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April 1, 2015

Dr. Tomas Oberding

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

**RE: Request for Annual Sampling and 2014 Annual Groundwater Monitoring Report
Rice Operating Company – Hobbs SWD System
Hobbs F-29 SWD (AP-64): UL/F, Sec. 29, T18S, R38E**

Dr. Oberding:

Rice Operating Company (ROC) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site in the abandoned Hobbs Salt Water Disposal (SWD) system.

On July 6th, 2012, groundwater recovery began from RW-1. Since that time, the system has removed approximately 13,597 bbls, which equated to approximately 545 kg of chloride. The purpose of this pumping program is to determine if groundwater may be restored within a short period of time and assist in the evaluation of groundwater restoration methods. Water removed from RW-1 was utilized for makeup water for 10lb brine water.

This 2014 Annual Groundwater Monitoring Report contains:

1. A site location map.
2. A map showing well locations.
3. A table presenting all laboratory results and depth to groundwater for each well at the site.
4. The laboratory analytical results for the most recent sampling event.

Chloride concentrations in the upgradient (MW-3) and the downgradient (MW-5) monitor wells are currently below WQCC standards. Recovery Well 1 (RW-1) has decreased in concentration from 540 mg/kg to 212 mg/kg. The remaining wells are below 500 mg/kg, therefore, ROC requests to begin sampling the wells on an annual basis (one sampling event per year). ROC will discontinue the pumping program and will evaluate the site for natural attenuation.

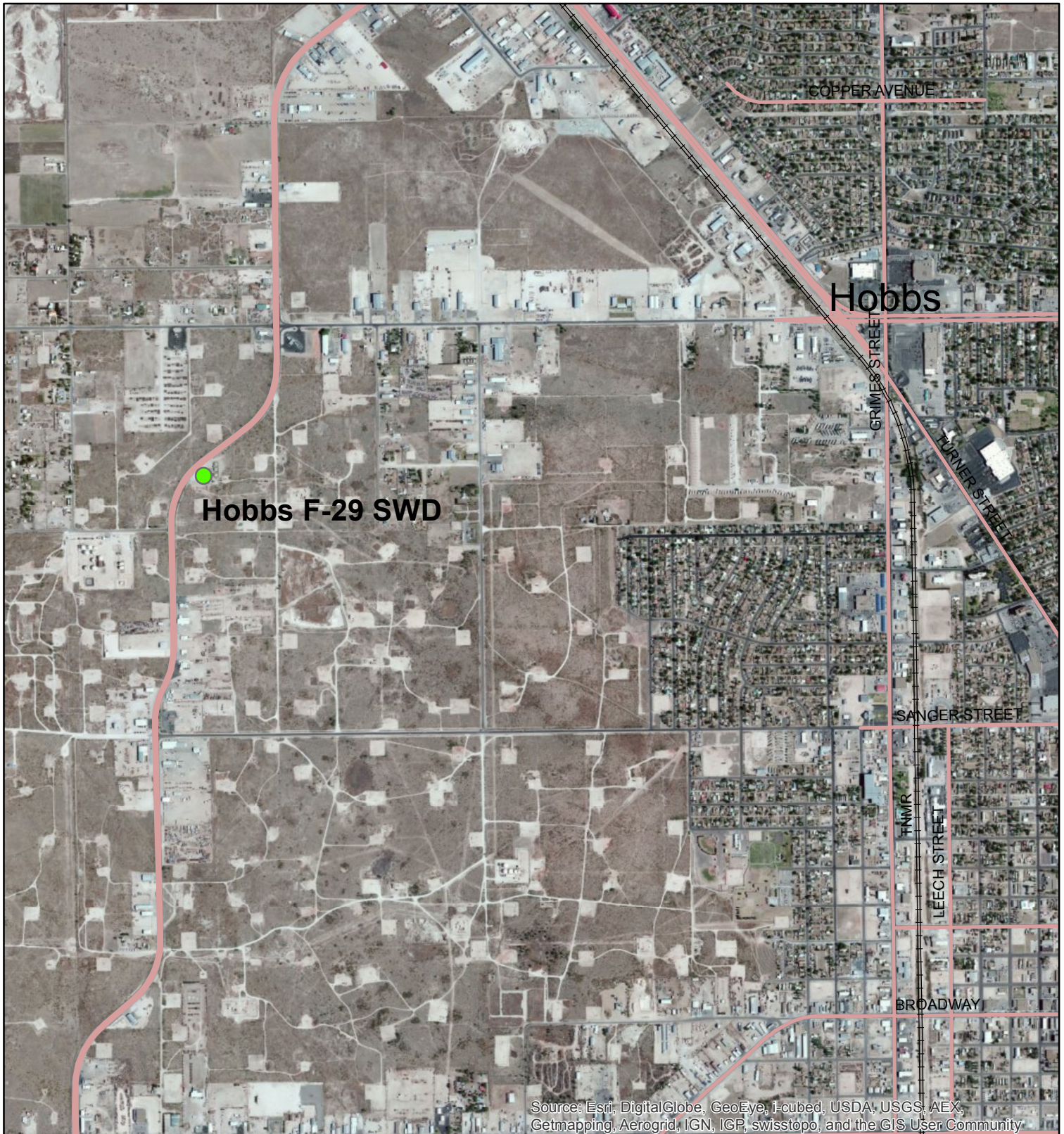
Basin appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 631-6432 if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Conder', with a stylized, flowing script.

Hack Conder
Vice President of Environmental Services
Basin Environmental Service Technologies

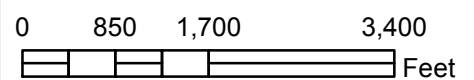
Site Map



Hobbs F-29 SWD

**Unit Letter F, Section 29,
T18S, R38E**

NMOCD Case #: AP-64



Drawing date: 3/12/14
Drafted by: L. Flores

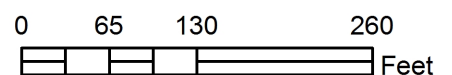
Site Map



Hobbs F-29 SWD

Unit Letter F, Section 29,
T18S, R38E

NMOCD Case #: AP-64



Drawing date: 2/25/14
Drafted by: L. Flores

Hobbs F-29 SWD

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
2	XXX	XXX	3/21/2000	2564	6660	XXX	XXX	XXX	XXX	XXX
2	49	XXX	7/10/2000	1829	3470	<0.002	<0.002	<0.002	<0.006	XXX
2	49.26	XXX	9/27/2000	1748	3032	<0.002	<0.002	<0.002	<0.006	XXX
2	49.61	XXX	12/12/2000	1027	2586	<0.002	<0.002	<0.002	<0.006	XXX
2	XXX	XXX	1/4/2001	308	1114	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	3/16/2001	396	1373	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	3/23/2001	368	1312	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	5/7/2001	365	1272	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	6/8/2001	513	1796	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	8/14/2001	340	1385	XXX	XXX	XXX	XXX	XXX
2	51.13	59.41	12/29/2001	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	51.16	59.15	1/4/2002	308	1114	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	6/6/2002	221	XXX	<0.001	<0.001	<0.001	<0.001	135
2	52.07	59.93	8/14/2002	186	806	<0.001	<0.001	<0.001	<0.001	144
2	52.58	59.82	12/11/2002	172	738	<0.002	<0.002	<0.002	<0.006	106
2	52.94	59.76	3/21/2003	230	XXX	<0.001	<0.001	<0.001	<0.001	140
2	53.15	59.74	5/28/2003	257	804	<0.001	<0.001	<0.001	<0.001	138
2	53.71	69.77	9/22/2003	151	700	<0.001	<0.001	<0.001	<0.001	173
2	54.1	59.86	12/18/2003	208	815	<0.002	0.003	<0.002	0.014	71
2	54.33	59.89	3/15/2004	186	607	<0.001	<0.001	<0.001	<0.001	103
2	XXX	XXX	5/27/2004	213	830	<0.001	<0.001	<0.001	<0.001	138
2	54.6	59.8	9/8/2004	248	946	0.00464	0.000412	0.000979	0.0012	129
2	54.2	59.8	11/23/2004	139	888	0.00448	<0.001	<0.001	0.00071	125
2	53.39	59.8	3/22/2005	214	914	<0.001	<0.001	<0.001	<0.001	196
2	53.35	59.8	5/18/2005	223	930	<0.001	<0.001	<0.001	<0.001	131
2	53.55	59.8	8/8/2005	210	799	<0.001	<0.001	<0.001	<0.001	130
2	53.81	59.8	10/31/2005	185	762	<0.001	<0.001	<0.001	<0.001	100
2	53.89	59.8	1/30/2006	198	904	<0.001	<0.001	<0.001	<0.001	89.4
2	53.91	59.8	5/1/2006	212	904	<0.001	<0.001	<0.001	<0.001	91.3
2	54.13	59.8	10/16/2006	258	1040	<0.001	j[0.00079 0]	j[0.00035 6]	j[0.00094 0]	116
2	54.08	60.05	2/5/2007	299	908	<0.001	<0.001	<0.001	<0.001	112
2	54.17	60.05	5/16/2007	236	898	<0.001	<0.001	<0.001	<0.001	102
2	54.37	60.05	7/31/2007	272	1040	<0.001	<0.001	<0.001	0.0033	41.9
2	54.43	60.05	10/18/2007	292	1047	<0.001	<0.001	<0.001	<0.003	113
2	54.19	60.05	2/18/2008	300	1040	<0.002	<0.002	<0.002	<0.006	132
2	54.53	60.05	4/25/2008	320	1070	<0.002	<0.002	<0.002	<0.006	185
2	54.69	60.05	7/24/2008	172	773	<0.001	<0.001	<0.001	<0.003	104
2	54.89	60.05	11/12/2008	296	1130	<0.001	<0.001	<0.001	<0.003	131
2	54.97	59.98	2/3/2009	248	1100	XXX	XXX	XXX	XXX	109
2	55.05	59.98	5/4/2009	344	1330	XXX	XXX	XXX	XXX	120
2	55.21	59.98	8/28/2009	280	1220	XXX	XXX	XXX	XXX	102
2	55.33	59.98	10/27/2009	240	1000	XXX	XXX	XXX	XXX	105
2	55.53	59.98	3/12/2010	312	1290	XXX	XXX	XXX	XXX	132

2	55.52	59.98	6/10/2010	260	1100	XXX	XXX	XXX	XXX	111
2	55.55	59.98	8/31/2010	288	1080	XXX	XXX	XXX	XXX	115
2	55.68	59.98	12/6/2010	240	1010	XXX	XXX	XXX	XXX	104
2	55.76	59.98	3/11/2011	256	1080	XXX	XXX	XXX	XXX	109
2	55.89	59.98	6/17/2011	404	1350	XXX	XXX	XXX	XXX	121
2	55.89	59.98	9/19/2011	560	1720	XXX	XXX	XXX	XXX	143
2	56.26	59.98	12/16/2011	480	1350	XXX	XXX	XXX	XXX	226
2	56.39	59.98	3/16/2012	308	1100	XXX	XXX	XXX	XXX	47.7
2	56.67	59.98	6/18/2012	148	886	XXX	XXX	XXX	XXX	94
2	56.98	59.98	9/7/2012	200	1130	XXX	XXX	XXX	XXX	130
2	56.56	59.98	12/11/2012	408	1350	XXX	XXX	XXX	XXX	217
2	56.68	59.98	3/8/2013	512	1300	XXX	XXX	XXX	XXX	67
2	56.96	59.98	6/18/2013	164	1010	XXX	XXX	XXX	XXX	114
2	57.74	59.98	9/17/2013	356	1060	XXX	XXX	XXX	XXX	68.2
2	57.93	59.98	12/13/2013	440	1380	XXX	XXX	XXX	XXX	187
2	57.93	59.98	3/19/2014	412	1270	XXX	XXX	XXX	XXX	162
2	58.06	59.98	6/23/2014	372	1370	XXX	XXX	XXX	XXX	170
2	58.44	59.98	9/25/2014	410	1440	XXX	XXX	XXX	XXX	201
2	58.53	59.98	12/19/2014	450	1370	XXX	XXX	XXX	XXX	176

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
3	XXX	XXX	1/4/2001	136	1013	XXX	XXX	XXX	XXX	XXX
3	51.2	60.95	12/29/2001	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	51.24	53.5	1/4/2002	136	1013	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	5/24/2002	137	917	<0.001	<0.001	<0.001	<0.001	158
3	52.12	66.33	8/14/2002	151	998	<0.001	<0.001	<0.001	<0.001	284
3	52.64	64.65	12/11/2002	136	1069	0.005	<0.002	<0.002	<0.006	201
3	52.98	64.47	3/21/2003	133	XXX	<0.001	<0.001	<0.001	<0.001	266
3	53.7	62.58	5/28/2003	301	1120	<0.001	<0.001	<0.001	<0.001	240
3	53.74	63.15	9/22/2003	120	881	<0.001	<0.001	<0.001	<0.001	238
3	54.35	63.08	3/15/2004	115	1140	<0.001	<0.001	<0.001	<0.001	248
3	XXX	XXX	5/27/2004	111	810	<0.001	<0.001	<0.001	<0.001	171
3	54.6	62.7	9/8/2004	230	937	<0.001	<0.001	<0.001	<0.001	186
3	54.4	62.7	11/23/2004	115	925	<0.001	<0.001	<0.001	<0.001	183
3	54.59	62.43	12/18/2004	124	852	<0.002	<0.002	<0.002	<0.006	73
3	53.4	62.7	3/22/2005	162	796	<0.001	<0.001	<0.001	<0.001	126
3	53.38	62.7	5/18/2005	272	1050	<0.001	<0.001	<0.001	<0.001	92
3	53.9	62.7	8/8/2005	203	945	<0.001	<0.001	<0.001	<0.001	122
3	53.57	62.7	10/31/2005	113	732	<0.001	<0.001	<0.001	<0.001	116
3	53.92	62.7	1/30/2006	97.3	650	<0.001	<0.001	<0.001	j[0.00056 2]	120
3	53.98	62.7	5/1/2006	85.3	704	<0.001	<0.001	<0.001	<0.001	111
3	54.18	62.7	10/16/2006	88.9	616	<0.001	j[0.00095 0]	j[0.00040 4]	0.00105	135
3	54.1	63.1	2/5/2007	98.3	572	<0.001	<0.001	<0.001	<0.001	128
3	54.2	63.1	5/16/2007	90.6	542	<0.001	<0.001	<0.001	<0.001	111
3	54.23	63.1	7/31/2007	105	590	<0.001	<0.001	<0.001	<0.002	76.5
3	54.48	63.1	10/18/2007	100	611	<0.001	<0.001	<0.001	<0.003	120
3	54.23	63.07	2/18/2008	104	607	<0.002	<0.002	<0.002	<0.006	144
3	54.55	63.07	4/25/2008	244	918	<0.002	<0.002	<0.002	<0.006	172
3	54.86	63.07	7/24/2008	80	584	<0.001	<0.001	<0.001	<0.003	104
3	54.93	63.07	11/12/2008	104	708	<0.001	<0.001	<0.001	<0.003	143
3	54.99	62.65	2/3/2009	104	744	XXX	XXX	XXX	XXX	127
3	55.08	62.65	5/4/2009	108	705	XXX	XXX	XXX	XXX	135
3	55.24	62.65	8/28/2009	108	703	XXX	XXX	XXX	XXX	120
3	55.3	62.65	10/27/2009	108	623	XXX	XXX	XXX	XXX	118
3	55.57	62.65	3/12/2010	112	653	XXX	XXX	XXX	XXX	140
3	55.54	62.65	6/10/2010	112	718	XXX	XXX	XXX	XXX	133
3	55.58	62.65	8/31/2010	112	657	XXX	XXX	XXX	XXX	115
3	55.69	62.65	12/6/2010	116	687	XXX	XXX	XXX	XXX	130
3	55.77	62.65	3/21/2011	116	582	XXX	XXX	XXX	XXX	114
3	55.85	62.65	6/17/2011	124	609	XXX	XXX	XXX	XXX	125
3	55.87	62.65	9/19/2011	116	622	XXX	XXX	XXX	XXX	146
3	56.05	62.65	12/16/2011	168	647	XXX	XXX	XXX	XXX	89.1
3	56.18	62.65	3/16/2012	168	767	XXX	XXX	XXX	XXX	67.9
3	56.42	62.65	6/18/2012	120	686	XXX	XXX	XXX	XXX	120

3	56.73	62.65	9/7/2012	120	771	XXX	XXX	XXX	XXX	137
3	56.39	62.65	12/11/2012	276	863	XXX	XXX	XXX	XXX	137
3	56.51	62.65	3/8/2013	152	858	XXX	XXX	XXX	XXX	198
3	57.29	62.65	6/18/2013	124	827	XXX	XXX	XXX	XXX	146
3	57.59	62.65	9/17/2013	56	531	XXX	XXX	XXX	XXX	128
3	57.8	62.65	12/13/2013	188	722	XXX	XXX	XXX	XXX	102
3	57.94	62.65	3/19/2014	220	826	XXX	XXX	XXX	XXX	174
3	58.09	62.65	6/23/2014	256	894	XXX	XXX	XXX	XXX	66
3	58.31	62.65	9/25/2014	212	826	XXX	XXX	XXX	XXX	160
3	58.39	62.65	12/19/2014	196	704	XXX	XXX	XXX	XXX	170

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
4	XXX	XXX	1/4/2001	464	1781	XXX	XXX	XXX	XXX	XXX
4	51.51	57.91	12/29/2001	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	51.56	53.74	1/4/2002	464	1781	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	5/24/2002	461	1520	<0.001	<0.001	<0.001	<0.001	286
4	52.5	65.3	8/14/2002	416	1660	<0.001	<0.001	<0.001	<0.001	303
4	53	63.59	12/11/2002	336	1302	0.003	<0.002	<0.002	<0.006	170
4	53.41	63.31	3/21/2003	346	XXX	<0.001	<0.001	<0.001	<0.001	289
4	53.25	63.78	5/28/2003	124	742	<0.001	<0.001	<0.001	<0.001	269
4	54.21	62.46	9/22/2003	425	1640	<0.001	<0.001	<0.001	<0.001	271
4	54.12	63.11	12/18/2003	660	1902	<0.002	<0.002	<0.002	<0.006	123
4	54.84	62.55	3/15/2004	452	1510	<0.001	<0.001	<0.001	<0.001	290
4	XXX	XXX	5/27/2004	461	1600	<0.001	<0.001	<0.001	<0.001	174
4	54.8	62.3	9/8/2004	372	1300	<0.001	<0.001	<0.001	<0.001	260
4	54.4	62.3	11/23/2004	401	1550	<0.001	<0.001	<0.001	<0.001	217
4	53.76	62.3	3/22/2005	392	1220	<0.001	<0.001	<0.001	<0.001	196
4	53.78	62.3	5/18/2005	336	1230	<0.001	<0.001	<0.001	<0.001	169
4	53.98	62.3	8/8/2005	370	1230	<0.001	<0.001	<0.001	<0.001	171
4	53.82	62.3	10/31/2005	411	1560	<0.001	J[0.00077 4]	J[0.00038 5]	J[0.00084 2]	156
4	54.31	62.3	1/30/2006	523	1780	<0.001	<0.001	j[0.00033 2]	j[0.00106 4]	182
4	54.36	62.3	5/1/2006	501	1800	<0.001	<0.001	<0.001	<0.001	144
4	54.53	57.52	10/16/2006	683	2570	<0.001	<0.001	<0.001	<0.001	284
4	54.52	57.43	2/5/2007	653	1750	<0.001	<0.001	<0.001	<0.001	289
4	54.68	61.05	6/1/2007	668	2060	<0.001	<0.001	<0.001	<0.001	254
4	54.83	61.05	7/31/2007	548	2380	<0.001	<0.001	<0.001	<0.002	248
4	54.9	61.05	10/18/2007	440	1394	<0.001	<0.001	<0.001	<0.003	211
4	54.71	61.02	2/18/2008	508	1680	<0.002	<0.002	<0.002	<0.002	186
4R	57.57	72.3	4/25/2008	670	1960	<0.002	<0.002	<0.002	<0.006	304
4R	57.88	72.3	7/24/2008	590	1950	<0.001	<0.001	<0.001	<0.003	350
4R	58.11	72.3	11/12/2008	476	1570	<0.001	<0.001	<0.001	<0.003	289
4R	58.25	72.01	2/3/2009	610	2110	XXX	XXX	XXX	XXX	283
4R	58.31	72.01	5/4/2009	640	2060	XXX	XXX	XXX	XXX	280
4R	58.46	72.01	8/28/2009	780	2500	XXX	XXX	XXX	XXX	276
4R	58.56	72.01	10/27/2009	800	2530	XXX	XXX	XXX	XXX	318
4R	58.76	72.01	3/12/2010	580	1680	XXX	XXX	XXX	XXX	240
4R	58.77	72.01	6/10/2010	470	1440	XXX	XXX	XXX	XXX	160
4R	58.78	72.01	8/31/2010	840	2350	XXX	XXX	XXX	XXX	310
4R	58.91	72.01	12/6/2010	730	2280	XXX	XXX	XXX	XXX	317
4R	58.98	72.02	3/11/2011	700	2310	XXX	XXX	XXX	XXX	281
4R	59.14	72.02	6/17/2011	700	2350	XXX	XXX	XXX	XXX	303
4R	59.35	72.02	9/19/2011	540	1960	XXX	XXX	XXX	XXX	252
4R	59.52	72.02	12/16/2011	580	1960	XXX	XXX	XXX	XXX	260
4R	59.68	72.02	3/16/2012	610	2050	XXX	XXX	XXX	XXX	327
4R	59.91	72.02	6/18/2012	550	1940	XXX	XXX	XXX	XXX	245

4R	60.88	72.02	9/7/2012	550	2090	XXX	XXX	XXX	XXX	229
4R	60.41	72.02	12/10/2012	568	1970	XXX	XXX	XXX	XXX	242
4R	60.54	72.02	3/8/2013	600	1980	XXX	XXX	XXX	XXX	276
4R	60.77	72.02	6/18/2013	410	1750	XXX	XXX	XXX	XXX	273
4R	61.12	72.02	9/17/2013	530	1870	XXX	XXX	XXX	XXX	208
4R	61.32	72.02	12/13/2013	530	1480	XXX	XXX	XXX	XXX	192
4R	61.47	72.02	3/19/2014	680	1910	XXX	XXX	XXX	XXX	254
4R	61.62	72.02	6/23/2014	450	1650	XXX	XXX	XXX	XXX	184
4R	61.89	72.02	9/25/2014	470	1610	XXX	XXX	XXX	XXX	208
4R	61.96	72.02	12/19/2014	470	1640	XXX	XXX	XXX	XXX	198

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
5	57.02	74.4	10/18/2007	268	983	<0.001	<0.001	<0.001	<0.003	138
5	56.54	74.4	2/18/2008	316	1110	<0.002	<0.002	<0.002	<0.006	168
5	56.9	74.4	4/25/2008	484	1530	<0.002	<0.002	<0.002	<0.006	262
5	57.28	74.4	7/24/2008	356	1250	<0.001	<0.001	<0.001	<0.003	172
5	57.46	74.4	11/12/2008	324	1190	<0.001	<0.001	<0.001	<0.003	186
5	57.53	75.27	2/3/2009	312	1080	XXX	XXX	XXX	XXX	164
5	57.61	75.27	5/4/2009	328	1180	XXX	XXX	XXX	XXX	172
5	57.79	75.27	8/28/2009	308	1080	XXX	XXX	XXX	XXX	138
5	57.91	75.27	10/27/2009	320	1040	XXX	XXX	XXX	XXX	160
5	58.06	75.27	3/12/2010	328	1040	XXX	XXX	XXX	XXX	180
5	58.09	75.27	6/10/2010	332	1090	XXX	XXX	XXX	XXX	168
5	58.11	75.27	8/31/2010	272	1070	XXX	XXX	XXX	XXX	172
5	58.21	75.27	12/6/2010	296	944	XXX	XXX	XXX	XXX	179
5	58.28	75.27	3/11/2011	308	952	XXX	XXX	XXX	XXX	156
5	58.42	75.27	6/17/2011	244	843	XXX	XXX	XXX	XXX	154
5	58.64	75.27	9/19/2011	240	802	XXX	XXX	XXX	XXX	159
5	58.8	75.27	12/16/2011	220	771	XXX	XXX	XXX	XXX	166
5	58.93	75.27	3/16/2012	252	1010	XXX	XXX	XXX	XXX	55.4
5	59.17	75.27	6/18/2012	224	828	XXX	XXX	XXX	XXX	115
5	59.4	75.27	9/7/2012	216	807	XXX	XXX	XXX	XXX	111
5	59.4	75.27	9/7/2012	216	807	XXX	XXX	XXX	XXX	111
5	59.62	75.27	12/10/2012	292	970	XXX	XXX	XXX	XXX	136
5	59.73	75.27	3/8/2013	172	904	XXX	XXX	XXX	XXX	204
5	59.96	75.27	6/18/2013	308	1210	XXX	XXX	XXX	XXX	164
5	60.18	75.27	9/17/2013	232	842	XXX	XXX	XXX	XXX	115
5	60.52	75.27	12/12/2013	380	1190	XXX	XXX	XXX	XXX	192
5	60.67	75.27	3/19/2014	256	860	XXX	XXX	XXX	XXX	150
5	60.82	75.27	6/23/2014	236	834	XXX	XXX	XXX	XXX	165
5	61.04	75.27	9/25/2014	264	960	XXX	XXX	XXX	XXX	183
5	61.12	75.27	12/19/2014	180	816	XXX	XXX	XXX	XXX	185

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
RW-1	59.52	105.42	3/16/2012	376	1460	XXX	XXX	XXX	XXX	212
RW-1	Pump In The Hole	105.42	6/18/2012	540	1950	XXX	XXX	XXX	XXX	230
RW-1	Pump In The Hole	105.42	9/7/2012	264	1010	XXX	XXX	XXX	XXX	113
RW-1	Pump in the Hole	105.42	12/10/2012	296	938	XXX	XXX	XXX	XXX	132
RW-1	Pump in the Hole	105.42	3/8/2013	460	1260	XXX	XXX	XXX	XXX	108

RW-1	XXX	105.42	6/18/2013	248	915	XXX	XXX	XXX	XXX	119
RW-1	XXX	105.42	9/18/2013	204	797	XXX	XXX	XXX	XXX	112
RW-1	XXX	105.42	12/13/2013	252	751	XXX	XXX	XXX	XXX	140
RW-1	XXX	105.42	3/20/2014	276	930	XXX	XXX	XXX	XXX	160
RW-1	XXX	105.42	6/23/2014	224	918	XXX	XXX	XXX	XXX	128
RW-1	XXX	105.42	9/25/2014	196	822	XXX	XXX	XXX	XXX	108
RW-1	XXX	105.42	12/19/2014	212	792	XXX	XXX	XXX	XXX	184



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

January 05, 2015

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS F-29 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/22/14 14:21.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	12/22/2014	Sampling Date:	12/19/2014
Reported:	01/05/2015	Sampling Type:	Water
Project Name:	HOBBS F-29 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S-R38E-SEC29 F-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H403909-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	450	4.00	12/23/2014	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	176	50.0	12/26/2014	ND	17.1	85.7	20.0	11.2		
TDS 160.1		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1370	5.00	12/29/2014	ND	470	89.2	527	0.736		

Sample ID: MONITOR WELL #3 (H403909-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	196	4.00	12/23/2014	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	170	25.0	12/26/2014	ND	17.1	85.7	20.0	11.2		
TDS 160.1		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	704	5.00	12/29/2014	ND	470	89.2	527	0.736		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/22/2014	Sampling Date:	12/19/2014
Reported:	01/05/2015	Sampling Type:	Water
Project Name:	HOBBS F-29 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S-R38E-SEC29 F-LEA CTY., NM		

Sample ID: MONITOR WELL #4R (H403909-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	470	4.00	12/23/2014	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	198	50.0	12/26/2014	ND	17.1	85.7	20.0	11.2		
TDS 160.1		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1640	5.00	12/29/2014	ND	470	89.2	527	0.736		

Sample ID: MONITOR WELL #5 (H403909-04)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	180	4.00	12/23/2014	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	185	25.0	12/26/2014	ND	17.1	85.7	20.0	11.2		
TDS 160.1		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	816	5.00	12/29/2014	ND	470	89.2	527	0.736		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/22/2014	Sampling Date:	12/19/2014
Reported:	01/05/2015	Sampling Type:	Water
Project Name:	HOBBS F-29 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S-R38E-SEC29 F-LEA CTY., NM		

Sample ID: RECOVERY WELL #1 (H403909-05)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	212	4.00	12/23/2014	ND	100	100	100	3.92		
Sulfate 375.4		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	184	25.0	12/26/2014	ND	17.1	85.7	20.0	11.2		
TDS 160.1		mg/L		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	792	5.00	12/29/2014	ND	470	89.2	527	0.736		

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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

Cardinal Laboratories, Inc.

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

Sampler Signature: Rozanne Johnson (575)631-9310
rozanne@valornet.com

Project Location:
T18S-R38E-Sec29 F ~ Lea County - New Mexico

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST			
LAB Order ID # _____			
ANALYSIS REQUEST (Circle or Specify Method No.)			
MTBE 8021B/602			
BTEX 8021B/602			
TPH 418.1/TX1005 / TX1005 Extended (C35)			
PAH 8270C			
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7			
TCLP Metals Ag As Ba Cd Cr Pb Se Hg			
TCLP Volatiles			
TCLP Semi Volatiles			
TCLP Pesticides			
RCI			
GC/MS Vol. 8260B/624			
GC/MS Semi. Vol. 8270C/625			
PCB's 8082/608			
Pesticides 8081A/608			
BOD, TSS, pH			
Moisture Content			
Cations (Ca, Mg, Na, K)			
Anions (Cl, SO4, CO3, HCO3)			
Sulfates	X	X	X
Total Dissolved Solids	X	X	X
Chlorides	X	X	X
Turn Around Time ~ 24 Hours	X	X	X

(Initials)

Sampler - UPS - Bus - Other:

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

REMARKS:

Email Results to: hconder@riceswd.com
lweinheimer@rice-ecs.com
kjones@riceswd.com
rozanne11@windstream.net