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October 29, 2014

UIC Program Supervisor
WDEQ – Water Quality Division
Herschler Building – 4W
122 W. 25th Street
Cheyenne, WY 82002

RE: Quarterly Report for 3rd Quarter 2014
UIC Class I Permit 13-409
Lost Creek ISR Project, Sweetwater County, WY

Dear Program Supervisor,

The attached Quarterly Report for the Lost Creek ISR Project has been submitted in accordance with the requirements of Class I Underground Injection Control (UIC) Permit 13-409 Section K. The reporting period for this Quarterly Report is the 3rd calendar quarter of 2014 from July 1 to September 30, 2014.

If you have any questions regarding this submittal, please contact me at the Casper Office.

Regards,

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

Attachments: UIC Class I Quarterly Report

Cc: Theresa Horne, Ur-Energy, Littleton Office (via e-mail)
Brian Wood, WDEQ-LQD, Lander (via e-mail)
John Saxton, NRC Project Manager (via e-mail)

**UIC CLASS I QUARTERLY REPORT
for the
LOST CREEK ISR PROJECT
3rd Quarter 2014**



**LOST CREEK ISR, LLC
SWEETWATER COUNTY, WY**

UIC PERMIT 13-409

**Prepared by Ur-Energy for
Wyoming Department of Environmental Quality -
Water Quality Division – Underground Injection Control**

October 29, 2014



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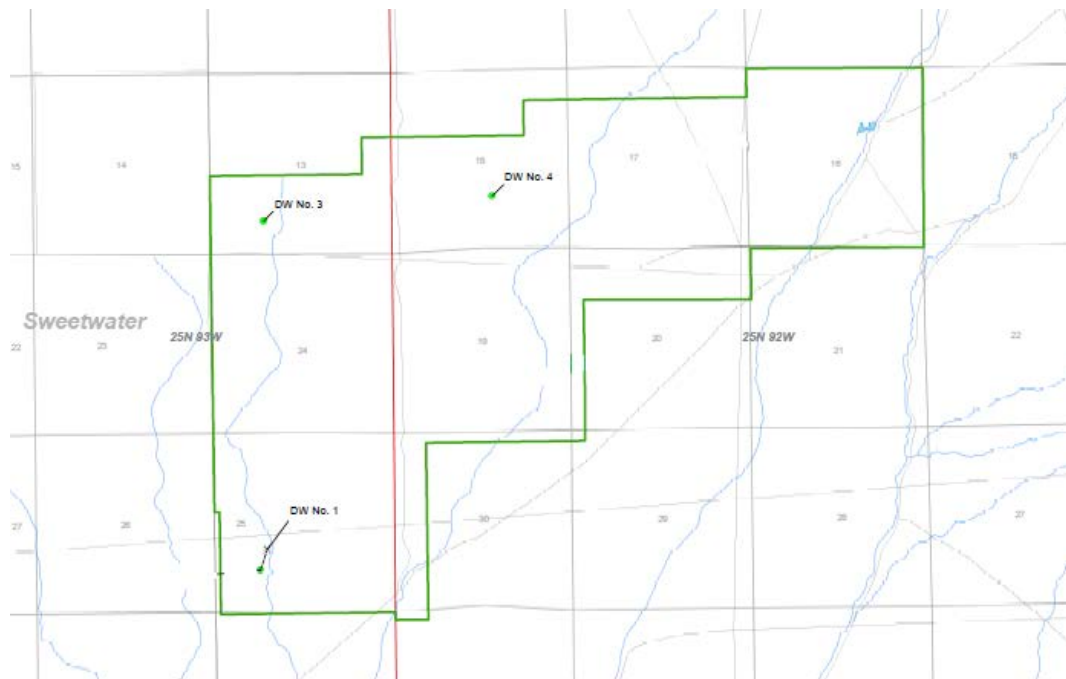
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1.0 Introduction

The period covered by this report is the third calendar quarter of 2014 from July 1 to September 30, 2014.

Two disposal wells were operational during the reporting period: LC DW No. 1 ("DW-1") and LC DW No. 4 ("DW-4"). LC DW No. 3 ("DW-3") was drilled but not completed as of the end of the reporting quarter. Well locations (labeled) are shown below in relation to the Permit to Mine boundary (green line):



DW-1 and DW-4 were operated intermittently during the quarter. Operational data was monitored and recorded electronically with redundant data logging.

As per permit requirements, the following elements from Section K(6) of the UIC Permit have been included in this report:

- a. Minimum, volume-weighted average, and maximum instantaneous injection rates for each well for each month*
- b. Minimum, average, and maximum daily injection pressures for each well for each month*
- c. Total injection volume in barrels (bbl) for each well for each month, total for the quarter, and cumulative volume of waste injected to date.*
- d. Maximum and minimum annulus pressures for each month with alarm/kill pressure value*
- e. Quarterly analytical results*
- f. Permit exceedances during the quarter*



- g. Any alarms or shutdowns and corrective actions*
- h. Summary of well tests or workovers*

2.0 Summary Data

Table 1A, 1B and 2 below provide a data summary for above items **a**, **c**, and **d** above. Data for item **b** above is provided in **Appendix 1** including tables and charts of the daily injection pressure values.

Table 1A: Operational Data Summary for DW-1

PARAMETER	UNITS	LC DW No. 1			
		Jul 2014	Aug 2014	Sep 2014	Quarter Total/Avg
Operation Time	min	19,156	17,384	19,262	55,802
% Run Time	%	43%	39%	45%	43%
Injection Rate Minimum Instantaneous	gpm	0	0	0	0
Injection Rate Average Instantaneous	gpm	6	6	6	6
Injection Rate Maximum Instantaneous	gpm	8	11	200 (7*)	200
Injection Rate Maximum Permit Limit	gpm	50			N/A
Injection Pressure Daily Minimum	psig	See <i>Attachment 1</i>			
Injection Pressure Daily Average	psig				
Injection Pressure Daily Maximum	psig				
Injection Pressure Permit Limit (LSIP)	psig	609			N/A
Injection Pressure Automatic Kill	psig	605 - 600			N/A
Injection Volume	gal	122,097	108,319	111,340	341,755
Injection Volume	bbl	2,907	2,579	2,651	8,137
Annulus Pressure Minimum	psig	276	288	285	276
Annulus Pressure Average	psig	300	297	303	300
Annulus Pressure Maximum	psig	1,661 (322*)	320	321	1,661
Annulus Pressure Permit Limit	psig	200-800			N/A
Annulus Pressure Automatic Kill	psig	200, 800			N/A

**Max value excluding the anomalous spike as described in Section 4.0 below*



Table 1B: Operational Data Summary for DW-4

PARAMETER	UNITS	LC DW No. 4			
		Jul 2014	Aug 2014	Sep 2014	Quarter Total/Avg
Operation Time	min	31,232	29,354	32,823	93,410
% Run Time	%	70%	66%	76%	72%
Injection Rate Minimum Instantaneous	gpm	0	0	0	0
Injection Rate Average Instantaneous	gpm	18	18	17	18
Injection Rate Maximum Instantaneous	gpm	26	19	200 (26*)	200
Injection Rate Maximum Permit Limit	gpm	50			N/A
Injection Pressure Daily Minimum	psig	See <i>Attachment 1</i>			
Injection Pressure Daily Average	psig				
Injection Pressure Daily Maximum	psig				
Injection Pressure Permit Limit (LSIP)	psig	838			N/A
Injection Pressure Automatic Kill	psig	830			N/A
Injection Volume	gal	559,974	533,394	545,052	1,638,419
Injection Volume	bbl	13,333	12,700	12,977	39,010
Annulus Pressure Minimum	psig	286	289	292	289
Annulus Pressure Average	psig	304	302	304	303
Annulus Pressure Maximum	psig	326	317	323	322
Annulus Pressure Permit Limit	psig	200-800			N/A
Annulus Pressure Automatic Kill	psig	200, 800			N/A

*Max value excluding the anomalous spike as described in Section 4.0 below

Table 2: Cumulative Injection Volumes to Date

TIME PERIOD	UNITS	LC DW No. 1	LC DW No. 4
2013	bbl	14,625	6,471
2014 Q1	bbl	8,753	62,136
2014 Q2	bbl	8,169	44,003
July 2014	bbl	2,907	13,333
August 2014	bbl	2,579	12,700
September 2014	bbl	2,651	12,977
CUMULATIVE TOTAL TO DATE	bbl	39,684	151,620



3.0 Analytical Results

A quarterly grab sample of the injectate was collected from the Plant outflow upstream of the branch points to each individual well. Samples were analyzed for all applicable parameters. Results of the analysis of the injectate are summarized in **Table 3** below and the associated lab report is included as **Appendix 2**:

Table 3: Analytical Results Summary

Sample ID: DW-Injectate			
Sample Date: 7/11/2014			
Lab Analyte or Parameter	Analytical Method Used	Results	Units
pH	SM4500-H+B (field)	6.8	s.u.
Specific Conductance at 25°C	120.1 (field)	5,310	uS/cm
Temperature	SM2550B (field)	19.2	°C
Specific Gravity	n/a	1.002	- -
Total Dissolved Solids	SM2540C	3,520	mg/L
Bicarbonate	SM2320B	765	mg/L
Carbonate	SM2320B	ND(5)	mg/L
Chloride, total	300.0	1,150	mg/L
Sulfate, total	300.0	519	mg/L
Sulfide (as hydrogen sulfide)	A4500-S F	ND(1)	mg/L
Arsenic, dissolved	200.8	0.002	mg/L
Selenium, dissolved	200.8	0.108	mg/L
Vanadium, dissolved	200.8	ND(0.01)	mg/L
Uranium, total	200.7	23.4	mg/L
Radium-226, total	E903.0	2,020	pCi/L

The only limiting concentration as defined in the Permit is pH which must be between 2.0 and 12.5. The determined value for pH was 6.8 which is within the limit.

4.0 Permit Exceedances

The following exceedances of Permit-defined parameters occurred during the reporting quarter for both wells DW-1 and DW-4.

DW-1:

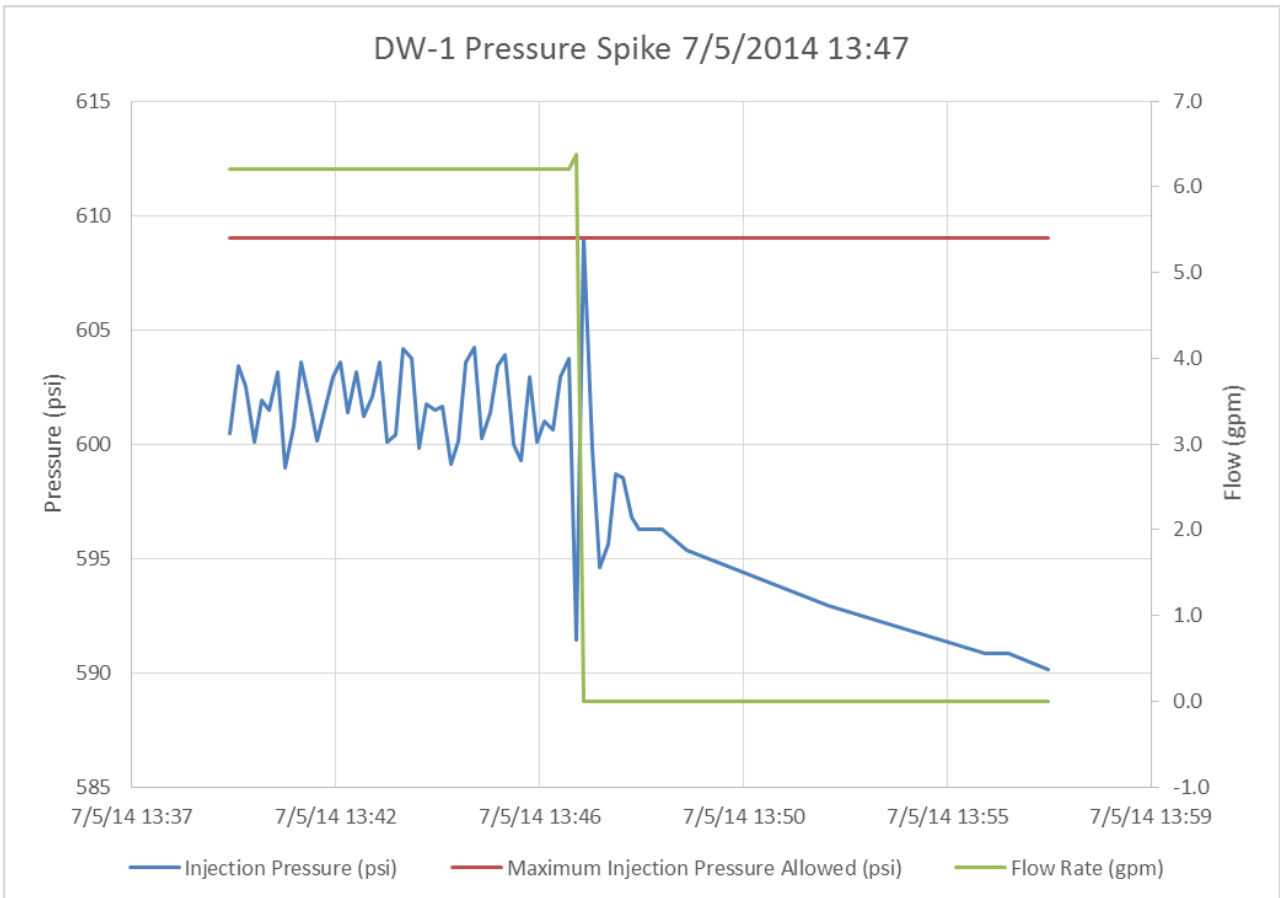
There were three (3) exceedances of the maximum injection pressure of 609 psi for DW-1, all of them were instantaneous pressure spikes.



1. 7/5/2014 at 13:47 pressure at 609.03 psi:

Well operating nominally between approximately 594 psi and 604 psi. When the flow to the well was shut off a pressure rebound occurred. See the graph (**Figure 1**) below:

Figure 1: DW-1 Injection Pressure Sample 1

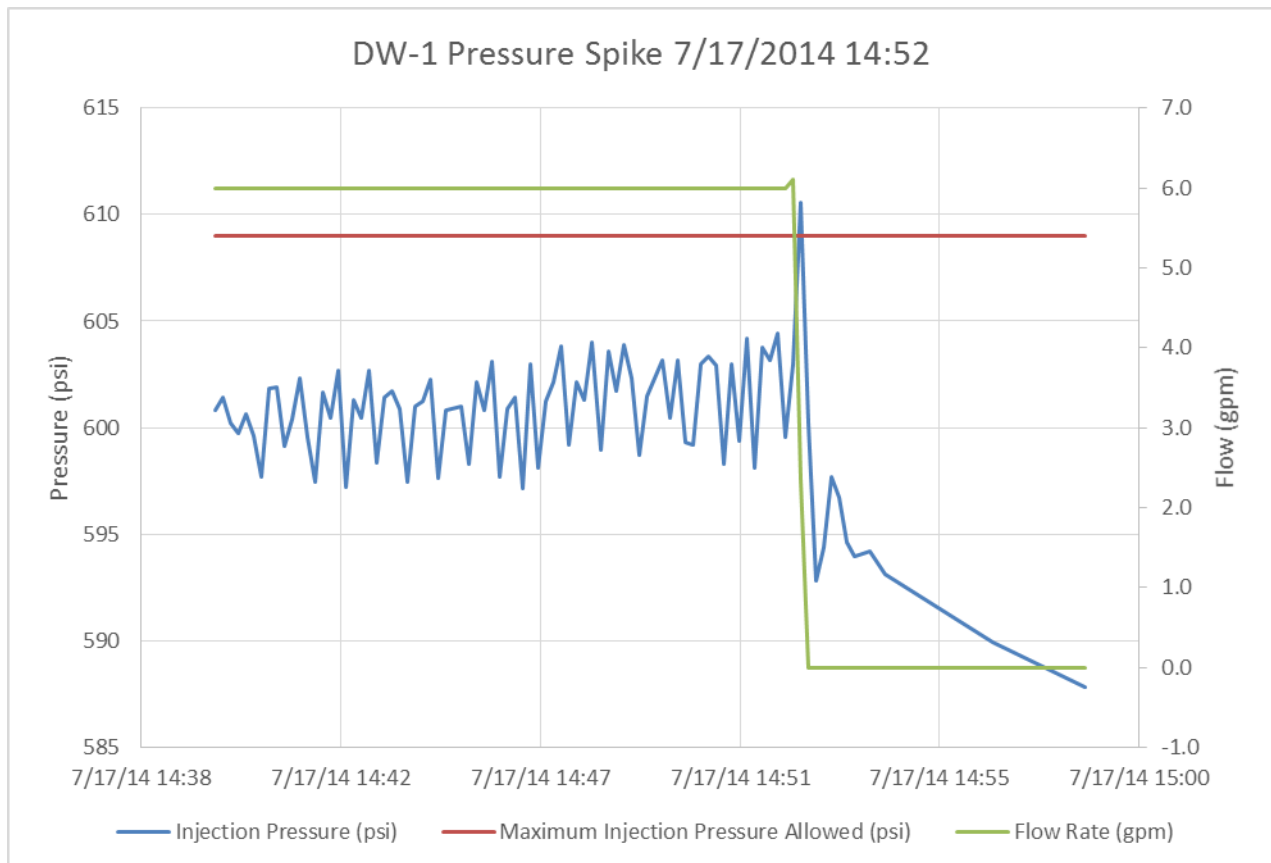




2. 7/17/2014 at 14:52 pressure at 610.5 psi:

Well operating nominally between approximately 593 psi and 604 psi. When the flow to the well was shut off a pressure rebound occurred. See the graph (**Figure 2**) below:

Figure 2: DW-1 Injection Pressure Sample 2

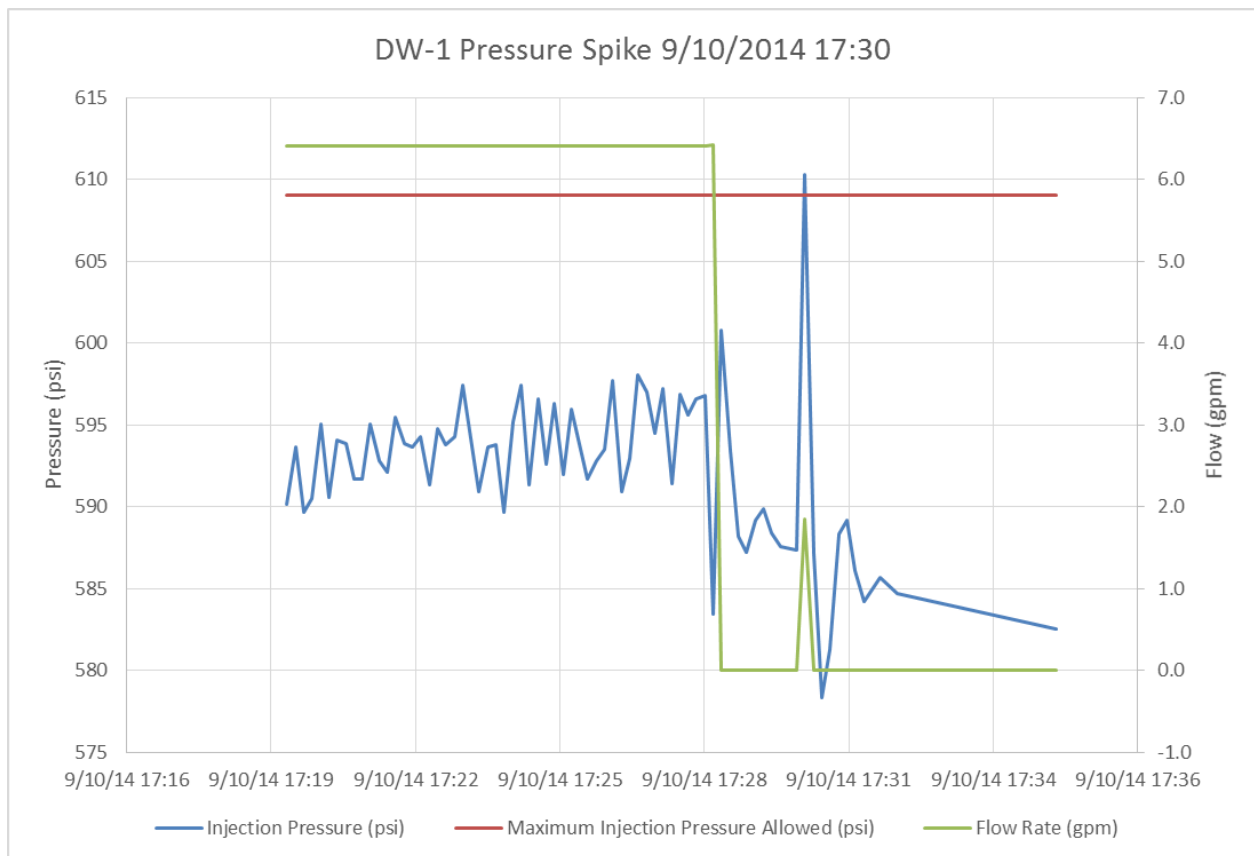




3. 9/10/2014 at 17:30 pressure at 610.3 psi:

Immediately before, 9/10/14 at 17:30:10, the pressure equaled 587.4 psi and immediately after, 9/10/14 at 17:30:30, the pressure equaled 587.1 psi. The reading of 610.3 is due to a rebound effect from the automatic shutdown of the system at 600 psi and is not indicative of the pressure seen in the well. See the graph (**Figure 3**) below:

Figure 3: DW-1 Injection Pressure Sample 3



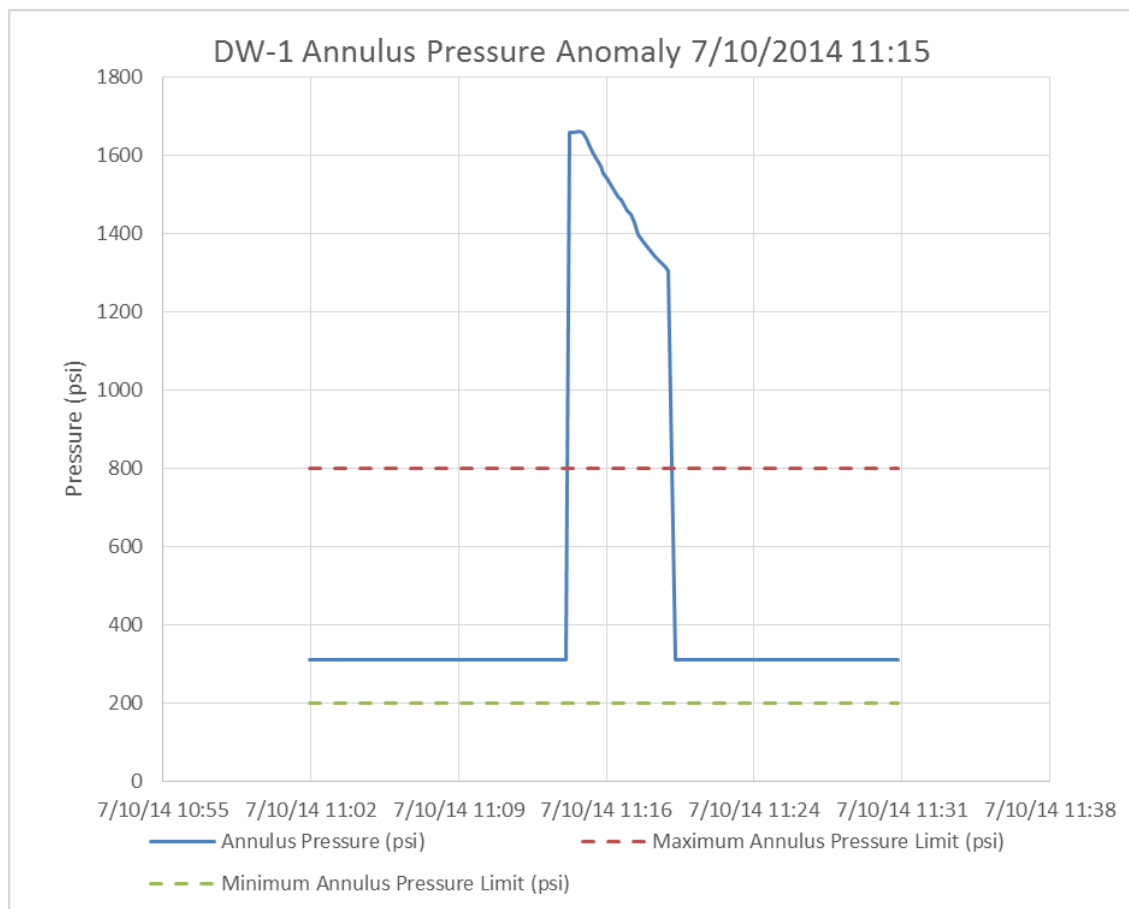


There was one (1) exceedance of the maximum annulus pressure of 800 psi for DW-1.

1. 7/10/2014 at 11:15 of 1658 psi:

On the 7/10/2014, the automation contractor was working on DW-1 between 10:30 and 12:30. They had some wiring problems that caused high readings. Anomalous high readings occurred between 11:15 and 11:19 ranging from 1658 to 1302 psi as shown in the following graph (**Figure 4**):

Figure 4: DW-1 Annulus Pressure Sample



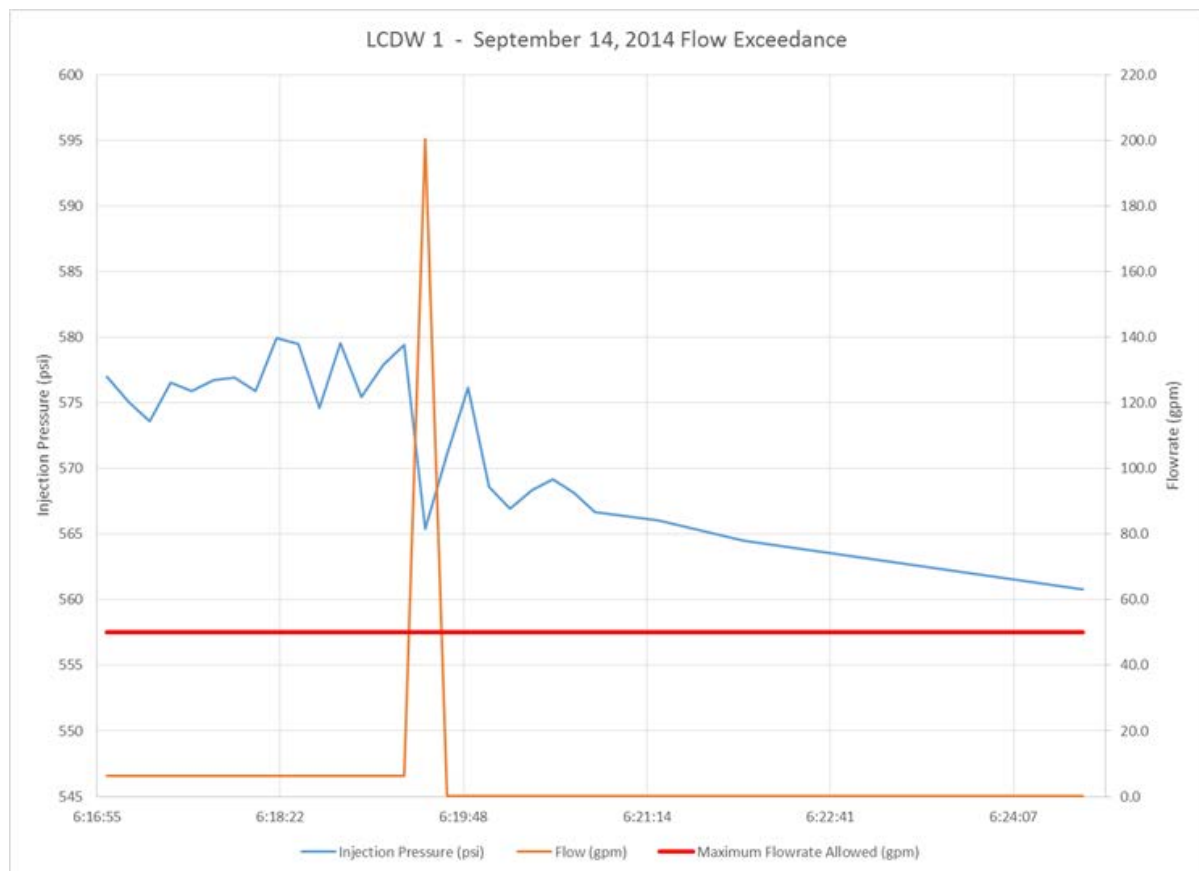


There was one (1) exceedance of the flow rate limit of 50 gpm for DW-1.

1. 9/14/2014 at 6:19:30 at 200.4 gpm

Immediately before, 9/14/14 at 6:19:20, the flow rate equaled 6.4 gpm and immediately after, 9/14/14 at 6:19:40, the flow rate equaled 0 gpm. The reading is due to a rebound effect from the shutdown of the system and is not indicative of the rate seen in the well. The rate is effectively short-lived and occurs only in the above ground piping. See the graph below (Figure 5):

Figure 5: DW-1 Flow Rate Sample





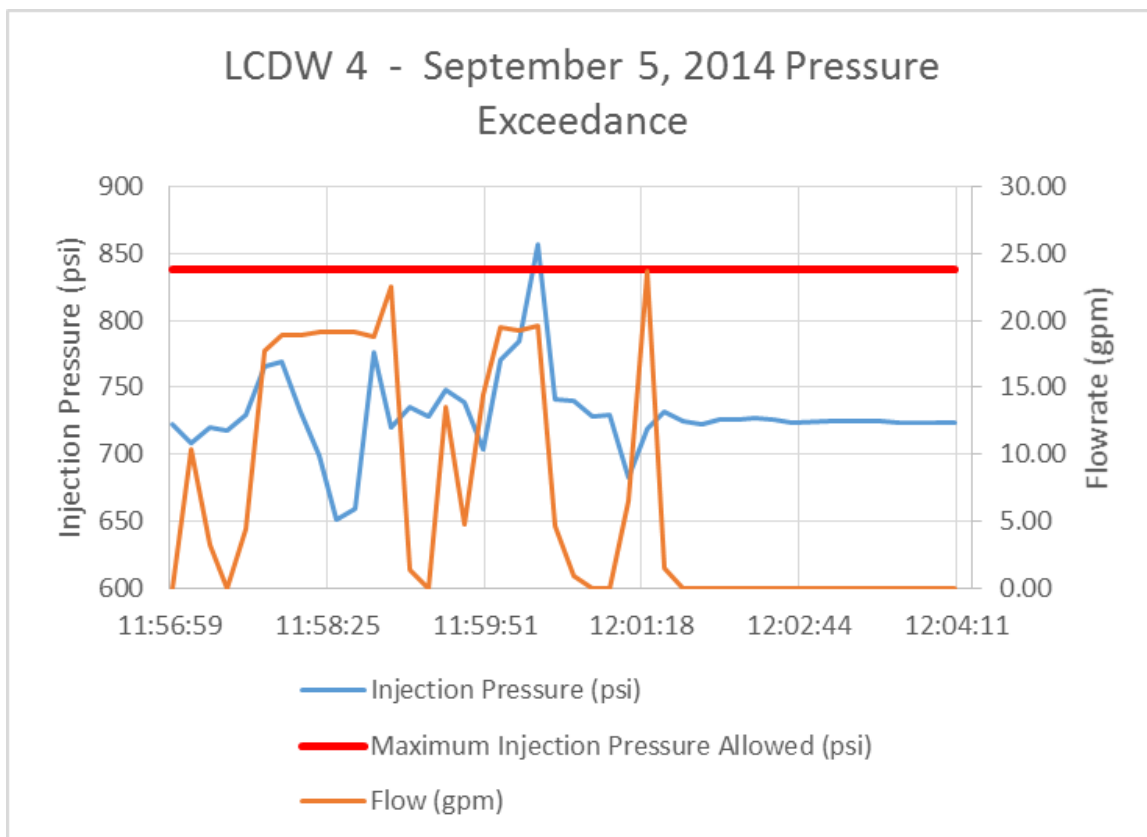
DW-4:

There were three (3) exceedances of the maximum injection pressure of 838 psi at DW-4.

1. 9/5/2014 at 12:00:21 at 857.6 psi:

Immediately before, 9/5/14 at 12:00:11, the pressure equaled 784.6 psi and immediately after, 9/5/14 at 12:00:31, the pressure equaled 740.9 psi. The reading is due to a rebound effect from the shutdown of the system and is not indicative of the pressure seen in the well. See the graph (**Figure 6**) below:

Figure 6: DW-4 Injection Pressure Sample 1

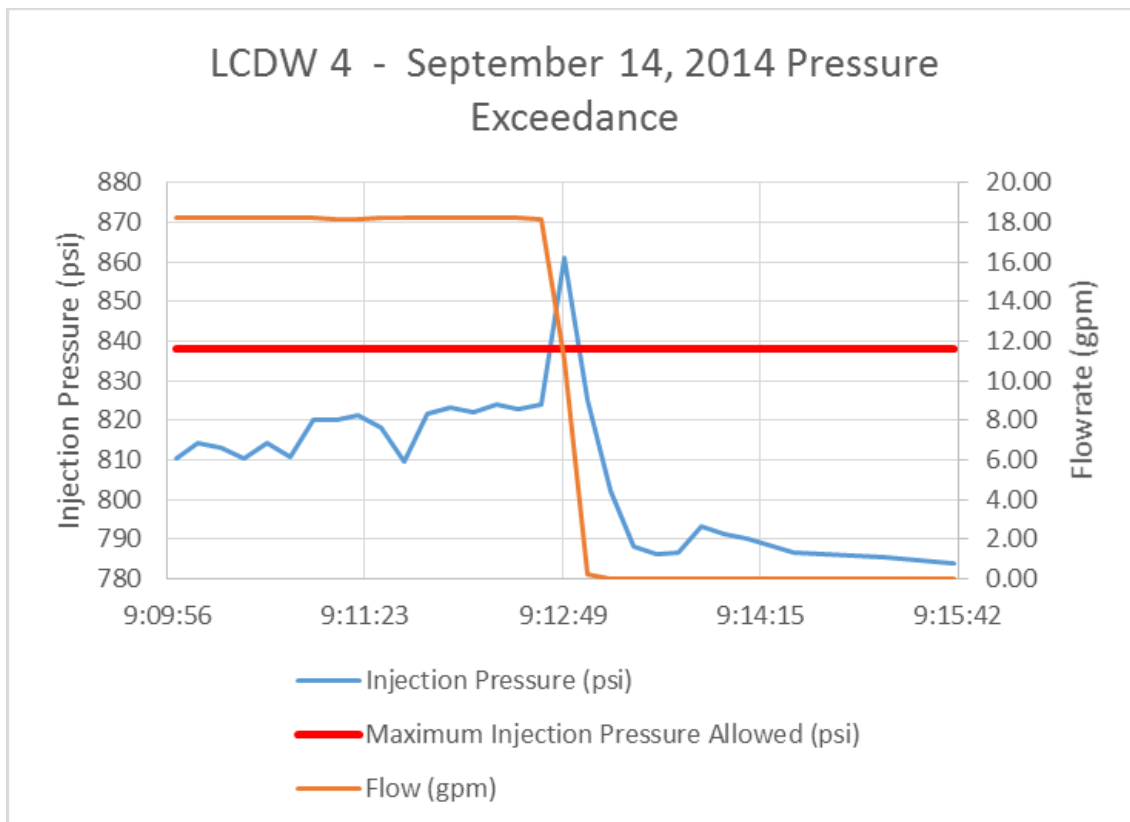




2. 9/14/14 at 9:12:50 at 861.1 psi:

Immediately before, 9/14/14 at 9:12:40, the pressure equaled 824.2 psi and immediately after, 9/14/14 at 9:13:00, the pressure equaled 825.3 psi. The reading is due to a rebound effect from the shutdown of the system and is not indicative of the pressure seen in the well. See the graph (**Figure 7**) below:

Figure 7: DW-4 Injection Pressure Sample 2

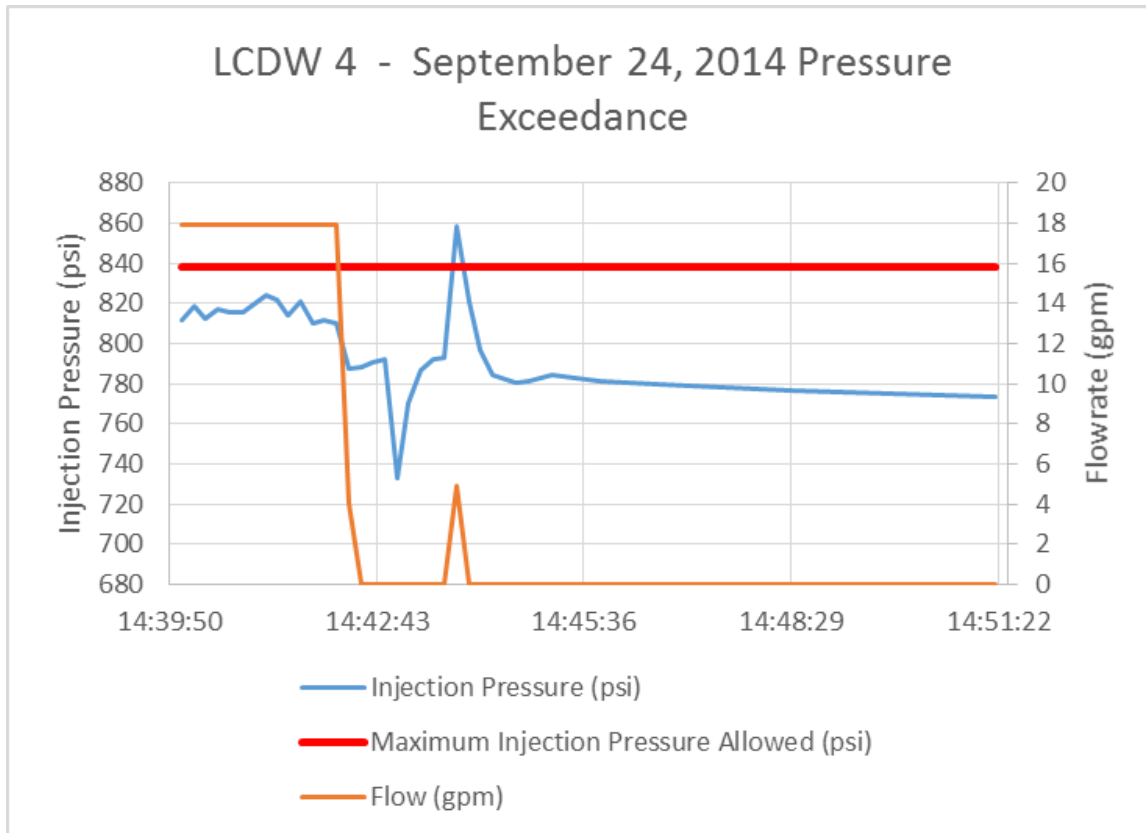




3. 9/24/14 at 14:43:50 at 858.3 psi:

Immediately before, 9/24/14 at 14:43:40, the pressure equaled 793.3 psi and immediately after, 9/24/14 at 14:44:00, the pressure equaled 820.7 psi. The reading is due to a rebound effect from the shutdown of the system and is not indicative of the pressure seen in the well. See the graph (**Figure 8**) below:

Figure 8: DW-4 Injection Pressure Sample 3



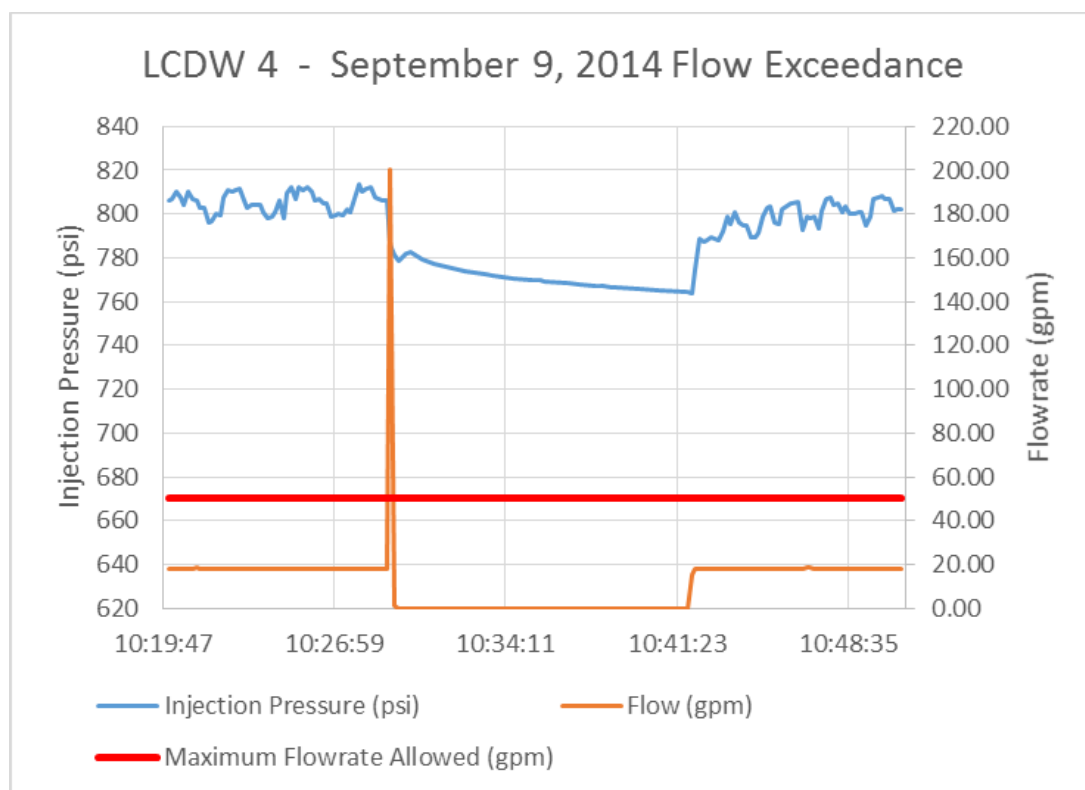


There was one (1) exceedance of the flow limit of 50 gpm for DW-4.

1. 9/9/2014 at 10:29:20 with a flow rate of 200.4 gpm:

Immediately before, 9/9/14 at 10:29:10, the flowrate equaled 18.2 gpm and immediately after, 9/9/14 at 10:29:30, the flowrate equaled 1.1 gpm. The reading is due to a rebound effect from the shutdown of the system and is not indicative of the rate seen in the well. The rate is effectively short-lived and occurs only in the above ground piping. See the graph (**Figure 9**) below:

Figure 9: DW-4 Flow Rate Sample



No other exceedances occurred during the reporting period.



5.0 Alarms, Shut-Downs, and Corrective Actions

Visual warnings are displayed on the computer screen within the control room and indicate when the injection pressure is near or at the limit. Automatic shutdowns occurred associated with the pressure exceedances as described in **Section 4.0** above.

In an attempt to eliminate pressure spikes in the system, water hammer arrestors are to be installed for DW-1 and DW-4. An arrestor for DW-3 has already been incorporated in the construction of the injection piping and will be active when the well is operated.

From 8/7/2014 at 22:50 until 8/8/2014 at 12:15, the PI data logger was not recording. The data from the redundant well head data logger was substituted for these times.

6.0 Summary of Well Tests or Workovers

No well tests or workovers occurred during the reporting period.

APPENDIX 1: Daily Injection Pressures
DW-1 3rd Quarter 2014
Lost Creek ISR Project 13-409

Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)
7/1/2014	402	409	417	605	609
7/2/2014	392	427	506	605	609
7/3/2014	490	528	588	605	609
7/4/2014	509	555	591	605	609
7/5/2014	538	574	609	605	609
7/6/2014	513	552	604	605	609
7/7/2014	493	552	605	605	609
7/8/2014	506	550	603	605	609
7/9/2014	493	520	569	605	609
7/10/2014	494	538	607	605	609
7/11/2014	489	556	604	605	609
7/12/2014	506	559	604	605	609
7/13/2014	514	559	606	605	609
7/14/2014	513	544	604	605	609
7/15/2014	502	558	589	605	609
7/16/2014	524	567	604	605	609
7/17/2014	499	547	611	605	609
7/18/2014	515	556	609	605	609
7/19/2014	508	542	605	605	609
7/20/2014	518	570	604	605	609
7/21/2014	540	578	604	605	609
7/22/2014	509	558	598	605	609
7/23/2014	520	554	600	605	609
7/24/2014	536	565	601	600	609
7/25/2014	518	553	604	600	609
7/26/2014	512	562	599	600	609
7/27/2014	516	550	604	600	609
7/28/2014	516	544	599	600	609
7/29/2014	515	552	592	600	609
7/30/2014	525	556	592	600	609
7/31/2014	523	570	592	600	609
8/1/2014	510	569	593	600	609
8/2/2014	509	550	596	600	609
8/3/2014	498	548	595	600	609
8/4/2014	488	529	590	600	609
8/5/2014	509	548	590	600	609
8/6/2014	492	530	596	600	609
8/7/2014	483	522	589	600	609
8/8/2014	484	507	541	600	609
8/9/2014	442	461	484	600	609
8/10/2014	431	459	534	600	609

APPENDIX 1: Daily Injection Pressures
DW-1 3rd Quarter 2014
Lost Creek ISR Project 13-409

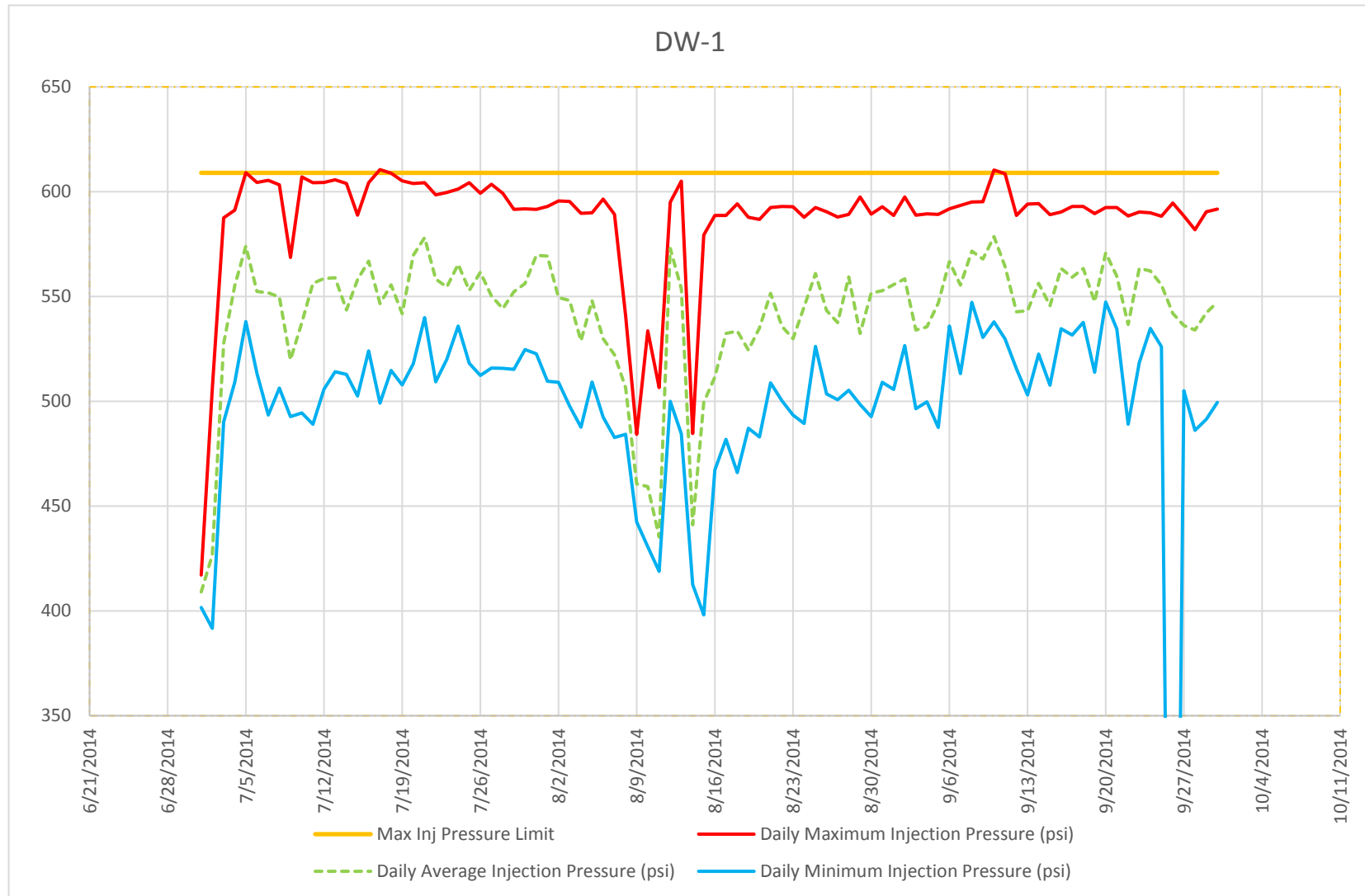
Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)
8/11/2014	419	435	506	600	609
8/12/2014	500	573	595	600	609
8/13/2014	485	554	605	600	609
8/14/2014	413	441	485	600	609
8/15/2014	398	499	579	600	609
8/16/2014	467	512	589	600	609
8/17/2014	482	532	589	600	609
8/18/2014	466	533	594	600	609
8/19/2014	487	524	588	600	609
8/20/2014	483	535	587	600	609
8/21/2014	509	551	592	600	609
8/22/2014	500	536	593	600	609
8/23/2014	493	530	593	600	609
8/24/2014	489	545	588	600	609
8/25/2014	526	561	593	600	609
8/26/2014	504	543	590	600	609
8/27/2014	501	538	588	600	609
8/28/2014	505	559	589	600	609
8/29/2014	499	532	598	600	609
8/30/2014	493	552	589	600	609
8/31/2014	509	553	593	600	609
9/1/2014	506	556	589	600	609
9/2/2014	527	558	598	600	609
9/3/2014	496	534	589	600	609
9/4/2014	500	536	589	600	609
9/5/2014	488	547	589	600	609
9/6/2014	536	567	592	600	609
9/7/2014	513	555	594	600	609
9/8/2014	547	572	595	600	609
9/9/2014	530	568	595	600	609
9/10/2014	538	579	610	600	609
9/11/2014	530	564	609	600	609
9/12/2014	515	543	589	600	609
9/13/2014	503	543	594	600	609
9/14/2014	523	556	594	600	609
9/15/2014	508	546	589	600	609
9/16/2014	535	563	590	600	609
9/17/2014	532	559	593	600	609
9/18/2014	538	563	593	600	609
9/19/2014	514	548	590	600	609
9/20/2014	547	571	593	600	609

APPENDIX 1: Daily Injection Pressures
DW-1 3rd Quarter 2014
Lost Creek ISR Project 13-409

Date	Daily Minimum Injection Pressure (psi)	Daily Average Injection Pressure (psi)	Daily Maximum Injection Pressure (psi)	Automatic Shutdown Pressure (psi)	Maximum Injection Pressure Limit (psi)
9/21/2014	535	560	592	600	609
9/22/2014	489	537	588	600	609
9/23/2014	518	563	590	600	609
9/24/2014	535	562	590	600	609
9/25/2014	526	556	588	600	609
9/26/2014	0	542	595	600	609
9/27/2014	505	536	588	600	609
9/28/2014	486	534	582	600	609
9/29/2014	491	542	590	600	609
9/30/2014	500	547	592	600	609

psi: pounds per square inch

APPENDIX 1: Daily Injection Pressures
DW-1 3rd Quarter 2014
Lost Creek ISR Project 13-409



APPENDIX 1: Daily Injection Pressures
DW-4 3rd Quarter 2014
Lost Creek ISR Project 13-409

Date	Daily Minimum Injection Pressure (psig)	Daily Average Injection Pressure (psig)	Daily Maximum Injection Pressure (psig)	Shutdown Pressure (psig)	Maximum Injection Pressure Limit
7/1/2014	708	764	807	830	838
7/2/2014	699	768	793	830	838
7/3/2014	693	747	801	830	838
7/4/2014	690	770	810	830	838
7/5/2014	659	766	810	830	838
7/6/2014	718	772	809	830	838
7/7/2014	661	775	809	830	838
7/8/2014	662	741	810	830	838
7/9/2014	656	756	806	830	838
7/10/2014	659	741	810	830	838
7/11/2014	695	769	810	830	838
7/12/2014	695	768	793	830	838
7/13/2014	730	785	809	830	838
7/14/2014	709	757	809	830	838
7/15/2014	690	751	810	830	838
7/16/2014	703	763	810	830	838
7/17/2014	742	785	810	830	838
7/18/2014	719	775	809	830	838
7/19/2014	703	752	816	830	838
7/20/2014	702	744	810	830	838
7/21/2014	714	761	809	830	838
7/22/2014	696	768	810	830	838
7/23/2014	701	782	837	830	838
7/24/2014	732	776	830	830	838
7/25/2014	718	766	834	830	838
7/26/2014	704	760	819	830	838
7/27/2014	726	784	809	830	838
7/28/2014	779	799	816	830	838
7/29/2014	747	807	824	830	838
7/30/2014	737	799	824	830	838
7/31/2014	729	794	824	830	838
8/1/2014	725	790	825	830	838
8/2/2014	727	794	824	830	838
8/3/2014	716	772	824	830	838
8/4/2014	715	787	822	830	838
8/5/2014	707	761	824	830	838
8/6/2014	711	771	824	830	838
8/7/2014	711	783	812	830	838
8/8/2014	716	779	813	830	838
8/9/2014	732	796	824	830	838
8/10/2014	715	771	825	830	838

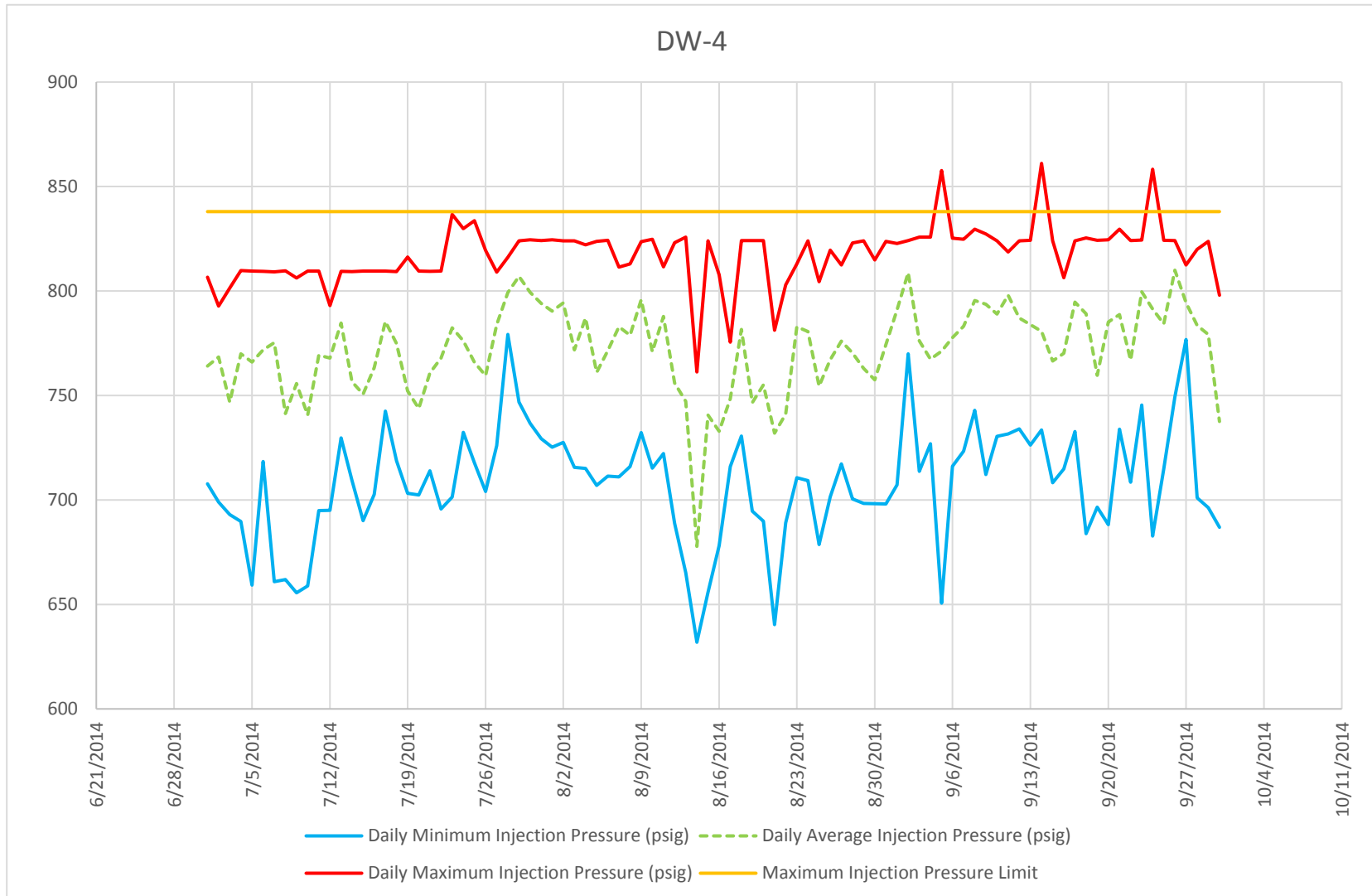
APPENDIX 1: Daily Injection Pressures
DW-4 3rd Quarter 2014
Lost Creek ISR Project 13-409

Date	Daily Minimum Injection Pressure (psig)	Daily Average Injection Pressure (psig)	Daily Maximum Injection Pressure (psig)	Shutdown Pressure (psig)	Maximum Injection Pressure Limit
8/11/2014	722	788	812	830	838
8/12/2014	689	756	823	830	838
8/13/2014	665	747	826	830	838
8/14/2014	632	678	761	830	838
8/15/2014	656	741	824	830	838
8/16/2014	678	733	808	830	838
8/17/2014	716	748	776	830	838
8/18/2014	731	782	824	830	838
8/19/2014	695	747	824	830	838
8/20/2014	690	755	824	830	838
8/21/2014	640	732	781	830	838
8/22/2014	689	741	803	830	838
8/23/2014	711	783	813	830	838
8/24/2014	709	781	824	830	838
8/25/2014	679	754	805	830	838
8/26/2014	702	767	820	830	838
8/27/2014	717	776	812	830	838
8/28/2014	700	770	823	830	838
8/29/2014	698	763	824	830	838
8/30/2014	698	757	815	830	838
8/31/2014	698	774	824	830	838
9/1/2014	707	791	823	830	838
9/2/2014	770	809	824	830	838
9/3/2014	714	776	826	830	838
9/4/2014	727	767	826	830	838
9/5/2014	651	771	858	830	838
9/6/2014	716	778	825	830	838
9/7/2014	723	783	825	830	838
9/8/2014	743	795	830	830	838
9/9/2014	712	794	827	830	838
9/10/2014	730	789	824	830	838
9/11/2014	732	798	819	830	838
9/12/2014	734	787	824	830	838
9/13/2014	726	784	824	830	838
9/14/2014	733	781	861	830	838
9/15/2014	708	767	824	830	838
9/16/2014	715	770	806	830	838
9/17/2014	733	795	824	830	838
9/18/2014	684	789	825	830	838
9/19/2014	697	760	824	830	838
9/20/2014	688	785	825	830	838

APPENDIX 1: Daily Injection Pressures
DW-4 3rd Quarter 2014
Lost Creek ISR Project 13-409

Date	Daily Minimum Injection Pressure (psig)	Daily Average Injection Pressure (psig)	Daily Maximum Injection Pressure (psig)	Shutdown Pressure (psig)	Maximum Injection Pressure Limit
9/21/2014	734	789	830	830	838
9/22/2014	709	767	824	830	838
9/23/2014	745	800	824	830	838
9/24/2014	683	791	858	830	838
9/25/2014	715	784	824	830	838
9/26/2014	749	810	824	830	838
9/27/2014	777	794	812	830	838
9/28/2014	701	784	820	830	838
9/29/2014	696	779	824	830	838
9/30/2014	687	738	798	830	838

APPENDIX 1: Chart of Daily Injection Pressures
DW-4 3rd Quarter 2014
Lost Creek ISR Project 13-409





APPENDIX 2

ANALYTICAL SUMMARY REPORT

July 30, 2014

UR Energy USA Inc
10758 W Centennial Rd Ste 200
Ken Caryl Ranch, CO 80127

Work Order: C14070431

Project Name: Lost Creek Waste Water

Energy Laboratories, Inc. Casper WY received the following 1 sample for UR Energy USA Inc on 7/11/2014 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C14070431-001	DW Injectate	07/10/14 12:45	07/11/14	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Mercury, Total Mercury Analysis Prep Sample Filtering Fluoride Specific Gravity 1664 Prep Code Liquid-Liquid Extraction Diesel Range Organics Gasoline Range Organics SW8021B, BTEX E1664A Oil & Grease E1664A Total Petroleum Hydrocarbons E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrite Nitrogen, Nitrate + Nitrite Oxidation Reduction Potential pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Total Radium 228, Total Sodium Adsorption Ratio Solids, Total Dissolved Solids, Total Dissolved - Calculated Solids, Total Suspended Sulfide, Iodine Titrimetric Turbidity

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water
Lab ID: C14070431-001
Client Sample ID: DW Injectate

Report Date: 07/30/14
Collection Date: 07/10/14 12:45
Date Received: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	627	mg/L		5		A2320 B	07/11/14 19:54 / jba
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/11/14 19:54 / jba
Bicarbonate as HCO ₃	765	mg/L		5		A2320 B	07/11/14 19:54 / jba
Calcium	492	mg/L		1		E200.7	07/14/14 13:42 / sf
Chloride	1150	mg/L	D	2		E300.0	07/14/14 16:31 / wc
Fluoride	ND	mg/L		0.1		A4500-F C	07/14/14 14:13 / jba
Magnesium	20	mg/L		1		E200.7	07/14/14 13:42 / sf
Nitrogen, Ammonia as N	0.10	mg/L		0.05		A4500-NH ₃ G	07/14/14 13:34 / lr
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	07/11/14 15:30 / lr
Nitrogen, Nitrite as N	ND	mg/L		0.1		A4500-NO ₂ B	07/11/14 14:05 / wc
Potassium	7	mg/L		1		E200.7	07/14/14 13:42 / sf
Silica	28.1	mg/L		0.2		E200.7	07/14/14 13:42 / sf
Sodium	681	mg/L		1		E200.7	07/14/14 13:42 / sf
Sulfate	519	mg/L	D	8		E300.0	07/14/14 16:31 / wc
NON-METALS							
Oxidation-Reduction Potential	266	mV	H			A2580 B	07/11/14 14:49 / dm
Sulfide	ND	mg/L		1		A4500-S F	07/17/14 09:49 / alp
PHYSICAL PROPERTIES							
Conductivity @ 25 C	5300	umhos/cm		5		A2510 B	07/11/14 14:26 / tmm
pH	6.54	s.u.	H	0.01		A4500-H B	07/11/14 14:26 / tmm
Solids, Total Dissolved TDS @ 180 C	3520	mg/L		36		A2540 C	07/14/14 15:06 / tmm
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	07/15/14 12:09 / alp
Specific Gravity 60/60F	1.002	unitless				Calculation	07/16/14 11:25 / smm
Turbidity	5.3	NTU		0.1		A2130 B	07/11/14 15:31 / alp
Calcium, SAR	24.6	meq/L		0.05		E200.7	07/14/14 13:42 / sf
Magnesium, SAR	1.69	meq/L		0.08		E200.7	07/14/14 13:42 / sf
Sodium, SAR	29.6	meq/L	D	0.05		E200.7	07/14/14 13:42 / sf
Sodium Adsorption Ratio (SAR)	8.2	unitless		0.1		USDA20B	07/14/14 13:42 / kbh
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.03		E200.8	07/15/14 17:01 / clm
Arsenic	0.002	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Barium	0.14	mg/L		0.05		E200.7	07/14/14 13:42 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Boron	0.07	mg/L		0.05		E200.7	07/16/14 20:36 / sf
Cadmium	ND	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Chromium	0.006	mg/L		0.005		E200.8	07/15/14 17:01 / clm
Cobalt	0.06	mg/L	D	0.01		E200.7	07/14/14 13:42 / sf
Copper	0.030	mg/L		0.005		E200.8	07/15/14 17:01 / clm
Iron	ND	mg/L		0.03		E200.7	07/14/14 13:42 / sf
Lead	ND	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Lithium	ND	mg/L		0.1		E200.7	07/14/14 13:42 / sf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water
Lab ID: C14070431-001
Client Sample ID: DW Injectate

Report Date: 07/30/14
Collection Date: 07/10/14 12:45
Date Received: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED							
Manganese	0.315	mg/L	D	0.008		E200.7	07/14/14 13:42 / sf
Mercury	ND	mg/L		0.0001		E200.8	07/15/14 17:01 / clm
Molybdenum	0.001	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Nickel	0.19	mg/L	D	0.03		E200.7	07/14/14 13:42 / sf
Selenium	0.108	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Silver	ND	mg/L		0.001		E200.8	07/15/14 17:01 / clm
Strontium	5.94	mg/L		0.01		E200.7	07/14/14 13:42 / sf
Vanadium	ND	mg/L		0.01		E200.8	07/15/14 17:01 / clm
Zinc	0.09	mg/L		0.01		E200.7	07/14/14 13:42 / sf
METALS - TOTAL							
Iron	0.29	mg/L		0.03		E200.7	07/16/14 21:02 / sf
Manganese	0.315	mg/L	D	0.006		E200.7	07/16/14 21:02 / sf
Mercury	ND	mg/L		0.0001		E245.1	07/15/14 14:18 / kja
Uranium	23.4	mg/L	D	0.5		E200.7	07/16/14 21:02 / sf
RADIONUCLIDES - TOTAL							
Gross Alpha	17500	pCi/L				E900.0	07/18/14 23:48 / trs
Gross Alpha precision (±)	152	pCi/L				E900.0	07/18/14 23:48 / trs
Gross Alpha MDC	19.2	pCi/L				E900.0	07/18/14 23:48 / trs
Gross Beta	3610	pCi/L				E900.0	07/18/14 23:48 / trs
Gross Beta precision (±)	63.4	pCi/L				E900.0	07/18/14 23:48 / trs
Gross Beta MDC	28.6	pCi/L				E900.0	07/18/14 23:48 / trs
Radium 226	2020	pCi/L				E903.0	07/28/14 18:31 / lmc
Radium 226 precision (±)	8.0	pCi/L				E903.0	07/28/14 18:31 / lmc
Radium 226 MDC	0.14	pCi/L				E903.0	07/28/14 18:31 / lmc
Radium 228	24	pCi/L				RA-05	07/22/14 12:03 / plj
Radium 228 precision (±)	1.7	pCi/L				RA-05	07/22/14 12:03 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	07/22/14 12:03 / plj
DATA QUALITY							
A/C Balance (± 5)	0.21	%				A1030 E	07/17/14 15:07 / kbh
Anions	55.8	meq/L				A1030 E	07/17/14 15:07 / kbh
Cations	56.0	meq/L				A1030 E	07/17/14 15:07 / kbh
Solids, Total Dissolved Calculated	3300	mg/L				A1030 E	07/17/14 15:07 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/17/14 15:07 / kbh
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		1.0		SW8021B	07/14/14 16:55 / cns
Ethylbenzene	ND	ug/L		1.0		SW8021B	07/14/14 16:55 / cns
m+p-Xylenes	ND	ug/L		2.0		SW8021B	07/14/14 16:55 / cns
o-Xylene	ND	ug/L		1.0		SW8021B	07/14/14 16:55 / cns
Toluene	ND	ug/L		1.0		SW8021B	07/14/14 16:55 / cns
Surr: Trifluorotoluene	111	%REC		80-120		SW8021B	07/14/14 16:55 / cns

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

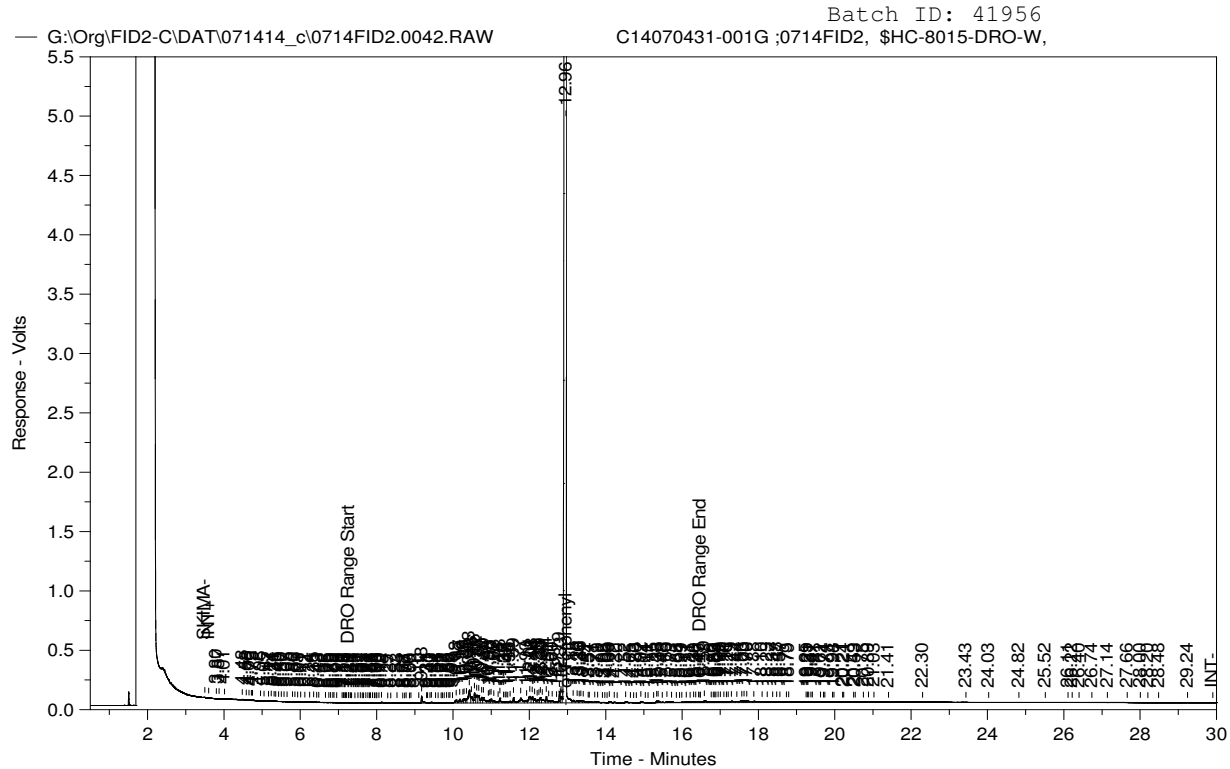
Client: UR Energy USA Inc
Project: Lost Creek Waste Water
Lab ID: C14070431-001
Client Sample ID: DW Injectate

Report Date: 07/30/14
Collection Date: 07/10/14 12:45
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
ORGANIC CHARACTERISTICS							
Diesel Range Organics (DRO)	ND	mg/L		1.0		SW8015B	07/16/14 01:52 / dm
Surr: o-Terphenyl	66.0	%REC		65.7-117		SW8015B	07/16/14 01:52 / dm
Gasoline Range Organics (GRO)	ND	mg/L		0.040		SW8015B	07/14/14 16:55 / cns
Surr: Trifluorotoluene	109	%REC		70-130		SW8015B	07/14/14 16:55 / cns
ORGANIC CHARACTERISTICS							
Non-polar Materials (SGT-HEM)	ND	mg/L		5.0		E1664A	07/21/14 10:07 / bah
Oil & Grease (HEM)	ND	mg/L		5.0	10	E1664A	07/16/14 11:54 / bah

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



DIESEL RANGE ORGANICS CHROMATOGRAM

Sample Name: C14070431-001G ;0714FID2, \$HC-8015-DRO-W,
Raw File: G:\Org\FID2-C\DAT\071414_c\0714FID2.0042.RAW
Date & Time Acquired: 7/16/2014 01:52:44
Method File: G:\org\FID2-C\Methods\FID2_BASE_CAL_061414_R2.met
Calibration File: \\cafle\organics\DRO\org\FID2-C\Cals\FID2_061414_R2.CAL
Sample Weight: 1055.8 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 48436.97
Rt range for Diesel Range Organics (C10 to C28): 7.14 to 16.51
Rt range for Oil Range Organics (C28 to C40+): 16.37 to End Time

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.958	1.894	1.247	65.82	-

DRO Area:5507831	DRO AMOUNT: 0.1077015
TEH Area:7184385	TEH AMOUNT: 0.1404853
Oil Area:1518129	OIL AMOUNT: 2.968588E-02



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A2130 B							Analytical Run: TURB-1_140711A		
Lab ID:	CCV-1_140711	Continuing Calibration Verification Standard							07/11/14 15:28	
Turbidity		10.0	NTU	0.10	100	90	110			
Method:	A2130 B							Batch: 140711_1_TURB-W		
Lab ID:	MBLK-1_140711	Method Blank				Run: TURB-1_140711A			07/11/14 15:29	
Turbidity		ND	NTU	0.09						
Lab ID:	LCS-1_140711	Laboratory Control Sample				Run: TURB-1_140711A			07/11/14 15:29	
Turbidity		10.8	NTU	0.10	108	90	110			
Lab ID:	LCS1-1_140711	Laboratory Control Sample				Run: TURB-1_140711A			07/11/14 15:30	
Turbidity		1.06	NTU	0.10	106	90	110			
Lab ID:	C14070431-001ADUP	Sample Duplicate				Run: TURB-1_140711A			07/11/14 15:31	
Turbidity		5.48	NTU	0.10				2.6	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R188505
Lab ID: MBLK	3	Method Blank					Run: MANTECH_140711A			07/11/14 15:29
Alkalinity, Total as CaCO ₃		0.8	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		ND	mg/L	1						
Lab ID: LCS_140522		Laboratory Control Sample					Run: MANTECH_140711A			07/11/14 15:42
Alkalinity, Total as CaCO ₃		267	mg/L	5.0	107	90	110			
Lab ID: C14070428-010BMS		Sample Matrix Spike					Run: MANTECH_140711A			07/11/14 19:46
Alkalinity, Total as CaCO ₃		355	mg/L	5.0	107	80	120			
Lab ID: C14070433-003ADUP	3	Sample Duplicate					Run: MANTECH_140711A			07/11/14 21:15
Alkalinity, Total as CaCO ₃		22.5	mg/L	5.0				3.1	10	
Carbonate as CO ₃		ND	mg/L	5.0					10	
Bicarbonate as HCO ₃		27.4	mg/L	5.0				3.1	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A2510 B							Analytical Run: PHSC_101-C_140711A		
Lab ID:	CCV - SC 1413		Continuing Calibration Verification Standard						07/11/14 10:31	
Conductivity @ 25 C		1430	umhos/cm	5.0	101	90	110			
Method:	A2510 B							Batch: R188461		
Lab ID:	SC 100		Initial Calibration Verification Standard				Run: PHSC_101-C_140711A		07/11/14 08:33	
Conductivity @ 25 C		103	umhos/cm	5.0	103	90	110			
Lab ID:	SC 2ND 1413		Laboratory Control Sample				Run: PHSC_101-C_140711A		07/11/14 08:46	
Conductivity @ 25 C		1430	umhos/cm	5.0	102	90	110			
Lab ID:	MBLK		Method Blank				Run: PHSC_101-C_140711A		07/11/14 09:18	
Conductivity @ 25 C		2	umhos/cm	0.8						
Lab ID:	C14070400-001ADUP		Sample Duplicate				Run: PHSC_101-C_140711A		07/11/14 09:54	
Conductivity @ 25 C		407	umhos/cm	5.0				0.1	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS140714A	
Lab ID: MB-1_140714A		Method Blank				Run: BAL-19_140714A			07/14/14 15:05	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	7						
Lab ID: LCS-2_140714A		Laboratory Control Sample				Run: BAL-19_140714A			07/14/14 15:05	
Solids, Total Dissolved TDS @ 180 C		2000	mg/L	10	100	90	110			
Lab ID: C14070429-001A DUP		Sample Duplicate				Run: BAL-19_140714A			07/14/14 15:06	
Solids, Total Dissolved TDS @ 180 C		224	mg/L	10					5	
Lab ID: C14070431-001A MS		Sample Matrix Spike				Run: BAL-19_140714A			07/14/14 15:07	
Solids, Total Dissolved TDS @ 180 C		7520	mg/L	10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D									Batch: TSS140715A	
Lab ID: MBLK-1_140715A		Method Blank				Run: BAL-19_140715A			07/15/14 12:08	
Solids, Total Suspended TSS @ 105 C		ND	mg/L	2						
Lab ID: LCS-2_140715A		Laboratory Control Sample				Run: BAL-19_140715A			07/15/14 12:08	
Solids, Total Suspended TSS @ 105 C		99.0	mg/L	10	99	80	120			
Lab ID: C14070448-001ADUP		Sample Duplicate				Run: BAL-19_140715A			07/15/14 12:09	
Solids, Total Suspended TSS @ 105 C		4.00	mg/L	10					5	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2580 B								Batch: 140711A-ORP-ISE-W		
Lab ID: LCS		Laboratory Control Sample				Run: ORION 3 STAR PH_140711A		07/11/14 14:48		
Oxidation-Reduction Potential		227	mV		100	95.6	104.4			
Lab ID: C14070431-001BDUP		Sample Duplicate				Run: ORION 3 STAR PH_140711A		07/11/14 14:50		
Oxidation-Reduction Potential		265	mV					0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-F C							Analytical Run: MANTECH_140714C		
Lab ID:	CCV-7863	Continuing Calibration Verification Standard							07/14/14 13:36	
Fluoride		2.04	mg/L	0.10	102	90	110			
Method:	A4500-F C									Batch: R188548
Lab ID:	MBLK	Method Blank					Run: MANTECH_140714C		07/14/14 13:31	
Fluoride		0.02	mg/L	0.01						
Lab ID:	LCS-8011	Laboratory Control Sample					Run: MANTECH_140714C		07/14/14 13:33	
Fluoride		2.00	mg/L	0.10	99	90	110			
Lab ID:	C14070428-002BMS	Sample Matrix Spike					Run: MANTECH_140714C		07/14/14 13:41	
Fluoride		2.04	mg/L	0.10	96	80	120			
Lab ID:	C14070428-002BMSD	Sample Matrix Spike Duplicate					Run: MANTECH_140714C		07/14/14 13:44	
Fluoride		2.04	mg/L	0.10	96	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-H B							Analytical Run: PHSC_101-C_140711A		
Lab ID:	pH 6.86		Initial Calibration Verification Standard						07/11/14 08:30	
pH		6.88	s.u.	0.010	100	98	102			
Lab ID:	CCV - pH 7		Continuing Calibration Verification Standard						07/11/14 10:28	
pH		7.01	s.u.	0.010	100	98	102			
Method:	A4500-H B							Batch: R188461		
Lab ID:	C14070400-001ADUP		Sample Duplicate			Run: PHSC_101-C_140711A			07/11/14 09:54	
pH		7.89	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G							Analytical Run: TECHNICON_140714A			
Lab ID: CCV-30	Continuing Calibration Verification Standard									07/14/14 13:19
Nitrogen, Ammonia as N		1.00	mg/L	0.050	100	90	110			
Method: A4500-NH3 G							Batch: R188563			
Lab ID: MBLK-1	Method Blank									07/14/14 12:30
Nitrogen, Ammonia as N		ND	mg/L	0.006						
Lab ID: LFB-3							Run: TECHNICON_140714A			
Nitrogen, Ammonia as N		1.92	mg/L	0.050	98	90	110			07/14/14 12:34
Lab ID: C14070373-011DMS							Run: TECHNICON_140714A			
Nitrogen, Ammonia as N		2.04	mg/L	0.050	104	90	110			07/14/14 13:24
Lab ID: C14070373-011DMSD							Run: TECHNICON_140714A			
Nitrogen, Ammonia as N		2.01	mg/L	0.050	103	90	110	1.5	10	07/14/14 13:25

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NO2 B							Analytical Run: HACH DR3000-2_140711A			
Lab ID: CCV-3	Continuing Calibration Verification Standard									07/11/14 14:05
Nitrogen, Nitrite as N		1.06	mg/L	0.20	106	90	110			
Method: A4500-NO2 B							Batch: A2014-07-11_6_NO2_01			
Lab ID: MBLK-1	Method Blank									07/11/14 14:04
Nitrogen, Nitrite as N		ND	mg/L	0.002						
Lab ID: LCS-2							Run: HACH DR3000-2_140711A			
Nitrogen, Nitrite as N		1.06	mg/L	0.20	106	90	110			07/11/14 14:05
Lab ID: C14070431-001AMS							Run: HACH DR3000-2_140711A			
Nitrogen, Nitrite as N		0.0494	mg/L	0.10	87	90	110			S
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										
Lab ID: C14070431-001AMSD							Run: HACH DR3000-2_140711A			
Nitrogen, Nitrite as N		0.0492	mg/L	0.10	86	90	110		10	S
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-S F								Analytical Run: TITRATION_140717A		
Lab ID: ICV		Initial Calibration Verification Standard								07/17/14 09:47
Sulfide		123	mg/L	1.0	99	80	120			
Method: A4500-S F								Batch: 140717A-SULFIDE-TTR-W		
Lab ID: MBLK7-140717A		Method Blank								07/17/14 09:44
Sulfide		ND	mg/L	0.6						
Lab ID: C14070576-001JMS		Sample Matrix Spike								07/17/14 09:54
Sulfide		25.1	mg/L	1.0	101	80	120			
Lab ID: C14070576-001JMSD		Sample Matrix Spike Duplicate								07/17/14 09:57
Sulfide		25.1	mg/L	1.0	101	80	120	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E1664A									Analytical Run: 41979	
Lab ID: CCV1_140716A	Continuing Calibration Verification Standard			07/16/14 11:50						
Oil & Grease (HEM)	1.9	mg/L	5.0	95	90	110				
Lab ID: CCV2_140716A	Continuing Calibration Verification Standard			07/16/14 11:50						
Oil & Grease (HEM)	1000	mg/L	5.0	100	99.95	100.05				
Method: E1664A									Analytical Run: 42021	
Lab ID: CCV1_140721A	Continuing Calibration Verification Standard			07/21/14 10:04						
Non-polar Materials (SGT-HEM)	2	mg/L	5	95	90	110				
Lab ID: CCV2_140721A	Continuing Calibration Verification Standard			07/21/14 10:05						
Non-polar Materials (SGT-HEM)	1000	mg/L	5	100	99.95	100.05				
Method: E1664A									Batch: 42021	
Lab ID: MBLK1_140721A	Method Blank			Run: OG_BAL1-C_140721A				07/21/14 10:05		
Non-polar Materials (SGT-HEM)	ND	mg/L	5							
Lab ID: LCS1_140721A	Laboratory Control Sample			Run: OG_BAL1-C_140721A				07/21/14 10:05		
Non-polar Materials (SGT-HEM)	15	mg/L	5	74	64	132				
Lab ID: LCSD_140721A	Laboratory Control Sample Duplicate			Run: OG_BAL1-C_140721A				07/21/14 10:05		
Non-polar Materials (SGT-HEM)	15	mg/L	5	73	64	132	1.4	34		
Lab ID: C14070431-001HMS	Sample Matrix Spike			Run: OG_BAL1-C_140721A				07/21/14 10:07		
Non-polar Materials (SGT-HEM)	12	mg/L	5	61	64	132	S			
- Spike exceeds acceptance limit. LCS is acceptable.										

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_140714B		
Lab ID: ICV	13	Initial Calibration Verification Standard							07/14/14 12:16	
Barium		1.01	mg/L	0.10	101	95	105			
Calcium		50.9	mg/L	0.50	102	95	105			
Cobalt		0.954	mg/L	0.010	95	95	105			
Iron		5.06	mg/L	0.030	101	95	105			
Lithium		1.03	mg/L	0.10	103	95	105			
Magnesium		50.3	mg/L	0.50	101	95	105			
Manganese		4.85	mg/L	0.010	97	95	105			
Nickel		0.956	mg/L	0.050	96	95	105			
Potassium		51.0	mg/L	0.50	102	95	105			
Silicon		9.88	mg/L	0.10	99	95	105			
Sodium		50.9	mg/L	0.50	102	95	105			
Strontium		1.04	mg/L	0.10	104	95	105			
Zinc		0.948	mg/L	0.010	95	95	105			
Lab ID: ICSA	13	Interference Check Sample A							07/14/14 12:30	
Barium		0.000380	mg/L	0.10						
Calcium		460	mg/L	0.50	92	80	120			
Cobalt		-0.00616	mg/L	0.010						
Iron		177	mg/L	0.030	89	80	120			
Lithium		0.0174	mg/L	0.10						
Magnesium		497	mg/L	0.50	99	80	120			
Manganese		0.00541	mg/L	0.010						
Nickel		0.00556	mg/L	0.050						
Potassium		0.00439	mg/L	0.50						
Silicon		-0.0104	mg/L	0.10						
Sodium		0.188	mg/L	0.50						
Strontium		0.00364	mg/L	0.10						
Zinc		-0.00191	mg/L	0.010						
Lab ID: ICSAB	13	Interference Check Sample AB							07/14/14 12:34	
Barium		0.470	mg/L	0.10	94	80	120			
Calcium		448	mg/L	0.50	90	80	120			
Cobalt		0.417	mg/L	0.010	83	80	120			
Iron		178	mg/L	0.030	89	80	120			
Lithium		0.0174	mg/L	0.10						
Magnesium		499	mg/L	0.50	100	80	120			
Manganese		0.445	mg/L	0.010	89	80	120			
Nickel		0.851	mg/L	0.050	85	80	120			
Potassium		0.00263	mg/L	0.50						
Silicon		-0.00527	mg/L	0.10						
Sodium		0.135	mg/L	0.50						
Strontium		0.00358	mg/L	0.10						
Zinc		0.914	mg/L	0.010	91	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method:	E200.7								Analytical Run: ICP4-C_140714B		
Lab ID:	ICSA	13 Interference Check Sample A							07/14/14 23:02		
Barium		0.000320	mg/L	0.10							
Calcium		459	mg/L	0.50	92	80	120				
Cobalt		-0.00476	mg/L	0.010							
Iron		178	mg/L	0.030	89	80	120				
Lithium		0.0174	mg/L	0.10							
Magnesium		494	mg/L	0.50	99	80	120				
Manganese		0.00447	mg/L	0.010							
Nickel		0.00477	mg/L	0.050							
Potassium		-0.00523	mg/L	0.50							
Silicon		-0.0128	mg/L	0.10							
Sodium		0.192	mg/L	0.50							
Strontium		0.00374	mg/L	0.10							
Zinc		-0.00248	mg/L	0.010							
Lab ID:	ICSAB	13 Interference Check Sample AB							07/14/14 23:06		
Barium		0.504	mg/L	0.10	101	80	120				
Calcium		473	mg/L	0.50	95	80	120				
Cobalt		0.431	mg/L	0.010	86	80	120				
Iron		183	mg/L	0.030	91	80	120				
Lithium		0.0220	mg/L	0.10							
Magnesium		516	mg/L	0.50	103	80	120				
Manganese		0.465	mg/L	0.010	93	80	120				
Nickel		0.872	mg/L	0.050	87	80	120				
Potassium		-0.00615	mg/L	0.50							
Silicon		0.000380	mg/L	0.10							
Sodium		0.267	mg/L	0.50							
Strontium		0.00395	mg/L	0.10							
Zinc		0.939	mg/L	0.010	94	80	120				
Method:	E200.7								Batch: R188581		
Lab ID:	MB-140714A	13 Method Blank				Run: ICP4-C_140714B				07/14/14 12:53	
Barium		ND	mg/L	0.0004							
Calcium		ND	mg/L	0.01							
Cobalt		ND	mg/L	0.003							
Iron		ND	mg/L	0.005							
Lithium		ND	mg/L	0.002							
Magnesium		ND	mg/L	0.01							
Manganese		ND	mg/L	0.002							
Nickel		ND	mg/L	0.005							
Potassium		ND	mg/L	0.06							
Silicon		ND	mg/L	0.01							
Sodium		ND	mg/L	0.01							
Strontium		ND	mg/L	0.0002							
Zinc		ND	mg/L	0.003							

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R188581
Lab ID: LFB-140714A	13	Laboratory Fortified Blank				Run: ICP4-C_140714B				07/14/14 12:57
Barium		0.952	mg/L	0.10	95	85	115			
Calcium		48.4	mg/L	0.50	97	85	115			
Cobalt		0.898	mg/L	0.010	90	85	115			
Iron		0.960	mg/L	0.030	96	85	115			
Lithium		1.05	mg/L	0.10	105	85	115			
Magnesium		47.7	mg/L	0.50	95	85	115			
Manganese		0.921	mg/L	0.010	92	85	115			
Nickel		0.903	mg/L	0.050	90	85	115			
Potassium		53.0	mg/L	0.50	106	85	115			
Silicon		0.451	mg/L	0.10	100	85	115			
Sodium		50.3	mg/L	0.50	101	85	115			
Strontium		0.962	mg/L	0.10	96	85	115			
Zinc		0.931	mg/L	0.010	93	85	115			
Lab ID: C14070407-001BMS2	13	Sample Matrix Spike				Run: ICP4-C_140714B				07/14/14 13:20
Barium		1.99	mg/L	0.050	94	70	130			
Calcium		153	mg/L	1.0	94	70	130			
Cobalt		1.83	mg/L	0.0059	90	70	130			
Iron		2.16	mg/L	0.030	96	70	130			
Lithium		2.03	mg/L	0.10	98	70	130			
Magnesium		126	mg/L	1.0	95	70	130			
Manganese		1.88	mg/L	0.0031	91	70	130			
Nickel		1.83	mg/L	0.011	90	70	130			
Potassium		115	mg/L	1.0	98	70	130			
Silicon		4.93	mg/L	0.10		70	130			A
Sodium		354	mg/L	1.0	94	70	130			
Strontium		2.66	mg/L	0.010	95	70	130			
Zinc		1.90	mg/L	0.010	90	70	130			
Lab ID: C14070407-001BMSD	13	Sample Matrix Spike Duplicate				Run: ICP4-C_140714B				07/14/14 13:23
Barium		2.00	mg/L	0.050	95	70	130	0.8	20	
Calcium		153	mg/L	1.0	94	70	130	0.2	20	
Cobalt		1.83	mg/L	0.0059	89	70	130	0.3	20	
Iron		2.16	mg/L	0.030	96	70	130	0.0	20	
Lithium		2.09	mg/L	0.10	101	70	130	2.6	20	
Magnesium		126	mg/L	1.0	95	70	130	0.2	20	
Manganese		1.89	mg/L	0.0031	92	70	130	0.6	20	
Nickel		1.84	mg/L	0.011	90	70	130	0.2	20	
Potassium		118	mg/L	1.0	101	70	130	2.6	20	
Silicon		4.97	mg/L	0.10		70	130	0.8	20	A
Sodium		358	mg/L	1.0	98	70	130	1.3	20	
Strontium		2.68	mg/L	0.010	96	70	130	0.9	20	
Zinc		1.88	mg/L	0.010	89	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Analytical Run: ICP4-C_140716A
Lab ID: ICV	4	Initial Calibration Verification Standard								07/16/14 13:44
Boron		0.980	mg/L	0.10	98	95	105			
Iron		5.03	mg/L	0.030	101	95	105			
Manganese		4.81	mg/L	0.010	96	95	105			
Uranium		4.96	mg/L	1.0	99	95	105			
Lab ID: ICSA	4	Interference Check Sample A								07/16/14 13:58
Boron		0.00401	mg/L	0.10						
Iron		180	mg/L	0.030	90	80	120			
Manganese		0.00354	mg/L	0.010						
Uranium		0.143	mg/L	1.0						
Lab ID: ICSAB	4	Interference Check Sample AB								07/16/14 14:02
Boron		0.00203	mg/L	0.10						
Iron		179	mg/L	0.030	89	80	120			
Manganese		0.440	mg/L	0.010	88	80	120			
Uranium		0.158	mg/L	1.0						
Method: E200.7										Batch: 41943
Lab ID: MB-41943	3	Method Blank								Run: ICP4-C_140716A 07/16/14 20:54
Iron		ND	mg/L	0.005						
Manganese		ND	mg/L	0.002						
Uranium		0.02	mg/L	4E-05						
Lab ID: LCS3-41943	3	Laboratory Control Sample								Run: ICP4-C_140716A 07/16/14 20:58
Iron		2.5	mg/L	0.030	100	85	115			
Manganese		2.4	mg/L	0.010	95	85	115			
Uranium		0.53	mg/L	0.00030	102	85	115			
Lab ID: C14070432-002CMS3	3	Sample Matrix Spike								Run: ICP4-C_140716A 07/16/14 21:13
Iron		2.55	mg/L	0.048	99	70	130			
Manganese		6.08	mg/L	0.015	96	70	130			
Uranium		0.636	mg/L	0.00040	127	70	130			
Lab ID: C14070432-002CMSD	3	Sample Matrix Spike Duplicate								Run: ICP4-C_140716A 07/16/14 21:17
Iron		2.59	mg/L	0.048	101	70	130	1.2	20	
Manganese		6.09	mg/L	0.015	96	70	130	0.1	20	
Uranium		0.318	mg/L	0.00040	64	70	130	67	20	SR
Method: E200.7										Batch: R188712
Lab ID: MB-140716A		Method Blank								Run: ICP4-C_140716A 07/16/14 14:21
Boron		ND	mg/L	0.02						
Lab ID: LFB-140716A		Laboratory Fortified Blank								Run: ICP4-C_140716A 07/16/14 14:25
Boron		0.950	mg/L	0.10	95	85	115			
Lab ID: C14070470-002BMS2		Sample Matrix Spike								Run: ICP4-C_140716A 07/16/14 23:05
Boron		1.97	mg/L	0.050	97	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R188712
Lab ID: C14070470-002BMS2		Sample Matrix Spike				Run: ICP4-C_140716A				07/16/14 23:05
Lab ID: C14070470-002BMSD		Sample Matrix Spike Duplicate				Run: ICP4-C_140716A				07/16/14 23:08
Boron		1.97	mg/L	0.050	96	70	130	0.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS2-C_140715A		
Lab ID: ICV	12	Initial Calibration Verification Standard							07/15/14 12:54	
Aluminum		0.0492	mg/L	0.0010	98	90	110			
Arsenic		0.0499	mg/L	0.0010	100	90	110			
Beryllium		0.0497	mg/L	0.0010	99	90	110			
Cadmium		0.0497	mg/L	0.0010	99	90	110			
Chromium		0.0493	mg/L	0.0010	99	90	110			
Copper		0.0494	mg/L	0.0010	99	90	110			
Lead		0.0499	mg/L	0.0010	100	90	110			
Mercury		0.00510	mg/L	0.0010	102	90	110			
Molybdenum		0.0488	mg/L	0.0010	98	90	110			
Selenium		0.0498	mg/L	0.0010	100	90	110			
Silver		0.0195	mg/L	0.0010	98	90	110			
Vanadium		0.0498	mg/L	0.0010	100	90	110			
Method: E200.8								Batch: R188626		
Lab ID: LRB	12	Method Blank							Run: ICPMS2-C_140715A 07/15/14 13:29	
Aluminum		ND	mg/L	0.001						
Arsenic		ND	mg/L	0.00010						
Beryllium		ND	mg/L	5E-05						
Cadmium		ND	mg/L	2E-05						
Chromium		0.0001	mg/L	6E-05						
Copper		ND	mg/L	0.0001						
Lead		ND	mg/L	3E-05						
Mercury		ND	mg/L	0.00010						
Molybdenum		ND	mg/L	4E-05						
Selenium		ND	mg/L	0.0002						
Silver		ND	mg/L	5E-05						
Vanadium		ND	mg/L	3E-05						
Lab ID: LFB - non filtered	12	Laboratory Fortified Blank							Run: ICPMS2-C_140715A 07/15/14 13:38	
Aluminum		0.0533	mg/L	0.0010	107	85	115			
Arsenic		0.0525	mg/L	0.0010	105	85	115			
Beryllium		0.0518	mg/L	0.0010	104	85	115			
Cadmium		0.0516	mg/L	0.0010	103	85	115			
Chromium		0.0523	mg/L	0.0010	104	85	115			
Copper		0.0527	mg/L	0.0010	105	85	115			
Lead		0.0523	mg/L	0.0010	105	85	115			
Mercury		0.0106	mg/L	0.0010	106	85	115			
Molybdenum		0.0514	mg/L	0.0010	103	85	115			
Selenium		0.0515	mg/L	0.0010	103	85	115			
Silver		0.0185	mg/L	0.0010	92	85	115			
Vanadium		0.0517	mg/L	0.0019	103	85	115			
Lab ID: C14070407-001BMS4	12	Sample Matrix Spike							Run: ICPMS2-C_140715A 07/15/14 16:37	
Aluminum		0.237	mg/L	0.030	108	70	130			
Arsenic		0.113	mg/L	0.0010	110	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R188626
Lab ID: C14070407-001BMS4	12	Sample Matrix Spike			Run: ICPMS2-C_140715A				07/15/14 16:37	
Beryllium		0.112	mg/L	0.0010	112	70	130			
Cadmium		0.0989	mg/L	0.0010	99	70	130			
Chromium		0.0981	mg/L	0.0050	97	70	130			
Copper		0.220	mg/L	0.0050	96	70	130			
Lead		0.110	mg/L	0.0010	107	70	130			
Mercury		0.0215	mg/L	0.00010	108	70	130			
Molybdenum		0.106	mg/L	0.0010	99	70	130			
Selenium		0.112	mg/L	0.0010	110	70	130			
Silver		0.0354	mg/L	0.0010	88	70	130			
Vanadium		0.107	mg/L	0.010	103	70	130			
Lab ID: C14070407-001BMSD	12	Sample Matrix Spike Duplicate			Run: ICPMS2-C_140715A				07/15/14 16:39	
Aluminum		0.229	mg/L	0.030	100	70	130	3.7	20	
Arsenic		0.106	mg/L	0.0010	103	70	130	7.0	20	
Beryllium		0.0949	mg/L	0.0010	95	70	130	17	20	
Cadmium		0.0986	mg/L	0.0010	98	70	130	0.3	20	
Chromium		0.0992	mg/L	0.0050	98	70	130	1.1	20	
Copper		0.216	mg/L	0.0050	92	70	130	1.8	20	
Lead		0.109	mg/L	0.0010	106	70	130	0.8	20	
Mercury		0.0220	mg/L	0.00010	110	70	130	2.0	20	
Molybdenum		0.110	mg/L	0.0010	104	70	130	3.9	20	
Selenium		0.0997	mg/L	0.0010	98	70	130	12	20	
Silver		0.0351	mg/L	0.0010	88	70	130	0.6	20	
Vanadium		0.108	mg/L	0.010	104	70	130	1.2	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E245.1	Analytical Run: CVAA_C203_140715A								
Lab ID:	ICV	Initial Calibration Verification Standard								07/15/14 13:30
Mercury		0.00527	mg/L	0.00010	105	90	110			
Method:	E245.1									Batch: 140715A
Lab ID:	IPC	Instrument Performance Check Sample				Run: CVAA_C203_140715A				07/15/14 13:36
Mercury		0.00516	mg/L	0.00010	103	95	105			
Method:	E245.1									Batch: 41951
Lab ID:	MB-41951	Method Blank			Run: CVAA_C203_140715A				07/15/14 13:38	
Mercury		ND	mg/L	7E-05						
Lab ID:	LCS-41951	Laboratory Control Sample				Run: CVAA_C203_140715A				07/15/14 13:41
Mercury		0.00542	mg/L	0.00010	108	85	115			
Lab ID:	C14070392-001DMS	Sample Matrix Spike			Run: CVAA_C203_140715A				07/15/14 14:10	
Mercury		0.00527	mg/L	0.00010	105	75	125			
Lab ID:	C14070392-001DMSD	Sample Matrix Spike Duplicate				Run: CVAA_C203_140715A				07/15/14 14:13
Mercury		0.00538	mg/L	0.00010	108	75	125	2.2	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC1-C_140714A		
Lab ID: CCV-071414-01	2	Continuing Calibration Verification Standard								07/14/14 14:29
Chloride		9.44	mg/L	1.0	94	90	110			
Sulfate		38.4	mg/L	1.0	96	90	110			
Method: E300.0								Batch: R188594		
Lab ID: ICB	2	Method Blank								07/14/14 13:55
Chloride		ND	mg/L	0.04						
Sulfate		0.1	mg/L	0.1						
Lab ID: LFB-071414	2	Laboratory Fortified Blank								07/14/14 14:12
Chloride		9.98	mg/L	1.0	100	90	110			
Sulfate		40.5	mg/L	1.0	101	90	110			
Lab ID: C14070428-008BMS	2	Sample Matrix Spike								07/14/14 15:04
Chloride		13.0	mg/L	1.0	103	90	110			
Sulfate		97.3	mg/L	1.0	105	90	110			
Lab ID: C14070428-008BMSD	2	Sample Matrix Spike Duplicate								07/14/14 15:22
Chloride		13.0	mg/L	1.0	103	90	110	0.2	20	
Sulfate		97.4	mg/L	1.0	105	90	110	0.1	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2							Analytical Run: TECHNICON_140711A			
Lab ID: CCV-30	Continuing Calibration Verification Standard									07/11/14 15:10
Nitrogen, Nitrate+Nitrite as N		1.05	mg/L	0.10	105	90	110			
Method: E353.2							Batch: R188502			
Lab ID: MBLK-1	Method Blank									07/11/14 13:58
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.05						
Lab ID: LFB-3							Run: TECHNICON_140711A			
Nitrogen, Nitrate+Nitrite as N		2.05	mg/L	0.10	105	90	110			07/11/14 14:03
Lab ID: C14070428-008DMS							Run: TECHNICON_140711A			
Nitrogen, Nitrate+Nitrite as N		2.00	mg/L	0.10	102	90	110			07/11/14 15:18
Lab ID: C14070428-008DMSD							Run: TECHNICON_140711A			
Nitrogen, Nitrate+Nitrite as N		2.00	mg/L	0.10	102	90	110	0.0	10	07/11/14 15:20

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0								Batch: GrAB-1801		
Lab ID: Th230-GrAB-1801	Laboratory Control Sample					Run: G5000W_140716B		07/18/14 23:48		
Gross Alpha		129	pCi/L		113	80	120			
Lab ID: Sr90-GrAB-1801	Laboratory Control Sample					Run: G5000W_140716B		07/18/14 23:48		
Gross Beta		183	pCi/L		91	80	120			
Lab ID: MB-GrAB-1801	6	Method Blank					Run: G5000W_140716B		07/18/14 23:48	
Gross Alpha		-0.7	pCi/L							U
Gross Alpha precision (±)		0.7	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C14070357-001HDUP	6	Sample Duplicate					Run: G5000W_140716B		07/18/14 23:48	
Gross Alpha		3.58	pCi/L					27	72.7	
Gross Alpha precision (±)		0.910	pCi/L							
Gross Alpha MDC		1.20	pCi/L							
Gross Beta		1.73	pCi/L					210	277.6	U
Gross Beta precision (±)		1.58	pCi/L							
Gross Beta MDC		2.58	pCi/L							
Lab ID: C14070392-001FMS	Sample Matrix Spike					Run: G5000W_140716B		07/18/14 23:48		
Gross Alpha		137	pCi/L		108	70	130			
Lab ID: C14070392-001FMSD	Sample Matrix Spike Duplicate					Run: G5000W_140716B		07/18/14 23:48		
Gross Alpha		122	pCi/L		95	70	130	11	16.2	
Lab ID: C14070392-001FMS	Sample Matrix Spike					Run: G5000W_140716B		07/18/14 23:48		
Gross Beta		198	pCi/L		98	70	130			
Lab ID: C14070392-001FMSD	Sample Matrix Spike Duplicate					Run: G5000W_140716B		07/18/14 23:48		
Gross Beta		210	pCi/L		104	70	130	6.0	14	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-7274	
Lab ID: C14070375-002DMS	Sample Matrix Spike					Run: BERTHOLD 770-2_140716A			07/28/14 18:31	
Radium 226	21		pCi/L	92		70	130			
Lab ID: C14070375-002DMSD	Sample Matrix Spike Duplicate					Run: BERTHOLD 770-2_140716A			07/28/14 18:31	
Radium 226	21		pCi/L	91		70	130	1.8	21.6	
Lab ID: MB-RA226-7274	3	Method Blank				Run: BERTHOLD 770-2_140716A			07/28/14 22:12	
Radium 226		0.3	pCi/L							
Radium 226 precision (\pm)		0.2	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: LCS-RA226-7274	Laboratory Control Sample					Run: BERTHOLD 770-2_140716A			07/28/14 22:12	
Radium 226	11		pCi/L	98		80	120			

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/30/14

Project: Lost Creek Waste Water

Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05									Batch: RA228-4715	
Lab ID: LCS-228-RA226-7274	Laboratory Control Sample					Run: TENNELEC-3_140716D			07/22/14 10:29	
Radium 228		10.3	pCi/L		111	80	120			
Lab ID: MB-RA226-7274	3	Method Blank					Run: TENNELEC-3_140716D			07/22/14 10:29
Radium 228		3	pCi/L							
Radium 228 precision (±)		1	pCi/L							
Radium 228 MDC		2	pCi/L							
Lab ID: C14070375-004DMS	Sample Matrix Spike					Run: TENNELEC-3_140716D			07/22/14 10:29	
Radium 228		21.6	pCi/L		118	70	130			
Lab ID: C14070375-004DMSD	Sample Matrix Spike Duplicate					Run: TENNELEC-3_140716D			07/22/14 10:29	
Radium 228		19.8	pCi/L		105	70	130	8.8	30.9	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015B										Batch: R188570
Lab ID: MBLK_0714HP204r	3	Method Blank				Run: PIDFID1-C_140714A				07/14/14 11:35
Gasoline Range Organics (GRO)		ND	mg/L	0.020						
Total Purgeable Hydrocarbons		ND	mg/L	0.020						
Surr: Trifluorotoluene				0.0020	107	70	130			
Lab ID: LCS_0714HP205r	2	Laboratory Control Sample				Run: PIDFID1-C_140714A				07/14/14 12:10
Total Purgeable Hydrocarbons		0.210	mg/L	0.020	98	70	130			
Surr: Trifluorotoluene				0.0020	122	70	130			
Lab ID: C14070366-001FMS	2	Sample Matrix Spike				Run: PIDFID1-C_140714A				07/14/14 13:21
Total Purgeable Hydrocarbons		3.87	mg/L	0.40	90	70	130			
Surr: Trifluorotoluene				0.040	118	70	130			
Lab ID: C14070366-001FMSD	2	Sample Matrix Spike Duplicate				Run: PIDFID1-C_140714A				07/14/14 13:57
Total Purgeable Hydrocarbons		4.02	mg/L	0.40	94	70	130	3.9	20	
Surr: Trifluorotoluene				0.040	117	70	130			

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: Lost Creek Waste Water

Report Date: 07/30/14
Work Order: C14070431

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Analytical Run: R188572		
Lab ID: CCV_0714HP203r-W	6	Continuing Calibration Verification Standard							07/14/14 10:25	
Benzene		8.7	ug/L	0.50	87	85	115			
Ethylbenzene		8.7	ug/L	0.50	87	85	115			
m+p-Xylenes		18	ug/L	1.0	88	85	115			
o-Xylene		8.6	ug/L	0.50	86	85	115			
Toluene		9.0	ug/L	0.50	90	85	115			
Surr: Trifluorotoluene				0.50	114	80	120			
Method: SW8021B								Batch: R188572		
Lab ID: MBLK_0714HP204r	6	Method Blank							Run: PIDFID1-C_140714B	
Benzene		ND	ug/L	0.50					07/14/14 11:35	
Ethylbenzene		ND	ug/L	0.50						
m+p-Xylenes		ND	ug/L	1.0						
o-Xylene		ND	ug/L	0.50						
Toluene		ND	ug/L	0.50						
Surr: Trifluorotoluene				0.50	105	80	120			
Lab ID: LCS_0714HP206r	6	Laboratory Control Sample							Run: PIDFID1-C_140714B	
Benzene		10	ug/L	0.50	100	80	120		07/14/14 12:46	
Ethylbenzene		10	ug/L	0.50	101	80	120			
m+p-Xylenes		21	ug/L	1.0	103	80	120			
o-Xylene		10	ug/L	0.50	101	80	120			
Toluene		10	ug/L	0.50	102	80	120			
Surr: Trifluorotoluene				0.50	119	80	120			
Lab ID: C14070366-001FMS	6	Sample Matrix Spike							Run: PIDFID1-C_140714B	
Benzene		200	ug/L	10	101	80	120		07/14/14 14:32	
Ethylbenzene		200	ug/L	10	100	80	120			
m+p-Xylenes		400	ug/L	20	101	80	120			
o-Xylene		200	ug/L	10	101	80	120			
Toluene		200	ug/L	10	101	80	120			
Surr: Trifluorotoluene				0.50	118	80	120			
Lab ID: C14070366-001FMSD	6	Sample Matrix Spike Duplicate							Run: PIDFID1-C_140714B	
Benzene		180	ug/L	10	91	80	120	10	20	07/14/14 15:08
Ethylbenzene		180	ug/L	10	90	80	120	10.0	20	
m+p-Xylenes		370	ug/L	20	92	80	120	9.4	20	
o-Xylene		180	ug/L	10	92	80	120	9.9	20	
Toluene		190	ug/L	10	93	80	120	8.5	20	
Surr: Trifluorotoluene				0.50	117	80	120	0.0	10	

Qualifiers:

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Workorder Receipt Checklist

UR Energy USA Inc

C14070431

Login completed by: Debra Williams

Date Received: 7/11/2014

Reviewed by: BL2000\swaldrop

Received by: dw

Reviewed Date: 7/11/2014

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	6.2°C On Ice		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: UP - ENERGY		Project Name, PWS, Permit, Etc. LOST CREEK WASTE WATER		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address (Required): 5800 ENTERPRISE DR SUITE 200 CASHOKE NY 13030		Contact Name: MIKE GARDNER (307) 265-2573 x321		Sample Origin: State: NY	
<input type="checkbox"/> No Hard Copy Email:		Invoice Contact & Phone:		Sampler: (Please Print) MGE	
Invoice Address (Required):		Purchase Order:		Quote/Bottle Order:	
<input type="checkbox"/> No Hard Copy Email:		Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other:		Shipped by: 2623	
<input type="checkbox"/> EDD/EDT (Electronic Data) Format: LEVEL IV <input type="checkbox"/> NELAC		ANALYSIS REQUESTED SEE ATTACHED		Standard Turnaround (TAT) R U S H	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.) DW ALBERTA		MATRIX W		Comments:	
Collection Date 7/10/2014		Collection Time 1245		Receipt Temp 62.0 °C	
Relinquished by (print): M. Gardner		Relinquished by (print): M. Gardner		On Ice: Y N	
Date/Time: 7/10/2014 1245		Date/Time: 7/10/2014 1245		Custody Seal: Y N	
Signature: M. Gardner		Signature: M. Gardner		Intact: Y N	
Signature: M. Gardner		Signature: M. Gardner		Signature Match: Y N	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

UR-ENERGY Lost Creek Waste Water DW INJECTATE

ANALYTE LIST - TEST WELLS

MAJOR IONS	Units	Laboratory Method
Alkalinity, Total as CaCO ₃	mg/L	A2320 B
Carbonate as CO ₃	mg/L	A2320 B
Bicarbonate as HCO ₃	mg/L	A2320 B
Calcium	mg/L	E200.7
Chloride	mg/L	E300.0
Fluoride	mg/L	A4500-F-C
Magnesium	mg/L	E200.7
Nitrogen, Ammonia as N	mg/L	E350.1
Nitrogen, Nitrate+Nitrite as N	mg/L	E353.2
Nitrogen, Nitrite as N	mg/L	A4500-NO ₂ B
Potassium	mg/L	E200.7
Silica (SiO ₂)	mg/L	E200.7
Sodium	mg/L	E200.7
Sulfate	mg/L	E300.0

NON-METALS

Sulfide	mg/L	A4500-S-F
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PHYSICAL PROPERTIES

Conductivity @ 25 deg. C	umhos/cm	A2510 B
pH	S.u.	A4500-H B
Solids, Total Dissolved TDS @ 180 C	mg/L	A2540 C
Specific Gravity, API		
ORP	mv	
Temperature	deg. C	
DO	mg/L	
TSS	mg/L	
Turbidity	NTU	

METALS - DISSOLVED

Aluminum	mg/L	E200.8
Arsenic	mg/L	E200.8
Barium	mg/L	E200.8
Beryllium	mg/L	E200.8
Boron	mg/L	E200.8
Cadmium	mg/L	E200.8
Chromium	mg/L	E200.8
Cobalt	mg/L	E200.8
Copper	mg/L	E200.8
Iron	mg/L	E200.8
Lead	mg/L	E200.8
Lithium	mg/L	E200.7
Manganese	mg/L	E200.8
Magnesium	mg/L	E200.8
Molybdenum	mg/L	E200.8
Mercury	mg/L	E245.1
Nickel	mg/L	E200.8
Selenium	mg/L	E200.8
Silver	mg/L	E200.8
Strontium	mg/L	E200.7
Vanadium	mg/L	E200.7
Zinc	mg/L	E200.8

METALS - TOTAL

Iron	mg/L	E200.7
Manganese	mg/L	E200.7
Uranium	mg/L	E200.8
Mercury	mg/L	E245.1

DATA QUALITY

A/C Balance (± 5)	%	
Anions	meq/L	
Cations	meq/l	
Solids, Total Dissolved Calculated	mg/L	
TDS Balance (0.80 -1.20)		

ORGANIC CHARACTERISTICS

Oil & Grease (HEM)	mg/L	E1664A
GRO (Gas Range Organics)	mg/L	SW8015B
DRO (Diesel Range Organics)	mg/L	SW8015B
Total Petroleum Hydrocarbons	mg/L	SW8015M
BTEX	ug/l	E8020

RADIONUCLIDES

Gross Alpha (pCi/l)	pCi/l	E900.0
Gross Beta (pCi/l)	pCi/l	E900.0
Radium-226 (pCi/l)	pCi/l	E903.0
Radium-228 (gCi/l)	pCi/l	E904.0

OPTIONAL - SAR (surface discharge)

Calcium SAR	mgeq/l	E200.7
Magnesium SAR	mgeq/l	E200.7
Sodium SAR	mgeq/l	E200.7
Sodium Adsorption Ratio (SAR)	unitless	USDA20B

OPTIONAL - DW ORGANICS

	mg/l	E624
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