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**LOST CREEK ISR, LLC**

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January 27, 2017

40-9068

ATTN: 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)  
4th Quarter 2016  
Lost Creek ISR Project License SUA-1598**

To Whom It May Concern:

This report for the fourth calendar quarter of 2016 has been submitted in accordance with License Condition (LC) 11.1(A) for Lost Creek ISR, LLC's (LCI) Lost Creek Project License SUA-1598. LC 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). Therefore, 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 and monitoring in accordance with TR Section 5.3.2.3.

#### **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 HH1-13 within Mine Unit 1 (MU1) 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.

The monitor wells within MU1 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 excursion monitoring sample analysis are provided on **Attachment 1**. The attachment table displays the analytical result, the applicable UCL value, and the percent difference. A negative percent

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NM5501



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 following results, not including MO-108, were in excess of the UCL but less than the 20% threshold:

- M-118: 11/15/2016, 12/27/2016; Alkalinity
- MU-109: 10/6/2016, 10/21/2016, 11/17/2016, 12/15/2016, 12/29/2016; Conductivity

The fluctuations in alkalinity and conductivity are likely due to natural variations in groundwater chemistry. The results of the other parameters (chloride and conductivity) for these wells were nominal.

Samples were not collected from the regional DE horizon wells LC29M and MB-10 due to lack of water.

#### *Excursion Status and Corrective Action*

An excursion was verified and declared for MO-108 on September 29, 2016 as described in the notification submitted to NRC dated October 4, 2016. Monitoring for MO-108 was conducted on a weekly basis during the quarter. The excursion continued through most of the fourth quarter but is unofficially corrected as shown by the water quality. Three consecutive weeks of samples in December provided water quality that did not exceed the excursion parameters.

A campaign of mechanical integrity tests (MIT) was conducted on wells in the vicinity of MO-108. Two failed wells, 11181 and 11284, were not abandoned but recompleted by cementing up to the FG horizon to seal off communication from the HJ (mining horizon) and to provide monitoring of the FG (overlying formation) to aid in MO-108 excursion monitoring. Use of the well also allows pumping of impacted water from the FG. It is likely that these wells may have been the source of the communication from the HJ to the FG. Some injection will be restored to determine if the source of the excursion is corrected before the declaration of correction is made. The results of the test and conclusion will be provided in the pending excursion closeout report.

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

The quarterly Storage Pond inspection was completed by the RSO also on December 9, 2016 and the quarterly water quality samples were collected on December 15, 2016. The ponds surfaces were frozen for a majority of the quarter.

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



- *Freeboard*

The proper amount of freeboard was maintained during the reporting period. The freeboard heights in either Pond were not less than the minimum freeboard limit of 3 feet.

- *Routine Inspections*

Inspections were conducted daily throughout the quarter. There were no problems noted as a result of the quarterly inspection.

- *Leak Detection System*

Residual water between the liners continued to slowly drain into the sumps. The sump pumps were used manually to purge water from the sumps as needed. At no time during the quarter did the level exceed the action level of 6 inches.

The average recharge rates of the North and South Pond LD Sumps were significantly low and continued on a downward trend as shown in the following table:

Month	North LD Sump Rate (in/hr)	South LD Sump Rate (in/hr)
Oct 2016	0.010	0.007
Nov 2016	0.014	0.001
Dec 2016	0.001	0.000
Average	0.008	0.003

- *Water Quality Monitoring*

Quarterly Pond samples were collected from the Pond surface through a hole in the ice on December 15, 2016. The samples were submitted to Energy Labs in Casper, WY and analyzed for the required parameters (**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	12/15/2016	658	21,400	60,500	7.36	14,800	1,960	36,000	0.013	0.124	199	1,290
S Pond	12/15/2016	663	8,730	29,300	7.47	5,660	1,680	17,300	0.029	0.105	184	1,060



- *Pond Monitor Wells*

Pond monitor wells were measured in association with the quarterly inspection. No water was detected in the wells as summarized on **Table 3**:

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

Well ID	Date	Water Level (ft-bmp)	Total Depth (ft-bmp)
MW-1	11/8/2016	ND	NM
MW-2	11/8/2016	ND	NM
MW-3	11/8/2016	ND	NM
MW-4	11/8/2016	ND	NM

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**

Cc: Deputy Director, Division of Decommissioning  
 Uranium Recovery and Waste Programs  
 Office of Nuclear Material Safety and Safeguards  
 U.S. Nuclear Regulatory Commission  
 Mail Stop T-8F5  
 11545 Rockville Pike, Two White Flint North  
 Rockville, MD 20852-2738  
 John Saxton, NRC (via e-mail)  
 Brian Wood, WDEQ-LQD, Lander (via e-mail)  
 Theresa Horne, Ur-Energy, Littleton (via e-mail)



**Attachment 1: MU1 Water Quality Data**  
**4th Quarter 2016**  
**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	10/5/2016	12	124	172	-28	6.0	21	-71	700	965	-27	
M-101	MU1 Ring	10/19/2016	14	115	172	-33	5.8	21	-73	656	965	-32	
M-101	MU1 Ring	11/2/2016	14	117	172	-32	6.9	21	-67	675	965	-30	
M-101	MU1 Ring	11/15/2016	13	113	172	-34	6.3	21	-70	671	965	-30	
M-101	MU1 Ring	12/14/2016	29	117	172	-32	6.0	21	-71	704	965	-27	
M-101	MU1 Ring	12/28/2016	14	123	172	-28	6.0	21	-71	702	965	-27	
M-102	MU1 Ring	10/5/2016	12	143	173	-17	6.0	20	-70	828	971	-15	
M-102	MU1 Ring	10/19/2016	14	140	173	-19	5.9	20	-70	808	971	-17	
M-102	MU1 Ring	11/2/2016	14	137	173	-21	5.7	20	-71	821	971	-15	
M-102	MU1 Ring	11/15/2016	13	135	173	-22	5.5	20	-73	817	971	-16	
M-102	MU1 Ring	12/14/2016	29	144	173	-17	6.0	20	-70	859	971	-12	
M-102	MU1 Ring	12/28/2016	14	145	173	-16	6.0	20	-70	859	971	-12	
M-103A	MU1 Ring	10/5/2016	12	142	150	-5	7.0	21	-67	814	1171	-30	
M-103A	MU1 Ring	10/19/2016	14	132	150	-12	5.9	21	-72	792	1171	-32	
M-103A	MU1 Ring	11/2/2016	14	137	150	-9	5.0	21	-76	807	1171	-31	
M-103A	MU1 Ring	11/16/2016	14	130	150	-13	5.7	21	-73	796	1171	-32	
M-103A	MU1 Ring	12/14/2016	28	141	150	-6	7.0	21	-67	841	1171	-28	
M-103A	MU1 Ring	12/28/2016	14	140	150	-7	7.0	21	-67	836	1171	-29	
M-104	MU1 Ring	10/5/2016	12	160	173	-8	7.0	22	-68	832	1162	-28	
M-104	MU1 Ring	10/19/2016	14	140	173	-19	6.1	22	-72	811	1162	-30	
M-104	MU1 Ring	11/2/2016	14	140	173	-19	5.8	22	-74	823	1162	-29	
M-104	MU1 Ring	11/15/2016	13	141	173	-19	6.1	22	-72	819	1162	-30	
M-104	MU1 Ring	12/14/2016	29	132	173	-24	6.0	22	-73	727	1162	-37	
M-104	MU1 Ring	12/28/2016	14	130	173	-25	6.0	22	-73	703	1162	-40	
M-105	MU1 Ring	10/5/2016	12	143	148	-3	7.0	21	-67	798	1036	-23	
M-105	MU1 Ring	10/19/2016	14	123	148	-17	5.0	21	-76	642	1036	-38	
M-105	MU1 Ring	11/2/2016	14	122	148	-18	9.8	21	-53	658	1036	-36	
M-105	MU1 Ring	11/16/2016	14	113	148	-24	5.3	21	-75	560	1036	-46	
M-105	MU1 Ring	12/14/2016	28	118	148	-20	6.0	21	-71	581	1036	-44	
M-105	MU1 Ring	12/28/2016	14	126	148	-15	6.0	21	-71	665	1036	-36	
M-106	MU1 Ring	10/5/2016	12	126	134	-6	6.0	21	-71	646	980	-34	
M-106	MU1 Ring	10/19/2016	14	113	134	-15	6.5	21	-69	602	980	-39	
M-106	MU1 Ring	11/2/2016	14	119	134	-11	4.9	21	-76	626	980	-36	
M-106	MU1 Ring	11/16/2016	14	114	134	-15	5.9	21	-72	614	980	-37	
M-106	MU1 Ring	12/14/2016	28	120	134	-10	6.0	21	-71	612	980	-38	
M-106	MU1 Ring	12/28/2016	14	122	134	-9	6.0	21	-71	626	980	-36	
M-107	MU1 Ring	10/5/2016	12	125	138	-9	6.0	21	-71	682	1033	-34	
M-107	MU1 Ring	10/19/2016	14	124	138	-10	6.1	21	-71	670	1033	-35	
M-107	MU1 Ring	11/2/2016	14	120	138	-13	5.9	21	-72	676	1033	-35	
M-107	MU1 Ring	11/16/2016	14	120	138	-13	7.3	21	-65	680	1033	-34	
M-107	MU1 Ring	12/14/2016	28	125	138	-9	6.0	21	-71	701	1033	-32	
M-107	MU1 Ring	12/28/2016	14	126	138	-9	6.0	21	-71	704	1033	-32	
M-108	MU1 Ring	10/5/2016	12	113	127	-11	6.0	21	-71	555	905	-39	
M-108	MU1 Ring	10/19/2016	14	106	127	-16	5.3	21	-75	548	905	-39	
M-108	MU1 Ring	11/2/2016	14	106	127	-17	5.9	21	-72	550	905	-39	
M-108	MU1 Ring	11/16/2016	14	107	127	-16	5.1	21	-76	567	905	-37	
M-108	MU1 Ring	12/14/2016	28	126	127	-1	6.0	21	-71	581	905	-36	
M-108	MU1 Ring	12/28/2016	14	116	127	-9	6.0	21	-71	588	905	-35	
M-109	MU1 Ring	10/5/2016	12	109	161	-32	6.0	20	-70	554	703	-21	
M-109	MU1 Ring	10/19/2016	14	104	161	-35	5.0	20	-75	548	703	-22	
M-109	MU1 Ring	11/2/2016	14	107	161	-34	5.5	20	-72	546	703	-22	
M-109	MU1 Ring	11/16/2016	14	100	161	-38	6.0	20	-70	554	703	-21	
M-109	MU1 Ring	12/14/2016	28	108	161	-33	6.0	20	-70	566	703	-19	
M-109	MU1 Ring	12/28/2016	14	108	161	-33	6.0	20	-70	567	703	-19	
M-110	MU1 Ring	10/5/2016	12	118	147	-20	7.0	21	-67	585	1022	-43	
M-110	MU1 Ring	10/19/2016	14	116	147	-21	6.9	21	-67	571	1022	-44	
M-110	MU1 Ring	11/2/2016	14	111	147	-24	6.2	21	-71	577	1022	-44	
M-110	MU1 Ring	11/16/2016	14	113	147	-23	7.7	21	-63	584	1022	-43	
M-110	MU1 Ring	12/14/2016	28	119	147	-19	7.0	21	-67	608	1022	-41	
M-110	MU1 Ring	12/28/2016	14	118	147	-20	7.0	21	-67	610	1022	-40	
M-111	MU1 Ring	10/5/2016	12	118	146	-19	6.0	21	-71	558	897	-38	
M-111	MU1 Ring	10/19/2016	14	109	146	-25	5.8	21	-72	554	897	-38	
M-111	MU1 Ring	11/2/2016	14	113	146	-22	5.0	21	-76	561	897	-37	
M-111	MU1 Ring	11/16/2016	14	111	146	-24	5.4	21	-74	557	897	-38	
M-111	MU1 Ring	12/14/2016	28	118	146	-19	6.0	21	-71	575	897	-36	
M-111	MU1 Ring	12/28/2016	14	118	146	-19	6.0	21	-71	576	897	-36	
M-112	MU1 Ring	10/5/2016	12	116	147	-21	6.0	20	-70	557	636	-12	
M-112	MU1 Ring	10/18/2016	13	114	147	-22	5.2	20	-74	546	636	-14	
M-112	MU1 Ring	11/2/2016	15	112	147	-24	5.3	20	-74	545	636	-14	
M-112	MU1 Ring	11/16/2016	14	107	147	-27	5.2	20	-74	545	636	-14	
M-112	MU1 Ring	12/14/2016	28	115	147	-22	6.0	20	-70	553	636	-13	
M-112	MU1 Ring	12/28/2016	14	117	147	-20	6.0	20	-70	560	636	-12	
M-113	MU1 Ring	10/4/2016	13	108	203	-47	5.0	21	-76	514	631	-19	
M-113	MU1 Ring	10/18/2016	14	104	203	-49	5.3	21	-75	516	631	-18	
M-113	MU1 Ring	11/1/2016	14	103	203	-49	5.6	21	-73	505	631	-20	



**Attachment 1: MU1 Water Quality Data**  
**4th Quarter 2016**  
**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-113	MU1 Ring	11/15/2016	14	98	203	-51	4.9	21	-76	511	631	-19	
M-113	MU1 Ring	12/13/2016	28	107	203	-47	6.0	21	-71	525	631	-17	
M-113	MU1 Ring	12/27/2016	14	119	203	-41	6.0	21	-71	525	631	-17	
M-114A	MU1 Ring	10/4/2016	13	121	139	-13	5.0	20	-75	519	772	-33	
M-114A	MU1 Ring	10/18/2016	14	103	139	-26	4.9	20	-76	525	772	-32	
M-114A	MU1 Ring	11/1/2016	14	106	139	-24	5.0	20	-75	513	772	-34	
M-114A	MU1 Ring	11/15/2016	14	102	139	-27	8.8	20	-56	525	772	-32	
M-114A	MU1 Ring	12/13/2016	28	110	139	-21	6.0	20	-70	533	772	-31	
M-114A	MU1 Ring	12/27/2016	14	110	139	-21	6.0	20	-70	533	772	-31	
M-115A	MU1 Ring	10/4/2016	13	108	126	-14	5.0	20	-75	489	726	-33	
M-115A	MU1 Ring	10/18/2016	14	104	126	-18	4.9	20	-75	489	726	-33	
M-115A	MU1 Ring	11/1/2016	14	100	126	-21	4.3	20	-78	485	726	-33	
M-115A	MU1 Ring	11/15/2016	14	103	126	-18	4.5	20	-77	488	726	-33	
M-115A	MU1 Ring	12/13/2016	28	108	126	-14	6.0	20	-70	501	726	-31	
M-115A	MU1 Ring	12/27/2016	14	107	126	-15	6.0	20	-70	500	726	-31	
M-116A	MU1 Ring	10/4/2016	13	108	134	-19	5.0	20	-75	495	679	-27	
M-116A	MU1 Ring	10/18/2016	14	106	134	-21	5.1	20	-75	492	679	-28	
M-116A	MU1 Ring	11/1/2016	14	102	134	-24	5.4	20	-73	498	679	-27	
M-116A	MU1 Ring	11/15/2016	14	103	134	-23	5.4	20	-73	493	679	-27	
M-116A	MU1 Ring	12/13/2016	28	109	134	-19	6.0	20	-70	505	679	-26	
M-116A	MU1 Ring	12/27/2016	14	109	134	-19	6.0	20	-70	507	679	-25	
M-117	MU1 Ring	10/4/2016	13	107	139	-23	5.0	20	-75	497	711	-30	
M-117	MU1 Ring	10/18/2016	14	119	139	-14	4.8	20	-76	498	711	-30	
M-117	MU1 Ring	11/1/2016	14	104	139	-25	5.5	20	-72	495	711	-30	
M-117	MU1 Ring	11/15/2016	14	98	139	-29	5.1	20	-74	497	711	-30	
M-117	MU1 Ring	12/13/2016	28	107	139	-23	5.0	20	-75	510	711	-28	
M-117	MU1 Ring	12/27/2016	14	107	139	-23	5.0	20	-75	512	711	-28	
M-118	MU1 Ring	10/4/2016	13	104	108	-4	5.0	21	-76	503	762	-34	
M-118	MU1 Ring	10/18/2016	14	97	108	-10	4.8	21	-77	502	762	-34	
M-118	MU1 Ring	11/1/2016	14	98	108	-10	4.7	21	-78	498	762	-35	
M-118	MU1 Ring	11/15/2016	14	114	108	5	4.9	21	-77	494	762	-35	
M-118	MU1 Ring	12/13/2016	28	102	108	-6	5.0	21	-76	513	762	-33	
M-118	MU1 Ring	12/27/2016	14	113	108	5	5.0	21	-76	513	762	-33	
M-119	MU1 Ring	10/4/2016	13	118	128	-8	6.0	20	-70	472	622	-24	
M-119	MU1 Ring	10/18/2016	14	111	128	-14	5.6	20	-72	474	622	-24	
M-119	MU1 Ring	11/1/2016	14	109	128	-15	5.1	20	-74	470	622	-24	
M-119	MU1 Ring	11/15/2016	14	112	128	-12	4.9	20	-75	471	622	-24	
M-119	MU1 Ring	12/13/2016	28	118	128	-8	5.0	20	-75	486	622	-22	
M-119	MU1 Ring	12/27/2016	14	119	128	-7	5.0	20	-75	484	622	-22	
M-120A	MU1 Ring	10/4/2016	13	114	142	-20	6.0	20	-70	472	715	-34	
M-120A	MU1 Ring	10/18/2016	14	111	142	-22	5.6	20	-72	475	715	-34	
M-120A	MU1 Ring	11/1/2016	14	110	142	-22	5.1	20	-74	466	715	-35	
M-120A	MU1 Ring	11/15/2016	14	104	142	-27	4.9	20	-75	470	715	-34	
M-120A	MU1 Ring	12/13/2016	28	114	142	-20	5.0	20	-75	480	715	-33	
M-120A	MU1 Ring	12/27/2016	14	114	142	-20	5.0	20	-75	485	715	-32	
M-121	MU1 Ring	10/4/2016	13	117	140	-16	5.0	20	-75	510	755	-32	
M-121	MU1 Ring	10/18/2016	14	109	140	-22	5.1	20	-74	514	755	-32	
M-121	MU1 Ring	11/1/2016	14	110	140	-21	5.6	20	-72	508	755	-33	
M-121	MU1 Ring	11/15/2016	14	108	140	-23	5.1	20	-74	511	755	-32	
M-121	MU1 Ring	12/13/2016	28	116	140	-17	6.0	20	-70	529	755	-30	
M-121	MU1 Ring	12/27/2016	14	116	140	-17	6.0	20	-70	521	755	-31	
M-122	MU1 Ring	10/4/2016	13	117	142	-18	5.0	20	-75	502	593	-15	
M-122	MU1 Ring	10/18/2016	14	113	142	-21	4.8	20	-76	506	593	-15	
M-122	MU1 Ring	11/1/2016	14	109	142	-23	5.5	20	-73	500	593	-16	
M-122	MU1 Ring	11/15/2016	14	111	142	-22	5.2	20	-74	507	593	-15	
M-122	MU1 Ring	12/13/2016	28	128	142	-10	6.0	20	-70	516	593	-13	
M-122	MU1 Ring	12/27/2016	14	117	142	-18	6.0	20	-70	515	593	-13	
M-123	MU1 Ring	10/4/2016	11	121	131	-8	5.0	20	-75	500	718	-30	
M-123	MU1 Ring	10/19/2016	15	116	131	-11	5.3	20	-74	493	718	-31	
M-123	MU1 Ring	11/1/2016	13	118	131	-10	4.7	20	-77	492	718	-31	
M-123	MU1 Ring	11/15/2016	14	110	131	-16	4.8	20	-76	505	718	-30	



**Attachment 1: MU1 Water Quality Data**  
**4th Quarter 2016**  
**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	12/13/2016	28	119	131	-9	6.0	20	-70	507	718	-29	
M-123	MU1 Ring	12/27/2016	14	120	131	-8	6.0	20	-70	507	718	-29	
M-124	MU1 Ring	10/5/2016	12	115	123	-7	5.0	20	-75	467	536	-13	
M-124	MU1 Ring	10/19/2016	14	109	123	-11	5.5	20	-72	469	536	-13	
M-124	MU1 Ring	11/2/2016	14	107	123	-13	5.4	20	-73	532	536	-1	
M-124	MU1 Ring	11/15/2016	13	111	123	-10	4.6	20	-77	471	536	-12	
M-124	MU1 Ring	12/13/2016	28	116	123	-6	5.0	20	-75	468	536	-13	
M-124	MU1 Ring	12/27/2016	14	115	123	-7	5.0	20	-75	476	536	-11	
M-125	MU1 Ring	10/5/2016	12	114	135	-16	6.0	21	-71	543	657	-17	
M-125	MU1 Ring	10/19/2016	14	110	135	-19	5.9	21	-72	544	657	-17	
M-125	MU1 Ring	11/2/2016	14	127	135	-6	14.5	21	-31	612	657	-7	
M-125	MU1 Ring	11/15/2016	13	106	135	-21	5.3	21	-75	549	657	-16	
M-125	MU1 Ring	12/13/2016	28	113	135	-16	7.0	21	-67	561	657	-15	
M-125	MU1 Ring	12/27/2016	14	126	135	-7	7.0	21	-67	559	657	-15	
M-126	MU1 Ring	10/5/2016	12	114	194	-41	6.0	21	-71	542	682	-21	
M-126	MU1 Ring	10/19/2016	14	110	194	-43	5.5	21	-74	546	682	-20	
M-126	MU1 Ring	11/2/2016	14	108	194	-44	4.8	21	-77	463	682	-32	
M-126	MU1 Ring	11/15/2016	13	105	194	-46	6.1	21	-71	548	682	-20	
M-126	MU1 Ring	12/13/2016	28	116	194	-40	7.0	21	-67	553	682	-19	
M-126	MU1 Ring	12/28/2016	15	118	194	-39	7.0	21	-67	555	682	-19	
M-127	MU1 Ring	10/5/2016	12	117	149	-21	6.0	21	-71	552	792	-30	
M-127	MU1 Ring	10/19/2016	14	109	149	-27	5.5	21	-74	555	792	-30	
M-127	MU1 Ring	11/2/2016	14	116	149	-22	5.4	21	-74	549	792	-31	
M-127	MU1 Ring	11/15/2016	13	112	149	-25	6.3	21	-70	558	792	-30	
M-127	MU1 Ring	12/13/2016	28	117	149	-21	7.0	21	-67	566	792	-29	
M-127	MU1 Ring	12/28/2016	15	117	149	-21	7.0	21	-67	567	792	-28	
M-128	MU1 Ring	10/5/2016	12	117	122	-4	6.0	21	-71	567	802	-29	
M-128	MU1 Ring	10/19/2016	14	115	122	-6	6.2	21	-71	568	802	-29	
M-128	MU1 Ring	11/2/2016	14	109	122	-10	5.2	21	-75	565	802	-30	
M-128	MU1 Ring	11/15/2016	13	110	122	-10	5.6	21	-73	576	802	-28	
M-128	MU1 Ring	12/13/2016	28	118	122	-3	6.0	21	-71	584	802	-27	
M-128	MU1 Ring	12/28/2016	15	117	122	-4	6.0	21	-71	581	802	-28	
MO-101	MU1 Overlying	10/6/2016	10	114	136	-16	8.0	23	-65	648	824	-21	
MO-101	MU1 Overlying	10/20/2016	14	111	136	-19	6.5	23	-72	626	824	-24	
MO-101	MU1 Overlying	11/3/2016	14	122	136	-10	7.0	23	-69	644	824	-22	
MO-101	MU1 Overlying	11/16/2016	13	108	136	-20	6.7	23	-71	632	824	-23	
MO-101	MU1 Overlying	12/14/2016	28	114	136	-16	8.0	23	-65	668	824	-19	
MO-101	MU1 Overlying	12/29/2016	15	113	136	-17	8.0	23	-65	665	824	-19	
MO-102	MU1 Overlying	10/6/2016	10	107	125	-14	7.0	21	-67	587	670	-12	
MO-102	MU1 Overlying	10/20/2016	14	101	125	-19	6.3	21	-70	575	670	-14	
MO-102	MU1 Overlying	11/3/2016	14	103	125	-18	6.8	21	-68	588	670	-12	
MO-102	MU1 Overlying	11/16/2016	13	101	125	-19	6.7	21	-68	587	670	-12	
MO-102	MU1 Overlying	12/14/2016	28	107	125	-14	7.0	21	-67	602	670	-10	
MO-102	MU1 Overlying	12/29/2016	15	119	125	-5	7.0	21	-67	602	670	-10	
MO-103	MU1 Overlying	10/6/2016	10	119	130	-8	9.0	21	-57	698	849	-18	
MO-103	MU1 Overlying	10/20/2016	14	122	130	-6	9.2	21	-56	690	849	-19	
MO-103	MU1 Overlying	11/3/2016	14	112	130	-14	8.3	21	-60	704	849	-17	
MO-103	MU1 Overlying	11/16/2016	13	109	130	-16	9.6	21	-54	704	849	-17	
MO-103	MU1 Overlying	12/14/2016	28	118	130	-9	10.0	21	-52	718	849	-15	
MO-103	MU1 Overlying	12/29/2016	15	119	130	-8	9.0	21	-57	719	849	-15	
MO-104	MU1 Overlying	10/6/2016	10	121	160	-24	9.0	24	-63	602	714	-16	
MO-104	MU1 Overlying	10/20/2016	14	114	160	-29	8.5	24	-65	599	714	-16	
MO-104	MU1 Overlying	11/3/2016	14	116	160	-28	7.8	24	-68	597	714	-16	
MO-104	MU1 Overlying	11/16/2016	13	116	160	-27	8.3	24	-65	601	714	-16	
MO-104	MU1 Overlying	12/14/2016	28	121	160	-24	9.0	24	-63	613	714	-14	
MO-104	MU1 Overlying	12/29/2016	15	133	160	-17	9.0	24	-63	612	714	-14	
MO-105	MU1 Overlying	10/6/2016	10	109	128	-15	6.0	20	-70	475	669	-29	
MO-105	MU1 Overlying	10/20/2016	14	102	128	-21	4.7	20	-76	471	669	-30	
MO-105	MU1 Overlying	11/3/2016	14	104	128	-19	5.3	20	-73	477	669	-29	
MO-105	MU1 Overlying	11/16/2016	13	101	128	-21	4.6	20	-77	482	669	-28	
MO-105	MU1 Overlying	12/14/2016	28	109	128	-15	6.0	20	-70	489	669	-27	
MO-105	MU1 Overlying	12/29/2016	15	109	128	-15	6.0	20	-70	491	669	-27	
MO-106	MU1 Overlying	10/6/2016	10	107	143	-25	6.0	20	-70	468	626	-25	
MO-106	MU1 Overlying	10/20/2016	14	102	143	-28	6.3	20	-68	459	626	-27	
MO-106	MU1 Overlying	11/3/2016	14	100	143	-30	6.3	20	-68	468	626	-25	
MO-106	MU1 Overlying	11/16/2016	13	98	143	-32	5.5	20	-72	469	626	-25	



**Attachment 1: MU1 Water Quality Data  
4th Quarter 2016  
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-106	MU1 Overlying	12/15/2016	29	107	143	-25	6.0	20	-70	480	626	-23	
MO-106	MU1 Overlying	12/29/2016	14	106	143	-26	6.0	20	-70	479	626	-23	
MO-107	MU1 Overlying	10/6/2016	10	107	110	-3	6.0	20	-70	464	502	-8	
MO-107	MU1 Overlying	10/20/2016	14	101	110	-8	5.6	20	-72	455	502	-9	
MO-107	MU1 Overlying	11/4/2016	15	100	110	-9	5.4	20	-73	457	502	-9	
MO-107	MU1 Overlying	11/17/2016	13	100	110	-9	6.0	20	-70	467	502	-7	
MO-107	MU1 Overlying	12/15/2016	28	107	110	-3	6.0	20	-70	476	502	-5	
MO-107	MU1 Overlying	12/29/2016	14	107	110	-3	6.0	20	-70	475	502	-5	
MO-108	MU1 Overlying	10/6/2016	7	134	118	14	18.1	20	-9	604	513	18	
MO-108	MU1 Overlying	10/13/2016	7	139	118	18	20.0	20	0	627	513	22	
MO-108	MU1 Overlying	10/19/2016	6	144	118	22	21.0	20	5	649	513	27	
MO-108	MU1 Overlying	10/25/2016	6	143	118	21	21.5	20	8	676	513	32	
MO-108	MU1 Overlying	11/1/2016	7	146	118	24	22.4	20	12	667	513	30	
MO-108	MU1 Overlying	11/8/2016	7	154	118	31	22.4	20	12	703	513	37	
MO-108	MU1 Overlying	11/15/2016	7	154	118	30	24.1	20	20	700	513	36	
MO-108	MU1 Overlying	11/22/2016	7	144	118	22	22.9	20	14	664	513	29	
MO-108	MU1 Overlying	11/29/2016	7	99	118	-16	8.9	20	-56	494	513	-4	
MO-108	MU1 Overlying	12/1/2016	2	98	118	-17	8.9	20	-56	473	513	-8	
MO-108	MU1 Overlying	12/5/2016	4	146	118	24	26.0	20	30	687	513	34	
MO-108	MU1 Overlying	12/12/2016	7	120	118	2	18.0	20	-10	559	513	9	
MO-108	MU1 Overlying	12/20/2016	8	103	118	-13	13.0	20	-35	506	513	-1	
MO-108	MU1 Overlying	12/29/2016	9	110	118	-7	10.0	20	-50	539	513	5	
MO-109	MU1 Overlying	10/6/2016	9	115	120	-4	8.0	21	-62	513	567	-10	
MO-109	MU1 Overlying	10/21/2016	15	107	120	-11	6.8	21	-68	504	567	-11	
MO-109	MU1 Overlying	11/4/2016	14	110	120	-8	8.0	21	-62	507	567	-11	
MO-109	MU1 Overlying	11/17/2016	13	114	120	-5	7.6	21	-64	525	567	-7	
MO-109	MU1 Overlying	12/15/2016	28	114	120	-5	8.0	21	-62	524	567	-8	
MO-109	MU1 Overlying	12/29/2016	14	114	120	-5	8.0	21	-62	516	567	-9	
MO-110	MU1 Overlying	10/6/2016	9	102	128	-20	6.0	23	-74	430	533	-19	
MO-110	MU1 Overlying	10/21/2016	15	96	128	-25	4.7	23	-80	426	533	-20	
MO-110	MU1 Overlying	11/4/2016	14	99	128	-23	5.3	23	-77	433	533	-19	
MO-110	MU1 Overlying	11/17/2016	13	95	128	-26	4.6	23	-80	433	533	-19	
MO-110	MU1 Overlying	12/15/2016	28	113	128	-12	6.0	23	-74	440	533	-17	
MO-110	MU1 Overlying	12/29/2016	14	100	128	-22	6.0	23	-74	441	533	-17	
MO-111	MU1 Overlying	10/7/2016	10	104	115	-10	5.0	20	-75	430	639	-33	
MO-111	MU1 Overlying	10/21/2016	14	100	115	-13	6.3	20	-69	422	639	-34	
MO-111	MU1 Overlying	11/4/2016	14	98	115	-15	4.7	20	-76	432	639	-32	
MO-111	MU1 Overlying	11/17/2016	13	96	115	-17	5.3	20	-73	430	639	-33	
MO-111	MU1 Overlying	12/15/2016	28	102	115	-11	6.0	20	-70	436	639	-32	
MO-111	MU1 Overlying	12/30/2016	15	103	115	-10	6.0	20	-70	439	639	-31	
MO-112	MU1 Overlying	10/7/2016	10	112	252	-56	6.0	22	-73	422	541	-22	
MO-112	MU1 Overlying	10/21/2016	14	105	252	-58	6.3	22	-71	414	541	-23	
MO-112	MU1 Overlying	11/4/2016	14	105	252	-58	6.3	22	-72	420	541	-22	
MO-112	MU1 Overlying	11/17/2016	13	120	252	-52	7.2	22	-67	423	541	-22	
MO-112	MU1 Overlying	12/15/2016	28	112	252	-56	7.0	22	-68	435	541	-20	
MO-112	MU1 Overlying	12/30/2016	15	112	252	-56	7.0	22	-68	432	541	-20	
MO-113	MU1 Overlying	10/7/2016	10	108	121	-11	6.0	21	-71	448	484	-7	
MO-113	MU1 Overlying	10/21/2016	14	100	121	-18	4.8	21	-77	444	484	-8	
MO-113	MU1 Overlying	11/4/2016	14	106	121	-12	6.6	21	-69	446	484	-8	
MO-113	MU1 Overlying	11/17/2016	13	101	121	-16	5.8	21	-72	451	484	-7	
MO-113	MU1 Overlying	12/15/2016	28	106	121	-12	6.0	21	-71	456	484	-6	
MO-113	MU1 Overlying	12/30/2016	15	119	121	-2	6.0	21	-71	462	484	-5	
MU-101	MU1 Underlying	10/6/2016	10	115	157	-27	5.0	20	-75	543	653	-17	
MU-101	MU1 Underlying	10/20/2016	14	112	157	-28	5.8	20	-71	543	653	-17	
MU-101	MU1 Underlying	11/3/2016	14	110	157	-30	5.9	20	-71	544	653	-17	
MU-101	MU1 Underlying	11/16/2016	13	110	157	-30	5.4	20	-73	540	653	-17	
MU-101	MU1 Underlying	12/14/2016	28	115	157	-27	6.0	20	-70	557	653	-15	
MU-101	MU1 Underlying	12/29/2016	15	115	157	-27	5.0	20	-75	559	653	-14	
MU-102	MU1 Underlying	10/6/2016	10	110	119	-8	5.0	19	-74	426	507	-16	
MU-102	MU1 Underlying	10/20/2016	14	104	119	-13	5.5	19	-71	423	507	-17	
MU-102	MU1 Underlying	11/3/2016	14	106	119	-11	4.7	19	-75	426	507	-16	
MU-102	MU1 Underlying	11/16/2016	13	101	119	-15	4.6	19	-76	430	507	-15	
MU-102	MU1 Underlying	12/14/2016	28	106	119	-11	5.0	19	-74	438	507	-14	
MU-102	MU1 Underlying	12/29/2016	15	109	119	-8	5.0	19	-74	439	507	-13	
MU-103	MU1 Underlying	10/6/2016	10	107	213	-50	5.0	20	-75	425	560	-24	
MU-103	MU1 Underlying	10/20/2016	14	99	213	-53	5.1	20	-75	417	560	-26	



**Attachment 1: MU1 Water Quality Data**  
**4th Quarter 2016**  
**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	11/3/2016	14	100	213	-53	4.0	20	-80	421	560	-25	
MU-103	MU1 Underlying	11/16/2016	13	98	213	-54	4.4	20	-78	420	560	-25	
MU-103	MU1 Underlying	12/14/2016	28	107	213	-50	5.0	20	-75	433	560	-23	
MU-103	MU1 Underlying	12/29/2016	15	106	213	-50	5.0	20	-75	432	560	-23	
MU-104B	MU1 Underlying	10/6/2016	10	103	159	-35	5.0	21	-76	432	572	-24	
MU-104B	MU1 Underlying	10/20/2016	14	98	159	-38	4.7	21	-77	428	572	-25	
MU-104B	MU1 Underlying	11/3/2016	14	98	159	-39	4.2	21	-80	432	572	-24	
MU-104B	MU1 Underlying	11/16/2016	13	97	159	-39	4.7	21	-78	432	572	-24	
MU-104B	MU1 Underlying	12/14/2016	28	104	159	-35	5.0	21	-76	444	572	-22	
MU-104B	MU1 Underlying	12/29/2016	15	116	159	-27	5.0	21	-76	442	572	-23	
MU-105	MU1 Underlying	10/6/2016	10	107	124	-14	5.0	19	-74	437	562	-22	
MU-105	MU1 Underlying	10/20/2016	14	106	124	-14	5.3	19	-72	440	562	-22	
MU-105	MU1 Underlying	11/3/2016	14	106	124	-15	5.8	19	-69	450	562	-20	
MU-105	MU1 Underlying	11/16/2016	13	103	124	-17	4.9	19	-74	442	562	-21	
MU-105	MU1 Underlying	12/14/2016	28	107	124	-14	6.0	19	-68	452	562	-20	
MU-105	MU1 Underlying	12/29/2016	15	107	124	-14	5.0	19	-74	449	562	-20	
MU-106	MU1 Underlying	10/6/2016	10	107	137	-22	6.0	20	-70	459	522	-12	
MU-106	MU1 Underlying	10/20/2016	14	102	137	-26	6.0	20	-70	461	522	-12	
MU-106	MU1 Underlying	11/3/2016	14	103	137	-25	5.9	20	-70	467	522	-11	
MU-106	MU1 Underlying	11/16/2016	13	100	137	-27	5.8	20	-71	466	522	-11	
MU-106	MU1 Underlying	12/15/2016	29	106	137	-23	6.0	20	-70	464	522	-11	
MU-106	MU1 Underlying	12/29/2016	14	106	137	-23	6.0	20	-70	457	522	-12	
MU-107	MU1 Underlying	10/6/2016	10	120	136	-12	5.0	20	-75	457	556	-18	
MU-107	MU1 Underlying	10/20/2016	14	100	136	-27	4.7	20	-77	464	556	-17	
MU-107	MU1 Underlying	11/4/2016	15	100	136	-26	6.2	20	-69	469	556	-16	
MU-107	MU1 Underlying	11/17/2016	13	99	136	-27	5.2	20	-74	473	556	-15	
MU-107	MU1 Underlying	12/15/2016	28	106	136	-22	5.0	20	-75	482	556	-13	
MU-107	MU1 Underlying	12/29/2016	14	107	136	-21	6.0	20	-70	482	556	-13	
KPW-2	MU1 Underlying	10/6/2016	9	109	136	-20	6.0	21	-71	504	615	-18	
KPW-2	MU1 Underlying	10/20/2016	14	108	136	-20	6.0	21	-72	496	615	-19	
KPW-2	MU1 Underlying	11/4/2016	15	108	136	-21	6.9	21	-67	505	615	-18	
KPW-2	MU1 Underlying	11/17/2016	13	102	136	-25	5.8	21	-73	495	615	-20	
KPW-2	MU1 Underlying	12/15/2016	28	110	136	-19	7.0	21	-67	498	615	-19	
KPW-2	MU1 Underlying	12/29/2016	14	110	136	-19	7.0	21	-67	506	615	-18	
MU-109	MU1 Underlying	10/6/2016	9	125	196	-36	10.0	23	-57	533	525	<b>2</b>	
MU-109	MU1 Underlying	10/21/2016	15	125	196	-36	13.0	23	-44	566	525	<b>8</b>	
MU-109	MU1 Underlying	11/4/2016	14	124	196	-37	9.6	23	-58	520	525	-1	
MU-109	MU1 Underlying	11/17/2016	13	125	196	-36	10.7	23	-54	563	525	<b>7</b>	
MU-109	MU1 Underlying	12/15/2016	28	126	196	-36	12.0	23	-48	553	525	<b>5</b>	
MU-109	MU1 Underlying	12/29/2016	14	138	196	-30	11.0	23	-52	551	525	<b>5</b>	
MU-110	MU1 Underlying	10/6/2016	9	99	144	-31	6.0	24	-75	460	596	-23	
MU-110	MU1 Underlying	10/21/2016	15	95	144	-34	6.1	24	-75	461	596	-23	
MU-110	MU1 Underlying	11/4/2016	14	95	144	-34	6.0	24	-75	468	596	-21	
MU-110	MU1 Underlying	11/17/2016	13	91	144	-36	6.3	24	-74	465	596	-22	
MU-110	MU1 Underlying	12/15/2016	28	97	144	-33	7.0	24	-71	480	596	-19	
MU-110	MU1 Underlying	12/29/2016	14	99	144	-31	6.0	24	-75	472	596	-21	
MU-111	MU1 Underlying	10/7/2016	10	101	188	-46	5.0	22	-77	500	652	-23	
MU-111	MU1 Underlying	10/21/2016	14	106	188	-44	6.0	22	-73	504	652	-23	
MU-111	MU1 Underlying	11/4/2016	14	97	188	-48	5.0	22	-77	508	652	-22	
MU-111	MU1 Underlying	11/17/2016	13	94	188	-50	5.4	22	-75	449	652	-31	
MU-111	MU1 Underlying	12/15/2016	28	99	188	-47	5.0	22	-77	514	652	-21	
MU-111	MU1 Underlying	12/30/2016	15	101	188	-46	5.0	22	-77	518	652	-21	
MU-112	MU1 Underlying	10/7/2016	10	102	224	-54	5.0	24	-79	450	483	-7	
MU-112	MU1 Underlying	10/21/2016	14	97	224	-57	4.9	24	-80	445	483	-8	
MU-112	MU1 Underlying	11/4/2016	14	98	224	-56	5.3	24	-78	449	483	-7	
MU-112	MU1 Underlying	11/17/2016	13	95	224	-58	5.0	24	-79	452	483	-6	
MU-112	MU1 Underlying	12/15/2016	28	113	224	-50	5.0	24	-79	453	483	-6	
MU-112	MU1 Underlying	12/30/2016	15	100	224	-55	5.0	24	-79	456	483	-6	
MU-113	MU1 Underlying	10/7/2016	10	99	140	-29	5.0	25	-80	476	590	-19	
MU-113	MU1 Underlying	10/21/2016	14	95	140	-32	4.7	25	-81	474	590	-20	
MU-113	MU1 Underlying	11/4/2016	14	94	140	-33	4.4	25	-83	476	590	-19	
MU-113	MU1 Underlying	11/17/2016	13	93	140	-33	5.1	25	-79	473	590	-20	
MU-113	MU1 Underlying	12/15/2016	28	96	140	-31	5.0	25	-80	484	590	-18	
MU-113	MU1 Underlying	12/30/2016	15	97	140	-31	5.0	25	-80	487	590	-17	
LC29M	Regional DE	10/6/2016	---	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Insufficient water
MB-10	Regional DE	10/6/2016	---	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Insufficient water

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 Data**  
**4th Quarter 2016**  
**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	7/6/2016	Duplicate	M-116A	108	105	3	5.6	5.4	4	501	496	1
M-129	7/19/2016	Duplicate	M-113	106	103	3	5.1	5.0	1	524	517	1
M-129	8/2/2016	Duplicate	M-114A	105	108	3	5.2	5.2	1	530	529	0
M-129	8/17/2016	Duplicate	M-120A	112	113	1	4.9	4.9	1	516	472	9
M-129	9/1/2016	Duplicate	M-117	102	106	4	4.9	5.3	7	494	490	1
M-129	9/21/2016	Duplicate	M-115A	106	95	11	5.7	5.2	9	497	487	2
M-130	7/6/2016	Blank	N/A	14	N/A	N/A	0.0	N/A	N/A	37	N/A	N/A
M-130	7/19/2016	Blank	N/A	9	N/A	N/A	0.0	N/A	N/A	27	N/A	N/A
M-130	8/2/2016	Blank	N/A	5	N/A	N/A	0.0	N/A	N/A	15	N/A	N/A
M-130	8/17/2016	Blank	N/A	13	N/A	N/A	0.0	N/A	N/A	29	N/A	N/A
M-130	9/1/2016	Blank	N/A	5	N/A	N/A	0.0	N/A	N/A	15	N/A	N/A
M-130	9/21/2016	Blank	N/A	7	N/A	N/A	0.0	N/A	N/A	29	N/A	N/A
M-131	7/6/2016	Duplicate	M-117	108	109	1	4.8	4.1	16	492	484	2
M-131	7/19/2016	Duplicate	M-114A	106	109	3	5.1	5.9	14	528	524	1
M-131	8/2/2016	Duplicate	M-115A	108	102	6	4.9	5.3	7	489	497	2
M-131	8/17/2016	Duplicate	M-122	117	116	1	5.5	5.3	4	499	502	1
M-131	9/1/2016	Duplicate	M-120A	113	112	1	5.0	6.3	24	472	474	0
M-131	9/21/2016	Duplicate	M-116A	100	100	0	6.9	5.4	24	506	493	3
M-132	7/6/2016	Blank	N/A	1	N/A	N/A	0.6	N/A	N/A	2	N/A	N/A
M-132	7/19/2016	Blank	N/A	13	N/A	N/A	0.0	N/A	N/A	28	N/A	N/A
M-132	8/2/2016	Blank	N/A	3	N/A	N/A	0.0	N/A	N/A	7	N/A	N/A
M-132	8/17/2016	Blank	N/A	10	N/A	N/A	0.0	N/A	N/A	27	N/A	N/A
M-132	9/1/2016	Blank	N/A	4	N/A	N/A	0.0	N/A	N/A	8	N/A	N/A
M-132	9/21/2016	Blank	N/A	7	N/A	N/A	0.0	N/A	N/A	28	N/A	N/A
MO-121	7/8/2016	Duplicate	MO-109	114	116	2	8.8	7.8	12	522	514	2
MO-121	7/22/2016	Duplicate	MO-109	112	110	2	8.4	7.1	17	519	516	1
MO-121	8/4/2016	Duplicate	MO-108	107	107	0	11.3	10.7	6	546	547	0
MO-121	8/18/2016	Duplicate	MO-108	117	111	5	11.6	11.4	2	557	556	0
MO-121	9/3/2016	Duplicate	MO-109	108	111	2	7.1	7.5	5	516	522	1
MO-121	9/26/2016	Duplicate	MU-103	103	101	2	6.9	6.8	1	433	437	1
MO-122	7/8/2016	Blank	N/A	14	N/A	N/A	0.0	N/A	N/A	30	N/A	N/A
MO-122	7/22/2016	Blank	N/A	6	N/A	N/A	0.0	N/A	N/A	17	N/A	N/A
MO-122	8/4/2016	Blank	N/A	7	N/A	N/A	0.0	N/A	N/A	22	N/A	N/A
MO-122	8/18/2016	Blank	N/A	10	N/A	N/A	0.0	N/A	N/A	24	N/A	N/A
MO-122	9/3/2016	Blank	N/A	6	N/A	N/A	0.0	N/A	N/A	19	N/A	N/A
MO-122	9/26/2016	Blank	N/A	12	N/A	N/A	0.0	N/A	N/A	32	N/A	N/A
MU-123	7/8/2016	Duplicate	MU-111	98	98	0	6.0	6.3	4	512	507	1
MU-123	7/22/2016	Duplicate	MO-111	106	99	7	6.5	6.1	6	423	431	2
MU-123	8/4/2016	Duplicate	MO-109	115	112	3	8.8	7.1	22	522	522	0
MU-123	8/18/2016	Duplicate	KPW-2	105	128	20	5.7	6.7	16	503	496	1
MU-123	9/3/2016	Duplicate	MU-111	97	97	0	5.0	4.9	2	504	499	1
MU-123	9/26/2016	Duplicate	MO-104	113	117	4	9.7	7.8	21	602	602	0
MU-124	7/8/2016	Blank	N/A	12	N/A	N/A	0.0	N/A	N/A	31	N/A	N/A
MU-124	7/22/2016	Blank	N/A	15	N/A	N/A	0.0	N/A	N/A	29	N/A	N/A
MU-124	8/4/2016	Blank	N/A	7	N/A	N/A	0.0	N/A	N/A	20	N/A	N/A
MU-124	8/18/2016	Blank	N/A	12	N/A	N/A	0.0	N/A	N/A	30	N/A	N/A
MU-124	9/3/2016	Blank	N/A	10	N/A	N/A	0.0	N/A	N/A	23	N/A	N/A
MU-124	9/26/2016	Blank	N/A	11	N/A	N/A	0.0	N/A	N/A	39	N/A	N/A

RPD: Relative Percent Difference