with Strong odor, Product is present, well was not sampled
BS1	46.11	63.74	11.5	XXX	3/6/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present with Strong odor, Product is present, well was not sampled
BS1	46.31	63.74	11.3	XXX	6/20/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon Present with Strong odor, Product is present, well was not sampled
BS1	46.79	63.74	11	XXX	9/19/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present with Strong odor; Product present well was not sampled.
BS1	47.02	63.74	10.9	XXX	12/17/2013	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present with Strong odor; Product present well was not sampled
BS1	47.14	63.74	10.8	XXX	3/25/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor
BS1	47.36	63.74	10.6	XXX	6/19/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	47.62	63.74	10.5	XXX	9/12/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.7	63.74	10.4	XXX	12/22/2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.7	63.74	10.4	XXX	3/20/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.44	63.74	10.6	XXX	6/18/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.51	63.74	10.5	XXX	9/22/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.23	63.74	10.7	XXX	12/3/2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.01	63.74	10.9	XXX	3/30/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.72	63.74	10.4	XXX	6/28/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.06	63.74	10.8	XXX	9/28/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	46.38	63.74	11.3	XXX	12/6/2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	46.51	63.74	11.2	XXX	3/21/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	46.89	63.74	11	XXX	6/29/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	46.76	63.74	11	XXX	9/26/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	46.93	63.74	10.9	XXX	12/22/2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.38	63.74	10.6	XXX	3/22/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.5	63.74	10.5	XXX	6/29/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.65	63.74	10.4	XXX	9/20/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.5	63.74	10.5	XXX	12/23/2018	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.66	63.74	10.5	XXX	3/28/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.36	63.74	10.6	XXX	6/27/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS1	47.82	63.74	10.3	XXX	9/27/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled
BS1	47.56	63.74	10.5	XXX	12/12/2019	XXX	XXX	XXX	XXX	XXX	XXX	XXX	Hydrocarbon present Strong odor Well not sampled

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS2	42.59	73.32	20	60	11/15/2006	81.8	522	0.0373	0.00314	0.0404	0.0994	107	Clear Strong petroleum odor
BS2	41.4	71.59	19.6	60	3/14/2007	64.5	444	0.00274	j[0.000935]	0.00225	0.00282	74.4	
BS2	41.8	71.59	19.4	60	6/12/2007	83.8	546	0.00179	0.00119	0.002	0.0011	75.9	Clear
BS2	41.65	71.59	19.5	60	9/18/2007	108	588	<0.001	<0.001	<0.001	<0.003	111	Clear Strong petroleum odor
BS2	41.5	71.59	19.6	60	12/6/2007	108	571	0.001	<0.001	0.002	<0.003	97.5	Clear Strong petroleum odor
BS2	41.78	71.08	19	60	3/4/2008	100	553	0.002	<0.001	0.004	<0.003	113	Clear Strong petroleum odor
BS2	42.06	71.08	18.9	60	5/29/2008	100	605	0.002	<0.001	0.002	<0.003	99.6	Clear Strong petroleum odor
BS2	42.35	71.08	18.7	60	9/5/2008	88	511	0.008	<0.001	0.002	<0.003	101	Clear Strong petroleum odor
BS2	42.46	71.08	18.6	60	12/15/2008	92	568	0.005	<0.001	0.001	<0.003	96.3	Clear Strong petroleum odor
BS2	42.81	70.83	18.2	60	3/16/2009	88	497	<0.001	<0.001	<0.001	<0.003	85.9	Clear Strong petroleum odor
BS2	42.92	70.83	18.1	60	6/9/2009	88	530	<0.001	<0.001	<0.001	<0.003	79.8	Clear Strong Petroleum Odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS2	43.41	70.83	17.8	60	9/15/2009	92	533	<0.001	<0.001	<0.001	<0.003	83.7	Clear Strong petroleum odor
BS2	43.61	70.83	17.7	60	11/19/2009	92	568	<0.001	<0.001	<0.001	<0.003	76.2	Clear Strong petroleum odor
BS2	43.85	70.83	17.5	60	3/18/2010	92	555	<0.001	<0.001	<0.001	<0.003	112	Clear Strong Petroleum odor
BS2	43.48	70.83	17.8	60	6/7/2010	84	553	<0.001	<0.001	<0.001	<0.003	94.6	Clear Strong petroleum odor
BS2	42.38	70.83	18.5	60	9/8/2010	92	554	<0.001	<0.001	<0.001	<0.003	83.5	Clear Strong petroleum odor
BS2	42.59	70.83	18.4	60	12/8/2010	104	496	<0.001	<0.001	<0.001	<0.003	93.6	Clear Strong petroleum odor
BS2	42.86	70.83	18.2	60	3/16/2011	80	525	<0.001	<0.001	<0.001	<0.003	89.7	Clear Strong petroleum odor
BS2	43.33	70.83	17.9	60	6/23/2011	140	649	<0.001	<0.001	<0.001	<0.003	92.4	Clear Strong petroleum odor
BS2	43.56	70.83	17.7	60	9/22/2011	156	688	<0.001	<0.001	<0.001	<0.003	112	Clear Strong petroleum odor
BS2	43.75	70.83	17.6	60	12/12/2011	144	665	0.001	<0.001	<0.001	<0.003	118	Clear Strong petroleum odor
BS2	43.89	70.83	17.5	60	3/21/2012	84	569	<0.001	<0.001	<0.001	<0.003	131	Clear Strong petroleum odor
BS2	44.13	70.83	17.4	60	6/15/2012	80	548	<0.001	<0.001	<0.001	<0.003	116	Clear Strong petroleum odor
BS2	44.2	70.83	17.3	60	9/12/2012	72	511	<0.001	<0.001	<0.001	<0.003	101	Clear Strong petroleum odor
BS2	44.32	70.83	17.2	60	12/13/2012	48	477	<0.001	<0.001	<0.001	<0.003	84.3	Clear Strong petroleum odor
BS2	44.85	70.83	16.9	60	3/6/2013	64	482	<0.001	<0.001	<0.001	<0.003	100	Began Pumping/Clear Strong petroleum odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS2	45.06	70.83	16.8	60	6/21/2013	76	537	<0.001	<0.001	<0.001	<0.003	97	Began Pumping/Clear Strong Petroleum Odor
BS2	45.25	70.83	16.6	60	9/19/2013	56	515	<0.001	<0.001	<0.001	<0.003	79.4	Began Pumping/Clear Strong petroleum odor
BS2	45.61	70.83	16.4	60	12/16/2013	68	509	<0.001	<0.001	<0.001	<0.003	82.3	Began pumping/Clear Strong petroleum odor
BS2	45.73	70.83	16.3	60	3/24/2014	104	588	<0.001	<0.001	<0.001	<0.003	102	Began pumping/Clear Strong petroleum odor
BS2	45.95	70.83	16.2	60	6/19/2014	76	546	<0.001	<0.001	<0.001	<0.003	81.9	Began pumping/Clear Strong petroleum odor
BS2	46.21	70.83	16	60	9/11/2014	140	714	<0.001	<0.001	<0.001	<0.003	127	Began pumping/Clear Strong petroleum odor
BS2	46.31	70.83	15.9	60	12/22/2014	200	688	<0.001	<0.001	<0.001	<0.003	165	Began Pumping/Clear Strong petroleum odor
BS2	45.91	70.83	16.2	60	3/19/2015	52	502	<0.001	<0.001	<0.001	<0.003	125	Began pumping/Clear Strong petroleum odor
BS2	46.01	70.83	16.1	60	6/17/2015	128	626	<0.001	<0.001	<0.001	<0.003	94	Began pumping/Clear Strong petroleum odor
BS2	46.07	70.83	16.1	60	9/22/2015	68	550	<0.001	<0.001	<0.001	<0.003	68	Began pumping/Clear Strong petroleum odor
BS2	45.58	70.83	16.4	60	12/3/2015	80	522	<0.001	<0.001	<0.001	<0.003	71	Began pumping/Clear Strong petroleum odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS2	45.35	70.83	16.6	60	3/30/2016	96	552	<0.001	<0.001	<0.001	<0.003	81	Clear Slight odor
BS2	46.28	70.83	16	50	6/28/2016	120	560	<0.001	<0.001	<0.001	<0.003	91.3	Clear Slight odor
BS2	45.54	70.83	16	60	9/28/2016	84	586	<0.001	<0.001	<0.001	<0.003	97	Clear Slight odor
BS2	44.92	70.83	17	60	12/6/2016	124	570	<0.001	<0.001	<0.001	<0.003	89	Clear Slight odor
BS2	45.14	70.83	17	60	3/22/2017	160	688	<0.001	<0.001	<0.001	<0.003	86	Clear Strong odor
BS2	45.68	70.83	17	60	6/29/2017	108	594	<0.001	<0.001	<0.001	<0.003	101	Clear Strong odor
BS2	45.59	70.83	16	60	9/27/2017	76	538	<0.001	<0.001	<0.001	<0.003	91	Clear Strong odor
BS2	45.74	70.83	16	60	12/26/2017	88	564	<0.001	<0.001	<0.001	<0.003	106	Clear Strong odor
BS2	46.02	70.83	16.1	60	3/22/2018	128	602	<0.001	<0.001	<0.001	<0.003	86.9	Clear Strong odor
BS2	46.26	70.83	16	50	6/29/2018	112	502	<0.001	<0.001	<0.001	<0.003	83.5	Clear Strong odor
BS2	45.27	70.83	16.6	60	9/19/2018	92	516	<0.001	<0.001	<0.001	<0.003	22.3	Clear Strong odor
BS2	45.21	70.83	16.7	50	12/23/2018	120	562	<0.001	<0.001	<0.001	<0.003	105	Clear Strong odor
BS2	45.26	70.83	17	60	3/28/2019	192	564	<0.001	<0.001	<0.001	<0.003	101	Clear Strong odor
BS2	45.06	70.83	17	60	6/27/2019	240	839	<0.001	<0.001	<0.001	<0.003	84	Clear Strong odor
BS2	45.23	70.83	16	50	9/27/2019	56	483	<0.001	<0.001	<0.001	<0.003	102	Clear Strong odor
BS2	45.68	70.83	16	50	12/13/2019	44	482	<0.001	<0.001	<0.001	<0.003	97	Clear Strong odor

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS3	41.53	70.8	19	65	3/4/2008	500	1,410	0.037	0.001	0.115	0.032	68.3	Clear Strong petroleum odor
BS3	41.82	70.8	18.8	65	5/29/2008	384	1,074	0.006	<0.001	0.005	<0.003	79.4	Clear Strong petroleum odor
BS3	42.09	70.8	18.7	65	9/5/2008	580	1,480	0.01	<0.001	0.051	<0.003	106	Clear Strong petroleum odor
BS3	42.19	70.8	18.6	65	12/15/2008	540	1,440	0.007	0.001	0.014	<0.003	69.5	Clear Strong petroleum odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS3	42.45	69.58	17.6	60	3/16/2009	480	1,320	0.021	<0.001	0.024	<0.003	67	Clear Strong petroleum odor
BS3	42.64	69.58	17.5	60	6/9/2009	420	1,340	0.013	<0.001	0.023	<0.003	63.3	Clear Strong petroleum odor
BS3	42.76	69.58	17.4	60	9/15/2009	352	1,160	0.02	<0.001	<0.001	<0.003	63.8	Clear Strong petroleum odor
BS3	42.89	69.58	17.3	60	11/19/2009	400	1,160	0.038	<0.001	<0.001	<0.003	61	Clear Strong odor
BS3	43.08	69.58	17.2	60	3/18/2010	316	1,030	0.023	<0.001	0.014	<0.003	86.6	Clear Strong petroleum odor
BS3	43.24	69.58	17.1	60	6/7/2010	276	972	0.008	<0.001	0.007	<0.003	90	Clear Strong petroleum odor
BS3	42.01	69.58	17.9	60	9/8/2010	100	514	0.001	<0.001	0.001	<0.003	85.5	Clear Strong petroleum odor
BS3	42.23	69.58	17.8	60	12/8/2010	88	458	<0.001	<0.001	<0.001	<0.003	94.6	Clear Strong petroleum odor
BS3	43.19	69.58	17.2	60	3/16/2011	80	511	<0.001	<0.001	<0.001	<0.003	87	Clear Strong petroleum odor
BS3	43.68	69.58	16.8	60	6/23/2011	84	530	<0.001	<0.001	<0.001	<0.003	94.3	Clear Strong petroleum odor
BS3	43.93	69.58	16.7	60	9/22/2011	90	503	<0.001	<0.001	<0.001	<0.003	105	Clear Strong petroleum odor
BS3	44.14	69.58	16.5	60	12/12/2011	76	545	<0.001	<0.001	<0.001	<0.003	107	Clear Strong petroleum odor
BS3	44.21	69.58	16.5	60	3/21/2012	68	405	<0.001	<0.001	<0.001	<0.003	118	Clear Strong petroleum odor
BS3	44.38	69.58	16.4	60	6/15/2012	72	520	<0.001	<0.001	<0.001	<0.003	88	Clear Strong petroleum odor

ROC - Hobbs N-6 (1R-487)**SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E**

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
BS3	44.45	69.58	16.3	60	9/12/2012	80	557	<0.001	<0.001	<0.001	<0.003	98	Clear Strong petroleum odor
BS3 plugged 12/17/2012													

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
IWW	40.42	98.25	58.98	176.95	8/14/2002	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
IWW	40.79	98.18	37.3	111.91	3/14/2003	239	XXX	0.004	<0.001	<0.001	<0.001	110	
IWW	40.45	98.24	37.56	112.69	6/27/2003	40.7	465	<0.001	<0.001	<0.001	<0.001	102	
IWW	40.43	98.2	37.78	113.34	9/22/2003	42.5	493	<0.001	<0.001	<0.001	<0.001	79.6	
IWW	40.33	98.23	37.8	113.42	12/18/2003	52	485	<0.002	<0.002	<0.002	<0.006	38.6	
IWW	41.75	98.23	82.96	248.9	3/15/2004	487	1,130	0.00619	<0.001	<0.001	<0.001	130	
IWW	40.12	98.22	37.93	113.81	5/27/2004	40.8	474	<0.001	<0.001	<0.001	<0.001	100	
IWW	41.93	98.2	57.4	172.19	9/8/2004	78	583	<0.001	<0.001	<0.001	<0.001	89.6	
IWW	39.71	98.2	59.66	178.98	11/23/2004	88.3	XXX	<0.001	<0.001	<0.001	<0.001	82.5	
IWW	39.01	98.2	XXX	250	3/29/2005	419	1,010	<0.001	<0.001	<0.001	<0.001	81	
IWW	39.39	50	XXX	21	6/28/2005	85.3	510	<0.001	<0.001	<0.001	<0.001	73.5	
IWW	39.6	98.2	59.8	185	12/6/2005	49	498	<0.001	<0.001	<0.001	<0.001	64.2	
IWW	39.83	98.2	59.5	180	2/28/2006	41.9	532	<0.001	<0.001	<0.001	<0.001	60.3	
IWW	40.2	98.2	59.2	180	6/5/2006	44.5	494	<0.001	<0.001	<0.001	<0.001	61.1	
IWW	39.76	98.2	59.6	180	9/12/2006	38.8	528	<0.001	<0.001	<0.001	<0.001	80.7	
IWW	39.61	98.2	59.8	180	11/14/2006	43.7	434	<0.001	<0.001	<0.001	<0.001	78.1	Clear No odor pH increased
IWW	40.13	97.9	58.9	180	3/14/2007	35.2	538	<0.001	<0.001	<0.001	<0.001	66.7	Clear
IWW	40.5	97.9	58.5	180	6/11/2007	40.1	490	<0.001	<0.001	<0.011	<0.001	74.7	Clear
IWW	40.49	97.9	58.6	180	9/18/2007	48	606	0.006	<0.001	<0.001	<0.003	91.9	Clear No odor
IWW	40.58	97.9	58.5	200	12/5/2007	44	505	<0.001	<0.001	<0.001	<0.003	87.5	Clear No odor

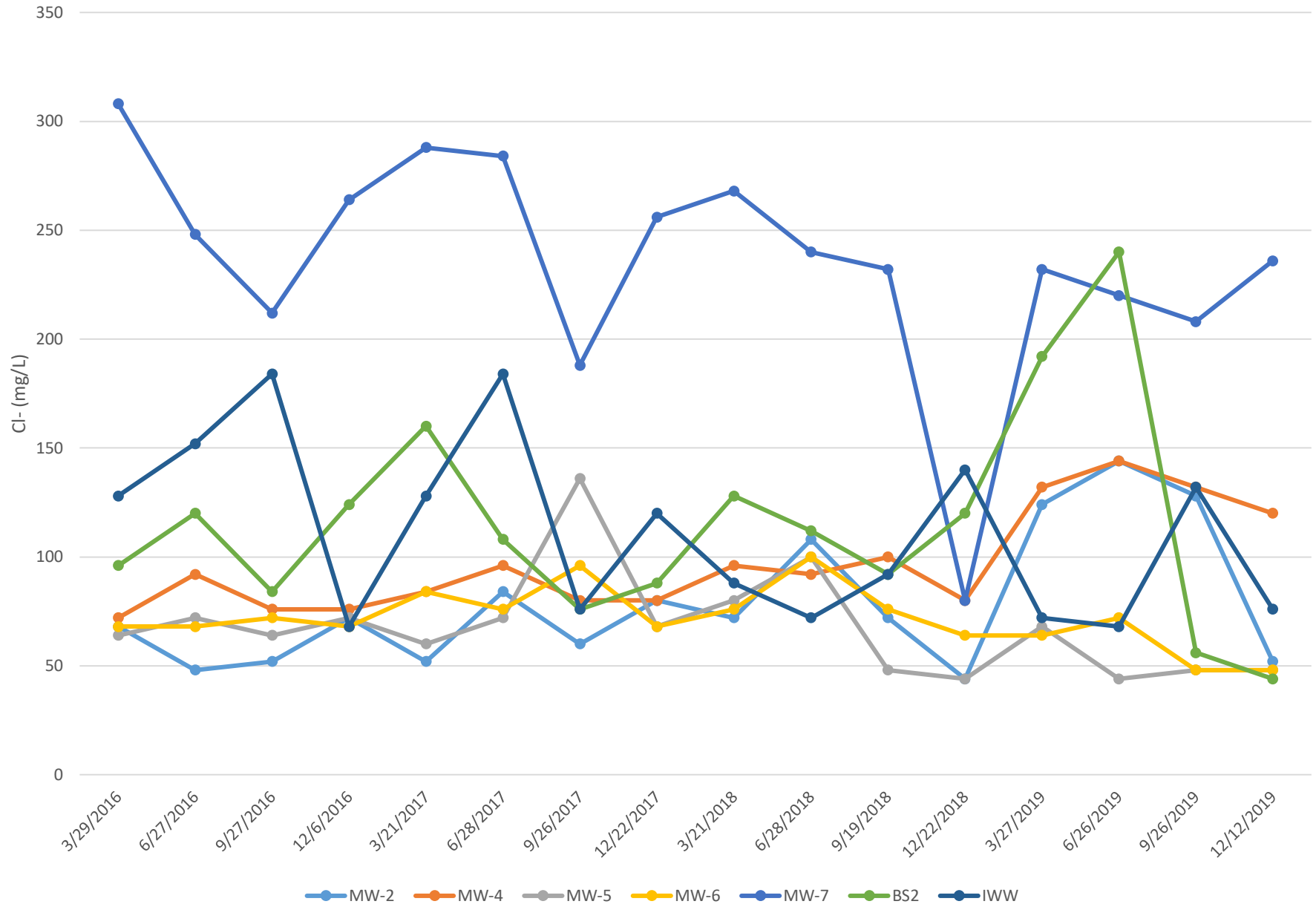
ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
IWW	40.93	97.9	58.1	200	3/4/2008	40	526	<0.001	<0.001	<0.001	<0.003	90.1	Clear No odor
IWW	41.16	97.9	57.9	200	5/29/2008	44	556	<0.001	<0.001	<0.001	<0.003	82.6	Clear No odor
IWW	41.38	97.9	57.7	200	9/5/2008	44	534	<0.001	<0.001	<0.001	<0.003	85	Clear No odor
IWW	41.61	97.9	57.4	200	12/16/2008	48	574	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
IWW	41.76	97.9	57.3	200	3/16/2009	40	480	<0.001	<0.001	<0.001	<0.003	82.8	Clear No odor
IWW	41.96	97.9	57.1	200	6/9/2009	40	505	<0.001	<0.001	<0.001	<0.003	73.2	Clear No odor
IWW	42.06	97.9	57	200	9/15/2009	88	554	<0.001	<0.001	<0.001	<0.003	75.8	Clear No odor
IWW	42.21	97.9	56.8	200	11/20/2009	44	447	<0.001	<0.001	<0.001	<0.003	68.5	Clear No odor
IWW	42.36	97.9	56.7	200	3/18/2010	108	577	<0.001	<0.001	<0.001	<0.003	95.1	Clear No odor
IWW	42.49	97.9	56.5	200	6/7/2010	48	510	<0.001	<0.001	<0.001	<0.003	93.1	Clear No odor
IWW	41.39	97.9	57.6	200	9/8/2010	40	499	<0.001	<0.001	<0.001	<0.003	73.3	Clear No odor
IWW	41.52	97.9	57.5	200	12/8/2010	68	481	<0.001	<0.001	<0.001	<0.003	81.9	Clear No odor
IWW	42.15	97.9	56.9	200	3/16/2011	68	534	<0.001	<0.001	<0.001	<0.003	74.2	Clear No odor
IWW	42.63	97.9	56.4	200	6/23/2011	84	512	<0.001	<0.001	<0.001	<0.003	73.3	Clear No odor
IWW	42.88	97.9	56.1	200	9/22/2011	84	493	<0.001	<0.001	<0.001	<0.003	81.8	Clear No odor
IWW	42.98	97.9	56	200	12/12/2011	92	521	<0.001	<0.001	<0.001	<0.003	84.5	Clear No odor
IWW	43.18	97.9	55.8	200	3/21/2012	88	567	<0.001	<0.001	<0.001	<0.003	84.5	Clear No odor
IWW	43.46	97.9	55.5	200	6/15/2012	92	493	<0.001	<0.001	<0.001	<0.003	77	Clear No odor
IWW	43.57	97.9	55.4	200	9/12/2012	72	573	<0.001	<0.001	<0.001	<0.003	97.4	Clear No odor
IWW	43.69	97.9	55.3	200	12/13/2012	124	627	<0.001	<0.001	<0.001	<0.003	78	Clear No odor
IWW	43.8	97.9	55.2	200	3/5/2013	136	607	<0.001	<0.001	<0.001	<0.003	78	Clear No odor
IWW	44.1	97.9	54.9	200	6/21/2013	128	618	<0.001	<0.001	<0.001	<0.003	74	Clear No odor
IWW	44.19	97.9	54.8	200	9/18/2013	168	641	<0.001	<0.001	<0.001	<0.003	79.9	Clear No odor
IWW	44.49	97.9	54.5	200	12/17/2013	132	620	<0.001	<0.001	<0.001	<0.003	72.6	Clear No odor
IWW	44.6	97.9	54.4	200	3/25/2014	140	610	<0.001	<0.001	<0.001	<0.003	123	Clear No odor
IWW	44.81	97.9	54.2	200	6/18/2014	160	680	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
IWW	45.07	97.9	53.9	175	9/12/2014	124	630	<0.001	<0.001	<0.001	<0.003	111	Clear No odor
IWW	45.18	97.9	53.8	175	12/23/2014	84	582	<0.001	<0.001	<0.001	<0.003	173	Clear No odor

ROC - Hobbs N-6 (1R-487)
SW ¼, NW ¼, SEC. 5 & 6, T19S, R38E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
IWW	44.8	97.9	54.2	175	3/20/2015	68	586	<0.001	<0.001	<0.001	<0.003	180	Clear No odor
IWW	44.82	97.9	54.1	200	6/17/2015	136	690	<0.001	<0.001	<0.001	<0.003	95	Clear No odor
IWW	44.87	97.9	54.1	175	9/22/2015	88	586	<0.001	<0.001	<0.001	<0.003	94	Clear No odor
IWW	44.69	97.9	54.3	175	12/2/2015	76	564	<0.001	<0.001	<0.001	<0.003	100	Clear No odor
IWW	44.46	97.9	54.5	175	3/29/2016	128	622	<0.001	<0.001	<0.001	<0.003	81	Clear No odor
IWW	45.11	97.9	53.8	200	6/27/2016	152	592	<0.001	<0.001	<0.001	<0.003	78.4	Clear No odor
IWW	44.6	97.9	54	175	9/27/2016	184	698	<0.001	<0.001	<0.001	<0.003	87	Clear No odor
IWW	43.98	97.9	55	175	12/6/2016	68	514	<0.001	<0.001	<0.001	<0.003	23	Clear No odor
IWW	44.05	97.9	55	175	3/21/2017	128	680	<0.001	<0.001	<0.001	<0.003	93	Clear No odor
IWW	44.45	97.9	55	175	6/28/2017	184	814	<0.001	<0.001	<0.001	<0.003	129	Clear No odor
IWW	44.36	97.9	54	90	9/26/2017	76	588	<0.001	<0.001	<0.001	<0.003	96	Clear No odor
IWW	44.45	97.9	54	90	12/22/2017	120	652	<0.001	<0.001	<0.001	<0.003	103	Clear No odor
IWW	44.95	97.9	54	175	3/21/2018	88	538	<0.001	<0.001	<0.001	<0.003	74.1	Clear No odor
IWW	45.22	97.9	53.7	200	6/28/2018	72	546	<0.001	<0.001	<0.001	<0.003	76	Clear No odor
IWW	45.21	97.9	53.7	175	9/19/2018	92	594	<0.001	<0.001	<0.001	<0.003	13.4	Clear No odor
IWW	45.14	97.9	52.76	200	12/22/2018	140	618	<0.001	<0.001	<0.001	<0.003	108	Clear No odor
IWW	45.21	97.9	54	150	3/27/2019	72	490	<0.001	<0.001	<0.001	<0.003	93	Clear No odor
IWW	45.02	97.9	54	175	6/26/2019	68	538	<0.001	<0.001	<0.001	<0.003	89	Clear No odor
IWW	44.17	97.9	55	125	9/26/2019	132	609	<0.001	<0.001	<0.001	<0.003	77	Clear No odor
IWW	44.98	97.9	54	150	12/12/2019	76	511	<0.001	<0.001	<0.001	<0.003	80	Clear No odor

Hobbs N-6 (1R-487)





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

April 03, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS N-6

Enclosed are the results of analyses for samples received by the laboratory on 03/29/19 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/27/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 2 (H901178-01)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTEX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 89.6 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	124	4.00	04/01/2019	ND	108	108	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*	79.8	10.0	04/03/2019	ND	24.0	120	20.0	12.2	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	427	5.00	04/02/2019	ND	525	99.6	527	8.46	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/28/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 4 (H901178-02)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	132	4.00	04/01/2019	ND	108	108	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*	89.3	25.0	04/03/2019	ND	24.0	120	20.0	12.2	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	385	5.00	04/02/2019	ND	525	99.6	527	8.46	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/27/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 5 (H901178-03)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	68.0	4.00	04/01/2019	ND	108	108	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*	86.8	25.0	04/03/2019	ND	24.0	120	20.0	12.2		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	420	5.00	04/02/2019	ND	525	99.6	527	8.46		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/27/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 6 (H901178-04)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	64.0	4.00	04/01/2019	ND	108	108	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*	93.9	25.0	04/03/2019	ND	24.0	120	20.0	12.2	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	360	5.00	04/02/2019	ND	525	99.6	527	8.46	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/28/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 7 (H901178-05)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	232	4.00	04/01/2019	ND	108	108	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*	85.2	25.0	04/03/2019	ND	24.0	120	20.0	12.2	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	652	5.00	04/02/2019	ND	525	99.6	527	8.46	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/27/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: IWW (H901178-06)

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	03/29/2019	ND	0.021	106	0.0200	0.0663		
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27		
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26		
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00		
Total BTEX	<0.006	0.006	03/29/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	72.0	4.00	04/01/2019	ND	108	108	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*	93.8	25.0	04/03/2019	ND	24.0	120	20.0	12.2		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	490	5.00	04/02/2019	ND	525	99.6	527	8.46		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	03/29/2019	Sampling Date:	03/28/2019
Reported:	04/03/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: BIO SPARGE #2 (H901178-07)

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	03/29/2019	ND	0.021	106	0.0200	0.0663	
Toluene*	<0.001	0.001	03/29/2019	ND	0.020	99.5	0.0200	1.27	
Ethylbenzene*	<0.001	0.001	03/29/2019	ND	0.020	97.9	0.0200	4.26	
Total Xylenes*	<0.003	0.003	03/29/2019	ND	0.059	99.0	0.0600	3.00	
Total BTX	<0.006	0.006	03/29/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	192	4.00	04/01/2019	ND	108	108	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*	101	25.0	04/03/2019	ND	24.0	120	20.0	12.2	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	564	5.00	04/02/2019	ND	525	99.6	527	8.46	

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

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: Hobbs N-6		
Project Location: T19S-R38E-Sec5&6 E/H ~ Lea County - New Mexico				
		Sampler Signature:  Rozanne Johnson (575)631-9310 rozanne11@windstream.net		

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

Relinquished by: <i>Rozanne Johnson</i>	Date: <i>3/29/2019</i>	Time: <i>11:55</i>	Received by: <i>Lamara P. Drake</i>	Date: <i>3-29-19</i>	Time: <i>12:00</i>
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
rozanne11@windstream.net

Delivered By: (Circle One)

Sample Condition

CHECKED BY:

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

(Initials)

Sampler - UPS - Bus - Other:



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

July 08, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS N-6

Enclosed are the results of analyses for samples received by the laboratory on 07/01/19 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 2 (H902248-01)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTEX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	144	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	74.5	25.0	07/03/2019	ND	21.6	108	20.0	6.45	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	597	5.00	07/03/2019	ND	512	97.2	527	9.90	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/27/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 4 (H902248-02)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	144	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	83.3	25.0	07/03/2019	ND	21.6	108	20.0	6.45		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	596	5.00	07/03/2019	ND	512	97.2	527	9.90		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 5 (H902248-03)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	44.0	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	89.7	25.0	07/03/2019	ND	21.6	108	20.0	6.45		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	514	5.00	07/03/2019	ND	535	102	527	5.19		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/27/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 6 (H902248-04)

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	07/02/2019	ND	0.021	103	0.0200	0.603		
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52		
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792		
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404		
Total BTEx	<0.006	0.006	07/02/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	72.0	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	90.5	25.0	07/03/2019	ND	21.6	108	20.0	6.45	

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	556	5.00	07/03/2019	ND	535	102	527	5.19		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/27/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: MONITOR WELL # 7 (H902248-05)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	220	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	88.0	25.0	07/03/2019	ND	21.6	108	20.0	6.45		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	821	5.00	07/03/2019	ND	535	102	527	5.19		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/26/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: IWW (H902248-06)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTEX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	68.0	4.00	07/02/2019	ND	104	104	100	3.92	

Sulfate 375.4		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	89.1	25.0	07/03/2019	ND	21.6	108	20.0	6.45	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	538	5.00	07/03/2019	ND	535	102	527	5.19	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/01/2019	Sampling Date:	06/27/2019
Reported:	07/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA COUNTY -		

Sample ID: BIO SPARGE #2 (H902248-07)

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	07/02/2019	ND	0.021	103	0.0200	0.603	
Toluene*	<0.001	0.001	07/02/2019	ND	0.021	104	0.0200	1.52	
Ethylbenzene*	<0.001	0.001	07/02/2019	ND	0.020	98.2	0.0200	0.792	
Total Xylenes*	<0.003	0.003	07/02/2019	ND	0.059	99.0	0.0600	0.0404	
Total BTX	<0.006	0.006	07/02/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	240	4.00	07/02/2019	ND	100	100	100	0.00	QM-07	

Sulfate 375.4		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	84.0	25.0	07/03/2019	ND	21.6	108	20.0	6.45		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	839	5.00	07/03/2019	ND	535	102	527	5.19		

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Celey D. Keene, Lab Director/Quality Manager

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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Celey D. Keene, Lab Director/Quality Manager

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

Cardinal Laboratories, Inc.

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: Hobbs N-6		
Project Location: T19S-R38E-Sec5&6 E/H ~ Lea County - New Mexico				
Sampler Signature: Rozanne Johnson (575) 631-9310 rozanne11@windstream.net				

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

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	TCPL Metals Ag As Ba Cd Cr Pb Se Hg	TCPL Volatiles	TCPL Semi Volatiles	TCPL 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 (2-40ml VOA)	HNO3	NaHSO4	H2SO4	ICE (1-1 Liter HDPE)	NONE	DATE (2019)	TIME																								
4902248																																							
1	Monitor Well #2	G	3	X				2				1		6/26	12:55	X																			X	X	X		
2	Monitor Well #4	G	3	X				2				1		6/27	11:05	X																		X	X	X			
3	Monitor Well #5	G	3	X				2				1		6/26	9:05	X																		X	X	X			
4	Monitor Well #6	G	3	X				2				1		6/27	15:20	X																		X	X	X			
5	Monitor Well #7	G	3	X				2				1		6/27	9:10	X																		X	X	X			
6	IWW	G	3	X				2				1		6/26	11:20	X																		X	X	X			
7	Bio Sparge #2	G	3	X				2				1		6/27	14:05	X																		X	X	X			

Relinquished by: Rozanne Johnson	Date: 7/1/2019	Time: 14:15	Received by: Jessica Oldaker	Date: 7-1-19	Time: 14:15
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:

Phone Results	Yes	No
Fax Results	Yes	No

REMARKS:

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

Delivered By: (Circle One)

Sample Condition

CHECKED BY:

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

(Initials)

Sampler - UPS - Bus - Other:



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

October 08, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS N-6

Enclosed are the results of analyses for samples received by the laboratory on 10/01/19 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/26/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 2 (H903345-01)

BTEX 8021B		mg/L		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58	
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809	
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161	
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16	
Total BTEX	<0.006	0.006	10/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.7 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	128	4.00	10/02/2019	ND	104	104	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*	82.8	25.0	10/03/2019	ND	19.4	96.9	20.0	3.50	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	614	5.00	10/03/2019	ND	524	99.4	527	0.669	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/27/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 4 (H903345-02)

BTX 8021B		mg/L		Analyzed By: BF				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58	
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809	
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161	
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16	
Total BTX	<0.006	0.006	10/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.1 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	132	4.00	10/02/2019	ND	104	104	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*	79.7	10.0	10/03/2019	ND	19.4	96.9	20.0	3.50	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	597	5.00	10/03/2019	ND	524	99.4	527	0.669	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/26/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 5 (H903345-03)

BTX 8021B		mg/L		Analyzed By: BF				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58	
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809	
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161	
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16	
Total BTX	<0.006	0.006	10/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.0 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	48.0	4.00	10/02/2019	ND	104	104	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*	103	25.0	10/03/2019	ND	19.4	96.9	20.0	3.50	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	499	5.00	10/03/2019	ND	524	99.4	527	0.669	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/27/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 6 (H903345-04)

BTX 8021B		mg/L		Analyzed By: BF				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58	
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809	
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161	
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16	
Total BTX	<0.006	0.006	10/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.0 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	48.0	4.00	10/02/2019	ND	104	104	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*	95.8	25.0	10/03/2019	ND	19.4	96.9	20.0	3.50	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	500	5.00	10/03/2019	ND	524	99.4	527	0.669	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/27/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 7 (H903345-05)

BTX 8021B		mg/L		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58	
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809	
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161	
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16	
Total BTX	<0.006	0.006	10/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 81.7 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	208	4.00	10/02/2019	ND	104	104	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*	74.3	10.0	10/03/2019	ND	19.4	96.9	20.0	3.50		

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	781	5.00	10/03/2019	ND	524	99.4	527	0.669	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/26/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: IWW (H903345-06)

BTEx 8021B		mg/L		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58		
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809		
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161		
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16		
Total BTEX	<0.006	0.006	10/05/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.1 % 81.3-128

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	132	4.00	10/02/2019	ND	104	104	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*	77.7	10.0	10/03/2019	ND	19.4	96.9	20.0	3.50		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	609	5.00	10/03/2019	ND	524	99.4	527	0.669		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/01/2019	Sampling Date:	09/27/2019
Reported:	10/08/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: BIO SPARGE #2 (H903345-07)

BTX 8021B		mg/L		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.001	0.001	10/05/2019	ND	0.019	96.1	0.0200	1.58		
Toluene*	<0.001	0.001	10/05/2019	ND	0.019	93.8	0.0200	0.809		
Ethylbenzene*	<0.001	0.001	10/05/2019	ND	0.019	93.2	0.0200	0.161		
Total Xylenes*	<0.003	0.003	10/05/2019	ND	0.056	93.2	0.0600	1.16		
Total BTX	<0.006	0.006	10/05/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 85.0 % 81.3-128

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	56.0	4.00	10/02/2019	ND	104	104	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*	102	25.0	10/03/2019	ND	19.4	96.9	20.0	3.50		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	483	5.00	10/03/2019	ND	524	99.4	527	0.669		

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

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:	PO#
RICE Operating Company		

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#:	Fax#:
(575) 393-9174	(575) 397-1471

Phone #:
(575) 393-9174

Fax #:
(575) 397-1471

Project #:	Project Name: Hobbs N-6
------------	----------------------------

Sampler Signature: Rozanne Johnson (575)631-9310

Project Location:
T19S-R38E-Sec5&6 E/H ~ Lea County - New Mexico

rozanne11@windstream.net

[illegible]

Relinquished by: Rezanne Johnson Date: 10/1/2019 Time: 8:40

Received by: Darius Johnson Date: 10/1/2019 Time: 8:41

Relinquished by: James Johnson Date: 10/1/2019 Time: _____

Received By: (Laboratory Staff) Date: 10/1/19 Time: 11:30

Delivered By: (Circle One)

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

CHECKED BY:

(Initials)

Sampler - UPS - Bus - Other:

Phone Results	Yes	No
---------------	-----	----

	Yes		No
--	-----	--	----

No

Fax Results

Yes	No
-----	----

No

Additional Fax Number:

REMARKS:

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



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

December 26, 2019

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS N-6

Enclosed are the results of analyses for samples received by the laboratory on 12/16/19 14:21.

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 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

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/12/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 2 (H904196-01)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTEX	<0.006	0.006	12/21/2019	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*	52.0	4.00	12/17/2019	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*	94.2	25.0	12/18/2019	ND	21.7	108	20.0	6.52	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	521	5.00	12/19/2019	ND	511	97.0	527	1.01	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/13/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 4 (H904196-02)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTX	<0.006	0.006	12/21/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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*	120	4.00	12/17/2019	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*	70.4	25.0	12/18/2019	ND	21.7	108	20.0	6.52		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	573	5.00	12/19/2019	ND	511	97.0	527	1.01		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/12/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 5 (H904196-03)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTX	<0.006	0.006	12/21/2019	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*	48.0	4.00	12/17/2019	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*	84.4	25.0	12/18/2019	ND	21.7	108	20.0	6.52	

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	490	5.00	12/19/2019	ND	511	97.0	527	1.01		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/13/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 6 (H904196-04)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTEX	<0.006	0.006	12/21/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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*	48.0	4.00	12/17/2019	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*	84.9	25.0	12/18/2019	ND	21.7	108	20.0	6.52	

TDS 160.1		mg/L		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	484	5.00	12/19/2019	ND	511	97.0	527	1.01	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/13/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: MONITOR WELL # 7 (H904196-05)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTX	<0.006	0.006	12/21/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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*	236	4.00	12/17/2019	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*	75.6	25.0	12/18/2019	ND	21.7	108	20.0	6.52	

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	661	5.00	12/19/2019	ND	511	97.0	527	1.01		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/12/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: IWW (H904196-06)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTX	<0.006	0.006	12/21/2019	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*	76.0	4.00	12/17/2019	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*	80.0	25.0	12/18/2019	ND	21.7	108	20.0	6.52		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	511	5.00	12/19/2019	ND	511	97.0	527	1.01		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/16/2019	Sampling Date:	12/13/2019
Reported:	12/26/2019	Sampling Type:	Water
Project Name:	HOBBS N-6	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5&6 E/H ~LEA CTY - NM		

Sample ID: BIO SPARGE #2 (H904196-07)

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	12/21/2019	ND	0.022	108	0.0200	1.18	
Toluene*	<0.001	0.001	12/21/2019	ND	0.021	105	0.0200	0.947	
Ethylbenzene*	<0.001	0.001	12/21/2019	ND	0.021	107	0.0200	1.06	
Total Xylenes*	<0.003	0.003	12/21/2019	ND	0.063	104	0.0600	1.07	
Total BTX	<0.006	0.006	12/21/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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*	44.0	4.00	12/17/2019	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*	97.7	25.0	12/18/2019	ND	21.7	108	20.0	6.52		

TDS 160.1		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	482	5.00	12/19/2019	ND	511	97.0	527	1.01		

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager

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		

ANALYSIS REQUEST

(Circle or Specify Method No.)

Project #:	Project Name: Hobbs N-6	
Project Location: T19S-R38E-Sec5&6 E/H ~ Lea County - New Mexico		Sampler Signature: Rozanne Johnson (575) 631-9310 rozanne11@windstream.net

LAB # (LAB USE ONLY) H904196	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 (2.40ml VOA)	HNO3	NaHSO4	H2SO4	ICE (1-1 Liter HDPE)	NONE	DATE (2019)																							TIME
1	Monitor Well #2	G	3	X					2			1	12/12	13:50	X																			X	X	X	
2	Monitor Well #4	G	3	X					2			1	12/13	11:15	X																			X	X	X	
3	Monitor Well #5	G	3	X					2			1	12/12	9:20	X																			X	X	X	
4	Monitor Well #6	G	3	X					2			1	12/13	13:20	X																			X	X	X	
5	Monitor Well #7	G	3	X					2			1	12/13	9:25	X																			X	X	X	
6	IWW	G	3	X					2			1	12/12	12:00	X																			X	X	X	
7	Bio Sparge #2	G	3	X					2			1	12/13	15:40	X																			X	X	X	

Relinquished by: Rozanne Johnson	Date: 12/16/2019	Time: 14:20	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:
Delivered By: (Circle One)			Sample Condition		
Cool			Intact		
Yes <input checked="" type="checkbox"/>			Yes <input checked="" type="checkbox"/>		
No <input type="checkbox"/>			No <input type="checkbox"/>		
Sampler - UPS - Bus - Other:			CHECKED BY: (Initials) JA		

Phone Results	Yes	No
Fax Results	Yes	No
Additional Fax Number:		
REMARKS:		
Email Results: kjones@riceswd.com rozanne11@windstream.net		