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**LOST CREEK ISR, LLC**

July 28, 2015

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Re: Quarterly Reporting Pursuant to License Condition 11.1(A) and 10.8(C)  
2nd Quarter 2015  
Lost Creek ISR Project License SUA-1598**

To Whom It May Concern:

This quarterly report has been submitted in accordance with License Condition 11.1(A) for Lost Creek ISR, LLC's (LCI) Lost Creek Project License SUA-1598. License Condition 11.1(A) requires quarterly reporting of the results of excursion monitoring. Additionally, this report includes the results of the quarterly Storage Pond inspections pursuant to LC 10.8(C). This report summarizes the following items:

- Excursion monitoring that has occurred during operations as described in the NRC License Application Technical Report (TR) Section 5.7.8.2;
- Summary report of the quarterly Storage Ponds inspections in accordance with TR Section 5.3.2.3.

The reporting period for this report is the second calendar quarter of 2015 spanning from April 1 to June 30, 2015.

#### **MONITORING AND RESULTS**

Excursion monitoring parameters include alkalinity, chloride, and specific conductance for which associated Upper Control Limits (UCLs) have been established on a well-by-well basis. Header houses HH1-1 through HH1-10 within Mine Unit 1 were operational as of the end of the reporting period. An excursion may be indicated by any one analytical parameter result exceeding the associated UCL by 20% or more or by two or three results exceeding the applicable UCL.

All of MU1 monitor wells were sampled routinely which includes 28 monitor ring wells and 26 (13 overlying and 13 underlying) mine unit wells. Sampling was conducted on a semi-monthly basis at least 10 days apart during production within Mine Unit 1. The results of the excursion

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monitoring sample analysis are provided on **Attachment 1**. The table displays the analytical result, the applicable UCL value, and the percent difference. A negative percent difference indicates the analytical value is less than the UCL. The percent difference (or percent change) is determined by the following formula:

$$\% \text{ Difference} = \frac{\text{Result} - \text{UCL}}{\text{UCL}} \times 100\%$$

The alkalinity results for MO-103 slightly exceeded the UCL and the well was resampled verifying the elevated value. However, the UCL results of following samples were nominal and no production was yet occurring in that area. The results for well MU-109 exceeded the UCL for chloride and conductivity during the quarter which was indicative of a vertical excursion. Sampling of MU-109 was performed on a weekly basis following the excursion verification. The chloride values and conductivity values exceeded the UCL from May 21, 2015 through the end of the quarter. Monitoring will continue weekly at MU-109 until the excursion is resolved.

Samples could not be collected from the regional DE horizon wells LC29M and MB-10 due to low water yield.

#### *Excursion Status and Corrective Action*

Well MU-109 went on excursion status as of May 27, 2015 and through the end of the quarter. Details of the excursion are described in the 60-day report submitted to NRC July 23, 2015.

A pump was replaced in 1P074 on May 27<sup>th</sup> and the flow balance was adjusted for an increased production flow from the area south of the fault from wells 1P074A, 1P075, and 1P077. Injection south of the fault in the area of MU-109 was ceased. The injection had been adjusted as follows:

- May 26, 2015 – In response to the elevated chloride/conductivity values (prior to verification of excursion), injector 1I141A was shut off. Flow rates for injectors 1I327 and 1I142A were reduced.
- June 5, 2015 – Injectors 1I327 and 1I142A were shut off.
- June 29, 2015 – Injectors 1I326, 1I140 and 1I143 were shut off.

Additional flow adjustments for injection and production will be made as necessary in the area to control and resolve the excursion.

#### **STORAGE PONDS INSPECTION AND MONITORING**

The quarterly Storage Pond inspection was completed on June 18, 2015. Inspection and repair of the North Pond liner were completed on May 18, 2015. A summary of the repairs is included in the discussion items below.

The following items are discussed relating to overall operations of the Ponds over the quarter:

- Freeboard
- Leak detection system
- Water quality monitoring
- Pond monitor wells
- North Pond repairs

#### *Freeboard*

The proper amount of freeboard was maintained during the reporting period during normal operations. The freeboard levels in either Pond were not less than the minimum freeboard limit of 3 feet with the exception of the South Pond during the time that the North Pond was under repair. Approval was granted by WDEQ and NRC to exceed the freeboard in the South Pond for a short period of time. The freeboard in the South Pond was no less than 2.5 feet during repair. Freeboard was less than 3 feet from May 18 to May 20.

#### *Leak Detection System*

Water continued to be present in the leak detection sumps (LD sumps) during the reporting quarter. The sump pumps were used manually to purge water from the sumps. In both LD Sumps the source of the water is attributed to residual water between the liners entering the sump following the repairs of the pipe boots. It is unknown as to when the water will be depleted but the significant reduction in the recharge rates of the sumps demonstrates the repairs to the liner boots was effective. However, samples were collected and measured for conductivity (**Table 1**) and other parameters (**Table 2**) on several occasions.

**TABLE 1: Pond/LD Sump Conductivity**

Sample ID	Sample Date	Cond., Specific @ 25°C, LC Lab	Comment
		$\mu\text{S/cm}$	
N Pond	6/2/2015	39000	
N Pond LD	6/2/2015	26900	69% of Pond
S Pond	6/2/2015	40000	
S Pond LD	6/2/2015	38100	95% of Pond
N Pond	6/11/2015	43100	
S Pond	6/11/2015	40100	
S Pond LD	6/11/2015	37700	94% of Pond

Sump water level data and pump totalizer readings are provided on the table in **Attachment 2**. Levels in the sumps had exceeded the 6 inch level on several occasions and samples were collected for comparison. However, notifications were not sent for each event that the sump levels were over 6 inches due to the allowance of a stabilization period following repairs. Water

quality in the sumps (**Table 2**) is indicative of residual water that had infiltrated between the liners due to the pipe boot leakage and therefore leak detection protocol performed for each event would likely result in a false positive. As an alternative, LD sump recharge rates were monitored daily to determine if a post-repair leak were to have occurred which could be indicated by an increase in the recharge rate. The status of residual water in the South Pond sump was communicated to NRC in a Pond repair status report submitted via e-mail on April 24, 2015 and that same explanation is applied to the North LD Sump. Although a leak had not been officially declared for the North Pond, the water infiltration was likely due to leaking pipe boots as was the case for the South Pond.

### *Water Quality Monitoring*

Quarterly Pond samples were collected from the Pond surfaces on June 18. Samples were collected from the LD Sumps on June 2 and June 11 for additional analysis to provide comparative water quality. The quarterly Pond samples were submitted to Energy Labs in Casper, WY and analyzed for the required parameters (**Table 2**). Analysis of the LD Sump water was conducted at the Lost Creek lab (**Table 2**).

**TABLE 2: Pond and LD Sump Water Quality**

Sample ID	Sample Date	Total Alkalinity (CaCO <sub>3</sub> )	Chloride	Cond., Specific @ 25°C	pH	Sodium	Sulfate	Total Dissolved Solids	Arsenic	Selenium	Uranium, Total	Radium-226
		mg/L	mg/L	µS/cm	s. u.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L
N Pond	6/2/2015	327	12836	39000	8.28	--	1116	--	--	--	139.2	--
N Pond LD	6/2/2015	495	8494	26900	7.95	--	606	--	--	--	49.3	--
S Pond	6/2/2015	417	13091	40000	8.24	--	1274	--	--	--	175.3	--
S Pond LD	6/2/2015	573	11867	38100	7.77	--	1310	--	--	--	158.1	--
N Pond	6/11/2015	354	17503	43100	8.39	--	--	--	--	--	--	--
S Pond	6/11/2015	555	15238	40100	8.27	--	--	--	--	--	--	--
S Pond LD	6/11/2015	580	14651	37700	7.72	--	--	--	--	--	--	--
<b>N Pond*</b>	<b>6/18/2015</b>	<b>359</b>	<b>18400</b>	<b>46900</b>	<b>8.39</b>	<b>10900</b>	<b>1320</b>	<b>29400</b>	<b>0.03</b>	<b>0.20</b>	<b>218</b>	<b>80</b>
<b>S Pond*</b>	<b>6/18/2015</b>	<b>596</b>	<b>15600</b>	<b>41500</b>	<b>8.11</b>	<b>9460</b>	<b>1230</b>	<b>25900</b>	<b>0.08</b>	<b>0.31</b>	<b>294</b>	<b>837</b>

\*Quarterly samples

### *Pond Monitor Wells*

Pond monitor wells were measured in conjunction with the quarterly inspection. No water was detected in the wells with the exception of a trace amount in MW-3 as summarized on **Table 3**:

*Lost Creek ISR, LLC is a wholly-owned subsidiary of Ur-Energy Inc.*

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**TABLE 3: Pond Monitor Well Water Levels**

Well ID	Date	Water Level (ft-bmp)	Total Depth (ft-bmp)
MW-1	6/18/2015	ND	NM
MW-2	6/18/2015	ND	NM
MW-3	6/18/2015	Trace	NM
MW-4	6/18/2015	ND	NM

*North Pond Repair Summary*

Based on the results of the South Pond liner inspection and repair, the South Pond liner and pipe boots would be inspected and repaired. The following is a summary of the repair:

- Permission was originally requested from NRC and WDEQ-LQD on May 5, 2015 to temporarily exceed the minimum freeboard limit in the North Pond. Permission was granted by the NRC Project Manager and agreed to by WDEQ-LQD on May 6, 2015 with the understanding that the freeboard would not be exceeded for more than two weeks.
- The project was to be originally completed on May 11 but was delayed and commenced on May 18.
- The 3 foot freeboard limit in the South Pond had been reached on May 18, 2015.
- On May 18, 2015 pond draining was complete and the original installation contractor, Lange Containment Systems, arrived and did an inspection of the North Pond liner.
- Lange did not find any problems with the liner, but discovered a crimp in the boot liner to HDPE pipe seal as shown in Figure 1 and Figure 2 included in Attachment 3. In the original installation done by Lange, the grey butylene tape did not have a sufficient seal from liner to HDPE pipe, only one clamp was used, and the clamp was installed with a crimp in the boot as shown. This likely allowed pond water to leak through the primary liner and into the sand and secondary liner layer.
- Lange took off the old clamp, cut and pulled back the boot liner, re-sealed the connection with butylene tape, resealed the cut, and secured the boot with two clamps as shown in Figure 3 in Attachment 3. The seal and clamps were then given a secondary seal with flex tape and corrosion protection tape as shown in Figure 4.
- On May 20, 2015, the South Pond began equalizing back into the North Pond and freeboard was returned to below 3 ft in the South Pond.
- The North LD Sump levels have been continuously monitored for recharge rate. The recharge rates have been consistent at approximately 1.5 inches per day which is less than the average recharge rate of the South LD Sump which was approximately 4.0 inches per day over the quarter. It is expected that residual water between the liners may continue weeping into the sump for some time. The anticipated duration is unknown at this time.

If you have any questions regarding this report or require additional information please contact me at the Casper office.

Sincerely,



Michael D. Gaither  
Manager EHS and Regulatory Affairs  
Ur-Energy USA, Inc

Attachments: **Attachment 1: Water Quality Data Tables**  
**Attachment 2: LD Sump Data**  
**Attachment 3: Pond Repair Figures**

Cc: Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate  
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Theresa Horne, Ur-Energy, Littleton (via e-mail)

**Attachment 1: MU1 Water Quality Data**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

Well ID	Well Type	Collection Date	Days Apart	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance			Comments
				Assay	UCL*	% Chg	Assay	UCL*	% Chg	Assay	UCL*	% Chg	
M-101	MU1 Ring	4/7/2015	--	125	172	-28	4.9	21	-77	674	965	-30	
M-101	MU1 Ring	4/21/2015	14	119	172	-31	6.0	21	-71	709	965	-26	
M-101	MU1 Ring	5/5/2015	14	120	172	-31	5.2	21	-75	682	965	-29	
M-101	MU1 Ring	5/20/2015	15	120	172	-30	6.8	21	-67	680	965	-30	
M-101	MU1 Ring	6/3/2015	14	126	172	-27	5.8	21	-72	674	965	-30	
M-101	MU1 Ring	6/22/2015	19	126	172	-27	5.2	21	-75	664	965	-31	
M-102	MU1 Ring	4/7/2015	--	139	173	-19	5.1	20	-74	798	971	-18	
M-102	MU1 Ring	4/21/2015	15	138	173	-20	6.0	20	-70	817	971	-16	
M-102	MU1 Ring	5/5/2015	13	139	173	-20	5.3	20	-74	806	971	-17	
M-102	MU1 Ring	5/20/2015	15	141	173	-18	6.9	20	-66	794	971	-18	
M-102	MU1 Ring	6/3/2015	14	144	173	-17	5.9	20	-70	793	971	-18	
M-102	MU1 Ring	6/22/2015	19	145	173	-16	5.6	20	-72	802	971	-17	
M-103A	MU1 Ring	4/7/2015	--	143	150	-5	5.3	21	-75	827	1171	-29	
M-103A	MU1 Ring	4/21/2015	15	113	150	-25	8.0	21	-62	674	1171	-42	
M-103A	MU1 Ring	5/5/2015	13	140	150	-7	5.5	21	-74	826	1171	-29	
M-103A	MU1 Ring	5/20/2015	15	146	150	-3	7.1	21	-66	814	1171	-31	
M-103A	MU1 Ring	6/3/2015	14	146	150	-3	7.2	21	-66	817	1171	-30	
M-103A	MU1 Ring	6/22/2015	19	144	150	-4	5.7	21	-73	826	1171	-29	
M-104	MU1 Ring	4/7/2015	--	145	173	-16	5.8	22	-74	821	1162	-29	
M-104	MU1 Ring	4/21/2015	15	144	173	-17	6.0	22	-73	836	1162	-28	
M-104	MU1 Ring	5/5/2015	13	145	173	-16	6.0	22	-73	826	1162	-29	
M-104	MU1 Ring	5/20/2015	15	147	173	-15	7.8	22	-65	809	1162	-30	
M-104	MU1 Ring	6/3/2015	14	148	173	-15	6.6	22	-70	814	1162	-30	
M-104	MU1 Ring	6/23/2015	20	147	173	-15	6.4	22	-71	813	1162	-30	
M-105	MU1 Ring	4/7/2015	--	132	148	-11	5.9	21	-72	734	1036	-29	
M-105	MU1 Ring	4/21/2015	15	133	148	-10	6.0	21	-71	758	1036	-27	
M-105	MU1 Ring	5/5/2015	13	133	148	-10	5.7	21	-73	745	1036	-28	
M-105	MU1 Ring	5/20/2015	15	133	148	-10	7.5	21	-64	732	1036	-29	
M-105	MU1 Ring	6/3/2015	14	132	148	-11	6.2	21	-71	734	1036	-29	
M-105	MU1 Ring	6/23/2015	20	132	148	-11	6.2	21	-70	735	1036	-29	
M-106	MU1 Ring	4/7/2015	--	127	134	-5	5.8	21	-73	695	980	-29	
M-106	MU1 Ring	4/21/2015	15	126	134	-6	6.0	21	-71	716	980	-27	
M-106	MU1 Ring	5/5/2015	13	133	134	-1	5.3	21	-75	696	980	-29	
M-106	MU1 Ring	5/20/2015	15	129	134	-4	7.4	21	-65	703	980	-28	
M-106	MU1 Ring	6/3/2015	14	126	134	-6	6.1	21	-71	693	980	-29	
M-106	MU1 Ring	6/23/2015	20	128	134	-4	6.3	21	-70	716	980	-27	
M-107	MU1 Ring	4/7/2015	--	123	138	-11	6.6	21	-69	671	1033	-35	
M-107	MU1 Ring	4/21/2015	15	121	138	-12	6.0	21	-71	686	1033	-34	
M-107	MU1 Ring	5/5/2015	13	121	138	-12	5.6	21	-73	678	1033	-34	
M-107	MU1 Ring	5/20/2015	15	123	138	-11	5.7	21	-73	672	1033	-35	
M-107	MU1 Ring	6/3/2015	14	122	138	-12	6.2	21	-70	670	1033	-35	
M-107	MU1 Ring	6/23/2015	20	128	138	-8	6.4	21	-70	680	1033	-34	
M-108	MU1 Ring	4/7/2015	--	110	127	-13	7.3	21	-65	539	905	-40	
M-108	MU1 Ring	4/21/2015	15	124	127	-2	5.0	21	-76	555	905	-39	
M-108	MU1 Ring	5/5/2015	13	110	127	-13	6.0	21	-72	542	905	-40	
M-108	MU1 Ring	5/20/2015	15	113	127	-11	5.8	21	-72	538	905	-41	
M-108	MU1 Ring	6/3/2015	14	118	127	-7	6.2	21	-71	539	905	-40	
M-108	MU1 Ring	6/23/2015	20	118	127	-7	6.1	21	-71	540	905	-40	
M-109	MU1 Ring	4/7/2015	--	112	161	-30	6.1	20	-69	580	703	-17	
M-109	MU1 Ring	4/21/2015	15	116	161	-28	6.0	20	-70	606	703	-14	
M-109	MU1 Ring	5/5/2015	13	119	161	-26	5.7	20	-72	602	703	-14	
M-109	MU1 Ring	5/20/2015	15	120	161	-26	5.8	20	-71	595	703	-15	
M-109	MU1 Ring	6/3/2015	14	121	161	-25	6.1	20	-70	592	703	-16	
M-109	MU1 Ring	6/23/2015	20	129	161	-20	6.2	20	-69	589	703	-16	
M-110	MU1 Ring	4/7/2015	--	110	147	-25	6.3	21	-70	528	1022	-48	
M-110	MU1 Ring	4/22/2015	15	107	147	-27	6.0	21	-71	529	1022	-48	
M-110	MU1 Ring	5/5/2015	13	107	147	-27	6.1	21	-71	525	1022	-49	
M-110	MU1 Ring	5/20/2015	15	115	147	-22	5.6	21	-73	510	1022	-50	
M-110	MU1 Ring	6/4/2015	15	114	147	-23	5.1	21	-76	523	1022	-49	
M-110	MU1 Ring	6/23/2015	19	121	147	-18	7.2	21	-66	570	1022	-44	
M-111	MU1 Ring	4/7/2015	--	116	146	-21	4.6	21	-78	548	897	-39	
M-111	MU1 Ring	4/22/2015	15	113	146	-23	5.0	21	-76	554	897	-38	
M-111	MU1 Ring	5/5/2015	13	116	146	-21	5.6	21	-73	550	897	-39	
M-111	MU1 Ring	5/20/2015	15	117	146	-20	5.7	21	-73	549	897	-39	
M-111	MU1 Ring	6/4/2015	15	117	146	-20	5.1	21	-76	562	897	-37	
M-111	MU1 Ring	6/23/2015	19	122	146	-16	8.3	21	-60	561	897	-37	

**Attachment 1: MU1 Water Quality Data  
2nd Quarter 2015  
Lost Creek ISR Project SUA-1598**

Well ID	Well Type	Collection Date	Days Apart	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance			Comments
				Assay	UCL*	% Chg	Assay	UCL*	% Chg	Assay	UCL*	% Chg	
M-112	MU1 Ring	4/7/2015	--	116	147	-21	5.0	20	-75	549	636	-14	
M-112	MU1 Ring	4/22/2015	15	114	147	-22	5.0	20	-75	554	636	-13	
M-112	MU1 Ring	5/5/2015	13	117	147	-20	6.0	20	-70	550	636	-14	
M-112	MU1 Ring	5/20/2015	15	116	147	-21	5.8	20	-71	541	636	-15	
M-112	MU1 Ring	6/4/2015	15	115	147	-21	5.3	20	-73	543	636	-15	
M-112	MU1 Ring	6/23/2015	19	116	147	-21	7.1	20	-65	554	636	-13	
M-113	MU1 Ring	4/8/2015	--	107	203	-47	5.5	21	-74	516	631	-18	
M-113	MU1 Ring	4/22/2015	14	116	203	-43	5.0	21	-76	516	631	-18	
M-113	MU1 Ring	5/5/2015	13	106	203	-48	5.8	21	-72	511	631	-19	
M-113	MU1 Ring	5/20/2015	15	106	203	-48	5.7	21	-73	508	631	-20	
M-113	MU1 Ring	6/4/2015	15	112	203	-45	5.0	21	-76	518	631	-18	
M-113	MU1 Ring	6/23/2015	19	107	203	-47	6.2	21	-70	516	631	-18	
M-114A	MU1 Ring	4/8/2015	--	109	139	-22	6.2	20	-69	525	772	-32	
M-114A	MU1 Ring	4/22/2015	14	106	139	-24	5.0	20	-75	523	772	-32	
M-114A	MU1 Ring	5/6/2015	14	109	139	-22	6.2	20	-69	522	772	-32	
M-114A	MU1 Ring	5/20/2015	14	111	139	-20	5.7	20	-71	516	772	-33	
M-114A	MU1 Ring	6/4/2015	15	110	139	-21	5.3	20	-74	523	772	-32	
M-114A	MU1 Ring	6/23/2015	19	116	139	-17	6.5	20	-68	526	772	-32	
M-115A	MU1 Ring	4/8/2015	--	109	126	-14	5.7	20	-71	501	726	-31	
M-115A	MU1 Ring	4/22/2015	14	106	126	-16	5.0	20	-75	500	726	-31	
M-115A	MU1 Ring	5/6/2015	14	106	126	-16	5.9	20	-70	499	726	-31	
M-115A	MU1 Ring	5/20/2015	14	107	126	-15	5.6	20	-72	494	726	-32	
M-115A	MU1 Ring	6/4/2015	15	110	126	-13	5.0	20	-75	501	726	-31	
M-115A	MU1 Ring	6/23/2015	19	108	126	-15	4.8	20	-76	499	726	-31	
M-116A	MU1 Ring	4/8/2015	--	112	134	-16	6.0	20	-70	502	679	-26	
M-116A	MU1 Ring	4/22/2015	14	106	134	-21	5.0	20	-75	499	679	-26	
M-116A	MU1 Ring	5/6/2015	14	107	134	-20	4.5	20	-78	493	679	-27	
M-116A	MU1 Ring	5/20/2015	14	108	134	-19	5.7	20	-71	491	679	-28	
M-116A	MU1 Ring	6/4/2015	15	113	134	-15	5.1	20	-75	494	679	-27	
M-116A	MU1 Ring	6/23/2015	19	107	134	-20	4.8	20	-76	495	679	-27	
M-117	MU1 Ring	4/8/2015	--	113	139	-19	6.0	20	-70	494	711	-31	
M-117	MU1 Ring	4/22/2015	14	107	139	-23	5.0	20	-75	483	711	-32	
M-117	MU1 Ring	5/6/2015	14	108	139	-22	4.5	20	-77	483	711	-32	
M-117	MU1 Ring	5/20/2015	14	109	139	-21	4.4	20	-78	477	711	-33	
M-117	MU1 Ring	6/4/2015	15	112	139	-19	5.1	20	-75	487	711	-32	
M-117	MU1 Ring	6/23/2015	19	115	139	-17	4.8	20	-76	484	711	-32	
M-118	MU1 Ring	4/7/2015	--	101	108	-6	4.8	21	-77	504	762	-34	
M-118	MU1 Ring	4/21/2015	14	100	108	-7	5.0	21	-76	518	762	-32	
M-118	MU1 Ring	5/4/2015	13	100	108	-7	4.5	21	-79	500	762	-34	
M-118	MU1 Ring	5/19/2015	15	104	108	-4	5.7	21	-73	491	762	-36	
M-118	MU1 Ring	6/3/2015	15	102	108	-6	5.7	21	-73	498	762	-35	
M-118	MU1 Ring	6/22/2015	19	105	108	-3	5.1	21	-76	504	762	-34	
M-119	MU1 Ring	4/7/2015	--	121	128	-6	5.5	20	-72	458	622	-26	
M-119	MU1 Ring	4/21/2015	14	119	128	-7	6.0	20	-70	459	622	-26	
M-119	MU1 Ring	5/4/2015	13	118	128	-8	5.0	20	-75	463	622	-26	
M-119	MU1 Ring	5/19/2015	15	119	128	-7	6.2	20	-69	462	622	-26	
M-119	MU1 Ring	6/3/2015	15	121	128	-5	5.6	20	-72	474	622	-24	
M-119	MU1 Ring	6/22/2015	19	122	128	-5	5.5	20	-73	457	622	-27	
M-120A	MU1 Ring	4/7/2015	--	112	142	-21	5.2	20	-74	479	715	-33	
M-120A	MU1 Ring	4/21/2015	14	113	142	-20	5.0	20	-75	486	715	-32	
M-120A	MU1 Ring	5/4/2015	13	108	142	-24	4.7	20	-76	472	715	-34	
M-120A	MU1 Ring	5/19/2015	15	109	142	-23	6.0	20	-70	465	715	-35	
M-120A	MU1 Ring	6/4/2015	16	114	142	-20	5.5	20	-72	468	715	-35	
M-120A	MU1 Ring	6/22/2015	18	118	142	-17	5.4	20	-73	469	715	-34	
M-121	MU1 Ring	4/7/2015	--	115	140	-18	5.4	20	-73	506	755	-33	
M-121	MU1 Ring	4/21/2015	14	114	140	-19	5.0	20	-75	515	755	-32	
M-121	MU1 Ring	5/4/2015	13	114	140	-19	4.8	20	-76	509	755	-33	
M-121	MU1 Ring	5/19/2015	15	115	140	-18	6.1	20	-69	502	755	-33	
M-121	MU1 Ring	6/4/2015	16	114	140	-18	5.4	20	-73	516	755	-32	
M-121	MU1 Ring	6/22/2015	18	116	140	-17	5.3	20	-73	510	755	-32	
M-122	MU1 Ring	4/7/2015	--	115	142	-19	5.4	20	-73	497	593	-16	
M-122	MU1 Ring	4/21/2015	14	114	142	-20	5.0	20	-75	504	593	-15	
M-122	MU1 Ring	5/4/2015	13	115	142	-19	4.8	20	-76	498	593	-16	
M-122	MU1 Ring	5/20/2015	16	115	142	-19	4.5	20	-77	498	593	-16	
M-122	MU1 Ring	6/4/2015	15	119	142	-16	5.2	20	-74	505	593	-15	
M-122	MU1 Ring	6/22/2015	18	114	142	-20	5.3	20	-74	497	593	-16	



**Attachment 1: MU1 Water Quality Data**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

Well ID	Well Type	Collection Date	Days Apart	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance			Comments
				Assay	UCL*	% Chg	Assay	UCL*	% Chg	Assay	UCL*	% Chg	
M-123	MU1 Ring	4/7/2015	--	117	131	-11	5.4	20	-73	489	718	-32	
M-123	MU1 Ring	4/21/2015	14	127	131	-3	5.0	20	-75	497	718	-31	
M-123	MU1 Ring	5/4/2015	13	121	131	-8	4.8	20	-76	493	718	-31	
M-123	MU1 Ring	5/20/2015	16	117	131	-11	4.7	20	-77	492	718	-31	
M-123	MU1 Ring	6/4/2015	15	122	131	-7	5.1	20	-74	494	718	-31	
M-123	MU1 Ring	6/22/2015	18	117	131	-10	5.0	20	-75	490	718	-32	
M-124	MU1 Ring	4/7/2015	--	113	123	-9	5.5	20	-72	463	536	-14	
M-124	MU1 Ring	4/21/2015	14	112	123	-9	5.0	20	-75	468	536	-13	
M-124	MU1 Ring	5/4/2015	13	111	123	-9	4.7	20	-76	464	536	-13	
M-124	MU1 Ring	5/20/2015	16	114	123	-7	4.8	20	-76	464	536	-13	
M-124	MU1 Ring	6/4/2015	15	128	123	4	5.0	20	-75	466	536	-13	
M-124	MU1 Ring	6/22/2015	18	112	123	-9	5.0	20	-75	464	536	-13	
M-125	MU1 Ring	4/7/2015	--	109	135	-19	6.2	21	-70	541	657	-18	
M-125	MU1 Ring	4/21/2015	14	110	135	-19	6.0	21	-71	546	657	-17	
M-125	MU1 Ring	5/4/2015	13	111	135	-17	5.8	21	-72	542	657	-17	
M-125	MU1 Ring	5/20/2015	16	110	135	-18	5.6	21	-73	538	657	-18	
M-125	MU1 Ring	6/3/2015	14	118	135	-13	5.8	21	-72	543	657	-17	
M-125	MU1 Ring	6/22/2015	19	116	135	-14	5.7	21	-73	539	657	-18	
M-126	MU1 Ring	4/7/2015	--	110	194	-43	5.5	21	-74	541	682	-21	
M-126	MU1 Ring	4/21/2015	14	109	194	-44	6.0	21	-71	548	682	-20	
M-126	MU1 Ring	5/4/2015	13	109	194	-44	6.0	21	-72	545	682	-20	
M-126	MU1 Ring	5/20/2015	16	112	194	-42	5.9	21	-72	542	682	-21	
M-126	MU1 Ring	6/3/2015	14	111	194	-43	6.0	21	-71	548	682	-20	
M-126	MU1 Ring	6/22/2015	19	115	194	-41	5.8	21	-72	540	682	-21	
M-127	MU1 Ring	4/7/2015	--	115	149	-23	5.5	21	-74	544	792	-31	
M-127	MU1 Ring	4/21/2015	14	113	149	-24	6.0	21	-71	549	792	-31	
M-127	MU1 Ring	5/4/2015	13	114	149	-23	5.9	21	-72	541	792	-32	
M-127	MU1 Ring	5/20/2015	16	114	149	-23	5.7	21	-73	543	792	-31	
M-127	MU1 Ring	6/3/2015	14	118	149	-21	5.9	21	-72	550	792	-31	
M-127	MU1 Ring	6/22/2015	19	113	149	-24	5.8	21	-72	546	792	-31	
M-128	MU1 Ring	4/7/2015	--	119	122	-2	5.7	21	-73	555	802	-31	
M-128	MU1 Ring	4/21/2015	14	113	122	-7	6.0	21	-71	571	802	-29	
M-128	MU1 Ring	5/4/2015	13	113	122	-8	4.9	21	-77	553	802	-31	
M-128	MU1 Ring	5/20/2015	16	120	122	-2	5.6	21	-73	553	802	-31	
M-128	MU1 Ring	6/3/2015	14	122	122	0	5.8	21	-73	557	802	-31	
M-128	MU1 Ring	6/22/2015	19	115	122	-6	5.6	21	-73	558	802	-30	
MO-101	MU1 Overlying	4/10/2015	--	114	136	-16	8.0	23	-65	649	824	-21	
MO-101	MU1 Overlying	4/22/2015	12	110	136	-19	7.0	23	-70	644	824	-22	
MO-101	MU1 Overlying	5/6/2015	14	108	136	-20	7.0	23	-69	634	824	-23	
MO-101	MU1 Overlying	5/21/2015	15	109	136	-20	7.3	23	-68	633	824	-23	
MO-101	MU1 Overlying	6/4/2015	14	109	136	-20	7.0	23	-70	639	824	-22	
MO-101	MU1 Overlying	6/24/2015	20	113	136	-17	5.7	23	-75	633	824	-23	
MO-102	MU1 Overlying	4/10/2015	--	110	125	-12	7.0	21	-67	598	670	-11	
MO-102	MU1 Overlying	4/22/2015	12	106	125	-15	6.0	21	-71	583	670	-13	
MO-102	MU1 Overlying	5/6/2015	14	106	125	-15	6.4	21	-69	588	670	-12	
MO-102	MU1 Overlying	5/21/2015	15	107	125	-15	9.4	21	-55	585	670	-13	
MO-102	MU1 Overlying	6/4/2015	14	110	125	-12	6.9	21	-67	587	670	-12	
MO-102	MU1 Overlying	6/24/2015	20	113	125	-10	5.8	21	-72	587	670	-12	
MO-103	MU1 Overlying	4/10/2015	--	129	130	-1	8.0	21	-62	672	849	-21	
MO-103	MU1 Overlying	4/22/2015	13	140	130	8	6.0	21	-71	844	849	-1	
MO-103	MU1 Overlying	5/1/2015	--	140	130	8	--	21	--	654	849	-23	Resample
MO-103	MU1 Overlying	5/7/2015	14	114	130	-12	8.4	21	-60	672	849	-21	
MO-103	MU1 Overlying	5/21/2015	14	115	130	-11	9.2	21	-56	673	849	-21	
MO-103	MU1 Overlying	6/4/2015	14	120	130	-8	8.7	21	-59	674	849	-21	
MO-103	MU1 Overlying	6/24/2015	20	112	130	-14	8.7	21	-59	671	849	-21	
MO-104	MU1 Overlying	4/10/2015	--	122	160	-24	9.0	24	-63	600	714	-16	
MO-104	MU1 Overlying	4/22/2015	13	116	160	-28	8.0	24	-67	580	714	-19	
MO-104	MU1 Overlying	5/7/2015	14	117	160	-27	8.3	24	-65	584	714	-18	
MO-104	MU1 Overlying	5/21/2015	14	118	160	-26	8.3	24	-65	582	714	-19	
MO-104	MU1 Overlying	6/5/2015	15	120	160	-25	8.3	24	-65	577	714	-19	
MO-104	MU1 Overlying	6/24/2015	19	121	160	-24	7.9	24	-67	584	714	-18	
MO-105	MU1 Overlying	4/10/2015	--	109	128	-15	6.0	20	-70	484	669	-28	
MO-105	MU1 Overlying	4/23/2015	13	105	128	-18	6.0	20	-70	484	669	-28	
MO-105	MU1 Overlying	5/7/2015	14	105	128	-18	5.6	20	-72	477	669	-29	
MO-105	MU1 Overlying	5/21/2015	14	106	128	-17	5.9	20	-70	474	669	-29	
MO-105	MU1 Overlying	6/5/2015	15	112	128	-12	6.0	20	-70	472	669	-29	

**Attachment 1: MU1 Water Quality Data  
2nd Quarter 2015  
Lost Creek ISR Project SUA-1598**

Well ID	Well Type	Collection Date	Days Apart	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance			Comments
				Assay	UCL*	% Chg	Assay	UCL*	% Chg	Assay	UCL*	% Chg	
MO-105	MU1 Overlying	6/24/2015	19	112	128	-12	5.6	20	-72	475	669	-29	
MO-106	MU1 Overlying	4/10/2015	--	105	143	-27	6.0	20	-70	473	626	-24	
MO-106	MU1 Overlying	4/23/2015	13	100	143	-30	6.0	20	-70	461	626	-26	
MO-106	MU1 Overlying	5/7/2015	14	100	143	-30	6.0	20	-70	464	626	-26	
MO-106	MU1 Overlying	5/21/2015	14	106	143	-26	6.1	20	-69	462	626	-26	
MO-106	MU1 Overlying	6/5/2015	15	99	143	-31	6.4	20	-68	461	626	-26	
MO-106	MU1 Overlying	6/24/2015	19	115	143	-20	5.9	20	-70	460	626	-27	
MO-107	MU1 Overlying	4/10/2015	--	107	110	-3	6.0	20	-70	469	502	-6	
MO-107	MU1 Overlying	4/23/2015	13	102	110	-7	5.0	20	-75	464	502	-7	
MO-107	MU1 Overlying	5/7/2015	14	101	110	-8	4.5	20	-77	453	502	-10	
MO-107	MU1 Overlying	5/21/2015	14	103	110	-6	5.5	20	-72	460	502	-8	
MO-107	MU1 Overlying	6/5/2015	15	105	110	-5	6.1	20	-69	459	502	-8	
MO-107	MU1 Overlying	6/24/2015	19	102	110	-7	5.6	20	-72	459	502	-8	
MO-108	MU1 Overlying	4/13/2015	--	105	118	-11	7.0	20	-65	503	513	-2	
MO-108	MU1 Overlying	4/23/2015	10	100	118	-15	6.0	20	-70	501	513	-2	
MO-108	MU1 Overlying	5/7/2015	14	102	118	-14	6.2	20	-69	491	513	-4	
MO-108	MU1 Overlying	5/21/2015	14	102	118	-14	7.3	20	-64	494	513	-4	
MO-108	MU1 Overlying	6/5/2015	15	109	118	-7	7.3	20	-63	491	513	-4	
MO-108	MU1 Overlying	6/18/2015	13	100	118	-16	6.4	20	-68	485	513	-5	
MO-109	MU1 Overlying	4/13/2015	--	108	120	-10	6.0	21	-71	492	567	-13	
MO-109	MU1 Overlying	4/23/2015	10	104	120	-13	6.0	21	-71	485	567	-14	
MO-109	MU1 Overlying	5/7/2015	14	108	120	-10	5.5	21	-74	486	567	-14	
MO-109	MU1 Overlying	5/21/2015	14	105	120	-13	6.9	21	-67	485	567	-14	
MO-109	MU1 Overlying	6/5/2015	15	103	120	-14	7.0	21	-66	487	567	-14	
MO-109	MU1 Overlying	6/18/2015	13	112	120	-6	5.8	21	-72	487	567	-14	
MO-110	MU1 Overlying	4/13/2015	--	100	128	-22	6.0	23	-74	433	533	-19	
MO-110	MU1 Overlying	4/23/2015	10	97	128	-24	5.0	23	-78	429	533	-19	
MO-110	MU1 Overlying	5/8/2015	15	97	128	-24	4.7	23	-79	429	533	-19	
MO-110	MU1 Overlying	5/22/2015	14	98	128	-23	6.4	23	-72	430	533	-19	
MO-110	MU1 Overlying	6/5/2015	14	101	128	-21	6.4	23	-72	426	533	-20	
MO-110	MU1 Overlying	6/18/2015	13	97	128	-24	5.3	23	-77	427	533	-20	
MO-111	MU1 Overlying	4/13/2015	--	106	115	-8	6.0	20	-70	432	639	-32	
MO-111	MU1 Overlying	4/23/2015	11	102	115	-11	5.0	20	-75	429	639	-33	
MO-111	MU1 Overlying	5/8/2015	14	103	115	-11	4.5	20	-77	432	639	-32	
MO-111	MU1 Overlying	5/22/2015	14	103	115	-11	6.9	20	-65	423	639	-34	
MO-111	MU1 Overlying	6/5/2015	14	108	115	-6	6.3	20	-68	422	639	-34	
MO-111	MU1 Overlying	6/18/2015	13	109	115	-5	5.1	20	-74	430	639	-33	
MO-112	MU1 Overlying	4/13/2015	--	98	252	-61	7.0	22	-68	397	541	-27	
MO-112	MU1 Overlying	4/23/2015	11	94	252	-63	6.0	22	-73	394	541	-27	
MO-112	MU1 Overlying	5/8/2015	14	104	252	-59	5.4	22	-76	398	541	-26	
MO-112	MU1 Overlying	5/22/2015	14	99	252	-61	7.2	22	-67	400	541	-26	
MO-112	MU1 Overlying	6/5/2015	14	93	252	-63	7.1	22	-68	391	541	-28	
MO-112	MU1 Overlying	6/18/2015	13	101	252	-60	5.5	22	-75	395	541	-27	
MO-113	MU1 Overlying	4/13/2015	--	109	121	-10	6.0	21	-71	449	484	-7	
MO-113	MU1 Overlying	4/23/2015	11	104	121	-14	6.0	21	-71	445	484	-8	
MO-113	MU1 Overlying	5/8/2015	14	105	121	-13	5.5	21	-74	446	484	-8	
MO-113	MU1 Overlying	5/22/2015	14	107	121	-12	6.9	21	-67	444	484	-8	
MO-113	MU1 Overlying	6/5/2015	14	111	121	-9	6.9	21	-67	444	484	-8	
MO-113	MU1 Overlying	6/18/2015	13	104	121	-14	5.5	21	-74	442	484	-9	
MU-101	MU1 Underlying	4/10/2015	--	116	157	-26	5.0	20	-75	545	653	-17	
MU-101	MU1 Underlying	4/22/2015	12	114	157	-27	5.0	20	-75	547	653	-16	
MU-101	MU1 Underlying	5/6/2015	14	112	157	-29	6.3	20	-69	537	653	-18	
MU-101	MU1 Underlying	5/21/2015	15	116	157	-26	7.4	20	-63	539	653	-17	
MU-101	MU1 Underlying	6/4/2015	14	119	157	-24	5.5	20	-73	543	653	-17	
MU-101	MU1 Underlying	6/24/2015	20	119	157	-24	7.1	20	-64	536	653	-18	
MU-102	MU1 Underlying	4/10/2015	--	111	119	-7	5.0	19	-74	433	507	-15	
MU-102	MU1 Underlying	4/22/2015	12	107	119	-10	5.0	19	-74	424	507	-16	
MU-102	MU1 Underlying	5/6/2015	14	110	119	-8	5.1	19	-73	428	507	-16	
MU-102	MU1 Underlying	5/21/2015	15	108	119	-9	6.4	19	-66	430	507	-15	
MU-102	MU1 Underlying	6/4/2015	14	105	119	-12	5.4	19	-71	425	507	-16	
MU-102	MU1 Underlying	6/24/2015	20	104	119	-12	5.0	19	-74	426	507	-16	
MU-103	MU1 Underlying	4/10/2015	--	108	213	-49	5.0	20	-75	425	560	-24	
MU-103	MU1 Underlying	4/22/2015	13	115	213	-46	5.0	20	-75	418	560	-25	
MU-103	MU1 Underlying	5/7/2015	14	104	213	-51	4.6	20	-77	422	560	-25	
MU-103	MU1 Underlying	5/21/2015	14	107	213	-50	6.4	20	-68	421	560	-25	

**Attachment 1: MU1 Water Quality Data**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

Well ID	Well Type	Collection Date	Days Apart	Alkalinity (mg/L)			Chloride (mg/L)			Specific Conductance			Comments
				Assay	UCL*	% Chg	Assay	UCL*	% Chg	Assay	UCL*	% Chg	
MU-103	MU1 Underlying	6/4/2015	14	110	213	-48	5.1	20	-75	420	560	-25	
MU-103	MU1 Underlying	6/24/2015	20	104	213	-51	5.6	20	-72	420	560	-25	
MU-104	MU1 Underlying	4/10/2015	--	108	159	-32	6.0	21	-71	484	572	-15	
MU-104	MU1 Underlying	4/22/2015	13	104	159	-35	6.0	21	-71	472	572	-18	
MU-104	MU1 Underlying	5/7/2015	14	105	159	-34	5.3	21	-75	477	572	-17	
MU-104	MU1 Underlying	5/21/2015	14	105	159	-34	5.3	21	-75	474	572	-17	
MU-104	MU1 Underlying	6/4/2015	14	100	159	-37	5.5	21	-74	464	572	-19	
MU-104	MU1 Underlying	6/24/2015	20	99	159	-38	7.1	21	-66	507	572	-11	
MU-105	MU1 Underlying	4/10/2015	--	109	124	-12	5.0	19	-74	438	562	-22	
MU-105	MU1 Underlying	4/23/2015	13	104	124	-16	5.0	19	-74	438	562	-22	
MU-105	MU1 Underlying	5/7/2015	14	105	124	-15	4.9	19	-74	434	562	-23	
MU-105	MU1 Underlying	5/21/2015	14	106	124	-15	5.1	19	-73	434	562	-23	
MU-105	MU1 Underlying	6/5/2015	15	105	124	-16	5.0	19	-73	432	562	-23	
MU-105	MU1 Underlying	6/24/2015	19	113	124	-9	5.9	19	-69	438	562	-22	
MU-106	MU1 Underlying	4/10/2015	--	118	137	-14	6.0	20	-70	448	522	-14	
MU-106	MU1 Underlying	4/23/2015	13	104	137	-24	6.0	20	-70	439	522	-16	
MU-106	MU1 Underlying	5/7/2015	14	104	137	-24	5.5	20	-72	443	522	-15	
MU-106	MU1 Underlying	5/21/2015	14	105	137	-24	5.8	20	-71	439	522	-16	
MU-106	MU1 Underlying	6/5/2015	15	111	137	-19	5.6	20	-72	440	522	-16	
MU-106	MU1 Underlying	6/24/2015	19	105	137	-23	6.3	20	-68	449	522	-14	
MU-107	MU1 Underlying	4/10/2015	--	108	136	-21	5.0	20	-75	459	556	-17	
MU-107	MU1 Underlying	4/23/2015	13	105	136	-23	5.0	20	-75	450	556	-19	
MU-107	MU1 Underlying	5/7/2015	14	104	136	-24	5.0	20	-75	453	556	-19	
MU-107	MU1 Underlying	5/21/2015	14	105	136	-23	5.0	20	-75	452	556	-19	
MU-107	MU1 Underlying	6/5/2015	15	105	136	-23	5.1	20	-74	458	556	-18	
MU-107	MU1 Underlying	6/24/2015	19	107	136	-21	6.0	20	-70	458	556	-18	
KPW-2	MU1 Underlying	4/13/2015	--	108	136	-21	6.0	21	-71	476	615	-23	
KPW-2	MU1 Underlying	4/23/2015	10	111	136	-18	5.0	21	-76	464	615	-24	
KPW-2	MU1 Underlying	5/7/2015	14	104	136	-24	5.2	21	-75	461	615	-25	
KPW-2	MU1 Underlying	5/21/2015	14	107	136	-21	5.2	21	-75	437	615	-29	
KPW-2	MU1 Underlying	6/5/2015	15	105	136	-23	5.3	21	-75	421	615	-31	
KPW-2	MU1 Underlying	6/18/2015	13	110	136	-19	5.3	21	-75	472	615	-23	
MU-109	MU1 Underlying	4/13/2015	--	71	196	-64	10.0	23	-57	432	525	-18	
MU-109	MU1 Underlying	4/23/2015	10	82	196	-58	12.0	23	-48	464	525	-12	
MU-109	MU1 Underlying	5/7/2015	14	88	196	-55	18.2	23	-21	490	525	-7	
MU-109	MU1 Underlying	5/21/2015	14	114	196	-42	30.1	23	<b>31</b>	601	525	<b>14</b>	
MU-109	MU1 Underlying	5/26/2015	--	158	196	-19	39.3	23	<b>71</b>	732	525	<b>39</b>	Confirmation sample
MU-109	MU1 Underlying	6/4/2015	14	177	196	-10	43.9	23	<b>91</b>	804	525	<b>53</b>	
MU-109	MU1 Underlying	6/11/2015	--	172	196	-12	34.7	23	<b>51</b>	764	525	<b>46</b>	Weekly Sample
MU-109	MU1 Underlying	6/18/2015	--	162	196	-17	27.5	23	19	695	525	<b>32</b>	Weekly Sample
MU-109	MU1 Underlying	6/25/2015	21	157	196	-20	27.3	23	19	680	525	<b>30</b>	
MU-109	MU1 Underlying	6/30/2015	--	175	196	-11	37.3	23	<b>62</b>	789	525	<b>50</b>	Weekly Sample
MU-110	MU1 Underlying	4/13/2015	--	86	144	-40	8.0	24	-67	445	596	-25	
MU-110	MU1 Underlying	4/23/2015	10	84	144	-42	7.0	24	-71	450	596	-24	
MU-110	MU1 Underlying	5/8/2015	15	84	144	-42	8.5	24	-65	446	596	-25	
MU-110	MU1 Underlying	5/22/2015	14	90	144	-38	8.4	24	-65	446	596	-25	
MU-110	MU1 Underlying	6/5/2015	14	90	144	-38	9.0	24	-63	452	596	-24	
MU-110	MU1 Underlying	6/18/2015	13	87	144	-39	7.4	24	-69	448	596	-25	
MU-111	MU1 Underlying	4/13/2015	--	97	188	-48	6.0	22	-73	499	652	-23	
MU-111	MU1 Underlying	4/23/2015	11	105	188	-44	6.0	22	-73	498	652	-24	
MU-111	MU1 Underlying	5/8/2015	15	95	188	-50	5.9	22	-73	497	652	-24	
MU-111	MU1 Underlying	5/22/2015	14	96	188	-49	5.9	22	-73	500	652	-23	
MU-111	MU1 Underlying	6/5/2015	14	96	188	-49	6.1	22	-72	498	652	-24	
MU-111	MU1 Underlying	6/18/2015	13	103	188	-45	5.7	22	-74	498	652	-24	
MU-112	MU1 Underlying	4/13/2015	--	98	224	-56	5.0	24	-79	440	483	-9	
MU-112	MU1 Underlying	4/23/2015	11	89	224	-60	6.0	24	-75	428	483	-11	
MU-112	MU1 Underlying	5/8/2015	14	91	224	-59	5.5	24	-77	429	483	-11	
MU-112	MU1 Underlying	5/22/2015	14	95	224	-58	5.6	24	-77	435	483	-10	
MU-112	MU1 Underlying	6/5/2015	14	110	224	-51	5.7	24	-76	435	483	-10	
MU-112	MU1 Underlying	6/18/2015	13	93	224	-59	4.9	24	-80	432	483	-11	
MU-113	MU1 Underlying	4/13/2015	--	94	140	-33	6.0	25	-76	466	590	-21	
MU-113	MU1 Underlying	4/23/2015	11	90	140	-36	5.0	25	-80	465	590	-21	
MU-113	MU1 Underlying	5/8/2015	14	87	140	-38	4.6	25	-81	462	590	-22	
MU-113	MU1 Underlying	5/22/2015	14	89	140	-36	5.4	25	-78	461	590	-22	
MU-113	MU1 Underlying	6/5/2015	14	96	140	-31	5.3	25	-79	468	590	-21	
MU-113	MU1 Underlying	6/18/2015	13	97	140	-31	4.9	25	-80	463	590	-22	
LC29M	Regional DE	N/A	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MB-10	Regional DE	N/A	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

UCL : Upper Control Limit

\* UCL calculated on a per-well basis

*Italics* : Indicates warning when result is > UCL but < 120% of UCL

***Bold Italics*** : Indicates value > 120% of UCL

**Attachment 1: MU1 Water Quality Data - Quality Control**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

QC Sample ID	Collection Date	QC Type	Source Sample ID	Alkalinity (mg/L)			Chloride (mg/L)			Sp. Cond. (uS/cm)		
				QC Sample Assay	Source Sample Assay	RPD	QC Sample Assay	Source Sample Assay	RPD	QC Sample Assay	Primary Sample Assay	RPD
M-129	04/07/2015	Duplicate	M-120A	113	112	0	5.4	5.2	1	482	479	0
M-129	04/21/2015	Duplicate	M-123	116	127	2	5.0	5.0	0	496	497	0
M-129	05/04/2015	Duplicate	M-119	119	118	0	5.0	5.0	0	463	463	0
M-129	05/20/2015	Duplicate	M-122	116	115	0	5.2	4.5	4	500	498	0
M-129	06/04/2015	Duplicate	M-120A	109	114	1	5.3	5.5	1	468	468	0
M-129	06/22/2015	Duplicate	M-118	113	105	2	5.2	5.1	0	502	504	0
M-130	04/07/2015	Blank	N/A	ND(2)	N/A	N/A	0.7	N/A	N/A	1	N/A	N/A
M-130	04/21/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
M-130	05/04/2015	Blank	N/A	ND(2)	N/A	N/A	0.6	N/A	N/A	4	N/A	N/A
M-130	05/20/2015	Blank	N/A	ND(2)	N/A	N/A	0.4	N/A	N/A	1	N/A	N/A
M-130	06/04/2015	Blank	N/A	1.746028	N/A	N/A	0.8	N/A	N/A	1.25	N/A	N/A
M-130	06/22/2015	Blank	N/A	1.58	N/A	N/A	1.1	N/A	N/A	1	N/A	N/A
M-131	04/07/2015	Duplicate	M-125	111	109	0	6.1	6.2	1	543	541	0
M-131	04/21/2015	Duplicate	M-125	120	110	2	6.0	6.0	0	546	546	0
M-131	05/04/2015	Duplicate	M-121	114	114	0	4.8	5.0	1	510	509	0
M-131	05/20/2015	Duplicate	M-126	111	112	0	6.1	5.9	1	544	542	0
M-131	06/04/2015	Duplicate	M-123	119	122	1	5.2	5.1	0	493	494	0
M-131	06/22/2015	Duplicate	M-120A	111	118	2	5.5	5.4	1	473	469	0
M-132	04/07/2015	Blank	N/A	ND(2)	N/A	N/A	0.7	N/A	N/A	1	N/A	N/A
M-132	04/21/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
M-132	05/04/2015	Blank	N/A	ND(2)	N/A	N/A	0.6	N/A	N/A	3	N/A	N/A
M-132	05/20/2015	Blank	N/A	ND(2)	N/A	N/A	0.4	N/A	N/A	1	N/A	N/A
M-132	06/04/2015	Blank	N/A	1.89	N/A	N/A	0.8	N/A	N/A	1	N/A	N/A
M-132	06/22/2015	Blank	N/A	2	N/A	N/A	1.0	N/A	N/A	1	N/A	N/A
MO-121	04/13/2015	Duplicate	MO-108	104	105	0	3.0	7.0	20	501	503	0
MO-121	04/23/2015	Duplicate	MU-109	80	82	1	12.0	12.0	0	456	464	0
MO-121	05/07/2015	Duplicate	MU-109	90	88	1	16.0	18.2	3	497	490	0
MO-121	05/22/2015	Duplicate	MU-111	99	96	1	6.1	5.9	1	502	500	0
MO-121	06/05/2015	Duplicate	MO-108	102	109	2	6.8	7.3	2	495	491	0
MO-121	06/18/2015	Duplicate	MO-108	104	100	1	6.2	6.4	1	491	485	0
MO-122	04/13/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
MO-122	04/23/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
MO-122	05/07/2015	Blank	N/A	ND(2)	N/A	N/A	0.6	N/A	N/A	1	N/A	N/A
MO-122	05/22/2015	Blank	N/A	ND(2)	N/A	N/A	0.8	N/A	N/A	1	N/A	N/A
MO-122	06/05/2015	Blank	N/A	1.50	N/A	N/A	1.3	N/A	N/A	1	N/A	N/A
MO-122	06/18/2015	Blank	N/A	2	N/A	N/A	1.1	N/A	N/A	1	N/A	N/A
MU-123	04/13/2015	Duplicate	MU-109	71	71	0	10.0	10.0	0	432	432	0
MU-123	04/23/2015	Duplicate	MU-111	94	105	3	6.0	6.0	0	506	498	0
MU-123	05/08/2015	Duplicate	MU-112	91	91	0	5.6	5.5	0	430	429	0
MU-123	05/22/2015	Duplicate	MU-112	96	95	0	5.7	5.6	1	436	435	0
MU-123	06/05/2015	Duplicate	MU-112	104	110	1	5.6	5.7	0	437	435	0
MU-123	06/18/2015	Duplicate	MU-111	95	87	2	5.8	7.4	6	500	448	3
MU-124	04/13/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
MU-124	04/23/2015	Blank	N/A	ND(5)	N/A	N/A	ND(1)	N/A	N/A	ND(5)	N/A	N/A
MU-124	05/08/2015	Blank	N/A	ND(2)	N/A	N/A	0.8	N/A	N/A	1	N/A	N/A
MU-124	05/22/2015	Blank	N/A	ND(2)	N/A	N/A	0.9	N/A	N/A	1	N/A	N/A
MU-124	06/05/2015	Blank	N/A	1.52	N/A	N/A	1.3	N/A	N/A	1	N/A	N/A
MU-124	06/18/2015	Blank	N/A	1.01	N/A	N/A	1.1	N/A	N/A	1	N/A	N/A

RPD: Relative Percent Difference

**Attachment 2: LD Sump Measurements**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

Date	North LD Sump Water Depth (inches)	N Sump Totalizer (gal)	Net Volume Pumped (gal)	South LD Sump Water Depth (inches)	S Sump Totalizer (gal)	Net Volume Pumped (gal)	Precip* (inches)	Comments
4/1/2015	3.5	2113	--	6.0	390.4	--	0	
4/2/2015	4.0	2116	3	3.0	390.8	0.4	0	
4/3/2015	2.5	2116	0	3.0	391.5	0.7	0	
4/4/2015	3.0	--	--	7.0	--	--	0	
4/5/2015	5.5	--	--	14.3	--	--	0	
4/6/2015	5.0	2116	0	14.5	391.9	0.4	0	
4/7/2015	2.0	1.9	1.9	4.0	9	9	0	New Totalizers Installed
4/8/2015	2.0	2	0.1	2.5	17.9	8.9	0	
4/9/2015	2.5	--	--	1.8	--	--	0	
4/10/2015	3.0	2.2	0.2	2.5	21.8	3.9	0	
4/11/2015	2.5	--	--	5.0	--	--	0	
4/12/2015	4.5	--	--	10.0	--	--	0	
4/13/2015	5.0	11	8.8	10.0	40.7	18.9	0	
4/14/2015	3.0	11.2	0.2	6.0	51.8	11.1	0	
4/15/2015	4.5	11.8	0.6	5.8	59.3	7.5	0	
4/16/2015	1.8	--	--	1.3	--	--	0	
4/17/2015	3.0	14	2.2	1.5	59.4	0.1	0	
4/18/2015	1.5	--	--	1.5	--	--	0	
4/19/2015	2.0	--	--	1.3	--	--	0	
4/20/2015	2.0	--	--	7.0	--	--	0	TTL1 was reset
4/21/2015	3.5	0.1	0.1	7.0	0	0	0	
4/22/2015	4.5	10.5	10.4	7.0	22.1	22.1	0	
4/23/2015	6.0	10.5	0	8.0	22.1	0	0	
4/24/2015	4.0	19.9	9.4	7.0	42.5	20.4	0	
4/25/2015	3.0	--	--	5.3	--	--	0.1	
4/26/2015	3.0	--	--	5.5	--	--	0.04	
4/27/2015	3.0	24.1	4.2	7.0	49.7	7.2	0	
4/28/2015	2.0	24.2	0.1	2.8	51.4	1.7	0	
4/29/2015	2.8	27.9	3.7	5.0	56.5	5.1	0	
4/30/2015	4.5	34.3	6.4	9.0	69	12.5	0.02	
5/1/2015	4.0	38.3	4	6.0	76.6	7.6	0	
5/2/2015	3.8	--	--	7.0	--	--	0	
5/3/2015	5.0	--	--	10.0	--	--	0.07	
5/4/2015	6.0	47.8	9.5	12.0	95.9	19.3	0	
5/5/2015	5.5	47.8	0	6.5	96.1	0.2	0	
5/6/2015	4.0	56.9	9.1	7.5	114.8	18.7	0.39	
5/7/2015	1.8	56.9	0	2.5	114.8	0	0.22	
5/8/2015	1.5	57.1	0.2	3.5	117.5	2.7	0.15	
5/9/2015	NR	NR	--	NR	NR	--	0	Missed inspection
5/10/2015	2.5	--	--	2.0	--	--	0	
5/11/2015	2.0	57.4	0.3	3.0	118.8	1.3	0	
5/12/2015	3.0	60.5	3.1	3.3	120.2	1.4	0	
5/13/2015	3.0	65.2	4.7	8.0	130	9.8	0.06	
5/14/2015	NR	NR	--	NR	NR	--	0.01	Missed inspection
5/15/2015	4.0	71.5	6.3	10.5	143.5	13.5	0.06	
5/16/2015	NR	NR	--	NR	NR	--	0.03	Missed inspection
5/17/2015	NR	NR	--	NR	NR	--	0.37	Missed inspection
5/18/2015	3.5	71.5	0	4.0	143.5	0	0.05	North Pond liner boots repaired
5/19/2015	NM	NR	--	NM	NR	--	0	Sticks wet from rain - can't read

**Attachment 2: LD Sump Measurements**  
**2nd Quarter 2015**  
**Lost Creek ISR Project SUA-1598**

Date	North LD Sump Water Depth (inches)	N Sump Totalizer (gal)	Net Volume Pumped (gal)	South LD Sump Water Depth (inches)	S Sump Totalizer (gal)	Net Volume Pumped (gal)	Precip* (inches)	Comments
5/20/2015	4.0	75.6	4.1	3.0	148.4	4.9	0	
5/21/2015	3.0	80.2	4.6	4.0	153.5	5.1	0.48	
5/22/2015	4.0	86.6	6.4	8.0	162.1	8.6	0.24	
5/23/2015	4.0	--	--	4.0	--	--	0.47	
5/24/2015	4.0	--	--	4.0	--	--		
5/25/2015	4.0	--	--	4.0	--	--	0.15	
5/26/2015	6.5	86.6	0	8.5	162.7	0.6	0.10	
5/27/2015	4.0	--	--	5.0	--	--	0.03	
5/28/2015	5.5	96.7	10.1	9.0	176.2	13.5	0.03	
5/29/2015	2.0	104.6	7.9	3.0	191.9	15.7	0.03	
5/30/2015	2.5	--	--	3.5	--	--	0.07	
5/31/2015	6.0	--	--	9.0	--	--	0	
6/1/2015	8.0	117.9	13.3	15.0	215.1	23.2	0.17	
6/2/2015	5.0	117.9	0	7.0	215.1	0	0	Samples collected
6/3/2015	3.5	124.4	6.5	4.0	225.8	10.7	0	
6/4/2015	2.5	128.4	4	3.0	231.1	5.3	0	
6/5/2015	5.0	133.2	4.8	5.5	236.3	5.2	0	
6/6/2015	2.5	--	--	1.8	--	--	0	
6/7/2015	2.5	--	--	2.0	--	--	0	
6/8/2015	4.0	133.2	0	3.0	236.3	0	0	
6/9/2015	4.0	138.3	5.1	6.8	NR	--	0	
6/10/2015	5.5	--	--	9.5	--	--	0	
6/11/2015	5.5	146.9	8.6	11.0	264.3	28	0.06	Samples collected
6/12/2015	3.0	148.8	1.9	3.0	265.7	1.4	0	
6/13/2015	5.0	--	--	4.0	--	--	0	
6/14/2015	3.8	--	--	4.3	--	--	0	
6/15/2015	1.3	157	8.2	6.5	272.9	7.2	0.68	
6/16/2015	3.0	157	0	3.0	272.9	0	0.45	
6/17/2015	5.0	157.1	0.1	5.0	273.3	0.4	0.01	
6/18/2015	6.0	157.1	0	6.0	273.3	0	0	
6/19/2015	NR	NR	--	NR	NR	--	0	Missed inspection
6/20/2015	5.3	--	--	9.0	--	--	0	
6/21/2015	5.5	--	--	9.0	--	--	0	
6/22/2015	7.0	164.8	7.7	10.5	284.6	11.3	0	
6/23/2015	3.0	177.9	13.1	3.0	301	16.4	0	
6/24/2015	4.0	181.7	3.8	3.8	303.4	2.4	0	
6/25/2015	3.0	185.3	3.6	5.0	309.1	5.7	0	
6/26/2015	3.0	188.5	3.2	4.5	NR	--	0	
6/27/2015	3.3	--	--	2.0	--	--	0	
6/28/2015	5.3	--	--	5.8	--	--	0	
6/29/2015	7.0	197.3	8.8	9.5	NR	--	0	
6/30/2015	5.0	202.4	5.1	5.0	330.3	21.2	0.11	

NM: Not measured

NR: Not recorded

N/A: Not available

\*From Rawlins Weather Service Station

### **ATTACHMENT 3**



**Figure 1**



Example of pipe boot as originally installed.



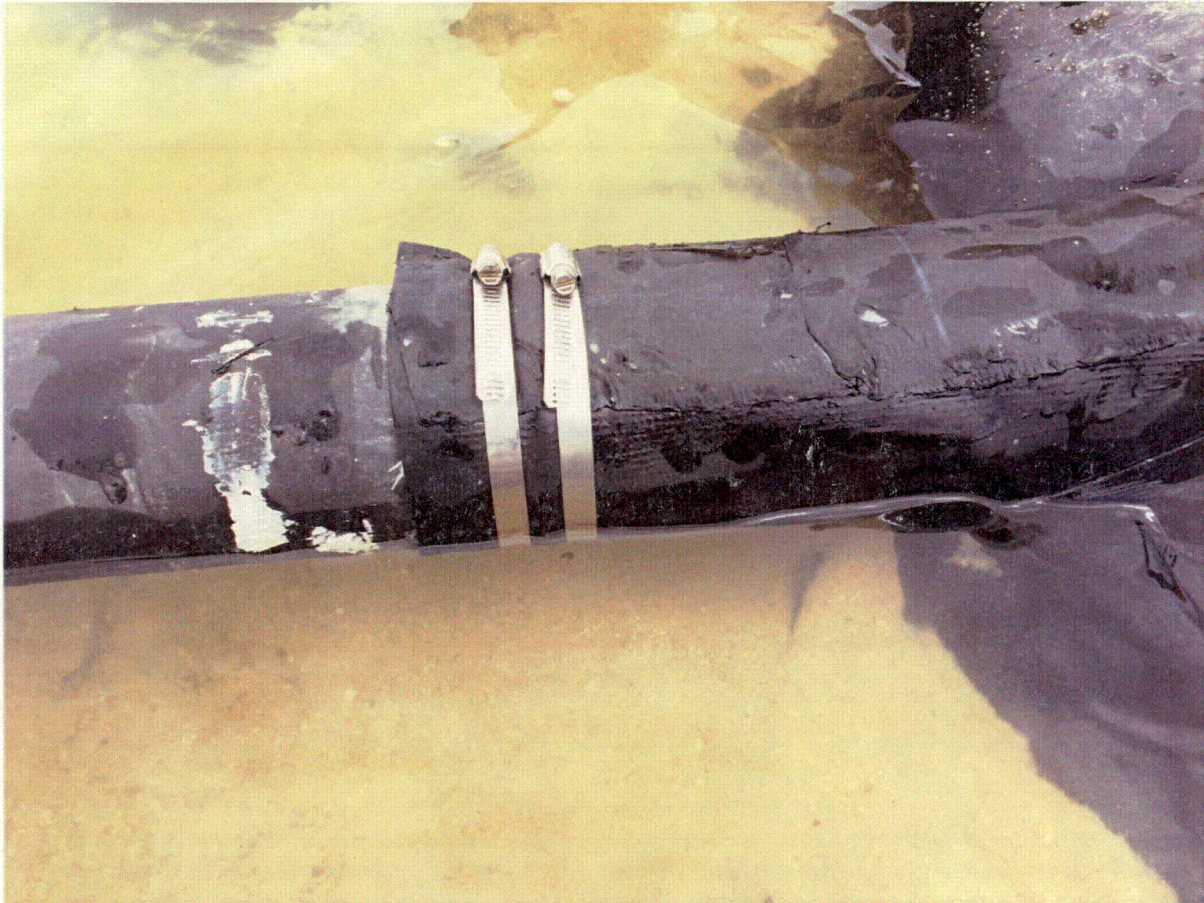
**Figure 2**



Crimp in boot and butyl rubber seal that failed.



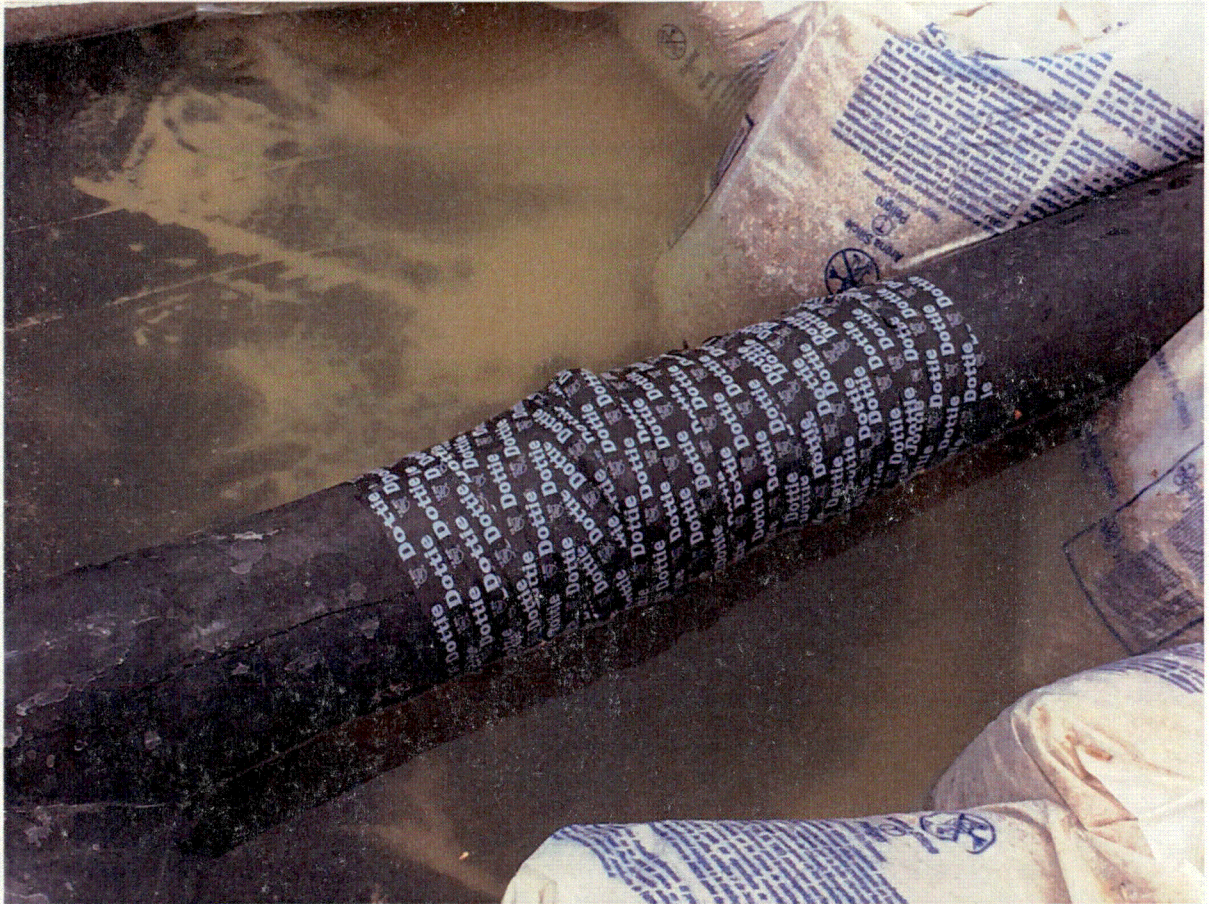
**Figure 3**



Repaired seal with double clamps.



Figure 4



Repaired seal covered with tape.