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LOST CREEK ISR, LLC

January 20, 2016

Brian Wood
State of Wyoming
Department of Environmental Quality - Land Quality Division
510 Meadowview Drive
Lander, WY 82520

**RE: Submittal of Non-Significant Revision #11 to Permit to Mine
Lost Creek Project PT788**

Dear Mr. Wood,

Enclosed with this cover letter is Non-Significant Revision (NSR) #11 to the Permit to Mine for the Lost Creek ISR Project (LCI) PT788 as detailed on the index sheet. The primary purpose of the revision is to replace the baseline data calculations with the new calculations, reviewed and approved by the Safety and Environmental Review Panel (SERP), which include the added production zone monitor wells MP-114, MP-115, MP-116, MP-117, and MP-118. The monitor wells were added to provide a ratio of wells to pattern area (i.e. determined from the sum total area of each of the production zone sub-horizons individually) of 1 well per 4 acres as stipulated in Guideline 4 Reference Document 10.

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

Sincerely,

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

Attachments: **NSR Index Sheet**
Attachment MU1 4-1 Replacement Pages
Attachment MU1 4-2 Replacement Data Disc (electronic file)

Cc: John Saxton, NRC Project Manager (under separate cover)
Mark Newman, BLM Rawlins Office (under separate cover)
Ms. Theresa Horne, Ur-Energy, Littleton Office (via e-mail)

INDEX SHEET FOR MINE PERMIT AMENDMENTS OR REVISIONS

Page 1 of 1

Date: Jan 20, 2016

MINE COMPANY NAME: Lost Creek ISR, LLC MINE NAME: Lost Creek PERMIT NO.: PT0788

Statement: I, Michael Gaither, an authorized representative of Lost Creek ISR, LLC declare that only the items listed on this and all consecutively numbered Index Sheets are intended as revisions to the current permit document. In the event that other changes inadvertently occurred due to this revision, those unintentional alterations will not be considered approved. Please initial and date. MG 1/20/2016

NOTES: 1) Include all revision or change elements and a brief description of or reason for each revision element.
2) List all revision or change elements in sequence by volume number; number index sheets sequentially as needed.

VOLUME NUMBER	PAGE, MAP OR OTHER PERMIT ENTRY TO BE		DESCRIPTION OF CHANGE
	REMOVED	ADDED	
Volume 6a: Mine Unit 1, Attachment 4-1 Water Quality Results	Remove "List of WQ Summaries in MU1 Attachment 4-1" (Nov10)	Add updated "List of WQ Summaries in MU1 Attachment 4-1" (Jan16)	Added additional MU1 production zone monitor well data (MP-114, MP-115, MP- 116, MP-117, and MP-118)
Volume 6a: Mine Unit 1, Attachment 4-1 Water Quality Results	Remove "MP-Well Data – Water Quality Criteria Exceedances and Outliers" (Nov10) [4 pages]	Add "MP-Well Data Water Quality Criteria" (Jan16) [5 pages]	Added additional MU1 production zone monitor well data for the baseline data calculations.
Volume 6a: Mine Unit 1 Attachment 4-2 Original Water Quality Lab Results (electronic data set)	Remove compact disc with digital copy of MU1 Att 4-2 (Lab Reports)	Add compact disc with revised digital copy that includes Lab Reports: C15050689, C15050702, C15060122, C15060633, C15070021	Added digital copies of Lab reports for the MU1 additional production zone baseline data analysis

MP-Well Data
Water Quality Criteria
(1 of 5)

Parameters	Units	Parameter Values															
		MP-101				MP-102				MP-103				MP-104			
		4/23/09	5/7/09	5/21/09	6/4/09	4/23/09	5/7/09	5/21/09	6/4/09	4/23/09	5/7/09	5/21/09	6/4/09	4/22/09	5/6/09	5/20/09	6/3/09
Total Alkalinity as CaCO ₃	mg/L	121	119	119	119	112	111	111	112	110	105	81	108	93	97	107	107
CO ₃	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
HCO ₃	mg/L	148	145	145	145	136	135	136	136	135	128	98	132	114	118	130	130
Dissolved Calcium	mg/L	77	80	84	80	60	60	64	61	73	74	58	77	78	77	85	83
Total Chloride	mg/L	6	6	6	6	4	4	4	4	5	5	5	6	9	9	9	9
Dissolved Fluoride	mg/L	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1
Dissolved Magnesium	mg/L	4	4	4	4	3	3	3	3	4	4	2	4	4	4	4	4
Total NH ₃ -N	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved NO ₃ +NO ₂ -N	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Potassium	mg/L	3	3	2	2	2	2	2	2	2	3	7	3	5	4	4	4
Dissolved SiO ₂	mg/L	14.6	15.9	16.3	15.8	14.7	15	16.2	15.7	14.4	13.6	15	15.1	13.7	14.3	12.9	15.1
Dissolved Sodium	mg/L	30	31	28	31	28	28	26	25	32	33	30	34	38	32	37	36
Total SO ₄	mg/L	167	173	172	166	122	125	125	120	164	166	138	167	186	184	192	182
Specific Cond. at 25 °C	µmhos/cm	606	578	560	578	480	478	456	478	572	549	446	556	604	599	605	604
Laboratory pH	SU	7.91	7.94	7.89	7.9	7.87	7.97	7.88	7.93	7.83	7.83	8.66	7.69	8.45	8.66	8.12	8.33
TDS Dried at 180 °C	mg/L	391	410	425	394	314	325	340	347	375	376	312	404	398	419	425	415
Dissolved Aluminum	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dissolved Arsenic	mg/L	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.0005	0.0005	0.0005	0.017	0.0005	0.006	0.009	0.006	0.006
Dissolved Barium	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dissolved Boron	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dissolved Cadmium	mg/L	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Dissolved Chromium	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Copper	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Iron	mg/L	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Dissolved Lead	mg/L	0.0005	0.0005	0.0005	0.0005	0.002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.0005	0.0005	0.0005
Dissolved Manganese	mg/L	0.02	0.02	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Mercury	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Molybdenum	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dissolved Nickel	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Selenium	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.002	0.005	0.003	0.0005	0.0005	0.0005	0.0005
Dissolved Uranium	mg/L	0.092	0.074	0.069	0.062	0.074	0.070	0.075	0.070	0.064	0.063	0.438	0.064	0.176	0.201	0.184	0.200
Dissolved Vanadium	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dissolved Zinc	mg/L	0.005	0.005	0.005	0.005	0.04	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.02	0.02	0.005	0.005
Total Iron	mg/L	0.02	0.04	0.04	0.04	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Total Manganese	mg/L	0.02	0.02	0.02	0.02	0.005	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.005
Gross Alpha	pCi/L	671	552	482	565	789	521	574	591	237	240	803	296	860	918	763	836
Gross Beta	pCi/L	236	159	121	144	267	170	159	161	92.2	120	330	123	324	225	239	219
Dissolved Ra-226	pCi/L	250	240	272	290	291	318	303	248	91	100	225	118	381	449	394	323
Dissolved Ra-228	pCi/L	6.4	5.7	5.2	4.3	5.8	4.5	4.3	4.1	2.1	2.7	4.2	1.7	6.5	3.9	5.3	7
Dissolved Ra-226+Ra-228	pCi/L	256.4	245.7	277.2	294.3	296.8	322.5	307.3	252.1	93.1	102.7	229.2	119.7	387.5	452.9	399.3	330

NOTES:

Red type means outlier

Blue type means ND. Half the detection limit used as value.

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

MP-Well Data
Water Quality Criteria
(2 of 5)

Parameters	Units	Parameter Values															
		MP-105				MP-106				MP-107				MP-108			
		4/23/09	5/7/09	5/21/09	6/4/09	4/22/09	5/6/09	5/20/09	6/3/09	4/22/09	5/6/09	5/20/09	6/3/09	4/22/09	5/6/09	5/20/09	6/3/09
Total Alkalinity as CaCO ₃	mg/L	71	75	106	87	107	106	106	106	127	130	127	122	111	108	109	110
CO ₃	mg/L	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
HCO ₃	mg/L	85	90	130	104	131	130	129	130	155	158	155	149	136	132	133	134
Dissolved Calcium	mg/L	48	56	75	56	59	63	54	57	48	44	35	40	63	71	69	65
Total Chloride	mg/L	5	5	6	5	4	4	4	5	6	5	5	6	5	5	5	5
Dissolved Fluoride	mg/L	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
Dissolved Magnesium	mg/L	2	2	3	2	2	2	2	2	2	2	1	2	3	3	3	3
Total NH ₃ -N	mg/L	0.025	0.025	0.025	0.025	0.07	0.025	0.025	0.025	0.06	0.3	0.39	0.025	0.025	0.025	0.025	0.025
Dissolved NO ₃ +NO ₂ -N	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.06	0.09	0.06	0.05	0.025	0.025	0.025	0.025
Dissolved Potassium	mg/L	8	8	2	6	2	2	2	2	2	2	2	2	2	2	2	2
Dissolved SiO ₂	mg/L	13.7	13.9	14.4	14.8	15	17.2	13.7	15.5	14	15.1	13.5	14.7	14.4	15.4	13.2	15.8
Dissolved Sodium	mg/L	32	34	30	32	32	29	29	30	64	65	72	57	32	30	32	30
Total SO ₄	mg/L	137	138	168	134	115	113	117	114	145	137	138	131	141	145	146	144
Specific Cond., at 25 °C	µmhos/cm	472	460	536	470	455	456	453	453	571	544	533	523	523	517	503	520
Laboratory pH	SU	8.97	8.69	7.77	8.28	7.92	7.94	8.01	7.91	7.92	7.82	8.12	7.99	7.93	7.92	8.04	7.88
TDS Dried at 180 °C	mg/L	309	306	385	343	304	305	317	275	361	372	388	355	347	352	356	343
Dissolved Aluminum	mg/L	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Arsenic	mg/L	0.019	0.019	0.0005	0.016	0.001	0.001	0.0005	0.001	0.004	0.010	0.005	0.004	0.008	0.007	0.007	0.007
Dissolved Barium	mg/L	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Boron	mg/L	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Cadmium	mg/L	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Dissolved Chromium	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Copper	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Iron	mg/L	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Dissolved Lead	mg/L	0.001	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.001	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Manganese	mg/L	0.005	0.005	0.005	0.005	0.005	0.01	0.005	0.01	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.02
Dissolved Mercury	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Molybdenum	mg/L	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Nickel	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Selenium	mg/L	0.009	0.007	0.002	0.005	0.0005	0.0005	0.0005	0.0005	0.015	0.012	0.013	0.013	0.005	0.005	0.005	0.006
Dissolved Uranium	mg/L	0.444	0.453	0.069	0.430	0.007	0.008	0.007	0.007	0.121	0.105	0.108	0.099	0.155	0.159	0.151	0.151
Dissolved Vanadium	mg/L	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Zinc	mg/L	0.03	0.005	0.005	0.005	0.02	0.005	0.01	0.005	0.05	0.01	0.005	0.005	0.005	0.005	0.01	0.005
Total Iron	mg/L	0.015	0.015	0.015	0.015	0.035	0.05	0.05	0.05	2.47	23.8	4.1	0.63	0.035	0.04	0.03	0.015
Total Manganese	mg/L	0.005	0.01	0.005	0.005	0.005	0.01	0.01	0.005	0.06	0.57	0.08	0.07	0.02	0.02	0.01	0.02
Gross Alpha	pCi/L	823	914	305	751	35.7	25.6	23.8	24.7	160	165	678	162	265	355	248	325
Gross Beta	pCi/L	303	398	143	318	13.8	12.5	11.3	12	45.8	31.8	344	36.7	128	154	151	119
Dissolved Ra-226	pCi/L	227	242	97	498	7.1	7.7	7.5	7	6	2.5	15	3.5	66	79	64	76
Dissolved Ra-228	pCi/L	2.6	3	2.6	8.9	4.6	3.8	4.1	5.5	0.5	0.7	2.9	0.3	1.5	2	3.5	3.6
Dissolved Ra-226+Ra-228	pCi/L	229.6	245	99.6	506.9	11.7	11.5	11.6	12.5	6.5	3.2	17.9	3.8	67.5	81	67.5	79.6

NOTES:

Red type means outlier

Blue type means ND. Half the detection limit used as value.

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

MP-Well Data
Water Quality Criteria
(3 of 5)

Parameters	Units	Parameter Values															
		MP-110				MP-111				MP-112				MP-113			
		4/21/09	5/5/09	5/19/09	6/2/09	4/21/09	5/7/09	5/21/09	6/4/09	4/21/09	5/5/09	5/19/09	6/2/09	4/22/09	5/6/09	5/20/09	6/3/09
Total Alkalinity as CaCO ₃	mg/L	104	103	105	108	94	120	108	110	47	35	33	39	101	99	106	105
CO ₃	mg/L	2	0.5	0.5	0.5	0.5	6	1	0.5	24	20	0.5	1	9	7	5	5
HCO ₃	mg/L	123	126	128	132	114	134	129	134	0.5	0.5		41	45	106	107	119
Dissolved Calcium	mg/L	51	50	54	53	46	56	60	55	36	32	33	38	66	58	66	63
Total Chloride	mg/L	5	5	5	5	7	6	5	6	8	7	7	7	20	17	11	11
Dissolved Fluoride	mg/L	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Dissolved Magnesium	mg/L	2	2	3	3	2	2	3	3	0.5	0.5	0.5	0.5	3	2	2	3
Total NH ₃ -N	mg/L	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.08	0.08	0.025	0.025
Dissolved NO ₃ +NO ₂ -N	mg/L	0.025	0.025	0.025	0.025	0.16	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.5
Dissolved Potassium	mg/L	16	12	10	8	2	7	6	5	13	11	10	9	7	5	5	4
Dissolved SiO ₂	mg/L	15	14.3	13.6	16.8	15	13.7	14.8	14.5	12.6	13.4	11.6	15	12.6	14.3	11.9	13.7
Dissolved Sodium	mg/L	38	35	34	33	32	35	33	34	38	37	36	40	40	34	37	35
Total SO ₄	mg/L	128	128	129	130	95	132	131	127	126	127	126	128	143	142	148	146
Specific Cond. at 25 °C	µmhos/cm	498	497	466	486	400	491	469	493	469	415	367	405	567	551	529	531
Laboratory pH	SU	8.41	8.38	8.26	8.14	8.08	8.61	8.49	8.31	10.7	10.2	9.21	9.3	8.95	8.9	8.64	8.57
TDS Dried at 180 °C	mg/L	328	314	328	341	259	340	348	340	279	261	257	240	375	366	370	371
Dissolved Aluminum	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.3	0.3	0.2	0.2	0.05	0.05	0.05	0.05
Dissolved Arsenic	mg/L	0.009	0.007	0.005	0.005	0.001	0.008	0.006	0.005	0.022	0.026	0.027	0.027	0.006	0.004	0.004	0.004
Dissolved Barium	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Boron	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Cadmium	mg/L	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Dissolved Chromium	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Copper	mg/L	0.01	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Iron	mg/L	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Dissolved Lead	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Manganese	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Mercury	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Molybdenum	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Nickel	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Selenium	mg/L	0.0005	0.0005	0.0005	0.0005	0.023	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Uranium	mg/L	0.241	0.254	0.254	0.275	0.320	0.297	0.295	0.273	0.263	0.301	0.408	0.405	0.184	0.144	0.138	0.142
Dissolved Vanadium	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Zinc	mg/L	0.05	0.01	0.04	0.005	0.05	0.005	0.005	0.005	0.04	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Iron	mg/L	0.015	0.035	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.035	0.015	0.035	0.035	0.015	0.015	0.015
Total Manganese	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.005
Gross Alpha	pCi/L	2040	1700	1690	1460	300	1190	1380	1010	554	635	885	760	1270	682	1260	1050
Gross Beta	pCi/L	816	646	507	479	111	457	399	337	275	270	261	271	466	385	340	351
Dissolved Ra-226	pCi/L	732	689	675	698	6.3	411	411	445	155	121	127	120	515	595	530	568
Dissolved Ra-228	pCi/L	5.6	10.8	5.9	7	1.5	5	4.2	6.2	1.9	2	2.4	2.2	4.6	6.8	5	5.8
Dissolved Ra-226+Ra-228	pCi/L	737.6	689	680.9	705	7.8	416	415.2	451.2	156.9	123	129.4	122.2	519.6	601.8	535	573.8

NOTES:

Red type means outlier

Blue type means ND. Half the detection limit used as value.

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

MP-Well Data
Water Quality Criteria
(4 of 5)

Parameters	Units	Parameter Values															
		MP-115				MP-116				MP-117				MP-118			
		05/18/15	06/02/15	06/16/15	06/30/15	05/18/15	06/02/15	06/16/15	06/30/15	05/18/15	06/02/15	06/16/15	06/30/15	05/18/15	06/02/15	06/16/15	06/30/15
Total Alkalinity as CaCO ₃	mg/L	100	102	99	100	128	129	119	122	116	117	118	123	113	106	110	120
CO ₃	mg/L	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
HCO ₃	mg/L	118	123	121	122	156	158	145	148	142	142	144	150	137	129	134	146
Dissolved Calcium	mg/L	70	68	67	66	80	82	81	80	103	99	98	96	74	70	72	76
Total Chloride	mg/L	5	5	6	6	5	6	6	6	6	6	6	6	5	5	5	6
Dissolved Fluoride	mg/L	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Dissolved Magnesium	mg/L	3	3	3	3	4	4	4	4	4	4	4	5	3	3	3	4
Total NH ₃ -N	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved NO ₃ +NO ₂ -N	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.8	0.05	0.05
Dissolved Potassium	mg/L	5	5	5	4	5	4	5	4	4	3	3	3	3	3	3	3
Dissolved SiO ₂	mg/L	14.4	14.5	14.4	14.3	15.6	16.1	16	15.5	15	15.3	15.5	15.2	15.2	15.2	15.2	15.4
Dissolved Sodium	mg/L	32	31	31	30	33	33	32	31	35	33	35	34	31	31	30	30
Total SO ₄	mg/L	139	141	143	140	155	162	157	154	203	206	193	196	139	139	135	137
Specific Cond. at 25 °C	µmhos/cm	493	504	489	494	555	568	553	564	634	649	631	650	500	501	501	524
Laboratory pH	SU	8.29	8.29	8.18	8.21	7.65	7.74	7.72	7.8	7.96	7.93	7.88	7.89	7.93	7.96	7.84	7.96
TDS Dried at 180 °C	mg/L	338	332	330	327	384	382	381	378	449	455	441	444	346	337	350	344
Dissolved Aluminum	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Arsenic	mg/L	0.005	0.005	0.004	0.004	0.005	0.004	0.004	0.004	0.008	0.004	0.003	0.003	0.004	0.003	0.003	0.003
Dissolved Barium	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Boron	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Cadmium	mg/L	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Dissolved Chromium	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Copper	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Dissolved Iron	mg/L	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Dissolved Lead	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Manganese	mg/L	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.02
Dissolved Mercury	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Molybdenum	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Nickel	mg/L	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Dissolved Selenium	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Dissolved Uranium	mg/L	0.136	0.134	0.125	0.114	0.141	0.144	0.127	0.113	0.759	0.758	0.638	0.574	0.091	0.078	0.079	0.067
Dissolved Vanadium	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dissolved Zinc	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Total Iron	mg/L	0.015	0.015	0.015	0.015	0.33	0.32	0.23	0.16	0.08	0.11	0.12	0.08	0.29	0.33	0.38	0.48
Total Manganese	mg/L	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.02	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.02
Gross Alpha	pCi/L	696	598	628	612	313	204	311	284	583	655	604	737	636	340	405	416
Gross Beta	pCi/L	78.8	53	184	55.5	77.5	48.4	117	42.2	132	106	135	86.2	115	44.6	71.3	41.3
Dissolved Ra-226	pCi/L	377	414	379	445	165	174	185	163	106	126	2.2	113	248	241	172	255
Dissolved Ra-228	pCi/L	6.3	4.9	8	4.2	2.9	7	4.3	1.9	3	3.9	1.7	2.1	3	3.5	4.7	1.6
Dissolved Ra-226+Ra-228	pCi/L	383.3	418.9	387	449.2	167.9	181	189.3	164.9	109	129.9	3.9	115.1	251	244.5	176.7	256.6

NOTES:

Red type means outlier

Blue type means ND. Half the detection limit used as value.

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.

MP-Well Data
Water Quality Criteria
(5 of 5)

Parameters	Units	Outlier Tolerance Interval Calculation						Values with Outliers (if any) Removed						
		No. of Obs.	Mean	TLF	Standard Deviation	Lower Range	Upper Range	No. of Obs.	Minimum	Mean	Maximum	Standard Deviation	Mean ± 3 Standard Deviations	
Total Alkalinity as CaCO ₃	mg/L	72	102.56	3.002	21.451	38.16	166.95	72	33	103	130	21	38	167
CO ₃	mg/L	72	2.38	3.002	3.904	-9.34	14.10	70	0.5	1.8	9.0	2.0	-4.2	7.9
HCO ₃	mg/L	72	121.97	3.002	31.969	26.00	217.94	70	41	125	158	25	51	200
Dissolved Calcium	mg/L	72	64.53	3.002	15.643	17.57	111.49	72	32	65	103	16	18	111
Total Chloride	mg/L	72	6.22	3.002	2.552	-1.44	13.88	72	4	6	20	3	-1	14
Dissolved Fluoride	mg/L	72	0.15	3.002	0.053	-0.01	0.31	72	0.1	0.2	0.3	0.1	0.0	0.3
Dissolved Magnesium	mg/L	72	2.83	3.002	1.000	-0.17	5.84	72	1	3	5	1	0	6
Total NH ₃ -N	mg/L	72	0.04	3.002	0.054	-0.13	0.20	70	0.025	0.028	0.080	0.012	-0.007	0.063
Dissolved NO ₃ +NO ₂ -N	mg/L	72	0.05	3.002	0.106	-0.27	0.37	70	0.025	0.037	0.160	0.021	-0.025	0.099
Dissolved Potassium	mg/L	72	4.68	3.002	2.983	-4.27	13.63	72	2.0	4.7	16.0	3.0	-4.3	13.6
Dissolved SiO ₂	mg/L	72	14.71	3.002	1.092	11.43	17.98	72	11.6	14.7	17.2	1.1	11.4	18.0
Dissolved Sodium	mg/L	72	34.28	3.002	8.058	10.09	58.47	72	25	34	72	8	10	58
Total SO ₄	mg/L	72	144.85	3.002	22.667	76.80	212.89	72	95	145	206	23	77	213
Specific Cond. at 25 °C	µmhos/cm	72	513.19	3.002	60.626	331.20	695.19	72	367	513	650	61	331	695
Laboratory pH	SU	72	8.25	3.002	0.556	6.58	9.92	72	7.65	8.25	10.70	0.56	6.58	9.92
TDS Dried at 180 °C	mg/L	72	348.47	3.002	48.527	202.79	494.15	72	236	348	455	49	203	494
Dissolved Aluminum	mg/L	72	0.19	3.002	0.202	-0.42	0.79	72	0.05	0.19	0.50	0.20	-0.42	0.79
Dissolved Arsenic	mg/L	72	0.01	3.002	0.006	-0.01	0.02	72	0.001	0.006	0.027	0.006	-0.013	0.025
Dissolved Barium	mg/L	72	0.18	3.002	0.203	-0.43	0.78	72	0.05	0.18	0.50	0.20	-0.43	0.78
Dissolved Boron	mg/L	72	0.18	3.002	0.203	-0.43	0.78	72	0.05	0.18	0.50	0.20	-0.43	0.78
Dissolved Cadmium	mg/L	72	0.00	3.002	0.000	0.00	0.00	72	0.0025	0.0025	0.0025	0.0000	0.0025	0.0025
Dissolved Chromium	mg/L	72	0.03	3.002	0.000	0.02	0.03	72	0.025	0.025	0.025	0.000	0.025	0.025
Dissolved Copper	mg/L	72	0.01	3.002	0.001	0.00	0.01	72	0.005	0.005	0.010	0.001	0.002	0.008
Dissolved Iron	mg/L	72	0.02	3.002	0.015	-0.03	0.06	72	0.015	0.017	0.140	0.015	-0.027	0.061
Dissolved Lead	mg/L	72	0.00	3.002	0.000	0.00	0.00	72	0.0005	0.0006	0.0020	0.0003	-0.0004	0.0015
Dissolved Manganese	mg/L	72	0.01	3.002	0.009	-0.02	0.04	72	0.01	0.01	0.04	0.01	-0.02	0.04
Dissolved Mercury	mg/L	72	0.00	3.002	0.000	0.00	0.00	72	0.0005	0.0005	0.0005	0.0000	0.0005	0.0005
Dissolved Molybdenum	mg/L	72	0.18	3.002	0.203	-0.43	0.78	72	0.05	0.18	0.50	0.20	-0.43	0.78
Dissolved Nickel	mg/L	72	0.03	3.002	0.000	0.02	0.03	72	0.025	0.025	0.025	0.000	0.025	0.025
Dissolved Selenium	mg/L	72	0.00	3.002	0.004	-0.01	0.01	71	0.0005	0.0019	0.0150	0.0033	-0.0080	0.0119
Dissolved Uranium	mg/L	72	0.19	3.002	0.163	-0.30	0.68	72	0.007	0.191	0.759	0.163	-0.299	0.681
Dissolved Vanadium	mg/L	72	0.18	3.002	0.203	-0.43	0.78	72	0.05	0.18	0.50	0.20	-0.43	0.78
Dissolved Zinc	mg/L	72	0.01	3.002	0.012	-0.02	0.04	72	0.005	0.010	0.050	0.012	-0.025	0.045
Total Iron	mg/L	72	0.50	3.002	2.840	-8.02	9.03	71	0.02	0.17	4.10	0.57	-1.52	1.87
Total Manganese	mg/L	72	0.02	3.002	0.067	-0.18	0.22	71	0.01	0.01	0.08	0.01	-0.03	0.05
Gross Alpha	pCi/L	72	582.43	3.002	430.556	-710.10	1874.96	72	24	582	2040	431	-709	1874
Gross Beta	pCi/L	72	185.67	3.002	162.791	-303.03	674.37	72	11	186	816	163	-303	674
Dissolved Ra-226	pCi/L	72	225.08	3.002	200.660	-377.30	827.46	72	2	225	732	201	-377	827
Dissolved Ra-228	pCi/L	72	3.97	3.002	2.037	-2.15	10.08	72	0.3	4.0	10.8	2.0	-2.1	10.1
Dissolved Ra-226+Ra-228	pCi/L	72	228.90	3.002	201.766	-376.80	834.60	72	3.2	228.9	737.6	201.8	-376.4	834.2

TLF = Tolerance Limit Factor

NOTES:

Red type means outlier

Blue type means ND. Half the detection limit used as value.

Parameter value exceeds WDEQ-WQD Domestic Class-of-Use (Class I).

Parameter value exceeds WDEQ-WQD Agriculture Class-of-Use (Class II).

Parameter value exceeds WDEQ-WQD Livestock Class-of-Use (Class III).

Parameter value exceeds EPA MCL criterion.



ANALYTICAL SUMMARY REPORT

June 12, 2015

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

Work Order: C15050689

Project Name: MU 1 Baseline

Energy Laboratories, Inc. Casper WY received the following 5 samples for UR Energy USA Inc on 5/18/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C15050689-001	MP-115	05/18/15 12:35	05/18/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated
C15050689-002	MP-117	05/18/15 11:30	05/18/15	Aqueous	Same As Above
C15050689-003	MP-118	05/18/15 9:45	05/18/15	Aqueous	Same As Above
C15050689-004	MP-116	05/18/15 13:40	05/18/15	Aqueous	Same As Above
C15050689-005	MP-140	05/18/15 13:45	05/18/15	Aqueous	Same As Above

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:



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-001
Client Sample ID: MP-115

Report Date: 06/12/15
Collection Date: 05/18/15 12:35
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	100	mg/L		5		A2320 B	05/21/15 21:57 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 21:57 / wc
Bicarbonate as HCO ₃	118	mg/L		5		A2320 B	05/21/15 21:57 / wc
Calcium	70	mg/L		1		E200.7	05/21/15 22:12 / sf
Chloride	5	mg/L		1		E300.0	05/23/15 05:46 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 15:43 / wc
Magnesium	3	mg/L		1		E200.7	05/21/15 22:12 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:08 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/21/15 13:56 / lr
Potassium	5	mg/L		1		E200.7	05/21/15 22:12 / sf
Silica	14.4	mg/L		0.2		E200.7	05/21/15 22:12 / sf
Sodium	32	mg/L		1		E200.7	05/21/15 22:12 / sf
Sulfate	139	mg/L		1		E300.0	05/23/15 05:46 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	493	umhos/cm		5		A2510 B	05/20/15 16:38 / lmc
pH	8.29	s.u.	H	0.01		A4500-H B	05/20/15 16:38 / lmc
Solids, Total Dissolved TDS @ 180 C	338	mg/L		10		A2540 C	05/21/15 10:00 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 22:12 / sf
Arsenic	0.005	mg/L		0.001		E200.8	05/21/15 23:15 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 22:12 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 22:12 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 22:12 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 22:12 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 05:00 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 22:12 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:15 / clm
Manganese	ND	mg/L		0.01		E200.7	05/21/15 22:12 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 05:00 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 22:12 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 22:12 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:15 / clm
Uranium	0.136	mg/L		0.0003		E200.8	05/27/15 17:55 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 22:12 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 22:12 / sf
METALS - TOTAL							
Iron	ND	mg/L		0.03		E200.7	05/23/15 00:57 / sf
Manganese	ND	mg/L		0.01		E200.7	05/23/15 00:57 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-001
Client Sample ID: MP-115

Report Date: 06/12/15
Collection Date: 05/18/15 12:35
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	696	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha precision (±)	135	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha MDC	1.5	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta	78.8	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta precision (±)	8.1	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	05/28/15 02:04 / trs
Radium 226	377	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	71	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.14	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	6.3	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.6	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	2.17	%				A1030 E	05/29/15 08:58 / kbh
Anions	5.07	meq/L				A1030 E	05/29/15 08:58 / kbh
Cations	5.29	meq/L				A1030 E	05/29/15 08:58 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	05/29/15 08:58 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	05/29/15 08:58 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-002
Client Sample ID: MP-117

Report Date: 06/12/15
Collection Date: 05/18/15 11:30
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	116	mg/L		5		A2320 B	05/21/15 22:05 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 22:05 / wc
Bicarbonate as HCO ₃	142	mg/L		5		A2320 B	05/21/15 22:05 / wc
Calcium	103	mg/L		1		E200.7	05/21/15 22:16 / sf
Chloride	6	mg/L		1		E300.0	05/23/15 06:05 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 15:46 / wc
Magnesium	4	mg/L		1		E200.7	05/21/15 22:16 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:10 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/21/15 13:59 / lr
Potassium	4	mg/L		1		E200.7	05/21/15 22:16 / sf
Silica	15.0	mg/L		0.2		E200.7	05/21/15 22:16 / sf
Sodium	35	mg/L		1		E200.7	05/21/15 22:16 / sf
Sulfate	203	mg/L		1		E300.0	05/23/15 06:05 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	634	umhos/cm		5		A2510 B	05/20/15 16:41 / lmc
pH	7.96	s.u.	H	0.01		A4500-H B	05/20/15 16:41 / lmc
Solids, Total Dissolved TDS @ 180 C	449	mg/L		10		A2540 C	05/21/15 10:01 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 22:16 / sf
Arsenic	0.008	mg/L		0.001		E200.8	05/21/15 23:20 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 22:16 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 22:16 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 22:16 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 22:16 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 05:05 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 22:16 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:20 / clm
Manganese	ND	mg/L		0.01		E200.7	05/21/15 22:16 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 05:05 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 22:16 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 22:16 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:20 / clm
Uranium	0.759	mg/L		0.0003		E200.8	05/27/15 17:58 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 22:16 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 22:16 / sf
METALS - TOTAL							
Iron	0.08	mg/L		0.03		E200.7	05/23/15 01:01 / sf
Manganese	ND	mg/L		0.01		E200.7	05/23/15 01:01 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-002
Client Sample ID: MP-117

Report Date: 06/12/15
Collection Date: 05/18/15 11:30
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	583	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha precision (±)	113	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha MDC	1.1	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta	132	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta precision (±)	13.6	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	05/28/15 02:04 / trs
Radium 226	106	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	20	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.14	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	3.0	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	2.08	%				A1030 E	05/29/15 08:58 / kbh
Anions	6.74	meq/L				A1030 E	05/29/15 08:58 / kbh
Cations	7.02	meq/L				A1030 E	05/29/15 08:58 / kbh
Solids, Total Dissolved Calculated	440	mg/L				A1030 E	05/29/15 08:58 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	05/29/15 08:58 / kbh

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

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



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-003
Client Sample ID: MP-118

Report Date: 06/12/15
Collection Date: 05/18/15 09:45
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	113	mg/L		5		A2320 B	05/21/15 22:13 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 22:13 / wc
Bicarbonate as HCO ₃	137	mg/L		5		A2320 B	05/21/15 22:13 / wc
Calcium	74	mg/L		1		E200.7	05/21/15 22:20 / sf
Chloride	5	mg/L		1		E300.0	05/23/15 07:21 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 15:49 / wc
Magnesium	3	mg/L		1		E200.7	05/21/15 22:20 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:11 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/21/15 14:01 / lr
Potassium	3	mg/L		1		E200.7	05/21/15 22:20 / sf
Silica	15.2	mg/L		0.2		E200.7	05/21/15 22:20 / sf
Sodium	31	mg/L		1		E200.7	05/21/15 22:20 / sf
Sulfate	139	mg/L		1		E300.0	05/23/15 07:21 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	500	umhos/cm		5		A2510 B	05/20/15 16:45 / lmc
pH	7.93	s.u.	H	0.01		A4500-H B	05/20/15 16:45 / lmc
Solids, Total Dissolved TDS @ 180 C	346	mg/L		10		A2540 C	05/21/15 10:01 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 22:20 / sf
Arsenic	0.004	mg/L		0.001		E200.8	05/21/15 23:26 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 22:20 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 22:20 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 22:20 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 22:20 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 05:26 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 22:20 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:26 / clm
Manganese	0.01	mg/L		0.01		E200.7	05/21/15 22:20 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 05:26 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 22:20 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 22:20 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:26 / clm
Uranium	0.0908	mg/L		0.0003		E200.8	05/27/15 18:01 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 22:20 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 22:20 / sf
METALS - TOTAL							
Iron	0.29	mg/L		0.03		E200.7	05/23/15 01:12 / sf
Manganese	0.01	mg/L		0.01		E200.7	05/23/15 01:12 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-003
Client Sample ID: MP-118

Report Date: 06/12/15
Collection Date: 05/18/15 09:45
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	636	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha precision (±)	123	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha MDC	1.4	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta	115	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta precision (±)	11.9	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	05/28/15 02:04 / trs
Radium 226	248	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	47	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.14	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	3.0	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	0.86	%				A1030 E	05/29/15 08:58 / kbh
Anions	5.29	meq/L				A1030 E	05/29/15 08:58 / kbh
Cations	5.38	meq/L				A1030 E	05/29/15 08:58 / kbh
Solids, Total Dissolved Calculated	340	mg/L				A1030 E	05/29/15 08:58 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	05/29/15 08:58 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-004
Client Sample ID: MP-116

Report Date: 06/12/15
Collection Date: 05/18/15 13:40
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	128	mg/L		5		A2320 B	05/21/15 22:44 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 22:44 / wc
Bicarbonate as HCO ₃	156	mg/L		5		A2320 B	05/21/15 22:44 / wc
Calcium	80	mg/L		1		E200.7	05/21/15 22:24 / sf
Chloride	5	mg/L		1		E300.0	05/23/15 08:18 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 15:51 / wc
Magnesium	4	mg/L		1		E200.7	05/21/15 22:24 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:13 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/21/15 14:04 / lr
Potassium	5	mg/L		1		E200.7	05/21/15 22:24 / sf
Silica	15.6	mg/L		0.2		E200.7	05/21/15 22:24 / sf
Sodium	33	mg/L		1		E200.7	05/21/15 22:24 / sf
Sulfate	155	mg/L		1		E300.0	05/23/15 08:18 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	555	umhos/cm		5		A2510 B	05/20/15 16:48 / lmc
pH	7.65	s.u.	H	0.01		A4500-H B	05/20/15 16:48 / lmc
Solids, Total Dissolved TDS @ 180 C	384	mg/L		10		A2540 C	05/21/15 10:01 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 22:24 / sf
Arsenic	0.005	mg/L		0.001		E200.8	05/21/15 23:31 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 22:24 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 22:24 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 22:24 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 22:24 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 05:31 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 22:24 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:31 / clm
Manganese	0.01	mg/L		0.01		E200.7	05/21/15 22:24 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 05:31 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 22:24 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 22:24 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:31 / clm
Uranium	0.141	mg/L		0.0003		E200.8	05/27/15 18:04 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 22:24 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 22:24 / sf
METALS - TOTAL							
Iron	0.33	mg/L		0.03		E200.7	05/23/15 01:16 / sf
Manganese	0.01	mg/L		0.01		E200.7	05/23/15 01:16 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-004
Client Sample ID: MP-116

Report Date: 06/12/15
Collection Date: 05/18/15 13:40
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	313	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha precision (±)	60.9	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha MDC	1.5	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta	77.5	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta precision (±)	8.2	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	05/28/15 02:04 / trs
Radium 226	165	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	31	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.14	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	2.9	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.71	%				A1030 E	05/29/15 08:58 / kbh
Anions	5.94	meq/L				A1030 E	05/29/15 08:58 / kbh
Cations	5.86	meq/L				A1030 E	05/29/15 08:58 / kbh
Solids, Total Dissolved Calculated	380	mg/L				A1030 E	05/29/15 08:58 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	05/29/15 08:58 / kbh

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

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



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-005
Client Sample ID: MP-140

Report Date: 06/12/15
Collection Date: 05/18/15 13:45
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	117	mg/L		5		A2320 B	05/21/15 23:00 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 23:00 / wc
Bicarbonate as HCO ₃	143	mg/L		5		A2320 B	05/21/15 23:00 / wc
Calcium	82	mg/L		1		E200.7	05/21/15 22:28 / sf
Chloride	6	mg/L		1		E300.0	05/23/15 08:37 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 15:54 / wc
Magnesium	4	mg/L		1		E200.7	05/21/15 22:28 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:15 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/21/15 14:06 / lr
Potassium	5	mg/L		1		E200.7	05/21/15 22:28 / sf
Silica	15.9	mg/L		0.2		E200.7	05/21/15 22:28 / sf
Sodium	33	mg/L		1		E200.7	05/21/15 22:28 / sf
Sulfate	164	mg/L		1		E300.0	05/23/15 08:37 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	557	umhos/cm		5		A2510 B	05/20/15 16:52 / lmc
pH	7.73	s.u.	H	0.01		A4500-H B	05/20/15 16:52 / lmc
Solids, Total Dissolved TDS @ 180 C	383	mg/L		10		A2540 C	05/21/15 10:02 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 22:28 / sf
Arsenic	0.005	mg/L		0.001		E200.8	05/21/15 23:36 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 22:28 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 22:28 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 22:28 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 22:28 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 05:36 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 22:28 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:36 / clm
Manganese	ND	mg/L		0.01		E200.7	05/21/15 22:28 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 05:36 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 22:28 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 22:28 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:36 / clm
Uranium	0.140	mg/L		0.0003		E200.8	05/27/15 18:17 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 22:28 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 22:28 / sf
METALS - TOTAL							
Iron	0.25	mg/L		0.03		E200.7	05/23/15 01:31 / sf
Manganese	0.01	mg/L		0.01		E200.7	05/23/15 01:31 / sf

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050689-005
Client Sample ID: MP-140

Report Date: 06/12/15
Collection Date: 05/18/15 13:45
Date Received: 05/18/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	314	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha precision (±)	61.1	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Alpha MDC	1.2	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta	53.2	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta precision (±)	5.7	pCi/L				E900.0	05/28/15 02:04 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	05/28/15 02:04 / trs
Radium 226	161	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	30	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.14	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	3.8	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	0.39	%				A1030 E	05/29/15 08:59 / kbh
Anions	5.93	meq/L				A1030 E	05/29/15 08:59 / kbh
Cations	5.98	meq/L				A1030 E	05/29/15 08:59 / kbh
Solids, Total Dissolved Calculated	380	mg/L				A1030 E	05/29/15 08:59 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	05/29/15 08:59 / kbh

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

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



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R199673
Lab ID: MBLK	3	Method Blank					Run: MANTECH_150521B			05/21/15 13:59
Alkalinity, Total as CaCO ₃		2	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		3	mg/L	1						
Lab ID: LCS_150317										05/21/15 14:13
		Laboratory Control Sample					Run: MANTECH_150521B			
Alkalinity, Total as CaCO ₃		249	mg/L	5.0	99	90	110			
Lab ID: C15050689-004ADUP										05/21/15 22:52
	3	Sample Duplicate					Run: MANTECH_150521B			
Alkalinity, Total as CaCO ₃		117	mg/L	5.0				8.8	10	
Carbonate as CO ₃		ND	mg/L	5.0					10	
Bicarbonate as HCO ₃		143	mg/L	5.0				8.8	10	
Lab ID: C15050689-005AMS										05/21/15 23:08
		Sample Matrix Spike					Run: MANTECH_150521B			
Alkalinity, Total as CaCO ₃		320	mg/L	5.0	81	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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B							Analytical Run: PHSC_101-C_150520A			
Lab ID: CCV - SC 1413		Continuing Calibration Verification Standard								05/20/15 16:19
Conductivity @ 25 C		1410	umhos/cm	5.0	100	90	110			
Method: A2510 B							Batch: R199553			
Lab ID: SC 2ND 1413		Laboratory Control Sample								05/20/15 09:24
Conductivity @ 25 C		1410	umhos/cm	5.0	100	90	110			
Lab ID: MBLK		Method Blank								05/20/15 09:59
Conductivity @ 25 C		1	umhos/cm	0.8						
Lab ID: C15050650-001ADUP		Sample Duplicate								05/20/15 10:05
Conductivity @ 25 C		43900	umhos/cm	5.0				1.2	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS150521A
Lab ID: MB-1_150521A		Method Blank					Run: BAL-18_150521B			05/21/15 09:59
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150521A										05/21/15 09:59
Solids, Total Dissolved TDS @ 180 C		1130	mg/L	11	102	90	110			
Lab ID: C15050689-001A DUP										05/21/15 10:00
Solids, Total Dissolved TDS @ 180 C		338	mg/L	9.8				0.0	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C								Analytical Run: MANTECH_150520A		
Lab ID: CCV-8197		Continuing Calibration Verification Standard								05/20/15 15:26
Fluoride		1.96	mg/L	0.10	98	90	110			
Method: A4500-F C								Batch: R199596		
Lab ID: MBLK		Method Blank								05/20/15 14:46
Fluoride		0.04	mg/L	0.01						
Lab ID: LCS-8319		Laboratory Control Sample								05/20/15 14:48
Fluoride		2.00	mg/L	0.10	100	90	110			
Lab ID: C15050667-001AMS		Sample Matrix Spike								05/20/15 15:35
Fluoride		2.56	mg/L	0.10	92	80	120			
Lab ID: C15050667-001AMSD		Sample Matrix Spike Duplicate								05/20/15 15:38
Fluoride		2.61	mg/L	0.10	94	80	120	1.9	10	

Qualifiers:

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MDC - Minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC_101-C_150520A		
Lab ID: pH 6.86								05/20/15 09:09		
pH		6.82	s.u.	0.010	99	98	102			
Method: A4500-H B								Batch: R199553		
Lab ID: C15050650-001ADUP								05/20/15 10:05		
pH		6.88	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R199822
Lab ID: MBLK-1		Method Blank								Run: TECHNICON_150527A 05/27/15 11:53
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank								Run: TECHNICON_150527A 05/27/15 11:56
Nitrogen, Ammonia as N		1.95	mg/L	0.050	99	90	110			
Lab ID: C15050578-001BMS		Sample Matrix Spike								Run: TECHNICON_150527A 05/27/15 12:00
Nitrogen, Ammonia as N		16.8	mg/L	0.25	97	90	110			
Lab ID: C15050578-001BMSD		Sample Matrix Spike Duplicate								Run: TECHNICON_150527A 05/27/15 12:01
Nitrogen, Ammonia as N		16.9	mg/L	0.25	98	90	110	0.6	10	
Lab ID: C15050705-001BMS		Sample Matrix Spike								Run: TECHNICON_150527A 05/27/15 12:23
Nitrogen, Ammonia as N		1.88	mg/L	0.050	96	90	110			
Lab ID: C15050705-001BMSD		Sample Matrix Spike Duplicate								Run: TECHNICON_150527A 05/27/15 12:25
Nitrogen, Ammonia as N		1.88	mg/L	0.050	96	90	110	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150521A		
Lab ID: ICV	16 Initial Calibration Verification Standard								05/21/15 13:36	
Aluminum		4.86	mg/L	0.10	97	95	105			
Barium		0.969	mg/L	0.050	97	95	105			
Boron		0.982	mg/L	0.050	98	95	105			
Cadmium		0.476	mg/L	0.010	95	95	105			
Calcium		50.1	mg/L	1.0	100	95	105			
Chromium		0.965	mg/L	0.050	97	95	105			
Iron		4.99	mg/L	0.030	100	95	105			
Magnesium		50.3	mg/L	1.0	101	95	105			
Manganese		4.84	mg/L	0.010	97	95	105			
Molybdenum		0.972	mg/L	0.10	97	95	105			
Nickel		0.947	mg/L	0.050	95	95	105			
Potassium		49.4	mg/L	1.0	99	95	105			
Silicon		9.70	mg/L	0.10	97	95	105			
Sodium		49.6	mg/L	1.0	99	95	105			
Vanadium		0.973	mg/L	0.10	97	95	105			
Zinc		0.951	mg/L	0.010	95	95	105			
Lab ID: ICSA	16 Interference Check Sample A								05/21/15 13:55	
Aluminum		462	mg/L	0.10	92	80	120			
Barium		0.000110	mg/L	0.050						
Boron		0.000390	mg/L	0.050						
Cadmium		0.00305	mg/L	0.010						
Calcium		466	mg/L	1.0	93	80	120			
Chromium		0.0294	mg/L	0.050						
Iron		178	mg/L	0.030	89	80	120			
Magnesium		505	mg/L	1.0	101	80	120			
Manganese		0.00246	mg/L	0.010						
Molybdenum		0.00413	mg/L	0.10						
Nickel		0.00344	mg/L	0.050						
Potassium		0.00278	mg/L	1.0						
Silicon		0.0105	mg/L	0.10						
Sodium		0.326	mg/L	1.0						
Vanadium		-0.00188	mg/L	0.10						
Zinc		-0.00155	mg/L	0.010						
Lab ID: ICSAB	16 Interference Check Sample AB								05/21/15 14:00	
Aluminum		482	mg/L	0.10	96	80	120			
Barium		0.464	mg/L	0.050	93	80	120			
Boron		-0.000240	mg/L	0.050						
Cadmium		0.936	mg/L	0.010	94	80	120			
Calcium		468	mg/L	1.0	94	80	120			
Chromium		0.475	mg/L	0.050	95	80	120			
Iron		180	mg/L	0.030	90	80	120			
Magnesium		510	mg/L	1.0	102	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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7							Analytical Run: ICP4-C_150521A		
Lab ID:	ICSAB	16 Interference Check Sample AB							05/21/15 14:00	
Manganese		0.447	mg/L	0.010	89	80	120			
Molybdenum		0.00310	mg/L	0.10						
Nickel		0.852	mg/L	0.050	85	80	120			
Potassium		-0.00794	mg/L	1.0						
Silicon		-0.00562	mg/L	0.10						
Sodium		0.275	mg/L	1.0						
Vanadium		0.516	mg/L	0.10	103	80	120			
Zinc		0.922	mg/L	0.010	92	80	120			
Method:	E200.7							Batch: R199666		
Lab ID:	MB-150521A	16 Method Blank			Run: ICP4-C_150521A				05/21/15 14:19	
Aluminum		ND	mg/L	0.01						
Barium		ND	mg/L	0.0004						
Boron		ND	mg/L	0.02						
Cadmium		ND	mg/L	0.001						
Calcium		ND	mg/L	0.01						
Chromium		ND	mg/L	0.005						
Iron		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.01						
Manganese		ND	mg/L	0.002						
Molybdenum		ND	mg/L	0.007						
Nickel		ND	mg/L	0.005						
Potassium		ND	mg/L	0.06						
Silicon		ND	mg/L	0.01						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.004						
Zinc		ND	mg/L	0.003						
Lab ID:	LFB-150521A	16 Laboratory Fortified Blank			Run: ICP4-C_150521A				05/21/15 14:23	
Aluminum		0.980	mg/L	0.10	98	85	115			
Barium		0.958	mg/L	0.050	96	85	115			
Boron		0.956	mg/L	0.050	96	85	115			
Cadmium		0.926	mg/L	0.010	93	85	115			
Calcium		48.3	mg/L	1.0	97	85	115			
Chromium		0.944	mg/L	0.050	94	85	115			
Iron		0.980	mg/L	0.030	98	85	115			
Magnesium		47.9	mg/L	1.0	96	85	115			
Manganese		0.944	mg/L	0.010	94	85	115			
Molybdenum		0.949	mg/L	0.10	95	85	115			
Nickel		0.918	mg/L	0.050	92	85	115			
Potassium		51.4	mg/L	1.0	103	85	115			
Silicon		0.477	mg/L	0.10	106	85	115			
Sodium		49.7	mg/L	1.0	99	85	115			
Vanadium		0.952	mg/L	0.10	95	85	115			

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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R199666
Lab ID: LFB-150521A	16	Laboratory Fortified Blank				Run: ICP4-C_150521A				05/21/15 14:23
Zinc		0.921	mg/L	0.010	92	85	115			
Lab ID: C15050697-001BMS2	16	Sample Matrix Spike				Run: ICP4-C_150521A				05/21/15 22:36
Aluminum		1.95	mg/L	0.030	96	70	130			
Barium		1.92	mg/L	0.050	93	70	130			
Boron		1.97	mg/L	0.050	94	70	130			
Cadmium		1.91	mg/L	0.0022	93	70	130			
Calcium		114	mg/L	1.0	96	70	130			
Chromium		1.91	mg/L	0.0050	93	70	130			
Iron		1.99	mg/L	0.030	97	70	130			
Magnesium		102	mg/L	1.0	96	70	130			
Manganese		1.94	mg/L	0.0031	95	70	130			
Molybdenum		1.91	mg/L	0.015	94	70	130			
Nickel		1.87	mg/L	0.011	92	70	130			
Potassium		96.8	mg/L	1.0	92	70	130			
Silicon		1.60	mg/L	0.10	115	70	130			
Sodium		239	mg/L	1.0	89	70	130			
Vanadium		1.94	mg/L	0.010	95	70	130			
Zinc		1.90	mg/L	0.010	93	70	130			
Lab ID: C15050697-001BMSD	16	Sample Matrix Spike Duplicate				Run: ICP4-C_150521A				05/21/15 22:40
Aluminum		1.97	mg/L	0.030	97	70	130	1.2	20	
Barium		1.93	mg/L	0.050	93	70	130	0.3	20	
Boron		1.97	mg/L	0.050	94	70	130	0.3	20	
Cadmium		1.90	mg/L	0.0022	93	70	130	0.1	20	
Calcium		114	mg/L	1.0	96	70	130	0.4	20	
Chromium		1.90	mg/L	0.0050	93	70	130	0.2	20	
Iron		1.99	mg/L	0.030	98	70	130	0.5	20	
Magnesium		103	mg/L	1.0	96	70	130	0.5	20	
Manganese		1.92	mg/L	0.0031	94	70	130	1.0	20	
Molybdenum		1.91	mg/L	0.015	94	70	130	0.2	20	
Nickel		1.88	mg/L	0.011	92	70	130	0.3	20	
Potassium		96.2	mg/L	1.0	92	70	130	0.7	20	
Silicon		1.58	mg/L	0.10	113	70	130	1.0	20	
Sodium		238	mg/L	1.0	89	70	130	0.2	20	
Vanadium		1.93	mg/L	0.010	94	70	130	0.9	20	
Zinc		1.89	mg/L	0.010	92	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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150522A		
Lab ID: ICV	2	Initial Calibration Verification Standard								05/22/15 14:08
Iron		4.95	mg/L	0.030	99	95	105			
Manganese		4.83	mg/L	0.010	97	95	105			
Lab ID: ICSA	2	Interference Check Sample A								05/22/15 14:27
Iron		181	mg/L	0.030	90	80	120			
Manganese		0.000900	mg/L	0.010						
Lab ID: ICSAB	2	Interference Check Sample AB								05/22/15 14:31
Iron		180	mg/L	0.030	90	80	120			
Manganese		0.451	mg/L	0.010	90	80	120			
Method: E200.7								Batch: 44752		
Lab ID: MB-44752	2	Method Blank								05/23/15 00:02
Iron		ND	mg/L	0.01						
Manganese		ND	mg/L	0.001						
Lab ID: LCS3-44752	2	Laboratory Control Sample								05/23/15 00:05
Iron		2.59	mg/L	0.030	104	85	115			
Manganese		2.49	mg/L	0.0012	100	85	115			
Lab ID: C15050689-002CMS3	2	Sample Matrix Spike								05/23/15 01:05
Iron		2.63	mg/L	0.030	102	70	130			
Manganese		2.45	mg/L	0.0012	98	70	130			
Lab ID: C15050689-002CMSD	2	Sample Matrix Spike Duplicate								05/23/15 01:08
Iron		2.69	mg/L	0.030	104	70	130	2.1	20	
Manganese		2.48	mg/L	0.0012	99	70	130	0.9	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8 Analytical Run: ICPMS2-C_150527A										
Lab ID: ICV	Initial Calibration Verification Standard 05/27/15 16:00									
Uranium		0.0484	mg/L	0.00030	97	90	110			
Method: E200.8 Batch: R199856										
Lab ID: LRB	Method Blank Run: ICPMS2-C_150527A 05/27/15 16:25									
Uranium		ND	mg/L	1E-05						
Lab ID: LFB -Filtered	Laboratory Fortified Blank Run: ICPMS2-C_150527A 05/27/15 16:28									
Uranium		0.0499	mg/L	0.00030	100	85	115			
Lab ID: C15040552-005CMS4	Sample Matrix Spike Run: ICPMS2-C_150527A 05/27/15 17:27									
Uranium		1.58	mg/L	0.00030		70	130			A
Lab ID: C15040552-005CMSD	Sample Matrix Spike Duplicate Run: ICPMS2-C_150527A 05/27/15 17:39									
Uranium		1.57	mg/L	0.00030		70	130	0.4	20	A
Method: E200.8 Analytical Run: ICPMS4-C_150521A										
Lab ID: ICV	3	Initial Calibration Verification Standard 05/21/15 15:56								
Arsenic		0.0504	mg/L	0.0010	101	90	110			
Lead		0.0480	mg/L	0.0010	96	90	110			
Selenium		0.0484	mg/L	0.0010	97	90	110			
Method: E200.8 Batch: R199677										
Lab ID: LRB	3	Method Blank Run: ICPMS4-C_150521A 05/21/15 16:53								
Arsenic		ND	mg/L	5E-05						
Lead		ND	mg/L	2E-05						
Selenium		ND	mg/L	7E-05						
Lab ID: C15050078-001BMS4	3	Sample Matrix Spike Run: ICPMS4-C_150521A 05/22/15 00:24								
Arsenic		0.0555	mg/L	0.0010	110	70	130			
Lead		0.0491	mg/L	0.0010	98	70	130			
Selenium		0.0466	mg/L	0.0010	93	70	130			
Lab ID: C15050078-001BMSD	3	Sample Matrix Spike Duplicate Run: ICPMS4-C_150521A 05/22/15 00:29								
Arsenic		0.0536	mg/L	0.0010	107	70	130	3.4	20	
Lead		0.0464	mg/L	0.0010	93	70	130	5.7	20	
Selenium		0.0462	mg/L	0.0010	92	70	130	1.0	20	
Lab ID: LFB	3	Laboratory Fortified Blank Run: ICPMS4-C_150521A 05/21/15 17:09								
Arsenic		0.0470	mg/L	0.0010	94	85	115			
Lead		0.0481	mg/L	0.0010	96	85	115			
Selenium		0.0431	mg/L	0.0010	86	85	115			

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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Analytical Run: ICPMS4-C_150526A
Lab ID: ICV	2	Initial Calibration Verification Standard								05/26/15 14:30
Copper		0.0505	mg/L	0.0010	101	90	110			
Mercury		0.00489	mg/L	0.0010	98	90	110			
Method: E200.8										Batch: R199781
Lab ID: LRB	2	Method Blank								Run: ICPMS4-C_150526A 05/26/15 15:41
Copper		ND	mg/L	3E-05						
Mercury		ND	mg/L	5E-05						
Lab ID: LFB	2	Laboratory Fortified Blank								Run: ICPMS4-C_150526A 05/26/15 15:46
Copper		0.0519	mg/L	0.0010	104	85	115			
Mercury		0.0100	mg/L	0.0010	100	85	115			
Lab ID: C15050607-001BMS4	2	Sample Matrix Spike								Run: ICPMS4-C_150526A 05/27/15 04:34
Copper		0.0489	mg/L	0.0050	98	70	130			
Mercury		0.0104	mg/L	0.00010	104	70	130			
Lab ID: C15050607-001BMSD	2	Sample Matrix Spike Duplicate								Run: ICPMS4-C_150526A 05/27/15 04:39
Copper		0.0492	mg/L	0.0050	98	70	130	0.6	20	
Mercury		0.0103	mg/L	0.00010	103	70	130	0.7	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC2-C_150522A		
Lab ID: ICV	2	Initial Calibration Verification Standard								05/22/15 07:57
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		41.3	mg/L	1.0	103	90	110			
Lab ID: CCV052115-5	2	Continuing Calibration Verification Standard								05/23/15 01:59
Chloride		9.60	mg/L	1.0	96	90	110			
Sulfate		39.4	mg/L	1.0	99	90	110			
Lab ID: CCV052115-6	2	Continuing Calibration Verification Standard								05/23/15 06:43
Chloride		9.64	mg/L	1.0	96	90	110			
Sulfate		40.3	mg/L	1.0	101	90	110			
Method: E300.0								Batch: R199748		
Lab ID: ICB	2	Method Blank								Run: IC2-C_150522A 05/22/15 08:16
Chloride		ND	mg/L	0.01						
Sulfate		0.04	mg/L	0.03						
Lab ID: LFB052115-1	2	Laboratory Fortified Blank								Run: IC2-C_150522A 05/22/15 08:34
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		41.3	mg/L	1.0	103	90	110			
Lab ID: C15050689-003AMS	2	Sample Matrix Spike								Run: IC2-C_150522A 05/23/15 07:40
Chloride		26.1	mg/L	1.0	106	90	110			
Sulfate		220	mg/L	1.0	101	90	110			
Lab ID: C15050689-003AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150522A 05/23/15 07:59
Chloride		26.2	mg/L	1.0	107	90	110	0.4	20	
Sulfate		216	mg/L	1.0	96	90	110	1.7	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Analytical Run: TECHNICON_150521A		
Lab ID: CCV-29		Continuing Calibration Verification Standard							05/21/15 13:36	
Nitrogen, Nitrate+Nitrite as N		1.05	mg/L	0.10	105	90	110			
Method: E353.2										Batch: R199645
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150521A		05/21/15 12:26	
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank					Run: TECHNICON_150521A		05/21/15 12:31	
Nitrogen, Nitrate+Nitrite as N		1.94	mg/L	0.10	99	90	110			
Lab ID: C15050661-001BMS		Sample Matrix Spike					Run: TECHNICON_150521A		05/21/15 13:44	
Nitrogen, Nitrate+Nitrite as N		2.67	mg/L	0.10	100	90	110			
Lab ID: C15050661-001BMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150521A		05/21/15 13:46	
Nitrogen, Nitrate+Nitrite as N		2.63	mg/L	0.10	98	90	110	1.5	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2028
Lab ID: Th230-GrAB-2028	Laboratory Control Sample			Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Alpha		88.7	pCi/L	87		80	120			
Lab ID: Sr90-GrAB-2028	Laboratory Control Sample			Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Beta		194	pCi/L	99		80	120			
Lab ID: MB-GrAB-2028	6	Method Blank		Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Alpha		2	pCi/L							
Gross Alpha precision (±)		0.9	pCi/L							
Gross Alpha MDC		0.9	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Lab ID: C15050678-001IDUP	6	Sample Duplicate		Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Alpha		4.77	pCi/L					12	67.3	
Gross Alpha precision (±)		1.37	pCi/L							
Gross Alpha MDC		1.13	pCi/L							
Gross Beta		5.57	pCi/L					49	83.4	
Gross Beta precision (±)		1.80	pCi/L							
Gross Beta MDC		2.64	pCi/L							
Lab ID: C15050689-005DMS	Sample Matrix Spike			Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Alpha		397	pCi/L	83		70	130			
Lab ID: C15050689-005DMS	Sample Matrix Spike			Run: TENNELEC-3_150522B			05/28/15 02:04			
Gross Beta		267	pCi/L	108		70	130			

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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-7669
Lab ID: LCS-RA226-7669	Laboratory Control Sample									
Radium 226		9.5	pCi/L		92	80	120			06/08/15 07:38
Lab ID: MB-RA226-7669	3	Method Blank								Run: BERTHOLD 770-1_150522A 06/08/15 07:38
Radium 226		0.03	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C15050678-001IMS	Sample Matrix Spike									
Radium 226		16	pCi/L		77	70	130			Run: BERTHOLD 770-1_150522A 06/08/15 07:38
Lab ID: C15050678-001IMSD	Sample Matrix Spike Duplicate									
Radium 226		17	pCi/L		84	70	130	7.6	49.4	Run: BERTHOLD 770-1_150522A 06/08/15 09:13

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050689

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05								Batch: RA228-4944	
Lab ID:	LCS-228-RA226-7669	Laboratory Control Sample					Run: TENNELEC-3_150522C		06/01/15 13:35	
Radium 228		7.2	pCi/L		116	80	120			
Lab ID:	MB-RA226-7669	3	Method Blank				Run: TENNELEC-3_150522C		06/01/15 13:35	
Radium 228		0.02	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID:	C15050678-002IMS	Sample Matrix Spike					Run: TENNELEC-3_150522C		06/01/15 13:35	
Radium 228		13.4	pCi/L		106	70	130			
Lab ID:	C15050678-002IMSD	Sample Matrix Spike Duplicate					Run: TENNELEC-3_150522C		06/01/15 13:35	
Radium 228		12.9	pCi/L		102	70	130	4.3	57.6	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

UR Energy USA Inc

C15050689

Login completed by: Corinne Wagner

Date Received: 5/18/2015

Reviewed by: BL2000\khamre

Received by: cjm

Reviewed Date: 5/21/2015

Carrier name: Hand Del

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	10.0°C From Field		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" 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:

Samples for Guideline 8 Parameters were subsampled, filtered and preserved for Dissolved Metals and Radionuclides to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Total Metals were preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Nitrate+Nitrite with 1 mL sulfuric acid per 250mL to pH <2. In accordance with the Clean Water Act, the Total Metals must be held for 24 hours prior to analysis.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: UR Energy		Project Name, PWS, Permit, Etc.: MUI Baseline		Sample Origin: WY		EPA/State Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address (Required): 5880 Enterprise Dr Ste 200 Casper WY 82401		Contact Name: Mike Gauthier (307) 265 2373 - 321		Cell: 321		Sampler: (Please Print) Jim Phillips	
<input type="checkbox"/> No Hard Copy Email:		Invoice Contact & Phone:		Purchase Order:		Quote/Bottle Order:	
Invoice Address (Required): SOMC		ANALYSIS REQUESTED Guideline 8 - Air Water Bioassay Other Guideline 8 - Drinking Water		Standard Turnaround (TAT) ↑ R U S H		Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page Comments:	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC <input type="checkbox"/> Other:		Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water		SEE ATTACHED		Shipped by: hand Cooler ID(s): client Receipt Temp: 10.0 °C On Ice: From Y N Custody Seal: Field Y N On Bottle: Y N On Cooler: Y N Intact: Y N Signature Match: Y N	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	LABORATORY USE ONLY 015050289			
1 MP-115		5-18-15	12:35p				
2 MP-117		5-18-15	11:30a				
3 MP-118		5-18-15	9:45a				
4 MP-116		5-18-15	1:40p				
5 MP-140		5-18-15	1:45p				
Custody Record MUST be Signed		Relinquished by (print): Jim Gauthier	Signature: [Signature]	Received by (print):		Date/Time:	
Sample Disposal: Return to Client		Relinquished by (print): Matthew Fischer	Signature: [Signature]	Received by (print):		Date/Time:	
Date/Time: 5/18/15		Date/Time: 5/18/15		Received by Laboratory: Cheryl M. ...		Date/Time: 5/18/15 16:35	

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.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



ANALYTICAL SUMMARY REPORT

June 12, 2015

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

Work Order: C15050702

Project Name: MU 1 Baseline

Energy Laboratories, Inc. Casper WY received the following 1 sample for UR Energy USA Inc on 5/20/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C15050702-001	11441/MP114	05/19/15 8:00	05/20/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated

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:



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050702-001
Client Sample ID: 1I441/MP114

Report Date: 06/12/15
Collection Date: 05/19/15 08:00
Date Received: 05/20/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	103	mg/L		5		A2320 B	05/21/15 23:47 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	05/21/15 23:47 / wc
Bicarbonate as HCO ₃	126	mg/L		5		A2320 B	05/21/15 23:47 / wc
Calcium	66	mg/L		1		E200.7	05/21/15 23:28 / sf
Chloride	5	mg/L		1		E300.0	05/23/15 09:52 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	05/20/15 16:02 / wc
Magnesium	3	mg/L		1		E200.7	05/21/15 23:28 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	05/27/15 12:16 / lr
Nitrogen, Nitrate+Nitrite as N	0.5	mg/L		0.1		E353.2	05/22/15 10:57 / lr
Potassium	9	mg/L		1		E200.7	05/26/15 23:54 / sf
Silica	15.9	mg/L		0.2		E200.7	05/21/15 23:28 / sf
Sodium	33	mg/L		1		E200.7	05/21/15 23:28 / sf
Sulfate	132	mg/L		1		E300.0	05/23/15 09:52 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	483	umhos/cm		5		A2510 B	05/20/15 17:05 / lmc
pH	7.96	s.u.	H	0.01		A4500-H B	05/20/15 17:05 / lmc
Solids, Total Dissolved TDS @ 180 C	332	mg/L		10		A2540 C	05/21/15 10:04 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	05/21/15 23:28 / sf
Arsenic	0.004	mg/L		0.001		E200.8	05/21/15 23:57 / clm
Barium	ND	mg/L		0.1		E200.7	05/21/15 23:28 / sf
Boron	ND	mg/L		0.1		E200.7	05/21/15 23:28 / sf
Cadmium	ND	mg/L		0.005		E200.7	05/21/15 23:28 / sf
Chromium	ND	mg/L		0.05		E200.7	05/21/15 23:28 / sf
Copper	ND	mg/L		0.01		E200.8	05/27/15 12:39 / clm
Iron	ND	mg/L		0.03		E200.7	05/21/15 23:28 / sf
Lead	ND	mg/L		0.001		E200.8	05/21/15 23:57 / clm
Manganese	0.01	mg/L		0.01		E200.7	05/21/15 23:28 / sf
Mercury	ND	mg/L		0.001		E200.8	05/27/15 12:39 / clm
Molybdenum	ND	mg/L		0.1		E200.7	05/21/15 23:28 / sf
Nickel	ND	mg/L		0.05		E200.7	05/21/15 23:28 / sf
Selenium	ND	mg/L		0.001		E200.8	05/21/15 23:57 / clm
Uranium	0.171	mg/L		0.0003		E200.8	05/29/15 19:28 / clm
Vanadium	ND	mg/L		0.1		E200.7	05/21/15 23:28 / sf
Zinc	ND	mg/L		0.01		E200.7	05/21/15 23:28 / sf
METALS - TOTAL							
Iron	0.41	mg/L		0.03		E200.7	05/28/15 15:41 / sf
Manganese	0.01	mg/L		0.01		E200.7	05/28/15 15:41 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU 1 Baseline
Lab ID: C15050702-001
Client Sample ID: 1I441/MP114

Report Date: 06/12/15
Collection Date: 05/19/15 08:00
Date Received: 05/20/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	169	pCi/L				E900.0	05/28/15 02:51 / trs
Gross Alpha precision (±)	33.1	pCi/L				E900.0	05/28/15 02:51 / trs
Gross Alpha MDC	1.8	pCi/L				E900.0	05/28/15 02:51 / trs
Gross Beta	26.9	pCi/L				E900.0	05/28/15 02:51 / trs
Gross Beta precision (±)	3.1	pCi/L				E900.0	05/28/15 02:51 / trs
Gross Beta MDC	2.8	pCi/L				E900.0	05/28/15 02:51 / trs
Radium 226	21	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 precision (±)	4.1	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 226 MDC	0.15	pCi/L				E903.0	06/08/15 09:13 / rdw
Radium 228	2.0	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	06/01/15 15:12 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	06/01/15 15:12 / plj
DATA QUALITY							
A/C Balance (± 5)	2.32	%				A1030 E	05/29/15 08:59 / kbh
Anions	4.96	meq/L				A1030 E	05/29/15 08:59 / kbh
Cations	5.20	meq/L				A1030 E	05/29/15 08:59 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	05/29/15 08:59 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	05/29/15 08:59 / kbh

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

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



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R199673
Lab ID: MBLK	3	Method Blank				Run: MANTECH_150521B				05/21/15 13:59
Alkalinity, Total as CaCO ₃		2	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		3	mg/L	1						
Lab ID: LCS_150317		Laboratory Control Sample				Run: MANTECH_150521B				05/21/15 14:13
Alkalinity, Total as CaCO ₃		249	mg/L	5.0	99	90	110			
Lab ID: C15050607-001ADUP	3	Sample Duplicate				Run: MANTECH_150521B				05/21/15 14:29
Alkalinity, Total as CaCO ₃		153	mg/L	5.0				0.1	10	
Carbonate as CO ₃		1.41	mg/L	5.0					10	
Bicarbonate as HCO ₃		184	mg/L	5.0				0.2	10	
Lab ID: C15050607-002AMS		Sample Matrix Spike				Run: MANTECH_150521B				05/21/15 14:46
Alkalinity, Total as CaCO ₃		378	mg/L	5.0	92	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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										Analytical Run: PHSC_101-C_150520A
Lab ID: CCV - SC 1413										Continuing Calibration Verification Standard
Conductivity @ 25 C										05/20/15 16:19
		1410	umhos/cm	5.0	100	90	110			
Method: A2510 B										Batch: R199553
Lab ID: SC 2ND 1413										Laboratory Control Sample
Conductivity @ 25 C										Run: PHSC_101-C_150520A
		1410	umhos/cm	5.0	100	90	110			05/20/15 09:24
Lab ID: MBLK										Method Blank
Conductivity @ 25 C										Run: PHSC_101-C_150520A
		1	umhos/cm	0.8						05/20/15 09:59
Lab ID: C15050702-001ADUP										Sample Duplicate
Conductivity @ 25 C										Run: PHSC_101-C_150520A
		484	umhos/cm	5.0				0.3	10	05/20/15 17:09

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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS150521A
Lab ID: MB-1_150521A		Method Blank					Run: BAL-18_150521B			05/21/15 09:59
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150521A		Laboratory Control Sample					Run: BAL-18_150521B			05/21/15 09:59
Solids, Total Dissolved TDS @ 180 C		1130	mg/L	11	102	90	110			
Lab ID: C15050689-001A DUP		Sample Duplicate					Run: BAL-18_150521B			05/21/15 10:00
Solids, Total Dissolved TDS @ 180 C		338	mg/L	9.8				0.0	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Analytical Run: MANTECH_150520A
Lab ID: CCV-8197	Continuing Calibration Verification Standard									
Fluoride		1.96	mg/L	0.10	98	90	110			05/20/15 15:26
Method: A4500-F C										Batch: R199596
Lab ID: MBLK	Method Blank									
Fluoride		0.04	mg/L	0.01						Run: MANTECH_150520A 05/20/15 14:46
Lab ID: LCS-8319	Laboratory Control Sample									
Fluoride		2.00	mg/L	0.10	100	90	110			Run: MANTECH_150520A 05/20/15 14:48
Lab ID: C15050667-001AMS	Sample Matrix Spike									
Fluoride		2.56	mg/L	0.10	92	80	120			Run: MANTECH_150520A 05/20/15 15:35
Lab ID: C15050667-001AMSD	Sample Matrix Spike Duplicate									
Fluoride		2.61	mg/L	0.10	94	80	120	1.9	10	Run: MANTECH_150520A 05/20/15 15:38

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-H B							Analytical Run: PHSC_101-C_150520A		
Lab ID:	pH 6.86		Initial Calibration Verification Standard						05/20/15 09:09	
pH		6.82	s.u.	0.010	99	98	102			
Method:	A4500-H B							Batch: R199553		
Lab ID:	C15050702-001ADUP		Sample Duplicate			Run: PHSC_101-C_150520A			05/20/15 17:09	
pH		7.97	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R199822
Lab ID: MBLK-1		Method Blank								Run: TECHNICON_150527A 05/27/15 11:53
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Lab ID: LFB-3										Run: TECHNICON_150527A 05/27/15 11:56
Nitrogen, Ammonia as N		1.95	mg/L	0.050	99	90	110			
Lab ID: C15050705-001BMS										Run: TECHNICON_150527A 05/27/15 12:23
Nitrogen, Ammonia as N		1.88	mg/L	0.050	96	90	110			
Lab ID: C15050705-001BMSD										Run: TECHNICON_150527A 05/27/15 12:25
Nitrogen, Ammonia as N		1.88	mg/L	0.050	96	90	110	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150521A		
Lab ID: ICV	15 Initial Calibration Verification Standard								05/21/15 13:36	
Aluminum		4.86	mg/L	0.10	97	95	105			
Barium		0.969	mg/L	0.050	97	95	105			
Boron		0.982	mg/L	0.050	98	95	105			
Cadmium		0.476	mg/L	0.010	95	95	105			
Calcium		50.1	mg/L	1.0	100	95	105			
Chromium		0.965	mg/L	0.050	97	95	105			
Iron		4.99	mg/L	0.030	100	95	105			
Magnesium		50.3	mg/L	1.0	101	95	105			
Manganese		4.84	mg/L	0.010	97	95	105			
Molybdenum		0.972	mg/L	0.10	97	95	105			
Nickel		0.947	mg/L	0.050	95	95	105			
Silicon		9.70	mg/L	0.10	97	95	105			
Sodium		49.6	mg/L	1.0	99	95	105			
Vanadium		0.973	mg/L	0.10	97	95	105			
Zinc		0.951	mg/L	0.010	95	95	105			
Lab ID: ICSA	15 Interference Check Sample A								05/21/15 13:55	
Aluminum		462	mg/L	0.10	92	80	120			
Barium		0.000110	mg/L	0.050						
Boron		0.000390	mg/L	0.050						
Cadmium		0.00305	mg/L	0.010						
Calcium		466	mg/L	1.0	93	80	120			
Chromium		0.0294	mg/L	0.050						
Iron		178	mg/L	0.030	89	80	120			
Magnesium		505	mg/L	1.0	101	80	120			
Manganese		0.00246	mg/L	0.010						
Molybdenum		0.00413	mg/L	0.10						
Nickel		0.00344	mg/L	0.050						
Silicon		0.0105	mg/L	0.10						
Sodium		0.326	mg/L	1.0						
Vanadium		-0.00188	mg/L	0.10						
Zinc		-0.00155	mg/L	0.010						
Lab ID: ICSAB	15 Interference Check Sample AB								05/21/15 14:00	
Aluminum		482	mg/L	0.10	96	80	120			
Barium		0.464	mg/L	0.050	93	80	120			
Boron		-0.000240	mg/L	0.050						
Cadmium		0.936	mg/L	0.010	94	80	120			
Calcium		468	mg/L	1.0	94	80	120			
Chromium		0.475	mg/L	0.050	95	80	120			
Iron		180	mg/L	0.030	90	80	120			
Magnesium		510	mg/L	1.0	102	80	120			
Manganese		0.447	mg/L	0.010	89	80	120			
Molybdenum		0.00310	mg/L	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7	Analytical Run: ICP4-C_150521A								
Lab ID:	ICSAB	15	Interference Check Sample AB						05/21/15 14:00	
Nickel		0.852	mg/L	0.050	85	80	120			
Silicon		-0.00562	mg/L	0.10						
Sodium		0.275	mg/L	1.0						
Vanadium		0.516	mg/L	0.10	103	80	120			
Zinc		0.922	mg/L	0.010	92	80	120			
Method:	E200.7									Batch: R199666
Lab ID:	MB-150521A	15	Method Blank				Run: ICP4-C_150521A		05/21/15 14:19	
Aluminum		ND	mg/L	0.01						
Barium		ND	mg/L	0.0004						
Boron		ND	mg/L	0.02						
Cadmium		ND	mg/L	0.001						
Calcium		ND	mg/L	0.01						
Chromium		ND	mg/L	0.005						
Iron		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.01						
Manganese		ND	mg/L	0.002						
Molybdenum		ND	mg/L	0.007						
Nickel		ND	mg/L	0.005						
Silicon		ND	mg/L	0.01						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.004						
Zinc		ND	mg/L	0.003						
Lab ID:	LFB-150521A	15	Laboratory Fortified Blank				Run: ICP4-C_150521A		05/21/15 14:23	
Aluminum		0.980	mg/L	0.10	98	85	115			
Barium		0.958	mg/L	0.050	96	85	115			
Boron		0.956	mg/L	0.050	96	85	115			
Cadmium		0.926	mg/L	0.010	93	85	115			
Calcium		48.3	mg/L	1.0	97	85	115			
Chromium		0.944	mg/L	0.050	94	85	115			
Iron		0.980	mg/L	0.030	98	85	115			
Magnesium		47.9	mg/L	1.0	96	85	115			
Manganese		0.944	mg/L	0.010	94	85	115			
Molybdenum		0.949	mg/L	0.10	95	85	115			
Nickel		0.918	mg/L	0.050	92	85	115			
Silicon		0.477	mg/L	0.10	106	85	115			
Sodium		49.7	mg/L	1.0	99	85	115			
Vanadium		0.952	mg/L	0.10	95	85	115			
Zinc		0.921	mg/L	0.010	92	85	115			
Lab ID:	C15050648-005CMS2	15	Sample Matrix Spike				Run: ICP4-C_150521A		05/22/15 00:16	
Aluminum		4.15	mg/L	0.030	100	70	130			
Barium		2.10	mg/L	0.050	98	70	130			
Boron		2.01	mg/L	0.050	96	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R199666
Lab ID: C15050648-005CMS2	15	Sample Matrix Spike				Run: ICP4-C_150521A			05/22/15 00:16	
Cadmium		1.86	mg/L	0.0022	91	70	130			
Calcium		299	mg/L	1.0	87	70	130			
Chromium		1.90	mg/L	0.0050	93	70	130			
Iron		3.95	mg/L	0.030	93	70	130			
Magnesium		150	mg/L	1.0	95	70	130			
Manganese		2.21	mg/L	0.0031	93	70	130			
Molybdenum		1.92	mg/L	0.015	94	70	130			
Nickel		1.84	mg/L	0.011	90	70	130			
Silicon		11.4	mg/L	0.10		70	130			A
Sodium		113	mg/L	1.0	103	70	130			
Vanadium		1.96	mg/L	0.010	96	70	130			
Zinc		1.84	mg/L	0.010	89	70	130			
Lab ID: C15050648-005CMSD	15	Sample Matrix Spike Duplicate				Run: ICP4-C_150521A			05/22/15 00:19	
Aluminum		4.15	mg/L	0.030	100	70	130	0.0	20	
Barium		2.10	mg/L	0.050	98	70	130	0.0	20	
Boron		2.00	mg/L	0.050	96	70	130	0.6	20	
Cadmium		1.85	mg/L	0.0022	91	70	130	0.4	20	
Calcium		299	mg/L	1.0	86	70	130	0.2	20	
Chromium		1.88	mg/L	0.0050	92	70	130	1.2	20	
Iron		3.93	mg/L	0.030	92	70	130	0.4	20	
Magnesium		150	mg/L	1.0	95	70	130	0.2	20	
Manganese		2.21	mg/L	0.0031	93	70	130	0.1	20	
Molybdenum		1.91	mg/L	0.015	94	70	130	0.1	20	
Nickel		1.83	mg/L	0.011	90	70	130	0.8	20	
Silicon		11.4	mg/L	0.10		70	130	0.0	20	A
Sodium		113	mg/L	1.0	103	70	130	0.1	20	
Vanadium		1.95	mg/L	0.010	95	70	130	0.3	20	
Zinc		1.84	mg/L	0.010	89	70	130	0.4	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

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7								Analytical Run: ICP4-C_150526A	
Lab ID:	ICV	Initial Calibration Verification Standard							05/26/15 12:07	
Potassium		50.1	mg/L	1.0	100	95	105			
Lab ID:	ICSA	Interference Check Sample A							05/26/15 12:26	
Potassium		-0.00428	mg/L	1.0						
Lab ID:	ICSAB	Interference Check Sample AB							05/26/15 12:30	
Potassium		-0.00273	mg/L	1.0						
Method:	E200.7								Batch: R199791	
Lab ID:	MB-150526A	Method Blank				Run: ICP4-C_150526A			05/26/15 12:50	
Potassium		ND	mg/L	0.06						
Lab ID:	LFB-150526A	Laboratory Fortified Blank				Run: ICP4-C_150526A			05/26/15 12:54	
Potassium		51.7	mg/L	1.0	103	85	115			
Lab ID:	C15050800-006BMS2	Sample Matrix Spike				Run: ICP4-C_150526A			05/26/15 19:19	
Potassium		94.9	mg/L	1.0	87	70	130			
Lab ID:	C15050800-006BMSD	Sample Matrix Spike Duplicate				Run: ICP4-C_150526A			05/26/15 19:23	
Potassium		95.6	mg/L	1.0	88	70	130	0.8	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150528A		
Lab ID: ICV	2	Initial Calibration Verification Standard								05/28/15 12:50
Iron		5.01	mg/L	0.030	100	95	105			
Manganese		4.85	mg/L	0.010	97	95	105			
Lab ID: ICSA	2	Interference Check Sample A								05/28/15 13:09
Iron		177	mg/L	0.030	89	80	120			
Manganese		0.00143	mg/L	0.010						
Lab ID: ICSAB	2	Interference Check Sample AB								05/28/15 13:13
Iron		178	mg/L	0.030	89	80	120			
Manganese		0.451	mg/L	0.010	90	80	120			
Method: E200.7								Batch: 44786		
Lab ID: MB-44786	2	Method Blank								05/28/15 15:26
Iron		ND	mg/L	0.01						
Manganese		ND	mg/L	0.001						
Lab ID: LCS3-44786	2	Laboratory Control Sample								05/28/15 15:30
Iron		2.55	mg/L	0.030	102	85	115			
Manganese		2.46	mg/L	0.0012	98	85	115			
Lab ID: C15050706-001CMS3	2	Sample Matrix Spike								05/28/15 15:49
Iron		2.5	mg/L	0.030	101	70	130			
Manganese		2.4	mg/L	0.0012	97	70	130			
Lab ID: C15050706-001CMSD	2	Sample Matrix Spike Duplicate								05/28/15 16:32
Iron		2.5	mg/L	0.030	101	70	130	0.3	20	
Manganese		2.5	mg/L	0.0012	98	70	130	1.6	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8 Analytical Run: ICPMS2-C_150529A										
Lab ID: ICV	Initial Calibration Verification Standard 05/29/15 09:09									
Uranium		0.0469	mg/L	0.00030	94	90	110			
Method: E200.8 Batch: R199928										
Lab ID: LRB	Method Blank Run: ICPMS2-C_150529A 05/29/15 09:34									
Uranium		ND	mg/L	1E-05						
Lab ID: LFB -Filtered	Laboratory Fortified Blank Run: ICPMS2-C_150529A 05/29/15 09:37									
Uranium		0.0506	mg/L	0.00030	101	85	115			
Lab ID: C15050923-006BMS4	Sample Matrix Spike Run: ICPMS2-C_150529A 05/29/15 19:09									
Uranium		0.0688	mg/L	0.00030	100	70	130			
Lab ID: C15050923-006BMSD	Sample Matrix Spike Duplicate Run: ICPMS2-C_150529A 05/29/15 19:12									
Uranium		0.0678	mg/L	0.00030	98	70	130	1.6	20	
Method: E200.8 Analytical Run: ICPMS4-C_150521A										
Lab ID: ICV	3	Initial Calibration Verification Standard 05/21/15 15:56								
Arsenic		0.0504	mg/L	0.0010	101	90	110			
Lead		0.0480	mg/L	0.0010	96	90	110			
Selenium		0.0484	mg/L	0.0010	97	90	110			
Method: E200.8 Batch: R199677										
Lab ID: LRB	3	Method Blank Run: ICPMS4-C_150521A 05/21/15 16:53								
Arsenic		ND	mg/L	5E-05						
Lead		ND	mg/L	2E-05						
Selenium		ND	mg/L	7E-05						
Lab ID: C15050078-001BMS4	3	Sample Matrix Spike Run: ICPMS4-C_150521A 05/22/15 00:24								
Arsenic		0.0555	mg/L	0.0010	110	70	130			
Lead		0.0491	mg/L	0.0010	98	70	130			
Selenium		0.0466	mg/L	0.0010	93	70	130			
Lab ID: C15050078-001BMSD	3	Sample Matrix Spike Duplicate Run: ICPMS4-C_150521A 05/22/15 00:29								
Arsenic		0.0536	mg/L	0.0010	107	70	130	3.4	20	
Lead		0.0464	mg/L	0.0010	93	70	130	5.7	20	
Selenium		0.0462	mg/L	0.0010	92	70	130	1.0	20	
Lab ID: LFB	3	Laboratory Fortified Blank Run: ICPMS4-C_150521A 05/21/15 17:09								
Arsenic		0.0470	mg/L	0.0010	94	85	115			
Lead		0.0481	mg/L	0.0010	96	85	115			
Selenium		0.0431	mg/L	0.0010	86	85	115			

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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Analytical Run: ICPMS4-C_150526A
Lab ID: ICV	2	Initial Calibration Verification Standard								05/26/15 14:30
Copper		0.0505	mg/L	0.0010	101	90	110			
Mercury		0.00489	mg/L	0.0010	98	90	110			
Method: E200.8										Batch: R199781
Lab ID: LRB	2	Method Blank								Run: ICPMS4-C_150526A 05/26/15 15:41
Copper		ND	mg/L	3E-05						
Mercury		ND	mg/L	5E-05						
Lab ID: LFB	2	Laboratory Fortified Blank								Run: ICPMS4-C_150526A 05/26/15 15:46
Copper		0.0519	mg/L	0.0010	104	85	115			
Mercury		0.0100	mg/L	0.0010	100	85	115			
Lab ID: C15050758-001AMS4	2	Sample Matrix Spike								Run: ICPMS4-C_150526A 05/27/15 15:31
Copper		0.0699	mg/L	0.0050	102	70	130			
Mercury		0.0111	mg/L	0.00010	111	70	130			
Lab ID: C15050758-001AMSD	2	Sample Matrix Spike Duplicate								Run: ICPMS4-C_150526A 05/27/15 15:36
Copper		0.0694	mg/L	0.0050	101	70	130	0.7	20	
Mercury		0.0110	mg/L	0.00010	110	70	130	0.4	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Analytical Run: IC2-C_150522A
Lab ID: ICB	2	Initial Calibration Verification Standard								05/22/15 07:57
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		41.3	mg/L	1.0	103	90	110			
Lab ID: CCV052115-6	2	Continuing Calibration Verification Standard								05/23/15 06:43
Chloride		9.64	mg/L	1.0	96	90	110			
Sulfate		40.3	mg/L	1.0	101	90	110			
Method: E300.0										Batch: R199748
Lab ID: ICB	2	Method Blank								Run: IC2-C_150522A 05/22/15 08:16
Chloride		ND	mg/L	0.01						
Sulfate		0.04	mg/L	0.03						
Lab ID: LFB052115-1	2	Laboratory Fortified Blank								Run: IC2-C_150522A 05/22/15 08:34
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		41.3	mg/L	1.0	103	90	110			
Lab ID: C15050689-003AMS	2	Sample Matrix Spike								Run: IC2-C_150522A 05/23/15 07:40
Chloride		26.1	mg/L	1.0	106	90	110			
Sulfate		220	mg/L	1.0	101	90	110			
Lab ID: C15050689-003AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150522A 05/23/15 07:59
Chloride		26.2	mg/L	1.0	107	90	110	0.4	20	
Sulfate		216	mg/L	1.0	96	90	110	1.7	20	
Lab ID: C15050707-003AMS	2	Sample Matrix Spike								Run: IC2-C_150522A 05/23/15 12:04
Chloride		1980	mg/L	5.2	102	90	110			
Sulfate		3930	mg/L	21	100	90	110			
Lab ID: C15050707-003AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150522A 05/23/15 12:23
Chloride		1990	mg/L	5.2	105	90	110	0.6	20	
Sulfate		3920	mg/L	21	99	90	110	0.3	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R199683
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150522A			05/22/15 10:42
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.01						
Lab ID: LFB-3										05/22/15 10:47
Nitrogen, Nitrate+Nitrite as N		1.89	mg/L	0.10	96	90	110			
Lab ID: C15050705-006BMS										05/22/15 11:14
Nitrogen, Nitrate+Nitrite as N		2.07	mg/L	0.10	100	90	110			
Lab ID: C15050705-006BMSD										05/22/15 11:17
Nitrogen, Nitrate+Nitrite as N		2.09	mg/L	0.10	101	90	110	1.0	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: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0								Batch: GrAB-2029		
Lab ID: Th230-GrAB-2029	Laboratory Control Sample					Run: G5000W_150526A			05/28/15 02:51	
Gross Alpha		90.9	pCi/L		91	80	120			
Lab ID: Sr90-GrAB-2029	Laboratory Control Sample					Run: G5000W_150526A			05/28/15 02:51	
Gross Beta		178	pCi/L		90	80	120			
Lab ID: MB-GrAB-2029	6	Method Blank					Run: G5000W_150526A			05/28/15 02:51
Gross Alpha		-0.02	pCi/L							U
Gross Alpha precision (±)		0.7	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		0.2	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C15050038-003DDUP	6	Sample Duplicate					Run: G5000W_150526A			05/28/15 02:51
Gross Alpha		-1.56	pCi/L					1300	394	UR
Gross Alpha precision (±)		2.28	pCi/L							
Gross Alpha MDC		4.02	pCi/L							
Gross Beta		5.12	pCi/L					40	124.3	U
Gross Beta precision (±)		3.57	pCi/L							
Gross Beta MDC		5.57	pCi/L							
- Duplicate RPD is outside of the acceptance range for Gross Alpha. However, the RER of 1.4 is less than the limit of 2.0. This batch is approved.										
Lab ID: C15050715-004CMS	Sample Matrix Spike					Run: G5000W_150526A			05/28/15 02:51	
Gross Alpha		82.7	pCi/L		81	70	130			
Lab ID: C15050715-004CMS	Sample Matrix Spike					Run: G5000W_150526A			05/28/15 02:51	
Gross Beta		215	pCi/L		105	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-7669
Lab ID: LCS-RA226-7669	Laboratory Control Sample									
Radium 226		9.5	pCi/L		92	80	120			06/08/15 07:38
Lab ID: MB-RA226-7669	3	Method Blank								
Radium 226		0.03	pCi/L							06/08/15 07:38
Radium 226 precision (±)		0.09	pCi/L							U
Radium 226 MDC		0.1	pCi/L							
Lab ID: C15050678-001IMS	Sample Matrix Spike									
Radium 226		16	pCi/L		77	70	130			06/08/15 07:38
Lab ID: C15050678-001IMSD	Sample Matrix Spike Duplicate									
Radium 226		17	pCi/L		84	70	130	7.6	49.4	06/08/15 09:13

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/12/15

Project: MU 1 Baseline

Work Order: C15050702

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05								Batch: RA228-4944	
Lab ID:	LCS-228-RA226-7669	Laboratory Control Sample				Run: TENNELEC-3_150522C			06/01/15 13:35	
Radium 228		7.2	pCi/L		116	80	120			
Lab ID:	MB-RA226-7669	3	Method Blank				Run: TENNELEC-3_150522C			06/01/15 13:35
Radium 228		0.02	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID:	C15050678-002IMS	Sample Matrix Spike				Run: TENNELEC-3_150522C			06/01/15 13:35	
Radium 228		13.4	pCi/L		106	70	130			
Lab ID:	C15050678-002IMSD	Sample Matrix Spike Duplicate				Run: TENNELEC-3_150522C			06/01/15 13:35	
Radium 228		12.9	pCi/L		102	70	130	4.3	57.6	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

UR Energy USA Inc

C15050702

Login completed by: Corinne Wagner

Date Received: 5/20/2015

Reviewed by: BL2000\khamre

Received by:

Reviewed Date: 5/21/2015

Carrier 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 checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input 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:	0.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" 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

PLEASE PRINT (Provide as much information as possible.)

Company Name: EE Energy		Project Name, PWS, Permit, Etc.: MUI Bascilinc		Sample Origin: WY		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: 5880 Enterprise Dr Suite 200 Casper, WY 82609		Contact Name: MIKE GAVITHER		Phone/Fax: 307-265-2373 x 321		Email: JIM MILLER	
Invoice Address: SAME		Invoice Contact & Phone: SAME		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats:		ANALYSIS REQUESTED		Contact ELI prior to RUSH sample submittal for charges and scheduling - See instruction Page		Shipped by: hand	
<input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: _____ <input type="checkbox"/> Other: _____		<input type="checkbox"/> EDD/EDT (Electronic Data) Format: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		Standard Turnaround (TAT) R U S H		Cooler ID(s): Casper	
Number of Containers: _____ Sample Type: AW S V B O DW Air/Water/Soils/Solids Vegetation/Biosassay/Other DW - Drinking Water		Guideline 8 Guideline 8 Radon/Lead		Comments:		Receipt Temp: 0.4 °C	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		Custody Seal	
1 1E 441 / MP114		5/19/15		8:00 AM		On Bottle <input checked="" type="checkbox"/> Y N	
2 1E 441 / Mary		5/19/15		8:00 AM		On Cooler <input checked="" type="checkbox"/> Y N	
3 1E 441 / Mary		5/19/15		8:00 AM		Intact <input checked="" type="checkbox"/> Y N	
4						Signature Match <input checked="" type="checkbox"/> Y N	
5							
6							
7							
8							
9							
10							
Relinquished by (print): Jim Miller		Date/Time: 5/19/15 3:00 PM		Signature: [Signature]		Received by (print):	
Relinquished by (print): D. Hutchins		Date/Time: 5/20/15 11:21		Signature: [Signature]		Received by (print):	
Sample Disposal: _____		Return to Client: _____		Lab Disposal: _____		Received by Laboratory: Cheryl Miller	
Date/Time: _____		Date/Time: 5/20/15 11:21		Date/Time: _____		Date/Time: _____	

LABORATORY USE ONLY

CS050762

Custody Record MUST be Signed

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. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



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ANALYTICAL SUMMARY REPORT

June 19, 2015

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

Work Order: C15060122

Project Name: MU1 Additional Baseline HH11-13

Energy Laboratories, Inc. Casper WY received the following 6 samples for UR Energy USA Inc on 6/2/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C15060122-001	MP118	06/02/15 9:00	06/02/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated
C15060122-002	MP 114	06/02/15 9:50	06/02/15	Aqueous	Same As Above
C15060122-003	MP 115	06/02/15 11:00	06/02/15	Aqueous	Same As Above
C15060122-004	MP 116	06/02/15 11:55	06/02/15	Aqueous	Same As Above
C15060122-005	MP 117	06/02/15 13:09	06/02/15	Aqueous	Same As Above
C15060122-006	MP 141	06/02/15 9:50	06/02/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved



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ANALYTICAL SUMMARY REPORT

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:



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-001
Client Sample ID: MP118

Report Date: 06/19/15
Collection Date: 06/02/15 09:00
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	106	mg/L		5		A2320 B	06/03/15 19:18 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 19:18 / wc
Bicarbonate as HCO ₃	129	mg/L		5		A2320 B	06/03/15 19:18 / wc
Calcium	70	mg/L		1		E200.7	06/04/15 16:11 / sf
Chloride	5	mg/L		1		E300.0	06/04/15 16:38 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/03/15 16:14 / wc
Magnesium	3	mg/L		1		E200.7	06/04/15 16:11 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:43 / lr
Nitrogen, Nitrate+Nitrite as N	0.8	mg/L		0.1		E353.2	06/04/15 12:52 / lr
Potassium	3	mg/L		1		E200.7	06/04/15 16:11 / sf
Silica	15.2	mg/L		0.2		E200.7	06/04/15 16:11 / sf
Sodium	31	mg/L		1		E200.7	06/04/15 16:11 / sf
Sulfate	139	mg/L		1		E300.0	06/04/15 16:38 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	501	umhos/cm		5		A2510 B	06/04/15 09:15 / lmc
pH	7.96	s.u.	H	0.01		A4500-H B	06/04/15 09:15 / lmc
Solids, Total Dissolved TDS @ 180 C	337	mg/L		10		A2540 C	06/04/15 15:59 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:11 / sf
Arsenic	0.003	mg/L		0.001		E200.8	06/06/15 00:01 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:11 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:11 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:11 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:11 / sf
Copper	ND	mg/L		0.01		E200.8	06/06/15 00:01 / clm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:11 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 00:01 / clm
Manganese	0.01	mg/L		0.01		E200.7	06/04/15 16:11 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 00:01 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:11 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:11 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 00:01 / clm
Uranium	0.0782	mg/L		0.0003		E200.8	06/08/15 18:47 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:11 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:11 / sf
METALS - TOTAL							
Iron	0.33	mg/L		0.03		E200.7	06/17/15 05:30 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/17/15 05:30 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-001
Client Sample ID: MP118

Report Date: 06/19/15
Collection Date: 06/02/15 09:00
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	340	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha precision (±)	66.4	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha MDC	2.4	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta	44.6	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta precision (±)	4.9	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta MDC	3.5	pCi/L				E900.0	06/12/15 18:40 / plj
Radium 226	241	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 precision (±)	45	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 228	3.5	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 precision (±)	1.2	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 MDC	1.5	pCi/L				RA-05	06/11/15 12:40 / trs
DATA QUALITY							
A/C Balance (± 5)	-0.42	%				A1030 E	06/05/15 15:37 / kbh
Anions	5.23	meq/L				A1030 E	06/05/15 15:37 / kbh
Cations	5.18	meq/L				A1030 E	06/05/15 15:37 / kbh
Solids, Total Dissolved Calculated	340	mg/L				A1030 E	06/05/15 15:37 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	06/05/15 15:37 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-002
Client Sample ID: MP 114

Report Date: 06/19/15
Collection Date: 06/02/15 09:50
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	107	mg/L		5		A2320 B	06/03/15 19:26 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 19:26 / wc
Bicarbonate as HCO ₃	131	mg/L		5		A2320 B	06/03/15 19:26 / wc
Calcium	67	mg/L		1		E200.7	06/04/15 16:15 / sf
Chloride	5	mg/L		1		E300.0	06/04/15 17:33 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/03/15 16:16 / wc
Magnesium	3	mg/L		1		E200.7	06/04/15 16:15 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:45 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/04/15 12:54 / lr
Potassium	7	mg/L		1		E200.7	06/04/15 16:15 / sf
Silica	15.8	mg/L		0.2		E200.7	06/04/15 16:15 / sf
Sodium	31	mg/L		1		E200.7	06/04/15 16:15 / sf
Sulfate	135	mg/L		1		E300.0	06/04/15 17:33 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	498	umhos/cm		5		A2510 B	06/04/15 09:18 / lmc
pH	7.98	s.u.	H	0.01		A4500-H B	06/04/15 09:18 / lmc
Solids, Total Dissolved TDS @ 180 C	328	mg/L		10		A2540 C	06/04/15 13:15 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:15 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/06/15 00:06 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:15 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:15 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:15 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:15 / sf
Copper	ND	mg/L		0.01		E200.8	06/06/15 00:06 / clm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:15 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 00:06 / clm
Manganese	0.01	mg/L		0.01		E200.7	06/04/15 16:15 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 00:06 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:15 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:15 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 00:06 / clm
Uranium	0.181	mg/L		0.0003		E200.8	06/08/15 18:49 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:15 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:15 / sf
METALS - TOTAL							
Iron	0.35	mg/L		0.03		E200.7	06/17/15 05:34 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/17/15 05:34 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-002
Client Sample ID: MP 114

Report Date: 06/19/15
Collection Date: 06/02/15 09:50
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	141	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha precision (±)	28.1	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha MDC	2.1	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta	21.8	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta precision (±)	2.7	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta MDC	3.4	pCi/L				E900.0	06/12/15 18:40 / plj
Radium 226	21	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 precision (±)	4.1	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 228	1.3	pCi/L	U			RA-05	06/11/15 12:40 / trs
Radium 228 precision (±)	0.8	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 MDC	1.5	pCi/L				RA-05	06/11/15 12:40 / trs
DATA QUALITY							
A/C Balance (± 5)	-0.24	%				A1030 E	06/05/15 15:37 / kbh
Anions	5.13	meq/L				A1030 E	06/05/15 15:37 / kbh
Cations	5.11	meq/L				A1030 E	06/05/15 15:37 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	06/05/15 15:37 / kbh
TDS Balance (0.80 - 1.20)	0.98	unitless				A1030 E	06/11/15 16:14 / kbh

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-003
Client Sample ID: MP 115

Report Date: 06/19/15
Collection Date: 06/02/15 11:00
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	102	mg/L		5		A2320 B	06/03/15 19:33 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 19:33 / wc
Bicarbonate as HCO ₃	123	mg/L		5		A2320 B	06/03/15 19:33 / wc
Calcium	68	mg/L		1		E200.7	06/04/15 16:19 / sf
Chloride	5	mg/L		1		E300.0	06/04/15 17:52 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/03/15 16:19 / wc
Magnesium	3	mg/L		1		E200.7	06/04/15 16:19 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:47 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/04/15 12:57 / lr
Potassium	5	mg/L		1		E200.7	06/04/15 16:19 / sf
Silica	14.5	mg/L		0.2		E200.7	06/04/15 16:19 / sf
Sodium	31	mg/L		1		E200.7	06/04/15 16:19 / sf
Sulfate	141	mg/L		1		E300.0	06/04/15 17:52 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	504	umhos/cm		5		A2510 B	06/04/15 09:22 / lmc
pH	8.29	s.u.	H	0.01		A4500-H B	06/04/15 09:22 / lmc
Solids, Total Dissolved TDS @ 180 C	332	mg/L		10		A2540 C	06/04/15 13:16 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:19 / sf
Arsenic	0.005	mg/L		0.001		E200.8	06/06/15 00:11 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:19 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:19 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:19 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:19 / sf
Copper	ND	mg/L		0.01		E200.8	06/06/15 00:11 / clm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:19 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 00:11 / clm
Manganese	ND	mg/L		0.01		E200.7	06/04/15 16:19 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 00:11 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:19 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:19 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 00:11 / clm
Uranium	0.134	mg/L		0.0003		E200.8	06/08/15 18:50 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:19 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:19 / sf
METALS - TOTAL							
Iron	ND	mg/L		0.03		E200.7	06/17/15 05:38 / sf
Manganese	ND	mg/L		0.01		E200.7	06/17/15 05:38 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-003
Client Sample ID: MP 115

Report Date: 06/19/15
Collection Date: 06/02/15 11:00
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	598	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha precision (±)	116	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha MDC	1.7	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta	53.0	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta precision (±)	5.6	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta MDC	3.2	pCi/L				E900.0	06/12/15 18:40 / plj
Radium 226	414	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 precision (±)	78	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 228	4.9	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 precision (±)	1.3	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 MDC	1.4	pCi/L				RA-05	06/11/15 12:40 / trs
DATA QUALITY							
A/C Balance (± 5)	-0.01	%				A1030 E	06/05/15 15:37 / kbh
Anions	5.13	meq/L				A1030 E	06/05/15 15:37 / kbh
Cations	5.13	meq/L				A1030 E	06/05/15 15:37 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	06/05/15 15:37 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	06/11/15 16:14 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-004
Client Sample ID: MP 116

Report Date: 06/19/15
Collection Date: 06/02/15 11:55
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	129	mg/L		5		A2320 B	06/03/15 19:49 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 19:49 / wc
Bicarbonate as HCO ₃	158	mg/L		5		A2320 B	06/03/15 19:49 / wc
Calcium	82	mg/L		1		E200.7	06/04/15 16:23 / sf
Chloride	6	mg/L		1		E300.0	06/04/15 18:10 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/03/15 16:22 / wc
Magnesium	4	mg/L		1		E200.7	06/04/15 16:23 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:48 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/04/15 12:59 / lr
Potassium	4	mg/L		1		E200.7	06/04/15 16:23 / sf
Silica	16.1	mg/L		0.2		E200.7	06/04/15 16:23 / sf
Sodium	33	mg/L		1		E200.7	06/04/15 16:23 / sf
Sulfate	162	mg/L		1		E300.0	06/04/15 18:10 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	568	umhos/cm		5		A2510 B	06/04/15 09:26 / lmc
pH	7.74	s.u.	H	0.01		A4500-H B	06/04/15 09:26 / lmc
Solids, Total Dissolved TDS @ 180 C	382	mg/L		10		A2540 C	06/04/15 13:16 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:23 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/06/15 00:17 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:23 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:23 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:23 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:23 / sf
Copper	ND	mg/L		0.01		E200.8	06/06/15 00:17 / clm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:23 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 00:17 / clm
Manganese	0.01	mg/L		0.01		E200.7	06/04/15 16:23 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 00:17 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:23 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:23 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 00:17 / clm
Uranium	0.144	mg/L		0.0003		E200.8	06/08/15 18:52 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:23 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:23 / sf
METALS - TOTAL							
Iron	0.32	mg/L		0.03		E200.7	06/17/15 05:42 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/17/15 05:42 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-004
Client Sample ID: MP 116

Report Date: 06/19/15
Collection Date: 06/02/15 11:55
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	204	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha precision (±)	40.2	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha MDC	1.9	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta	48.4	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta precision (±)	5.4	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta MDC	3.3	pCi/L				E900.0	06/12/15 18:40 / plj
Radium 226	174	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 precision (±)	33	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 228	7.0	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 precision (±)	1.7	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 MDC	1.4	pCi/L				RA-05	06/11/15 12:40 / trs
DATA QUALITY							
A/C Balance (± 5)	-1.46	%				A1030 E	06/05/15 15:38 / kbh
Anions	6.12	meq/L				A1030 E	06/05/15 15:38 / kbh
Cations	5.94	meq/L				A1030 E	06/05/15 15:38 / kbh
Solids, Total Dissolved Calculated	390	mg/L				A1030 E	06/05/15 15:38 / kbh
TDS Balance (0.80 - 1.20)	0.98	unitless				A1030 E	06/11/15 16:15 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-005
Client Sample ID: MP 117

Report Date: 06/19/15
Collection Date: 06/02/15 13:09
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	117	mg/L		5		A2320 B	06/03/15 19:56 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 19:56 / wc
Bicarbonate as HCO ₃	142	mg/L		5		A2320 B	06/03/15 19:56 / wc
Calcium	99	mg/L		1		E200.7	06/04/15 16:39 / sf
Chloride	6	mg/L		1		E300.0	06/04/15 18:29 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/03/15 16:24 / wc
Magnesium	4	mg/L		1		E200.7	06/04/15 16:39 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:50 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/04/15 13:02 / lr
Potassium	3	mg/L		1		E200.7	06/04/15 16:39 / sf
Silica	15.3	mg/L		0.2		E200.7	06/04/15 16:39 / sf
Sodium	33	mg/L		1		E200.7	06/04/15 16:39 / sf
Sulfate	206	mg/L		1		E300.0	06/04/15 18:29 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	649	umhos/cm		5		A2510 B	06/04/15 09:29 / lmc
pH	7.93	s.u.	H	0.01		A4500-H B	06/04/15 09:29 / lmc
Solids, Total Dissolved TDS @ 180 C	455	mg/L		10		A2540 C	06/04/15 13:17 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:39 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/06/15 00:22 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:39 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:39 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:39 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:39 / sf
Copper	ND	mg/L		0.01		E200.8	06/06/15 00:22 / clm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:39 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 00:22 / clm
Manganese	ND	mg/L		0.01		E200.7	06/04/15 16:39 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 00:22 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:39 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:39 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 00:22 / clm
Uranium	0.758	mg/L		0.0003		E200.8	06/08/15 18:58 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:39 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:39 / sf
METALS - TOTAL							
Iron	0.11	mg/L		0.03		E200.7	06/17/15 05:58 / sf
Manganese	ND	mg/L		0.01		E200.7	06/17/15 05:58 / sf

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-005
Client Sample ID: MP 117

Report Date: 06/19/15
Collection Date: 06/02/15 13:09
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	655	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha precision (±)	127	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Alpha MDC	1.7	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta	106	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta precision (±)	11.1	pCi/L				E900.0	06/12/15 18:40 / plj
Gross Beta MDC	3.5	pCi/L				E900.0	06/12/15 18:40 / plj
Radium 226	126	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 precision (±)	24	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L				E903.0	06/16/15 13:18 / dmf
Radium 228	3.9	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 precision (±)	1.3	pCi/L				RA-05	06/11/15 12:40 / trs
Radium 228 MDC	1.5	pCi/L				RA-05	06/11/15 12:40 / trs
DATA QUALITY							
A/C Balance (± 5)	0.23	%				A1030 E	06/05/15 15:38 / kbh
Anions	6.81	meq/L				A1030 E	06/05/15 15:38 / kbh
Cations	6.85	meq/L				A1030 E	06/05/15 15:38 / kbh
Solids, Total Dissolved Calculated	440	mg/L				A1030 E	06/05/15 15:38 / kbh
TDS Balance (0.80 - 1.20)	1.03	unitless				A1030 E	06/11/15 16:15 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-006
Client Sample ID: MP 141

Report Date: 06/19/15
Collection Date: 06/02/15 09:50
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	ND	mg/L		5		A2320 B	06/03/15 20:03 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/03/15 20:03 / wc
Bicarbonate as HCO ₃	ND	mg/L		5		A2320 B	06/03/15 20:03 / wc
Calcium	ND	mg/L		1		E200.7	06/04/15 16:43 / sf
Chloride	ND	mg/L		1		E300.0	06/04/15 18:47 / wc
Fluoride	ND	mg/L		0.1		A4500-F C	06/03/15 16:29 / wc
Magnesium	ND	mg/L		1		E200.7	06/04/15 16:43 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/05/15 14:52 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/04/15 13:04 / lr
Potassium	ND	mg/L		1		E200.7	06/04/15 16:43 / sf
Silica	ND	mg/L		0.2		E200.7	06/04/15 16:43 / sf
Sodium	ND	mg/L		1		E200.7	06/04/15 16:43 / sf
Sulfate	ND	mg/L		1		E300.0	06/04/15 18:47 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	ND	umhos/cm		5		A2510 B	06/04/15 09:33 / lmc
pH	5.60	s.u.	H	0.01		A4500-H B	06/04/15 09:33 / lmc
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	06/04/15 13:17 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/04/15 16:43 / sf
Arsenic	ND	mg/L		0.001		E200.8	06/06/15 06:54 / clm
Barium	ND	mg/L		0.1		E200.7	06/04/15 16:43 / sf
Boron	ND	mg/L		0.1		E200.7	06/04/15 16:43 / sf
Cadmium	ND	mg/L		0.005		E200.7	06/04/15 16:43 / sf
Chromium	ND	mg/L		0.05		E200.7	06/04/15 16:43 / sf
Copper	ND	mg/L		0.01		E200.8	06/11/15 18:48 / smm
Iron	ND	mg/L		0.03		E200.7	06/04/15 16:43 / sf
Lead	ND	mg/L		0.001		E200.8	06/06/15 06:54 / clm
Manganese	ND	mg/L		0.01		E200.7	06/04/15 16:43 / sf
Mercury	ND	mg/L		0.001		E200.8	06/06/15 06:54 / clm
Molybdenum	ND	mg/L		0.1		E200.7	06/04/15 16:43 / sf
Nickel	ND	mg/L		0.05		E200.7	06/04/15 16:43 / sf
Selenium	ND	mg/L		0.001		E200.8	06/06/15 06:54 / clm
Uranium	ND	mg/L		0.0003		E200.8	06/08/15 19:00 / smm
Vanadium	ND	mg/L		0.1		E200.7	06/04/15 16:43 / sf
Zinc	ND	mg/L		0.01		E200.7	06/04/15 16:43 / sf
METALS - TOTAL							
Iron	ND	mg/L		0.03		E200.7	06/17/15 06:02 / sf
Manganese	ND	mg/L		0.01		E200.7	06/17/15 06:02 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline HH11-13
Lab ID: C15060122-006
Client Sample ID: MP 141

Report Date: 06/19/15
Collection Date: 06/02/15 09:50
Date Received: 06/02/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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RADIONUCLIDES - DISSOLVED

Gross Alpha	1	pCi/L	U		E900.0		06/12/15 18:40 / plj
Gross Alpha precision (±)	1.1	pCi/L			E900.0		06/12/15 18:40 / plj
Gross Alpha MDC	1.7	pCi/L			E900.0		06/12/15 18:40 / plj
Gross Beta	-0.2	pCi/L	U		E900.0		06/12/15 18:40 / plj
Gross Beta precision (±)	2.0	pCi/L			E900.0		06/12/15 18:40 / plj
Gross Beta MDC	3.4	pCi/L			E900.0		06/12/15 18:40 / plj
Radium 226	0.05	pCi/L	U		E903.0		06/16/15 13:18 / dmf
Radium 226 precision (±)	0.11	pCi/L			E903.0		06/16/15 13:18 / dmf
Radium 226 MDC	0.18	pCi/L			E903.0		06/16/15 13:18 / dmf
Radium 228	0.8	pCi/L	U		RA-05		06/11/15 11:06 / trs
Radium 228 precision (±)	0.8	pCi/L			RA-05		06/11/15 11:06 / trs
Radium 228 MDC	1.2	pCi/L			RA-05		06/11/15 11:06 / trs

DATA QUALITY

A/C Balance (± 5)	-71.8	%			A1030 E		06/05/15 15:38 / kbh
Anions	0.05	meq/L			A1030 E		06/05/15 15:38 / kbh
Cations	0	meq/L			A1030 E		06/05/15 15:38 / kbh

- The ion balance is not appropriate for samples having a conductivity less than 300 umhos/cm.

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

MCL - Maximum contaminant level.
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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R200088
Lab ID: MBLK	3	Method Blank					Run: MANTECH_150603B			06/03/15 17:36
Alkalinity, Total as CaCO ₃		2	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		3	mg/L	1						
Lab ID: LCS_150317										06/03/15 17:49
		Laboratory Control Sample					Run: MANTECH_150603B			
Alkalinity, Total as CaCO ₃		270	mg/L	5.0	102	90	110			
Lab ID: C15060085-001AMS										06/03/15 18:21
		Sample Matrix Spike					Run: MANTECH_150603B			
Alkalinity, Total as CaCO ₃		400	mg/L	5.0	100	80	120			
Lab ID: C15060122-003ADUP										06/03/15 19:40
	3	Sample Duplicate					Run: MANTECH_150603B			
Alkalinity, Total as CaCO ₃		103	mg/L	5.0				1.3	10	
Carbonate as CO ₃		1.00	mg/L	5.0					10	
Bicarbonate as HCO ₃		124	mg/L	5.0				0.9	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										Batch: R200090
Lab ID: SC 100										
Initial Calibration Verification Standard										
Run: PHSC_101-C_150604A										
Conductivity @ 25 C	100	umhos/cm	5.0	100	90	110				06/04/15 08:24
Lab ID: SC 2ND 1413										
Laboratory Control Sample										
Run: PHSC_101-C_150604A										
Conductivity @ 25 C	1420	umhos/cm	5.0	100	90	110				06/04/15 08:37
Lab ID: MBLK										
Method Blank										
Run: PHSC_101-C_150604A										
Conductivity @ 25 C	1	umhos/cm	0.8							06/04/15 09:04
Lab ID: C15050864-001ADUP										
Sample Duplicate										
Run: PHSC_101-C_150604A										
Conductivity @ 25 C	752	umhos/cm	5.0					0.0	10	06/04/15 09:11

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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS150604C
Lab ID: MB-1_150604C		Method Blank					Run: BAL-18_150604C			06/04/15 15:50
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150604C		Laboratory Control Sample					Run: BAL-18_150604C			06/04/15 15:51
Solids, Total Dissolved TDS @ 180 C		1130	mg/L	11	102	90	110			
Lab ID: C15060027-002A DUP		Sample Duplicate					Run: BAL-18_150604C			06/04/15 15:51
Solids, Total Dissolved TDS @ 180 C		879	mg/L	10				0.3	5	
Method: A2540 C										Batch: TDS150604A
Lab ID: MB-1_150604A		Method Blank					Run: BAL-18_150605A			06/04/15 13:13
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150604A		Laboratory Control Sample					Run: BAL-18_150605A			06/04/15 13:14
Solids, Total Dissolved TDS @ 180 C		1120	mg/L	11	101	90	110			
Lab ID: C15060122-001A DUP		Sample Duplicate					Run: BAL-18_150605A			06/04/15 13:15
Solids, Total Dissolved TDS @ 180 C		331	mg/L	9.9				1.7	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-F C							Analytical Run: MANTECH_150603A		
Lab ID:	CCV-8197									
Fluoride	Continuing Calibration Verification Standard									
		2.08	mg/L	0.10	104	90	110			06/03/15 15:54
Method:	A4500-F C							Batch: R200086		
Lab ID:	MBLK									
Fluoride	Method Blank									
		0.02	mg/L	0.01				Run: MANTECH_150603A		06/03/15 15:48
Lab ID:	LCS-8319									
Fluoride	Laboratory Control Sample									
		2.04	mg/L	0.10	102	90	110			06/03/15 15:51
Lab ID:	C15060085-001AMS									
Fluoride	Sample Matrix Spike									
		2.12	mg/L	0.10	100	80	120			06/03/15 15:59
Lab ID:	C15060085-001AMSD									
Fluoride	Sample Matrix Spike Duplicate									
		2.12	mg/L	0.10	100	80	120	0.0	10	06/03/15 16:02
Lab ID:	C15060128-001AMS									
Fluoride	Sample Matrix Spike									
		2.12	mg/L	0.10	101	80	120			06/03/15 16:41
Lab ID:	C15060128-001AMSD									
Fluoride	Sample Matrix Spike Duplicate									
		2.12	mg/L	0.10	101	80	120	0.0	10	06/03/15 16:43

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-H B							Analytical Run: PHSC_101-C_150604A		
Lab ID:	pH 6.86		Initial Calibration Verification Standard					06/04/15 08:21		
pH		6.82	s.u.	0.010	99	98	102			
Method:	A4500-H B							Batch: R200090		
Lab ID:	C15050864-001ADUP		Sample Duplicate			Run: PHSC_101-C_150604A			06/04/15 09:11	
pH		8.47	s.u.	0.010				0.2	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G								Analytical Run: TECHNICON_150605A		
Lab ID: CCV-16		Continuing Calibration Verification Standard							06/05/15 14:32	
Nitrogen, Ammonia as N		1.02	mg/L	0.050	102	90	110			
Method: A4500-NH3 G										Batch: R200190
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150605A		06/05/15 14:07	
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank					Run: TECHNICON_150605A		06/05/15 14:10	
Nitrogen, Ammonia as N		2.03	mg/L	0.050	104	90	110			
Lab ID: C15060112-002CMS		Sample Matrix Spike					Run: TECHNICON_150605A		06/05/15 14:37	
Nitrogen, Ammonia as N		49.1	mg/L	0.50	110	90	110			
Lab ID: C15060112-002CMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150605A		06/05/15 14:38	
Nitrogen, Ammonia as N		49.3	mg/L	0.50	112	90	110	0.4	10	S
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										
Lab ID: C15060142-001AMS		Sample Matrix Spike					Run: TECHNICON_150605A		06/05/15 15:00	
Nitrogen, Ammonia as N		2.21	mg/L	0.050	99	90	110			
Lab ID: C15060142-001AMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150605A		06/05/15 15:02	
Nitrogen, Ammonia as N		2.19	mg/L	0.050	98	90	110	0.9	10	

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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150604A		
Lab ID: ICV	16 Initial Calibration Verification Standard								06/04/15 11:07	
Aluminum		4.90	mg/L	0.10	98	95	105			
Barium		0.988	mg/L	0.050	99	95	105			
Boron		0.979	mg/L	0.050	98	95	105			
Cadmium		0.478	mg/L	0.010	96	95	105			
Calcium		49.8	mg/L	1.0	100	95	105			
Chromium		0.965	mg/L	0.050	97	95	105			
Iron		4.98	mg/L	0.030	100	95	105			
Magnesium		49.9	mg/L	1.0	100	95	105			
Manganese		4.84	mg/L	0.010	97	95	105			
Molybdenum		0.983	mg/L	0.10	98	95	105			
Nickel		0.946	mg/L	0.050	95	95	105			
Potassium		49.2	mg/L	1.0	98	95	105			
Silicon		9.85	mg/L	0.10	98	95	105			
Sodium		49.5	mg/L	1.0	99	95	105			
Vanadium		0.973	mg/L	0.10	97	95	105			
Zinc		0.973	mg/L	0.010	97	95	105			
Lab ID: ICSA	16 Interference Check Sample A								06/04/15 11:26	
Aluminum		460	mg/L	0.10	92	80	120			
Barium		0.000140	mg/L	0.050						
Boron		0.0141	mg/L	0.050						
Cadmium		0.00439	mg/L	0.010						
Calcium		453	mg/L	1.0	91	80	120			
Chromium		0.0303	mg/L	0.050						
Iron		175	mg/L	0.030	87	80	120			
Magnesium		494	mg/L	1.0	99	80	120			
Manganese		-0.0192	mg/L	0.010						
Molybdenum		0.00193	mg/L	0.10						
Nickel		0.00417	mg/L	0.050						
Potassium		-0.00782	mg/L	1.0						
Silicon		-0.00477	mg/L	0.10						
Sodium		0.0605	mg/L	1.0						
Vanadium		-7.00E-05	mg/L	0.10						
Zinc		-0.00472	mg/L	0.010						
Lab ID: ICSAB	16 Interference Check Sample AB								06/04/15 11:31	
Aluminum		463	mg/L	0.10	93	80	120			
Barium		0.465	mg/L	0.050	93	80	120			
Boron		0.0149	mg/L	0.050						
Cadmium		0.923	mg/L	0.010	92	80	120			
Calcium		454	mg/L	1.0	91	80	120			
Chromium		0.467	mg/L	0.050	93	80	120			
Iron		176	mg/L	0.030	88	80	120			
Magnesium		496	mg/L	1.0	99	80	120			

Qualifiers:

RL - Analyte reporting limit.

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MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7							Analytical Run: ICP4-C_150604A		
Lab ID:	ICSAB	16 Interference Check Sample AB							06/04/15 11:31	
Manganese		0.422	mg/L	0.010	84	80	120			
Molybdenum		0.00509	mg/L	0.10						
Nickel		0.839	mg/L	0.050	84	80	120			
Potassium		-0.0168	mg/L	1.0						
Silicon		0.0138	mg/L	0.10						
Sodium		0.0938	mg/L	1.0						
Vanadium		0.515	mg/L	0.10	103	80	120			
Zinc		0.905	mg/L	0.010	90	80	120			
Method:	E200.7							Batch: R200139		
Lab ID:	MB-150604A	16 Method Blank			Run: ICP4-C_150604A				06/04/15 11:51	
Aluminum		ND	mg/L	0.01						
Barium		ND	mg/L	0.0004						
Boron		ND	mg/L	0.02						
Cadmium		ND	mg/L	0.001						
Calcium		ND	mg/L	0.01						
Chromium		ND	mg/L	0.005						
Iron		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.01						
Manganese		ND	mg/L	0.002						
Molybdenum		ND	mg/L	0.007						
Nickel		ND	mg/L	0.005						
Potassium		ND	mg/L	0.06						
Silicon		ND	mg/L	0.01						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.004						
Zinc		ND	mg/L	0.003						
Lab ID:	LFB-150604A	16 Laboratory Fortified Blank			Run: ICP4-C_150604A				06/04/15 11:55	
Aluminum		0.964	mg/L	0.10	96	85	115			
Barium		0.959	mg/L	0.050	96	85	115			
Boron		0.944	mg/L	0.050	94	85	115			
Cadmium		0.912	mg/L	0.010	91	85	115			
Calcium		47.3	mg/L	1.0	95	85	115			
Chromium		0.928	mg/L	0.050	93	85	115			
Iron		0.955	mg/L	0.030	96	85	115			
Magnesium		46.8	mg/L	1.0	94	85	115			
Manganese		0.935	mg/L	0.010	93	85	115			
Molybdenum		0.928	mg/L	0.10	93	85	115			
Nickel		0.903	mg/L	0.050	90	85	115			
Potassium		50.6	mg/L	1.0	101	85	115			
Silicon		0.497	mg/L	0.10	111	85	115			
Sodium		48.7	mg/L	1.0	97	85	115			
Vanadium		0.952	mg/L	0.10	95	85	115			

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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R200139
Lab ID: LFB-150604A	16	Laboratory Fortified Blank			Run: ICP4-C_150604A					06/04/15 11:55
Zinc		0.902	mg/L	0.010	90	85	115			
Lab ID: C15050564-001BMS2	16	Sample Matrix Spike			Run: ICP4-C_150604A					06/04/15 16:55
Aluminum		1.96	mg/L	0.030	95	70	130			
Barium		2.00	mg/L	0.050	94	70	130			
Boron		1.98	mg/L	0.050	94	70	130			
Cadmium		1.90	mg/L	0.0022	93	70	130			
Calcium		122	mg/L	1.0	94	70	130			
Chromium		1.91	mg/L	0.0050	94	70	130			
Iron		2.02	mg/L	0.030	96	70	130			
Magnesium		101	mg/L	1.0	94	70	130			
Manganese		1.98	mg/L	0.0031	94	70	130			
Molybdenum		1.92	mg/L	0.015	94	70	130			
Nickel		1.88	mg/L	0.011	92	70	130			
Potassium		102	mg/L	1.0	92	70	130			
Silicon		6.38	mg/L	0.10		70	130			A
Sodium		226	mg/L	1.0	90	70	130			
Vanadium		1.93	mg/L	0.010	94	70	130			
Zinc		1.90	mg/L	0.010	93	70	130			
Lab ID: C15050564-001BMSD	16	Sample Matrix Spike Duplicate			Run: ICP4-C_150604A					06/04/15 16:59
Aluminum		1.96	mg/L	0.030	95	70	130	0.0	20	
Barium		1.99	mg/L	0.050	94	70	130	0.3	20	
Boron		1.98	mg/L	0.050	94	70	130	0.1	20	
Cadmium		1.91	mg/L	0.0022	94	70	130	0.4	20	
Calcium		122	mg/L	1.0	95	70	130	0.3	20	
Chromium		1.91	mg/L	0.0050	94	70	130	0.1	20	
Iron		2.03	mg/L	0.030	96	70	130	0.7	20	
Magnesium		101	mg/L	1.0	95	70	130	0.2	20	
Manganese		1.99	mg/L	0.0031	94	70	130	0.3	20	
Molybdenum		1.93	mg/L	0.015	95	70	130	0.6	20	
Nickel		1.87	mg/L	0.011	92	70	130	0.2	20	
Potassium		101	mg/L	1.0	92	70	130	0.4	20	
Silicon		6.43	mg/L	0.10		70	130	0.8	20	A
Sodium		225	mg/L	1.0	89	70	130	0.4	20	
Vanadium		1.94	mg/L	0.010	95	70	130	0.7	20	
Zinc		1.90	mg/L	0.010	93	70	130	0.2	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

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150616A		
Lab ID: ICV	2	Initial Calibration Verification Standard								06/16/15 15:56
Iron		5.00	mg/L	0.030	100	95	105			
Manganese		4.85	mg/L	0.010	97	95	105			
Lab ID: ICSA	2	Interference Check Sample A								06/16/15 16:15
Iron		179	mg/L	0.030	89	80	120			
Manganese		-0.0243	mg/L	0.010						
Lab ID: ICSAB	2	Interference Check Sample AB								06/16/15 16:20
Iron		180	mg/L	0.030	90	80	120			
Manganese		0.436	mg/L	0.010	87	80	120			
Method: E200.7								Batch: 44911		
Lab ID: MB-44911	2	Method Blank								06/17/15 05:09
Iron		ND	mg/L	0.005						
Manganese		ND	mg/L	0.001						
Lab ID: LCS3-44911	2	Laboratory Control Sample								06/17/15 05:13
Iron		2.47	mg/L	0.030	99	85	115			
Manganese		2.38	mg/L	0.0012	95	85	115			
Lab ID: C15060127-007CMS3	2	Sample Matrix Spike								06/17/15 06:22
Iron		4.11	mg/L	0.030	99	70	130			
Manganese		2.47	mg/L	0.0012	95	70	130			
Lab ID: C15060127-007CMSD	2	Sample Matrix Spike Duplicate								06/17/15 06:27
Iron		4.15	mg/L	0.030	100	70	130	1.0	20	
Manganese		2.48	mg/L	0.0012	96	70	130	0.7	20	

Qualifiers:

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ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.8	Analytical Run: ICPMS2-C_150608A								
Lab ID:	ICV	Initial Calibration Verification Standard								06/08/15 17:54
Uranium		0.0505	mg/L	0.00030	101	90	110			
Method:	E200.8									Batch: R200234
Lab ID:	LRB	Method Blank				Run: ICPMS2-C_150608A			06/08/15 16:55	
Uranium		2E-05	mg/L	1E-05						
Lab ID:	LFB	Laboratory Fortified Blank				Run: ICPMS2-C_150608A			06/08/15 16:57	
Uranium		0.0492	mg/L	0.00030	98	85	115			
Lab ID:	C15060158-003AMS4	Sample Matrix Spike				Run: ICPMS2-C_150608A			06/08/15 19:07	
Uranium		0.0582	mg/L	0.00030	111	70	130			
Lab ID:	C15060158-003AMSD	Sample Matrix Spike Duplicate				Run: ICPMS2-C_150608A			06/08/15 19:09	
Uranium		0.0557	mg/L	0.00030	106	70	130	4.4	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

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method:	E200.8	Analytical Run: ICPMS4-C_150605A									
Lab ID:	ICV	5	Initial Calibration Verification Standard								06/05/15 23:13
Arsenic			0.0484	mg/L	0.0010	97	90	110			
Copper			0.0488	mg/L	0.0010	98	90	110			
Lead			0.0477	mg/L	0.0010	95	90	110			
Mercury			0.00493	mg/L	0.0010	99	90	110			
Selenium			0.0466	mg/L	0.0010	93	90	110			
Method:	E200.8										Batch: R200178
Lab ID:	LRB	5	Method Blank			Run: ICPMS4-C_150605A				06/05/15 14:21	
Arsenic			ND	mg/L	5E-05						
Copper			ND	mg/L	3E-05						
Lead			ND	mg/L	2E-05						
Mercury			ND	mg/L	5E-05						
Selenium			ND	mg/L	7E-05						
Lab ID:	LFB	5	Laboratory Fortified Blank			Run: ICPMS4-C_150605A				06/05/15 14:59	
Arsenic			0.0518	mg/L	0.0010	104	85	115			
Copper			0.0514	mg/L	0.0010	103	85	115			
Lead			0.0490	mg/L	0.0010	98	85	115			
Mercury			0.0101	mg/L	0.0010	101	85	115			
Selenium			0.0488	mg/L	0.0010	98	85	115			
Lab ID:	C15060122-005BMS4	5	Sample Matrix Spike			Run: ICPMS4-C_150605A				06/06/15 00:43	
Arsenic			0.0592	mg/L	0.0010	110	70	130			
Copper			0.0474	mg/L	0.0050	94	70	130			
Lead			0.0539	mg/L	0.0010	108	70	130			
Mercury			0.0126	mg/L	0.00010	126	70	130			
Selenium			0.0520	mg/L	0.0010	104	70	130			
Lab ID:	C15060122-005BMSD	5	Sample Matrix Spike Duplicate			Run: ICPMS4-C_150605A				06/06/15 00:49	
Arsenic			0.0633	mg/L	0.0010	118	70	130	6.7	20	
Copper			0.0511	mg/L	0.0050	101	70	130	7.3	20	
Lead			0.0552	mg/L	0.0010	110	70	130	2.4	20	
Mercury			0.0129	mg/L	0.00010	129	70	130	2.4	20	
Selenium			0.0563	mg/L	0.0010	112	70	130	7.9	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.8	Analytical Run: ICPMS4-C_150611A								
Lab ID:	ICV	Initial Calibration Verification Standard								06/11/15 17:55
Copper		0.0500	mg/L	0.0010	100	90	110			
Method:	E200.8									Batch: R200390
Lab ID:	LRB	Method Blank				Run: ICPMS4-C_150611A			06/11/15 14:58	
Copper		ND	mg/L	3E-05						
Lab ID:	LFB	Laboratory Fortified Blank				Run: ICPMS4-C_150611A			06/11/15 15:03	
Copper		0.0496	mg/L	0.0010	99	85	115			
Lab ID:	C15060349-007BMS4	Sample Matrix Spike				Run: ICPMS4-C_150611A			06/11/15 16:36	
Copper		0.0468	mg/L	0.0050	93	70	130			
Lab ID:	C15060349-007BMSD	Sample Matrix Spike Duplicate				Run: ICPMS4-C_150611A			06/11/15 16:40	
Copper		0.0474	mg/L	0.0050	94	70	130	1.3	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC1-C_150604A		
Lab ID: ICV	2	Initial Calibration Verification Standard								06/04/15 11:07
Chloride		9.61	mg/L	1.0	96	90	110			
Sulfate		39.5	mg/L	1.0	99	90	110			
Lab ID: CCV-060415-2	2	Continuing Calibration Verification Standard								06/04/15 16:01
Chloride		9.54	mg/L	1.0	95	90	110			
Sulfate		39.3	mg/L	1.0	98	90	110			
Method: E300.0								Batch: R200133		
Lab ID: ICB	2	Method Blank								06/04/15 11:25
Chloride		ND	mg/L	0.04						
Sulfate		0.2	mg/L	0.1						
Lab ID: LFB-060415-1	2	Laboratory Fortified Blank								06/04/15 11:44
Chloride		9.85	mg/L	1.0	99	90	110			
Sulfate		39.9	mg/L	1.0	99	90	110			
Lab ID: C15060122-001AMS	2	Sample Matrix Spike								06/04/15 16:57
Chloride		25.9	mg/L	1.0	103	90	110			
Sulfate		218	mg/L	1.0	99	90	110			
Lab ID: C15060122-001AMSD	2	Sample Matrix Spike Duplicate								06/04/15 17:15
Chloride		25.9	mg/L	1.0	103	90	110	0.2	20	
Sulfate		218	mg/L	1.0	98	90	110	0.3	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Analytical Run: TECHNICON_150604A		
Lab ID: CCV-29		Continuing Calibration Verification Standard								06/04/15 12:32
Nitrogen, Nitrate+Nitrite as N		1.05	mg/L	0.10	105	90	110			
Method: E353.2								Batch: R200120		
Lab ID: MBLK-1		Method Blank								06/04/15 11:22
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.01				Run: TECHNICON_150604A		
Lab ID: LFB-3		Laboratory Fortified Blank								06/04/15 11:27
Nitrogen, Nitrate+Nitrite as N		1.92	mg/L	0.10	98	90	110	Run: TECHNICON_150604A		
Lab ID: C15060112-004CMS		Sample Matrix Spike								06/04/15 12:39
Nitrogen, Nitrate+Nitrite as N		2.74	mg/L	0.10	100	90	110	Run: TECHNICON_150604A		
Lab ID: C15060112-004CMSD		Sample Matrix Spike Duplicate								06/04/15 12:42
Nitrogen, Nitrate+Nitrite as N		2.76	mg/L	0.10	101	90	110	0.7	10	
Lab ID: C15060112-003CMS		Sample Matrix Spike								06/04/15 13:14
Nitrogen, Nitrate+Nitrite as N		2.73	mg/L	0.10	101	90	110	Run: TECHNICON_150604A		
Lab ID: C15060112-003CMSD		Sample Matrix Spike Duplicate								06/04/15 13:17
Nitrogen, Nitrate+Nitrite as N		2.74	mg/L	0.10	102	90	110	0.4	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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2037
Lab ID: Th230-GrAB-2037		Laboratory Control Sample				Run: G5000W_150611B				06/12/15 18:40
Gross Alpha		106	pCi/L		106	80	120			
Lab ID: Sr90-GrAB-2037		Laboratory Control Sample				Run: G5000W_150611B				06/12/15 18:40
Gross Beta		186	pCi/L		94	80	120			
Lab ID: MB-GrAB-2037	6	Method Blank				Run: G5000W_150611B				06/12/15 18:40
Gross Alpha		0.3	pCi/L							U
Gross Alpha precision (±)		0.9	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		0.5	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C15060122-001DDUP	6	Sample Duplicate				Run: G5000W_150611B				06/12/15 18:40
Gross Alpha		344	pCi/L					1.2	49.1	
Gross Alpha precision (±)		67.2	pCi/L							
Gross Alpha MDC		1.75	pCi/L							
Gross Beta		39.9	pCi/L					11	31.8	
Gross Beta precision (±)		4.34	pCi/L							
Gross Beta MDC		3.13	pCi/L							
Lab ID: C15060122-006DMS		Sample Matrix Spike				Run: G5000W_150611B				06/12/15 18:40
Gross Alpha		104	pCi/L		103	70	130			
Lab ID: C15060122-006DMS		Sample Matrix Spike				Run: G5000W_150611B				06/12/15 18:40
Gross Beta		180	pCi/L		92	70	130			

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: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0								Batch: RA226-7678		
Lab ID: LCS-RA226-7678	Laboratory Control Sample					Run: BERTHOLD 770-2_150604C			06/16/15 09:33	
Radium 226		8.3	pCi/L		80	80	120			
Lab ID: MB-RA226-7678	3	Method Blank					Run: BERTHOLD 770-2_150604C			06/16/15 09:33
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C15060081-001AMS	Sample Matrix Spike					Run: BERTHOLD 770-2_150604C			06/16/15 09:33	
Radium 226		17	pCi/L		79	70	130			
Lab ID: C15060081-001AMSD	Sample Matrix Spike Duplicate					Run: BERTHOLD 770-2_150604C			06/16/15 09:33	
Radium 226		20	pCi/L		94	70	130	18	49.7	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 06/19/15

Project: MU1 Additional Baseline HH11-13

Work Order: C15060122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05								Batch: RA228-4951	
Lab ID:	LCS-228-RA226-7678		Laboratory Control Sample			Run: TENNELEC-3_150604B			06/11/15 11:06	
Radium 228		6.4	pCi/L		95	80	120			
Lab ID:	MB-RA226-7678		3	Method Blank			Run: TENNELEC-3_150604B			06/11/15 11:06
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID:	C15060122-006DMS		Sample Matrix Spike			Run: TENNELEC-3_150604B			06/11/15 11:06	
Radium 228		14	pCi/L		107	70	130			
Lab ID:	C15060122-006DMSD		Sample Matrix Spike Duplicate			Run: TENNELEC-3_150604B			06/11/15 11:06	
Radium 228		14	pCi/L		105	70	130	1.2	56.8	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

UR Energy USA Inc

C15060122

Login completed by: Dorian Quis

Date Received: 6/2/2015

Reviewed by: BL2000\khamre

Received by: dcq

Reviewed Date: 6/4/2015

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	10.4°C From Field		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" 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:

Samples for Guideline 8 Parameters were subsampled, filtered and preserved for Dissolved Metals and Radionuclides to pH <2 with 1 mL of nitric acid per 250 mL in the laboratory. The subsamples for Total Metals were preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Nitrate+Nitrite with .5 mL sulfuric acid per 250mL to pH <2. In accordance with the Clean Water Act, the Total Metals must be held for 24 hours prior to analysis.



Chain of Custody and Analytical Request Record

Page ____ of ____

PLEASE PRINT (Provide as much information as possible.)

Company Name: WR Energy		Project Name, PWS, Permit, Etc. MU1 ADDITIONAL BASELINE WA 11-13		Sample Origin State: WY		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: 5880 Enterprise Dr. Suite 200 Casper WY 82609		Contact Name: Mike Gaither		Phone/Fax: 307-265-2373		Email: x321	
Invoice Address: SAME		Invoice Contact & Phone: SAME		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: <input type="checkbox"/> Other:		<input type="checkbox"/> EDD/EDT (Electronic Data) Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		ANALYSIS REQUESTED SEE ATTACHED			
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date	Collection Time	MATRIX	Number of Containers Sample Type: A W S V B O DW Vegetation Bioassay Other DW - Drinking Water	R U S H Standard Turnaround (TAT)	
1 MP 118		6/2/15	9:00 AM	W	X	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	
2 MP 114		6/2/15	9:50 A	W	X	Comments:	
3 MP 115		6/2/15	11:00 A	W	X	C15D60122	
4 MP 116		6/2/15	11:55	W	X		
5 MP 117		6/2/15	13:09	W	X		
6 MP 141		6/2/15	9:50	W	X		
7							
8							
9							
10							
Custody Record MUST be Signed		Relinquished by (print): Jim Pinner	Date/Time: 6/2/15 13:52	Signature: <i>[Signature]</i>	Received by (print): Nate Fischer	Date/Time: 6/2/15 16:37	Signature: <i>[Signature]</i>
Sample Disposal: Return to Client:		Relinquished by (print): Nate Fischer		Date/Time: 6/2/15 16:37	Signature: <i>[Signature]</i>	Received by Laboratory: L2115 1645	Signature: <i>[Signature]</i>
Shipped by: Hand		Receipt Temp 10.4 °C		On Ice: Y		Custody Seal On Bottle: Y On Cooler: N	
Cooler ID(s):		Intact: Y		Signature Match: Y		LABORATORY USE ONLY	

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. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



ANALYTICAL SUMMARY REPORT

July 10, 2015

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

Work Order: C15060633

Project Name: MU1 Additional Baseline 8

Energy Laboratories, Inc. Casper WY received the following 6 samples for UR Energy USA Inc on 6/16/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C15060633-001	MP114	06/16/15 10:55	06/16/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Extra Bottle Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated
C15060633-002	MP115	06/16/15 11:50	06/16/15	Aqueous	Same As Above
C15060633-003	MP116	06/16/15 12:45	06/16/15	Aqueous	Same As Above
C15060633-004	MP117	06/16/15 8:53	06/16/15	Aqueous	Same As Above
C15060633-005	MP118	06/16/15 9:55	06/16/15	Aqueous	Same As Above
C15060633-006	MP140	06/16/15 12:50	06/16/15	Aqueous	Same As Above

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:



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-001
Client Sample ID: MP114

Report Date: 07/10/15
Collection Date: 06/16/15 10:55
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	110	mg/L		5		A2320 B	06/19/15 18:52 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 18:52 / ljl
Bicarbonate as HCO ₃	134	mg/L		5		A2320 B	06/19/15 18:52 / ljl
Calcium	69	mg/L		1		E200.7	06/23/15 20:23 / sf
Chloride	6	mg/L		1		E300.0	06/19/15 16:15 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/17/15 14:33 / wc
Magnesium	3	mg/L		1		E200.7	06/23/15 20:23 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:18 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:34 / lr
Potassium	6	mg/L		1		E200.7	06/23/15 20:23 / sf
Silica	15.9	mg/L		0.2		E200.7	06/23/15 20:23 / sf
Sodium	31	mg/L		1		E200.7	06/23/15 20:23 / sf
Sulfate	137	mg/L		1		E300.0	06/19/15 16:15 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	495	umhos/cm		5		A2510 B	06/17/15 15:55 / lmc
pH	7.92	s.u.	H	0.01		A4500-H B	06/17/15 15:55 / lmc
Solids, Total Dissolved TDS @ 180 C	336	mg/L		10		A2540 C	06/18/15 10:17 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:23 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/22/15 23:46 / smm
Barium	ND	mg/L		0.1		E200.8	06/22/15 23:46 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:23 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/22/15 23:46 / smm
Chromium	ND	mg/L		0.05		E200.8	06/23/15 14:51 / smm
Copper	ND	mg/L		0.01		E200.8	06/22/15 23:46 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:23 / sf
Lead	ND	mg/L		0.001		E200.8	06/22/15 23:46 / smm
Manganese	0.01	mg/L		0.01		E200.7	06/23/15 20:23 / sf
Mercury	ND	mg/L		0.001		E200.8	06/22/15 23:46 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/22/15 23:46 / smm
Nickel	ND	mg/L		0.05		E200.8	06/22/15 23:46 / smm
Selenium	ND	mg/L		0.001		E200.8	06/22/15 23:46 / smm
Uranium	0.180	mg/L		0.0003		E200.8	06/22/15 23:46 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/22/15 23:46 / smm
Zinc	ND	mg/L		0.01		E200.8	06/22/15 23:46 / smm
METALS - TOTAL							
Iron	0.25	mg/L		0.03		E200.7	06/24/15 20:06 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/24/15 20:06 / sf

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-001
Client Sample ID: MP114

Report Date: 07/10/15
Collection Date: 06/16/15 10:55
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	151	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha precision (±)	29.7	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha MDC	1.3	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta	36.0	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta precision (±)	4.1	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	07/01/15 00:28 / trs
Radium 226	15	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	3.0	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.17	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	3.1	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	0.8	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.09	%				A1030 E	06/26/15 08:51 / kbh
Anions	5.21	meq/L				A1030 E	06/26/15 08:51 / kbh
Cations	5.20	meq/L				A1030 E	06/26/15 08:51 / kbh
Solids, Total Dissolved Calculated	340	mg/L				A1030 E	06/26/15 08:51 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	06/26/15 08:51 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-002
Client Sample ID: MP115

Report Date: 07/10/15
Collection Date: 06/16/15 11:50
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	99	mg/L		5		A2320 B	06/19/15 19:00 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 19:00 / ljl
Bicarbonate as HCO ₃	121	mg/L		5		A2320 B	06/19/15 19:00 / ljl
Calcium	67	mg/L		1		E200.7	06/23/15 20:34 / sf
Chloride	6	mg/L		1		E300.0	06/19/15 16:33 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/17/15 14:35 / wc
Magnesium	3	mg/L		1		E200.7	06/23/15 20:34 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:19 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:37 / lr
Potassium	5	mg/L		1		E200.7	06/23/15 20:34 / sf
Silica	14.4	mg/L		0.2		E200.7	06/23/15 20:34 / sf
Sodium	31	mg/L		1		E200.7	06/23/15 20:34 / sf
Sulfate	143	mg/L		1		E300.0	06/19/15 16:33 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	489	umhos/cm		5		A2510 B	06/17/15 15:58 / lmc
pH	8.18	s.u.	H	0.01		A4500-H B	06/17/15 15:58 / lmc
Solids, Total Dissolved TDS @ 180 C	330	mg/L		10		A2540 C	06/18/15 10:18 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:34 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/22/15 23:50 / smm
Barium	ND	mg/L		0.1		E200.8	06/22/15 23:50 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:34 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/22/15 23:50 / smm
Chromium	ND	mg/L		0.05		E200.8	06/23/15 14:54 / smm
Copper	ND	mg/L		0.01		E200.8	06/22/15 23:50 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:34 / sf
Lead	ND	mg/L		0.001		E200.8	06/22/15 23:50 / smm
Manganese	ND	mg/L		0.01		E200.7	06/23/15 20:34 / sf
Mercury	ND	mg/L		0.001		E200.8	06/22/15 23:50 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/22/15 23:50 / smm
Nickel	ND	mg/L		0.05		E200.8	06/22/15 23:50 / smm
Selenium	ND	mg/L		0.001		E200.8	06/22/15 23:50 / smm
Uranium	0.125	mg/L		0.0003		E200.8	06/22/15 23:50 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/22/15 23:50 / smm
Zinc	ND	mg/L		0.01		E200.8	06/22/15 23:50 / smm
METALS - TOTAL							
Iron	ND	mg/L		0.03		E200.7	06/24/15 20:10 / sf
Manganese	ND	mg/L		0.01		E200.7	06/24/15 20:10 / sf

Report RL - Analyte reporting limit.

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-002
Client Sample ID: MP115

Report Date: 07/10/15
Collection Date: 06/16/15 11:50
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	628	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha precision (±)	122	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha MDC	1.2	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta	184	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta precision (±)	18.9	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta MDC	2.7	pCi/L				E900.0	07/01/15 00:28 / trs
Radium 226	379	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	71	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.16	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	8.0	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	1.6	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.21	%				A1030 E	06/26/15 08:52 / kbh
Anions	5.12	meq/L				A1030 E	06/26/15 08:52 / kbh
Cations	5.10	meq/L				A1030 E	06/26/15 08:52 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	06/26/15 08:52 / kbh
TDS Balance (0.80 - 1.20)	0.99	unitless				A1030 E	06/26/15 08:52 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-003
Client Sample ID: MP116

Report Date: 07/10/15
Collection Date: 06/16/15 12:45
DateReceived: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	119	mg/L		5		A2320 B	06/19/15 19:07 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 19:07 / ljl
Bicarbonate as HCO ₃	145	mg/L		5		A2320 B	06/19/15 19:07 / ljl
Calcium	81	mg/L		1		E200.7	06/23/15 20:38 / sf
Chloride	6	mg/L		1		E300.0	06/19/15 17:28 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/17/15 14:38 / wc
Magnesium	4	mg/L		1		E200.7	06/23/15 20:38 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:24 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:39 / lr
Potassium	5	mg/L		1		E200.7	06/23/15 20:38 / sf
Silica	16.0	mg/L		0.2		E200.7	06/23/15 20:38 / sf
Sodium	32	mg/L		1		E200.7	06/23/15 20:38 / sf
Sulfate	157	mg/L		1		E300.0	06/19/15 17:28 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	553	umhos/cm		5		A2510 B	06/17/15 16:02 / lmc
pH	7.72	s.u.	H	0.01		A4500-H B	06/17/15 16:02 / lmc
Solids, Total Dissolved TDS @ 180 C	381	mg/L		10		A2540 C	06/18/15 10:18 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:38 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/22/15 23:53 / smm
Barium	ND	mg/L		0.1		E200.8	06/22/15 23:53 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:38 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/22/15 23:53 / smm
Chromium	ND	mg/L		0.05		E200.8	06/23/15 14:57 / smm
Copper	ND	mg/L		0.01		E200.8	06/22/15 23:53 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:38 / sf
Lead	ND	mg/L		0.001		E200.8	06/22/15 23:53 / smm
Manganese	0.01	mg/L		0.01		E200.7	06/23/15 20:38 / sf
Mercury	ND	mg/L		0.001		E200.8	06/22/15 23:53 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/22/15 23:53 / smm
Nickel	ND	mg/L		0.05		E200.8	06/22/15 23:53 / smm
Selenium	ND	mg/L		0.001		E200.8	06/22/15 23:53 / smm
Uranium	0.127	mg/L		0.0003		E200.8	06/22/15 23:53 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/22/15 23:53 / smm
Zinc	ND	mg/L		0.01		E200.8	06/22/15 23:53 / smm
METALS - TOTAL							
Iron	0.23	mg/L		0.03		E200.7	06/24/15 20:14 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/24/15 20:14 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-003
Client Sample ID: MP116

Report Date: 07/10/15
Collection Date: 06/16/15 12:45
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	311	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha precision (±)	60.4	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Alpha MDC	1.3	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta	117	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta precision (±)	12.2	pCi/L				E900.0	07/01/15 00:28 / trs
Gross Beta MDC	2.6	pCi/L				E900.0	07/01/15 00:28 / trs
Radium 226	185	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	35	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.16	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	4.3	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	0.80	%				A1030 E	06/26/15 08:52 / kbh
Anions	5.80	meq/L				A1030 E	06/26/15 08:52 / kbh
Cations	5.89	meq/L				A1030 E	06/26/15 08:52 / kbh
Solids, Total Dissolved Calculated	380	mg/L				A1030 E	06/26/15 08:52 / kbh
TDS Balance (0.80 - 1.20)	1.01	unitless				A1030 E	06/26/15 08:52 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-004
Client Sample ID: MP117

Report Date: 07/10/15
Collection Date: 06/16/15 08:53
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	118	mg/L		5		A2320 B	06/19/15 19:15 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 19:15 / ljl
Bicarbonate as HCO ₃	144	mg/L		5		A2320 B	06/19/15 19:15 / ljl
Calcium	98	mg/L		1		E200.7	06/23/15 20:42 / sf
Chloride	6	mg/L		1		E300.0	06/19/15 18:24 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/17/15 14:47 / wc
Magnesium	4	mg/L		1		E200.7	06/23/15 20:42 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:29 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:42 / lr
Potassium	3	mg/L		1		E200.7	06/23/15 20:42 / sf
Silica	15.5	mg/L		0.2		E200.7	06/23/15 20:42 / sf
Sodium	35	mg/L		1		E200.7	06/23/15 20:42 / sf
Sulfate	193	mg/L		1		E300.0	06/19/15 18:24 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	631	umhos/cm		5		A2510 B	06/17/15 16:06 / lmc
pH	7.88	s.u.	H	0.01		A4500-H B	06/17/15 16:06 / lmc
Solids, Total Dissolved TDS @ 180 C	441	mg/L		10		A2540 C	06/18/15 10:18 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:42 / sf
Arsenic	0.003	mg/L		0.001		E200.8	06/23/15 00:05 / smm
Barium	ND	mg/L		0.1		E200.8	06/23/15 00:05 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:42 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/23/15 00:05 / smm
Chromium	ND	mg/L		0.05		E200.8	06/23/15 15:00 / smm
Copper	ND	mg/L		0.01		E200.8	06/23/15 00:05 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:42 / sf
Lead	ND	mg/L		0.001		E200.8	06/23/15 00:05 / smm
Manganese	ND	mg/L		0.01		E200.7	06/23/15 20:42 / sf
Mercury	ND	mg/L		0.001		E200.8	06/23/15 00:05 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/23/15 00:05 / smm
Nickel	ND	mg/L		0.05		E200.8	06/23/15 00:05 / smm
Selenium	ND	mg/L		0.001		E200.8	06/23/15 00:05 / smm
Uranium	0.638	mg/L		0.0003		E200.8	06/23/15 00:05 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/23/15 00:05 / smm
Zinc	ND	mg/L		0.01		E200.8	06/23/15 00:05 / smm
METALS - TOTAL							
Iron	0.12	mg/L		0.03		E200.7	06/24/15 20:18 / sf
Manganese	ND	mg/L		0.01		E200.7	06/24/15 20:18 / sf

Report RL - Analyte reporting limit.
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-004
Client Sample ID: MP117

Report Date: 07/10/15
Collection Date: 06/16/15 08:53
DateReceived: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	604	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha precision (±)	117	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha MDC	1.9	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta	135	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta precision (±)	13.9	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta MDC	2.9	pCi/L				E900.0	07/01/15 20:32 / trs
Radium 226	2.2	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	0.51	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.16	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	1.7	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	2.15	%				A1030 E	06/26/15 08:52 / kbh
Anions	6.57	meq/L				A1030 E	06/26/15 08:52 / kbh
Cations	6.86	meq/L				A1030 E	06/26/15 08:52 / kbh
Solids, Total Dissolved Calculated	430	mg/L				A1030 E	06/26/15 08:52 / kbh
TDS Balance (0.80 - 1.20)	1.02	unitless				A1030 E	06/26/15 08:52 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
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MCL - Maximum contaminant level.
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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-005
Client Sample ID: MP118

Report Date: 07/10/15
Collection Date: 06/16/15 09:55
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	110	mg/L		5		A2320 B	06/19/15 19:22 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 19:22 / ljl
Bicarbonate as HCO ₃	134	mg/L		5		A2320 B	06/19/15 19:22 / ljl
Calcium	72	mg/L		1		E200.7	06/23/15 20:46 / sf
Chloride	5	mg/L		1		E300.0	06/19/15 18:42 / wc
Fluoride	0.2	mg/L		0.1		A4500-F C	06/17/15 14:55 / wc
Magnesium	3	mg/L		1		E200.7	06/23/15 20:46 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:31 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:44 / lr
Potassium	3	mg/L		1		E200.7	06/23/15 20:46 / sf
Silica	15.2	mg/L		0.2		E200.7	06/23/15 20:46 / sf
Sodium	30	mg/L		1		E200.7	06/23/15 20:46 / sf
Sulfate	135	mg/L		1		E300.0	06/19/15 18:42 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	501	umhos/cm		5		A2510 B	06/17/15 16:09 / lmc
pH	7.84	s.u.	H	0.01		A4500-H B	06/17/15 16:09 / lmc
Solids, Total Dissolved TDS @ 180 C	350	mg/L		10		A2540 C	06/18/15 10:18 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:46 / sf
Arsenic	0.003	mg/L		0.001		E200.8	06/23/15 00:09 / smm
Barium	ND	mg/L		0.1		E200.8	06/23/15 00:09 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:46 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/23/15 00:09 / smm
Chromium	ND	mg/L		0.05		E200.8	06/23/15 15:03 / smm
Copper	ND	mg/L		0.01		E200.8	06/23/15 00:09 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:46 / sf
Lead	ND	mg/L		0.001		E200.8	06/23/15 00:09 / smm
Manganese	0.01	mg/L		0.01		E200.7	06/23/15 20:46 / sf
Mercury	ND	mg/L		0.001		E200.8	06/23/15 00:09 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/23/15 00:09 / smm
Nickel	ND	mg/L		0.05		E200.8	06/23/15 00:09 / smm
Selenium	ND	mg/L		0.001		E200.8	06/23/15 00:09 / smm
Uranium	0.0788	mg/L		0.0003		E200.8	06/23/15 00:09 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/23/15 00:09 / smm
Zinc	ND	mg/L		0.01		E200.8	06/23/15 00:09 / smm
METALS - TOTAL							
Iron	0.38	mg/L		0.03		E200.7	06/24/15 20:29 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/24/15 20:29 / sf

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-005
Client Sample ID: MP118

Report Date: 07/10/15
Collection Date: 06/16/15 09:55
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	405	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha precision (±)	78.8	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha MDC	1.8	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta	71.3	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta precision (±)	7.5	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta MDC	2.8	pCi/L				E900.0	07/01/15 20:32 / trs
Radium 226	172	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	32	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.16	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	4.7	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	1.16	%				A1030 E	06/26/15 08:52 / kbh
Anions	5.15	meq/L				A1030 E	06/26/15 08:52 / kbh
Cations	5.27	meq/L				A1030 E	06/26/15 08:52 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	06/26/15 08:52 / kbh
TDS Balance (0.80 - 1.20)	1.05	unitless				A1030 E	06/26/15 08:52 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-006
Client Sample ID: MP140

Report Date: 07/10/15
Collection Date: 06/16/15 12:50
DateReceived: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	120	mg/L		5		A2320 B	06/19/15 19:29 / ljl
Carbonate as CO ₃	ND	mg/L		5		A2320 B	06/19/15 19:29 / ljl
Bicarbonate as HCO ₃	146	mg/L		5		A2320 B	06/19/15 19:29 / ljl
Calcium	81	mg/L		1		E200.7	06/23/15 20:50 / sf
Chloride	6	mg/L		1		E300.0	06/19/15 19:00 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	06/17/15 14:58 / wc
Magnesium	4	mg/L		1		E200.7	06/23/15 20:50 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	06/17/15 14:33 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/19/15 13:52 / lr
Potassium	5	mg/L		1		E200.7	06/23/15 20:50 / sf
Silica	15.8	mg/L		0.2		E200.7	06/23/15 20:50 / sf
Sodium	32	mg/L		1		E200.7	06/23/15 20:50 / sf
Sulfate	154	mg/L		1		E300.0	06/19/15 19:00 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	553	umhos/cm		5		A2510 B	06/17/15 16:23 / lmc
pH	7.69	s.u.	H	0.01		A4500-H B	06/17/15 16:23 / lmc
Solids, Total Dissolved TDS @ 180 C	409	mg/L		10		A2540 C	06/18/15 10:19 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	06/23/15 20:50 / sf
Arsenic	0.004	mg/L		0.001		E200.8	06/23/15 00:21 / smm
Barium	ND	mg/L		0.1		E200.8	06/23/15 00:21 / smm
Boron	ND	mg/L		0.1		E200.7	06/23/15 20:50 / sf
Cadmium	ND	mg/L		0.005		E200.8	06/23/15 00:21 / smm
Chromium	ND	mg/L		0.05		E200.7	06/23/15 20:50 / sf
Copper	ND	mg/L		0.01		E200.8	06/23/15 00:21 / smm
Iron	ND	mg/L		0.03		E200.7	06/23/15 20:50 / sf
Lead	ND	mg/L		0.001		E200.8	06/23/15 00:21 / smm
Manganese	0.01	mg/L		0.01		E200.7	06/23/15 20:50 / sf
Mercury	ND	mg/L		0.001		E200.8	06/23/15 00:21 / smm
Molybdenum	ND	mg/L		0.1		E200.8	06/23/15 00:21 / smm
Nickel	ND	mg/L		0.05		E200.8	06/23/15 00:21 / smm
Selenium	ND	mg/L		0.001		E200.8	06/23/15 00:21 / smm
Uranium	0.125	mg/L		0.0003		E200.8	06/23/15 00:21 / smm
Vanadium	ND	mg/L		0.1		E200.8	06/23/15 00:21 / smm
Zinc	ND	mg/L		0.01		E200.8	06/23/15 00:21 / smm
METALS - TOTAL							
Iron	0.19	mg/L		0.03		E200.7	06/24/15 20:45 / sf
Manganese	0.01	mg/L		0.01		E200.7	06/24/15 20:45 / sf

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline 8
Lab ID: C15060633-006
Client Sample ID: MP140

Report Date: 07/10/15
Collection Date: 06/16/15 12:50
Date Received: 06/16/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	323	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha precision (±)	62.9	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Alpha MDC	1.6	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta	64.9	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta precision (±)	6.9	pCi/L				E900.0	07/01/15 20:32 / trs
Gross Beta MDC	2.8	pCi/L				E900.0	07/01/15 20:32 / trs
Radium 226	274	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 precision (±)	51	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 226 MDC	0.16	pCi/L				E903.0	07/06/15 10:30 / dmf
Radium 228	5.2	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/01/15 09:22 / plj
Radium 228 MDC	0.9	pCi/L				RA-05	07/01/15 09:22 / plj
DATA QUALITY							
A/C Balance (± 5)	0.98	%				A1030 E	06/26/15 08:53 / kbh
Anions	5.76	meq/L				A1030 E	06/26/15 08:53 / kbh
Cations	5.87	meq/L				A1030 E	06/26/15 08:53 / kbh
Solids, Total Dissolved Calculated	370	mg/L				A1030 E	06/26/15 08:53 / kbh
TDS Balance (0.80 - 1.20)	1.10	unitless				A1030 E	06/26/15 08:53 / kbh

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

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



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R200716
Lab ID: MBLK	3	Method Blank					Run: MANTECH_150619B			06/19/15 16:26
Alkalinity, Total as CaCO ₃		2	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		2	mg/L	1						
Lab ID: LCS_150317										06/19/15 16:39
		Laboratory Control Sample					Run: MANTECH_150619B			
Alkalinity, Total as CaCO ₃		256	mg/L	5.0	102	90	110			
Lab ID: C15060634-002ADUP										06/19/15 20:16
	3	Sample Duplicate					Run: MANTECH_150619B			
Alkalinity, Total as CaCO ₃		113	mg/L	5.0				0.5	10	
Carbonate as CO ₃		ND	mg/L	5.0					10	
Bicarbonate as HCO ₃		138	mg/L	5.0				0.5	10	
Lab ID: C15060635-001AMS										06/19/15 20:31
		Sample Matrix Spike					Run: MANTECH_150619B			
Alkalinity, Total as CaCO ₃		316	mg/L	5.2	101	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

Report Date: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: PHSC_101-C_150617A		
Lab ID: CCV - SC 1413		Continuing Calibration Verification Standard								06/17/15 13:33
Conductivity @ 25 C		1420	umhos/cm	5.0	100	90	110			
Method: A2510 B								Batch: R200539		
Lab ID: SC 2ND 1413		Laboratory Control Sample								06/17/15 09:03
Conductivity @ 25 C		1430	umhos/cm	5.0	102	90	110			
Lab ID: MBLK		Method Blank								06/17/15 09:45
Conductivity @ 25 C		2	umhos/cm	0.8						
Lab ID: C15060633-006ADUP		Sample Duplicate								06/17/15 16:26
Conductivity @ 25 C		555	umhos/cm	5.0				0.3	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS150618A
Lab ID: MB-1_150618A		Method Blank					Run: BAL-18_150618F			06/18/15 10:07
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150618A		Laboratory Control Sample					Run: BAL-18_150618F			06/18/15 10:07
Solids, Total Dissolved TDS @ 180 C		1120	mg/L	11	101	90	110			
Lab ID: C15060627-001A DUP		Sample Duplicate					Run: BAL-18_150618F			06/18/15 10:09
Solids, Total Dissolved TDS @ 180 C		11.9	mg/L	9.9					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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method:	A4500-F C								Analytical Run: MANTECH_150617A		
Lab ID:	CCV-8644	Continuing Calibration Verification Standard							06/17/15 14:00		
Fluoride		2.00	mg/L	0.10	100	90	110				
Lab ID:	CCV-8644	Continuing Calibration Verification Standard							06/17/15 14:41		
Fluoride		2.04	mg/L	0.10	102	90	110				
Method:	A4500-F C								Batch: R200594		
Lab ID:	MBLK	Method Blank			Run: MANTECH_150617A				06/17/15 12:41		
Fluoride		0.02	mg/L	0.01							
Lab ID:	LCS-8595	Laboratory Control Sample			Run: MANTECH_150617A				06/17/15 12:44		
Fluoride		1.96	mg/L	0.10	98	90	110				
Lab ID:	C15060633-004AMS	Sample Matrix Spike			Run: MANTECH_150617A				06/17/15 14:50		
Fluoride		2.12	mg/L	0.10	100	80	120				
Lab ID:	C15060633-004AMSD	Sample Matrix Spike Duplicate			Run: MANTECH_150617A				06/17/15 14:52		
Fluoride		2.12	mg/L	0.10	100	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC_101-C_150617A		
Lab ID: pH 6.86								06/17/15 08:47		
pH		6.83	s.u.	0.010	100	98	102			
Method: A4500-H B								Batch: R200539		
Lab ID: C15060633-006ADUP								06/17/15 16:26		
Sample Duplicate								Run: PHSC_101-C_150617A		
pH		7.73	s.u.	0.010				0.5	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G								Analytical Run: TECHNICON_150617A		
Lab ID: CCV-100		Continuing Calibration Verification Standard								06/17/15 13:58
Nitrogen, Ammonia as N		1.03	mg/L	0.050	103	90	110			
Lab ID: CCV-114		Continuing Calibration Verification Standard								06/17/15 14:21
Nitrogen, Ammonia as N		1.07	mg/L	0.050	107	90	110			
Method: A4500-NH3 G								Batch: R200579		
Lab ID: MBLK-1		Method Blank		Run: TECHNICON_150617A				06/17/15 11:12		
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank		Run: TECHNICON_150617A				06/17/15 11:16		
Nitrogen, Ammonia as N		1.96	mg/L	0.050	100	90	110			
Lab ID: C15060633-003EMS		Sample Matrix Spike		Run: TECHNICON_150617A				06/17/15 14:26		
Nitrogen, Ammonia as N		1.93	mg/L	0.050	98	90	110			
Lab ID: C15060633-003EMSD		Sample Matrix Spike Duplicate		Run: TECHNICON_150617A				06/17/15 14:28		
Nitrogen, Ammonia as N		1.93	mg/L	0.050	98	90	110	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Analytical Run: ICP4-C_150623A
Lab ID: ICV	10	Initial Calibration Verification Standard								06/23/15 12:36
Aluminum		5.03	mg/L	0.10	101	95	105			
Boron		1.01	mg/L	0.050	101	95	105			
Calcium		50.3	mg/L	1.0	101	95	105			
Chromium		0.967	mg/L	0.050	97	95	105			
Iron		5.04	mg/L	0.030	101	95	105			
Magnesium		49.8	mg/L	1.0	100	95	105			
Manganese		4.89	mg/L	0.010	98	95	105			
Potassium		50.4	mg/L	1.0	101	95	105			
Silicon		10.0	mg/L	0.10	100	95	105			
Sodium		51.2	mg/L	1.0	102	95	105			
Lab ID: ICSA	10	Interference Check Sample A								06/23/15 12:55
Aluminum		478	mg/L	0.10	96	80	120			
Boron		0.00869	mg/L	0.050						
Calcium		469	mg/L	1.0	94	80	120			
Chromium		0.0305	mg/L	0.050						
Iron		179	mg/L	0.030	89	80	120			
Magnesium		508	mg/L	1.0	102	80	120			
Manganese		-0.0206	mg/L	0.010						
Potassium		0.00337	mg/L	1.0						
Silicon		-0.00852	mg/L	0.10						
Sodium		0.210	mg/L	1.0						
Lab ID: ICSAB	10	Interference Check Sample AB								06/23/15 12:59
Aluminum		481	mg/L	0.10	96	80	120			
Boron		0.0118	mg/L	0.050						
Calcium		467	mg/L	1.0	93	80	120			
Chromium		0.475	mg/L	0.050	95	80	120			
Iron		179	mg/L	0.030	89	80	120			
Magnesium		507	mg/L	1.0	101	80	120			
Manganese		0.434	mg/L	0.010	87	80	120			
Potassium		0.00819	mg/L	1.0						
Silicon		0.0149	mg/L	0.10						
Sodium		0.178	mg/L	1.0						
Method: E200.7										Batch: R200841
Lab ID: MB-150623A	10	Method Blank								Run: ICP4-C_150623A 06/23/15 13:19
Aluminum		ND	mg/L	0.007						
Boron		ND	mg/L	0.006						
Calcium		0.004	mg/L	0.003						
Chromium		0.002	mg/L	0.001						
Iron		ND	mg/L	0.004						
Magnesium		0.002	mg/L	0.002						
Manganese		ND	mg/L	0.0003						
Potassium		ND	mg/L	0.04						

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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R200841
Lab ID: MB-150623A	10	Method Blank				Run: ICP4-C_150623A				06/23/15 13:19
Silicon		ND	mg/L	0.02						
Sodium		ND	mg/L	0.1						
Lab ID: LFB-150623A	10	Laboratory Fortified Blank				Run: ICP4-C_150623A				06/23/15 13:23
Aluminum		0.986	mg/L	0.10	99	85	115			
Boron		0.933	mg/L	0.050	93	85	115			
Calcium		46.9	mg/L	1.0	94	85	115			
Chromium		0.938	mg/L	0.050	94	85	115			
Iron		0.942	mg/L	0.030	94	85	115			
Magnesium		46.7	mg/L	1.0	93	85	115			
Manganese		0.925	mg/L	0.010	93	85	115			
Potassium		50.4	mg/L	1.0	101	85	115			
Silicon		0.492	mg/L	0.10	109	85	115			
Sodium		48.7	mg/L	1.0	97	85	115			
Lab ID: C15060633-001BMS2	10	Sample Matrix Spike				Run: ICP4-C_150623A				06/23/15 20:27
Aluminum		1.94	mg/L	0.030	95	70	130			
Boron		1.98	mg/L	0.050	96	70	130			
Calcium		165	mg/L	1.0	94	70	130			
Chromium		1.92	mg/L	0.0050	94	70	130			
Iron		1.98	mg/L	0.030	97	70	130			
Magnesium		100	mg/L	1.0	95	70	130			
Manganese		1.93	mg/L	0.0031	94	70	130			
Potassium		105	mg/L	1.0	97	70	130			
Silicon		8.26	mg/L	0.10		70	130			A
Sodium		129	mg/L	1.0	96	70	130			
Lab ID: C15060633-001BMSD	10	Sample Matrix Spike Duplicate				Run: ICP4-C_150623A				06/23/15 20:31
Aluminum		1.95	mg/L	0.030	95	70	130	0.1	20	
Boron		1.98	mg/L	0.050	96	70	130	0.1	20	
Calcium		165	mg/L	1.0	94	70	130	0.5	20	
Chromium		1.92	mg/L	0.0050	94	70	130	0.1	20	
Iron		1.99	mg/L	0.030	98	70	130	0.8	20	
Magnesium		101	mg/L	1.0	95	70	130	0.4	20	
Manganese		1.94	mg/L	0.0031	94	70	130	0.3	20	
Potassium		103	mg/L	1.0	96	70	130	1.1	20	
Silicon		8.28	mg/L	0.10		70	130	0.2	20	A
Sodium		128	mg/L	1.0	96	70	130	0.2	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

Report Date: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150624B		
Lab ID: ICV	2	Initial Calibration Verification Standard								06/24/15 12:15
Iron		5.05	mg/L	0.030	101	95	105			
Manganese		4.88	mg/L	0.010	98	95	105			
Lab ID: ICSA	2	Interference Check Sample A								06/24/15 12:35
Iron		176	mg/L	0.030	88	80	120			
Manganese		-0.0199	mg/L	0.010						
Lab ID: ICSAB	2	Interference Check Sample AB								06/24/15 12:39
Iron		175	mg/L	0.030	88	80	120			
Manganese		0.426	mg/L	0.010	85	80	120			
Method: E200.7								Batch: 45020		
Lab ID: MB-45020	2	Method Blank								06/24/15 19:58
Iron		ND	mg/L	0.005						
Manganese		ND	mg/L	0.001						
Lab ID: LCS3-45020	2	Laboratory Control Sample								06/24/15 20:02
Iron		2.56	mg/L	0.030	102	85	115			
Manganese		2.46	mg/L	0.0012	99	85	115			
Lab ID: C15060633-004CMS3	2	Sample Matrix Spike								06/24/15 20:22
Iron		5.23	mg/L	0.030	102	70	130			
Manganese		4.87	mg/L	0.0023	97	70	130			
Lab ID: C15060633-004CMSD	2	Sample Matrix Spike Duplicate								06/24/15 20:26
Iron		5.16	mg/L	0.030	101	70	130	1.3	20	
Manganese		4.83	mg/L	0.0023	96	70	130	0.9	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.8	Analytical Run: ICPMS2-C_150622B								
Lab ID:	ICV	12 Initial Calibration Verification Standard								06/22/15 22:49
Arsenic		0.0496	mg/L	0.0010	99	90	110			
Barium		0.0502	mg/L	0.0010	100	90	110			
Cadmium		0.0500	mg/L	0.0010	100	90	110			
Copper		0.0502	mg/L	0.0010	100	90	110			
Lead		0.0509	mg/L	0.0010	102	90	110			
Mercury		0.00548	mg/L	0.0010	110	90	110			
Molybdenum		0.0511	mg/L	0.0010	102	90	110			
Nickel		0.0507	mg/L	0.0010	101	90	110			
Selenium		0.0485	mg/L	0.0010	97	90	110			
Uranium		0.0515	mg/L	0.00030	103	90	110			
Vanadium		0.0505	mg/L	0.0010	101	90	110			
Zinc		0.0495	mg/L	0.0010	99	90	110			
Method:	E200.8									Batch: R200781
Lab ID:	LRB	12 Method Blank				Run: ICPMS2-C_150622B				06/22/15 17:53
Arsenic		ND	mg/L	0.00010						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	2E-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						
Nickel		ND	mg/L	3E-05						
Selenium		ND	mg/L	0.0002						
Uranium		1E-05	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0006						
Lab ID:	LFB	12 Laboratory Fortified Blank				Run: ICPMS2-C_150622B				06/22/15 17:56
Arsenic		0.0469	mg/L	0.0010	94	85	115			
Barium		0.0465	mg/L	0.0010	93	85	115			
Cadmium		0.0462	mg/L	0.0010	92	85	115			
Copper		0.0465	mg/L	0.0010	93	85	115			
Lead		0.0478	mg/L	0.0010	96	85	115			
Mercury		0.00964	mg/L	0.0010	96	85	115			
Molybdenum		0.0472	mg/L	0.0010	94	85	115			
Nickel		0.0469	mg/L	0.0010	94	85	115			
Selenium		0.0459	mg/L	0.0010	92	85	115			
Uranium		0.0486	mg/L	0.00030	97	85	115			
Vanadium		0.0484	mg/L	0.0010	97	85	115			
Zinc		0.0494	mg/L	0.0010	99	85	115			
Lab ID:	C15060633-003BMS4	12 Sample Matrix Spike				Run: ICPMS2-C_150622B				06/22/15 23:56
Arsenic		0.0567	mg/L	0.0010	106	70	130			
Barium		0.0764	mg/L	0.050	104	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R200781
Lab ID: C15060633-003BMS4	12	Sample Matrix Spike				Run: ICPMS2-C_150622B				06/22/15 23:56
Cadmium		0.0515	mg/L	0.0010	103	70	130			
Copper		0.0484	mg/L	0.0050	96	70	130			
Lead		0.0526	mg/L	0.0010	105	70	130			
Mercury		0.0106	mg/L	0.00010	106	70	130			
Molybdenum		0.0532	mg/L	0.0010	104	70	130			
Nickel		0.0502	mg/L	0.0050	99	70	130			
Selenium		0.0524	mg/L	0.0010	103	70	130			
Uranium		0.181	mg/L	0.00030	108	70	130			
Vanadium		0.0509	mg/L	0.010	102	70	130			
Zinc		0.0514	mg/L	0.010	101	70	130			
Lab ID: C15060633-003BMSD	12	Sample Matrix Spike Duplicate				Run: ICPMS2-C_150622B				06/22/15 23:59
Arsenic		0.0577	mg/L	0.0010	108	70	130	1.6	20	
Barium		0.0748	mg/L	0.050	100	70	130	2.1	20	
Cadmium		0.0499	mg/L	0.0010	100	70	130	3.3	20	
Copper		0.0484	mg/L	0.0050	96	70	130	0.0	20	
Lead		0.0524	mg/L	0.0010	105	70	130	0.5	20	
Mercury		0.0108	mg/L	0.00010	108	70	130	2.1	20	
Molybdenum		0.0520	mg/L	0.0010	101	70	130	2.1	20	
Nickel		0.0500	mg/L	0.0050	98	70	130	0.3	20	
Selenium		0.0544	mg/L	0.0010	107	70	130	3.7	20	
Uranium		0.180	mg/L	0.00030	106	70	130	0.6	20	
Vanadium		0.0497	mg/L	0.010	99	70	130	2.4	20	
Zinc		0.0513	mg/L	0.010	100	70	130	0.2	20	
Method: E200.8										Analytical Run: ICPMS2-C_150623A
Lab ID: ICV		Initial Calibration Verification Standard								06/23/15 09:53
Chromium		0.0471	mg/L	0.0010	94	90	110			
Method: E200.8										Batch: R200813
Lab ID: LRB		Method Blank				Run: ICPMS2-C_150623A				06/23/15 10:21
Chromium		ND	mg/L	6E-05						
Lab ID: LFB		Laboratory Fortified Blank				Run: ICPMS2-C_150623A				06/23/15 10:25
Chromium		0.0493	mg/L	0.0010	99	85	115			
Lab ID: C15060633-006BMS4		Sample Matrix Spike				Run: ICPMS2-C_150623A				06/23/15 15:22
Chromium		0.0561	mg/L	0.0050	112	70	130			
Lab ID: C15060633-006BMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_150623A				06/23/15 15:25
Chromium		0.0555	mg/L	0.0050	110	70	130	1.1	20	

Qualifiers:

RL - Analyte reporting limit.

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MDC - Minimum detectable concentration



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc

Report Date: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC2-C_150618A		
Lab ID: ICV	2	Initial Calibration Verification Standard								06/18/15 14:09
Chloride		10.2	mg/L	1.0	102	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			
Lab ID: CCV-061815-6	2	Continuing Calibration Verification Standard								06/19/15 12:34
Chloride		9.97	mg/L	1.0	100	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
Lab ID: CCV-061815-7	2	Continuing Calibration Verification Standard								06/19/15 16:51
Chloride		9.96	mg/L	1.0	100	90	110			
Sulfate		39.8	mg/L	1.0	99	90	110			
Method: E300.0								Batch: R200727		
Lab ID: ICB	2	Method Blank								Run: IC2-C_150618A 06/18/15 14:27
Chloride		ND	mg/L	0.01						
Sulfate		0.1	mg/L	0.03						
Lab ID: LFB-061815-1	2	Laboratory Fortified Blank								Run: IC2-C_150618A 06/18/15 14:46
Chloride		10.2	mg/L	1.0	102	90	110			
Sulfate		40.3	mg/L	1.0	100	90	110			
Lab ID: C15060633-003AMS	2	Sample Matrix Spike								Run: IC2-C_150618A 06/19/15 17:47
Chloride		26.3	mg/L	1.0	102	90	110			
Sulfate		234	mg/L	1.0	97	90	110			
Lab ID: C15060633-003AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150618A 06/19/15 18:05
Chloride		26.0	mg/L	1.0	101	90	110	1.2	20	
Sulfate		234	mg/L	1.0	97	90	110	0.1	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Analytical Run: TECHNICON_150619A		
Lab ID: CCV-44		Continuing Calibration Verification Standard							06/19/15 13:12	
Nitrogen, Nitrate+Nitrite as N		1.08	mg/L	0.10	108	90	110			
Lab ID: CCV-58		Continuing Calibration Verification Standard							06/19/15 13:47	
Nitrogen, Nitrate+Nitrite as N		1.10	mg/L	0.10	110	90	110			
Method: E353.2										Batch: R200696
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150619A		06/19/15 11:24	
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank					Run: TECHNICON_150619A		06/19/15 11:29	
Nitrogen, Nitrate+Nitrite as N		1.98	mg/L	0.10	101	90	110			
Lab ID: C15060627-010EMS		Sample Matrix Spike					Run: TECHNICON_150619A		06/19/15 13:19	
Nitrogen, Nitrate+Nitrite as N		2.17	mg/L	0.10	103	90	110			
Lab ID: C15060627-010EMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150619A		06/19/15 13:22	
Nitrogen, Nitrate+Nitrite as N		2.12	mg/L	0.10	100	90	110	2.3	10	
Lab ID: C15060633-006EMS		Sample Matrix Spike					Run: TECHNICON_150619A		06/19/15 13:54	
Nitrogen, Nitrate+Nitrite as N		2.10	mg/L	0.10	107	90	110			
Lab ID: C15060633-006EMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150619A		06/19/15 13:57	
Nitrogen, Nitrate+Nitrite as N		2.10	mg/L	0.10	107	90	110	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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2063
Lab ID: Th230-GrAB-2063	Laboratory Control Sample			Run: G5000W_150626A						07/01/15 20:32
Gross Alpha		93.6	pCi/L		93	80	120			
Lab ID: Sr90-GrAB-2063	Laboratory Control Sample			Run: G5000W_150626A						07/01/15 20:32
Gross Beta		179	pCi/L		91	80	120			
Lab ID: MB-GrAB-2063	6	Method Blank		Run: G5000W_150626A						07/01/15 20:32
Gross Alpha		0.5	pCi/L							U
Gross Alpha precision (±)		0.7	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-0.7	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C15060633-004DDUP	6	Sample Duplicate		Run: G5000W_150626A						07/01/15 20:32
Gross Alpha		656	pCi/L					8.1	48.8	
Gross Alpha precision (±)		127	pCi/L							
Gross Alpha MDC		2.17	pCi/L							
Gross Beta		131	pCi/L					3.1	30.6	
Gross Beta precision (±)		13.5	pCi/L							
Gross Beta MDC		2.96	pCi/L							
Lab ID: C15060633-005DMS	Sample Matrix Spike			Run: G5000W_150626A						07/01/15 20:32
Gross Alpha		452	pCi/L		47	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the Duplicate RPD are acceptable the batch is approved.										
Lab ID: C15060633-005DMS	Sample Matrix Spike			Run: G5000W_150626A						07/01/15 20:32
Gross Beta		241	pCi/L		86	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at 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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2062
Lab ID: Th230-GrAB-2062	Laboratory Control Sample			Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Alpha		88.8	pCi/L		88	80	120			
Lab ID: Sr90-GrAB-2062	Laboratory Control Sample			Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Beta		193	pCi/L		99	80	120			
Lab ID: MB-GrAB-2062	6	Method Blank		Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Alpha		1	pCi/L							
Gross Alpha precision (±)		0.9	pCi/L							
Gross Alpha MDC		0.9	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Lab ID: C15060633-001DDUP	6	Sample Duplicate		Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Alpha		128	pCi/L					17	49.3	
Gross Alpha precision (±)		25.2	pCi/L							
Gross Alpha MDC		1.53	pCi/L							
Gross Beta		40.6	pCi/L					12	32.8	
Gross Beta precision (±)		4.62	pCi/L							
Gross Beta MDC		2.96	pCi/L							
Lab ID: C15060633-003DMS	Sample Matrix Spike			Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Alpha		339	pCi/L		28	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the Duplicate RPD are acceptable the batch is approved.										
Lab ID: C15060633-003DMS	Sample Matrix Spike			Run: TENNELEC-3_150626A						07/01/15 00:28
Gross Beta		290	pCi/L		88	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at 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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-7719
Lab ID: LCS-RA226-7719	Laboratory Control Sample									
Radium 226		9.5	pCi/L		91	80	120			Run: BERTHOLD 770-1_150625A 07/06/15 10:30
Lab ID: MB-RA226-7719	3	Method Blank								
Radium 226		0.1	pCi/L							Run: BERTHOLD 770-1_150625A 07/06/15 10:30
Radium 226 precision (±)		0.1	pCi/L							U
Radium 226 MDC		0.2	pCi/L							
Lab ID: C15060679-001CMS	Sample Matrix Spike									
Radium 226		21	pCi/L		94	70	130			Run: BERTHOLD 770-1_150625A 07/06/15 12:03
Lab ID: C15060679-001CMSD	Sample Matrix Spike Duplicate									
Radium 226		21	pCi/L		93	70	130	1.2	49.3	Run: BERTHOLD 770-1_150625A 07/06/15 12:03

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: 07/10/15

Project: MU1 Additional Baseline 8

Work Order: C15060633

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05								Batch: RA228-4980	
Lab ID:	LCS-228-RA226-7719	Laboratory Control Sample					Run: TENNELEC-3_150625C		07/01/15 09:22	
Radium 228		6.5	pCi/L		101	80	120			
Lab ID:	MB-RA226-7719	3	Method Blank				Run: TENNELEC-3_150625C		07/01/15 09:22	
Radium 228		0.3	pCi/L							U
Radium 228 precision (±)		0.6	pCi/L							
Radium 228 MDC		0.9	pCi/L							
Lab ID:	C15060732-001AMS	Sample Matrix Spike					Run: TENNELEC-3_150625C		07/01/15 09:22	
Radium 228		14.2	pCi/L		94	70	130			
Lab ID:	C15060732-001AMSD	Sample Matrix Spike Duplicate					Run: TENNELEC-3_150625C		07/01/15 09:22	
Radium 228		15.5	pCi/L		104	70	130	9.1	51.1	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

UR Energy USA Inc

C15060633

Login completed by: Cherol J. Minton

Date Received: 6/16/2015

Reviewed by: BL2000\swaldrop

Received by: dcq

Reviewed Date: 6/17/2015

Carrier name: Hand Del

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	13.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" 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:

Samples for Guideline 8 Parameters were subsampled, filtered and preserved for Dissolved Metals and Radionuclides to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Total Metals were preserved to pH <2 with 1 mL of nitric acid per 250 mL in the laboratory. The subsamples for Nitrate+Nitrite with 5 drops of sulfuric acid per 250mL to pH <2. In accordance with the Clean Water Act, the Total Metals must be held for 24 hours prior to analysis.

The following samples had radiation higher than 50 uR/HR: MP115 was ~60 uR/HR, MP116 was ~60 uR/HR, MP118 was ~60 uR/HR and MP140 was ~60 uR/HR.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: ULR Energy		Project Name, PWS, Permit, Etc. MU1 ADDITIONAL BASELINE 8		Sample Origin State: WY		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: 5880 Enterprise Dr Suite 200 Casper WY		Contact Name: Mike Caudill		Phone/Fax: 307-265-2373 x3033		Email: 321	
Invoice Address: SAME		Invoice Contact & Phone:		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: <input type="checkbox"/> NELAC		ANALYSIS REQUESTED Baseline 8 Guideline 8 Guideline 8 Radiocarbon		SEE ATTACHED		Contact ELI prior to RUSH for charges and scheduling - See Instruction Page	
Number of Containers Sample Type: A W S V B O DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water		MATRIX		Comments: C15060633		Shipped by: Hand	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		Cooler ID(s): Vanover	
1 MP114		6/16/15		10:55		Receipt Temp 13.4 °C	
2 MP115		6/16/15		11:50		On Ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
3 MP116		6/16/15		12:45		Custody Seal On Bottle <input checked="" type="checkbox"/> Y <input type="checkbox"/> N On Cooler <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
4 MP117		6/16/15		8:53		Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
5 MP118		6/16/15		9:55		Signature Match <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
6 MP140		6/16/15		12:50		LABORATORY USE ONLY	
7							
8							
9							
10							
Relinquished by (print): Jim Hill		Date/Time: 6/16/15 1400		Signature: <i>[Signature]</i>		Date/Time:	
Relinquished by (print): Nate Fischer		Date/Time: 6/16/15 430		Signature: <i>[Signature]</i>		Date/Time:	
Sample Disposal: Signed		Return to Client:		Received by Laboratory: 6/16/15 1623		Signature: <i>[Signature]</i>	

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. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



ANALYTICAL SUMMARY REPORT

July 23, 2015

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

Work Order: C15070021

Project Name: MU1 Additional Baseline

Energy Laboratories, Inc. Casper WY received the following 7 samples for UR Energy USA Inc on 7/1/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C15070021-001	MU109	06/30/15 8:15	07/01/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated
C15070021-002	MP118	06/30/15 9:15	07/01/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Extra Bottle Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved Solids, Total Dissolved - Calculated
C15070021-003	MP114	06/30/15 10:00	07/01/15	Aqueous	Same As Above
C15070021-004	MP115	06/30/15 10:50	07/01/15	Aqueous	Same As Above
C15070021-005	MP116	06/30/15 11:40	07/01/15	Aqueous	Same As Above
C15070021-006	MP117	06/30/15 12:40	07/01/15	Aqueous	Same As Above



ANALYTICAL SUMMARY REPORT

C15070021-007	MP141	06/30/15 13:40 07/01/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity Anion - Cation Balance Conductivity Extra Bottle Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved
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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: MU1 Additional Baseline
Lab ID: C15070021-001
Client Sample ID: MU109

Report Date: 07/23/15
Collection Date: 06/30/15 08:15
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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MAJOR IONS

Alkalinity, Total as CaCO ₃	181	mg/L		5		A2320 B	07/01/15 16:46 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 16:46 / wc
Bicarbonate as HCO ₃	221	mg/L		5		A2320 B	07/01/15 16:46 / wc
Calcium	124	mg/L		1		E200.7	07/06/15 19:39 / sf
Chloride	35	mg/L		1		E300.0	07/02/15 14:08 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:00 / wc
Magnesium	5	mg/L		1		E200.7	07/06/15 19:39 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:12 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 13:46 / lr
Potassium	3	mg/L		1		E200.7	07/06/15 19:39 / sf
Silica	18.1	mg/L		0.2		E200.7	07/06/15 19:39 / sf
Sodium	41	mg/L		1		E200.7	07/06/15 19:39 / sf
Sulfate	191	mg/L		1		E300.0	07/02/15 14:08 / wc

PHYSICAL PROPERTIES

Conductivity @ 25 C	806	umhos/cm		5		A2510 B	07/01/15 15:29 / lmc
pH	7.26	s.u.	H	0.01		A4500-H B	07/01/15 15:29 / lmc
Solids, Total Dissolved TDS @ 180 C	532	mg/L		10		A2540 C	07/01/15 16:52 / lmc

METALS - DISSOLVED

Aluminum	ND	mg/L		0.1		E200.7	07/06/15 19:39 / sf
Arsenic	0.002	mg/L		0.001		E200.8	07/07/15 18:03 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 19:39 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 19:39 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 19:39 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 19:39 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:03 / smm
Iron	0.07	mg/L		0.03		E200.7	07/06/15 19:39 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:03 / smm
Manganese	0.02	mg/L		0.01		E200.7	07/06/15 19:39 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:03 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 19:39 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 19:39 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:03 / smm
Uranium	0.0033	mg/L		0.0003		E200.8	07/07/15 18:03 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 19:39 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 19:39 / sf

METALS - TOTAL

Iron	0.09	mg/L		0.03		E200.7	07/08/15 17:56 / sf
Manganese	0.02	mg/L		0.01		E200.7	07/08/15 17:56 / sf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-001
Client Sample ID: MU109

Report Date: 07/23/15
Collection Date: 06/30/15 08:15
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	10.6	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	4.0	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	3.4	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	11.8	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	3.5	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	5.6	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	6.7	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	1.3	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	3.8	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.64	%				A1030 E	07/08/15 15:09 / kbh
Anions	8.59	meq/L				A1030 E	07/08/15 15:09 / kbh
Cations	8.48	meq/L				A1030 E	07/08/15 15:09 / kbh
Solids, Total Dissolved Calculated	530	mg/L				A1030 E	07/08/15 15:09 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	07/08/15 15:09 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-002
Client Sample ID: MP118

Report Date: 07/23/15
Collection Date: 06/30/15 09:15
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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MAJOR IONS

Alkalinity, Total as CaCO ₃	120	mg/L		5		A2320 B	07/01/15 16:54 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 16:54 / wc
Bicarbonate as HCO ₃	146	mg/L		5		A2320 B	07/01/15 16:54 / wc
Calcium	76	mg/L		1		E200.7	07/06/15 19:43 / sf
Chloride	6	mg/L		1		E300.0	07/02/15 14:27 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:03 / wc
Magnesium	4	mg/L		1		E200.7	07/06/15 19:43 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:17 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 13:48 / lr
Potassium	3	mg/L		1		E200.7	07/06/15 19:43 / sf
Silica	15.4	mg/L		0.2		E200.7	07/06/15 19:43 / sf
Sodium	30	mg/L		1		E200.7	07/06/15 19:43 / sf
Sulfate	137	mg/L		1		E300.0	07/02/15 14:27 / wc

PHYSICAL PROPERTIES

Conductivity @ 25 C	524	umhos/cm		5		A2510 B	07/01/15 15:32 / lmc
pH	7.96	s.u.	H	0.01		A4500-H B	07/01/15 15:32 / lmc
Solids, Total Dissolved TDS @ 180 C	344	mg/L		10		A2540 C	07/01/15 16:53 / lmc

METALS - DISSOLVED

Aluminum	ND	mg/L		0.1		E200.7	07/06/15 19:43 / sf
Arsenic	0.003	mg/L		0.001		E200.8	07/07/15 18:09 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 19:43 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 19:43 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 19:43 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 19:43 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:09 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 19:43 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:09 / smm
Manganese	0.02	mg/L		0.01		E200.7	07/06/15 19:43 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:09 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 19:43 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 19:43 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:09 / smm
Uranium	0.0666	mg/L		0.0003		E200.8	07/07/15 18:09 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 19:43 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 19:43 / sf

METALS - TOTAL

Iron	0.48	mg/L		0.03		E200.7	07/08/15 18:23 / sf
Manganese	0.02	mg/L		0.01		E200.7	07/08/15 18:23 / sf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-002
Client Sample ID: MP118

Report Date: 07/23/15
Collection Date: 06/30/15 09:15
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	416	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	81.2	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	2.5	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	41.3	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	4.5	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.3	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	255	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	48	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	1.6	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	0.9	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	0.35	%				A1030 E	07/08/15 15:09 / kbh
Anions	5.43	meq/L				A1030 E	07/08/15 15:09 / kbh
Cations	5.46	meq/L				A1030 E	07/08/15 15:09 / kbh
Solids, Total Dissolved Calculated	350	mg/L				A1030 E	07/08/15 15:09 / kbh
TDS Balance (0.80 - 1.20)	0.99	unitless				A1030 E	07/08/15 15:09 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-003
Client Sample ID: MP114

Report Date: 07/23/15
Collection Date: 06/30/15 10:00
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	114	mg/L		5		A2320 B	07/01/15 17:02 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 17:02 / wc
Bicarbonate as HCO ₃	140	mg/L		5		A2320 B	07/01/15 17:02 / wc
Calcium	70	mg/L		1		E200.7	07/06/15 20:27 / sf
Chloride	5	mg/L		1		E300.0	07/02/15 14:45 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:06 / wc
Magnesium	3	mg/L		1		E200.7	07/06/15 20:27 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:22 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 13:51 / lr
Potassium	5	mg/L		1		E200.8	07/07/15 18:14 / smm
Silica	15.6	mg/L		0.2		E200.7	07/06/15 20:27 / sf
Sodium	30	mg/L		1		E200.7	07/06/15 20:27 / sf
Sulfate	130	mg/L		1		E300.0	07/02/15 14:45 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	509	umhos/cm		5		A2510 B	07/01/15 15:35 / lmc
pH	7.99	s.u.	H	0.01		A4500-H B	07/01/15 15:35 / lmc
Solids, Total Dissolved TDS @ 180 C	338	mg/L		10		A2540 C	07/01/15 16:53 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	07/06/15 20:27 / sf
Arsenic	0.003	mg/L		0.001		E200.8	07/07/15 18:14 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 20:27 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 20:27 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 20:27 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 20:27 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:14 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 20:27 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:14 / smm
Manganese	0.01	mg/L		0.01		E200.7	07/06/15 20:27 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:14 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 20:27 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 20:27 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:14 / smm
Uranium	0.171	mg/L		0.0003		E200.8	07/07/15 18:14 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 20:27 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 20:27 / sf
METALS - TOTAL							
Iron	0.16	mg/L		0.03		E200.7	07/08/15 18:27 / sf
Manganese	0.01	mg/L		0.01		E200.7	07/08/15 18:27 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-003
Client Sample ID: MP114

Report Date: 07/23/15
Collection Date: 06/30/15 10:00
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	127	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	25.3	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	2.2	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	27.8	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	3.4	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.4	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	14	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	2.6	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	2.0	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	0.9	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	0.61	%				A1030 E	07/08/15 15:09 / kbh
Anions	5.16	meq/L				A1030 E	07/08/15 15:09 / kbh
Cations	5.22	meq/L				A1030 E	07/08/15 15:09 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	07/08/15 15:09 / kbh
TDS Balance (0.80 - 1.20)	1.02	unitless				A1030 E	07/08/15 15:09 / kbh

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

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



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-004
Client Sample ID: MP115

Report Date: 07/23/15
Collection Date: 06/30/15 10:50
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	100	mg/L		5		A2320 B	07/01/15 17:09 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 17:09 / wc
Bicarbonate as HCO ₃	122	mg/L		5		A2320 B	07/01/15 17:09 / wc
Calcium	66	mg/L		1		E200.7	07/06/15 20:31 / sf
Chloride	6	mg/L		1		E300.0	07/02/15 15:04 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:08 / wc
Magnesium	3	mg/L		1		E200.7	07/06/15 20:31 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:24 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 13:58 / lr
Potassium	4	mg/L		1		E200.8	07/07/15 18:19 / smm
Silica	14.3	mg/L		0.2		E200.7	07/06/15 20:31 / sf
Sodium	30	mg/L		1		E200.7	07/06/15 20:31 / sf
Sulfate	140	mg/L		1		E300.0	07/02/15 15:04 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	494	umhos/cm		5		A2510 B	07/01/15 15:38 / lmc
pH	8.21	s.u.	H	0.01		A4500-H B	07/01/15 15:38 / lmc
Solids, Total Dissolved TDS @ 180 C	327	mg/L		10		A2540 C	07/01/15 16:54 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	07/06/15 20:31 / sf
Arsenic	0.004	mg/L		0.001		E200.8	07/07/15 18:19 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 20:31 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 20:31 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 20:31 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 20:31 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:19 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 20:31 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:19 / smm
Manganese	ND	mg/L		0.01		E200.7	07/06/15 20:31 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:19 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 20:31 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 20:31 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:19 / smm
Uranium	0.114	mg/L		0.0003		E200.8	07/07/15 18:19 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 20:31 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 20:31 / sf
METALS - TOTAL							
Iron	ND	mg/L		0.03		E200.7	07/08/15 18:31 / sf
Manganese	ND	mg/L		0.01		E200.7	07/08/15 18:31 / sf

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-004
Client Sample ID: MP115

Report Date: 07/23/15
Collection Date: 06/30/15 10:50
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	612	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	119	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	2.1	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	55.5	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	5.9	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.3	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	445	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	83	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	4.2	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.52	%				A1030 E	07/08/15 15:10 / kbh
Anions	5.06	meq/L				A1030 E	07/08/15 15:10 / kbh
Cations	5.01	meq/L				A1030 E	07/08/15 15:10 / kbh
Solids, Total Dissolved Calculated	330	mg/L				A1030 E	07/08/15 15:10 / kbh
TDS Balance (0.80 - 1.20)	1.00	unitless				A1030 E	07/08/15 15:10 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-005
Client Sample ID: MP116

Report Date: 07/23/15
Collection Date: 06/30/15 11:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	122	mg/L		5		A2320 B	07/01/15 17:17 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 17:17 / wc
Bicarbonate as HCO ₃	148	mg/L		5		A2320 B	07/01/15 17:17 / wc
Calcium	80	mg/L		1		E200.7	07/06/15 20:35 / sf
Chloride	6	mg/L		1		E300.0	07/02/15 15:22 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:11 / wc
Magnesium	4	mg/L		1		E200.7	07/06/15 20:35 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:25 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 14:06 / lr
Potassium	4	mg/L		1		E200.8	07/07/15 18:25 / smm
Silica	15.5	mg/L		0.2		E200.7	07/06/15 20:35 / sf
Sodium	31	mg/L		1		E200.7	07/06/15 20:35 / sf
Sulfate	154	mg/L		1		E300.0	07/02/15 15:22 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	564	umhos/cm		5		A2510 B	07/01/15 15:41 / lmc
pH	7.80	s.u.	H	0.01		A4500-H B	07/01/15 15:41 / lmc
Solids, Total Dissolved TDS @ 180 C	378	mg/L		10		A2540 C	07/01/15 16:54 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	07/06/15 20:35 / sf
Arsenic	0.004	mg/L		0.001		E200.8	07/07/15 18:25 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 20:35 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 20:35 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 20:35 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 20:35 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:25 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 20:35 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:25 / smm
Manganese	0.01	mg/L		0.01		E200.7	07/06/15 20:35 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:25 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 20:35 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 20:35 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:25 / smm
Uranium	0.113	mg/L		0.0003		E200.8	07/07/15 18:25 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 20:35 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 20:35 / sf
METALS - TOTAL							
Iron	0.16	mg/L		0.03		E200.7	07/08/15 18:35 / sf
Manganese	0.02	mg/L		0.01		E200.7	07/08/15 18:35 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-005
Client Sample ID: MP116

Report Date: 07/23/15
Collection Date: 06/30/15 11:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	284	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	55.7	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	2.3	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	42.2	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	4.7	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.5	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	163	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	31	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	1.9	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	0.9	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	-0.35	%				A1030 E	07/08/15 15:10 / kbh
Anions	5.81	meq/L				A1030 E	07/08/15 15:10 / kbh
Cations	5.77	meq/L				A1030 E	07/08/15 15:10 / kbh
Solids, Total Dissolved Calculated	370	mg/L				A1030 E	07/08/15 15:10 / kbh
TDS Balance (0.80 - 1.20)	1.02	unitless				A1030 E	07/08/15 15:10 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-006
Client Sample ID: MP117

Report Date: 07/23/15
Collection Date: 06/30/15 12:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	123	mg/L		5		A2320 B	07/01/15 17:25 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 17:25 / wc
Bicarbonate as HCO ₃	150	mg/L		5		A2320 B	07/01/15 17:25 / wc
Calcium	96	mg/L		1		E200.7	07/06/15 20:38 / sf
Chloride	6	mg/L		1		E300.0	07/02/15 15:40 / wc
Fluoride	0.1	mg/L		0.1		A4500-F C	07/01/15 14:14 / wc
Magnesium	5	mg/L		1		E200.7	07/06/15 20:38 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:27 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 14:08 / lr
Potassium	3	mg/L		1		E200.8	07/07/15 18:30 / smm
Silica	15.2	mg/L		0.2		E200.7	07/06/15 20:38 / sf
Sodium	34	mg/L		1		E200.7	07/06/15 20:38 / sf
Sulfate	196	mg/L		1		E300.0	07/02/15 15:40 / wc
PHYSICAL PROPERTIES							
Conductivity @ 25 C	650	umhos/cm		5		A2510 B	07/01/15 15:44 / lmc
pH	7.89	s.u.	H	0.01		A4500-H B	07/01/15 15:44 / lmc
Solids, Total Dissolved TDS @ 180 C	444	mg/L		10		A2540 C	07/01/15 16:54 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	07/06/15 20:38 / sf
Arsenic	0.003	mg/L		0.001		E200.8	07/07/15 18:30 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 20:38 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 20:38 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 20:38 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 20:38 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:30 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 20:38 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:30 / smm
Manganese	ND	mg/L		0.01		E200.7	07/06/15 20:38 / sf
Mercury	ND	mg/L		0.001		E200.8	07/07/15 18:30 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 20:38 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 20:38 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:30 / smm
Uranium	0.574	mg/L		0.0003		E200.8	07/07/15 18:30 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 20:38 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 20:38 / sf
METALS - TOTAL							
Iron	0.08	mg/L		0.03		E200.7	07/08/15 18:39 / sf
Manganese	ND	mg/L		0.01		E200.7	07/08/15 18:39 / sf

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

H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-006
Client Sample ID: MP117

Report Date: 07/23/15
Collection Date: 06/30/15 12:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	737	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	143	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	3.3	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	86.2	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	9.0	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.5	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	113	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	21	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	2.1	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/14/15 13:59 / plj
DATA QUALITY							
A/C Balance (± 5)	0	%				A1030 E	07/08/15 15:10 / kbh
Anions	6.71	meq/L				A1030 E	07/08/15 15:10 / kbh
Cations	6.71	meq/L				A1030 E	07/08/15 15:10 / kbh
Solids, Total Dissolved Calculated	430	mg/L				A1030 E	07/08/15 15:10 / kbh
TDS Balance (0.80 - 1.20)	1.03	unitless				A1030 E	07/08/15 15:10 / kbh

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-007
Client Sample ID: MP141

Report Date: 07/23/15
Collection Date: 06/30/15 13:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
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MAJOR IONS

Alkalinity, Total as CaCO ₃	7	mg/L		5		A2320 B	07/01/15 17:34 / wc
Carbonate as CO ₃	ND	mg/L		5		A2320 B	07/01/15 17:34 / wc
Bicarbonate as HCO ₃	9	mg/L		5		A2320 B	07/01/15 17:34 / wc
Calcium	ND	mg/L		1		E200.7	07/06/15 20:42 / sf
Chloride	ND	mg/L		1		E300.0	07/02/15 15:59 / wc
Fluoride	ND	mg/L		0.1		A4500-F C	07/01/15 14:25 / wc
Magnesium	ND	mg/L		1		E200.7	07/06/15 20:42 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH ₃ G	07/07/15 11:29 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/06/15 14:11 / lr
Potassium	ND	mg/L		1		E200.7	07/07/15 15:04 / sf
Silica	ND	mg/L		0.2		E200.7	07/06/15 20:42 / sf
Sodium	ND	mg/L		1		E200.7	07/06/15 20:42 / sf
Sulfate	ND	mg/L		1		E300.0	07/02/15 15:59 / wc

PHYSICAL PROPERTIES

Conductivity @ 25 C	20	umhos/cm		5		A2510 B	07/01/15 15:47 / lmc
pH	9.36	s.u.	H	0.01		A4500-H B	07/01/15 15:47 / lmc
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	07/01/15 16:55 / lmc

METALS - DISSOLVED

Aluminum	ND	mg/L		0.1		E200.7	07/06/15 20:42 / sf
Arsenic	ND	mg/L		0.001		E200.8	07/10/15 21:45 / smm
Barium	ND	mg/L		0.1		E200.7	07/06/15 20:42 / sf
Boron	ND	mg/L		0.1		E200.7	07/06/15 20:42 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/06/15 20:42 / sf
Chromium	ND	mg/L		0.05		E200.7	07/06/15 20:42 / sf
Copper	ND	mg/L		0.01		E200.8	07/07/15 18:57 / smm
Iron	ND	mg/L		0.03		E200.7	07/06/15 20:42 / sf
Lead	ND	mg/L		0.001		E200.8	07/07/15 18:57 / smm
Manganese	ND	mg/L		0.01		E200.7	07/06/15 20:42 / sf
Mercury	ND	mg/L		0.001		E200.8	07/09/15 20:13 / smm
Molybdenum	ND	mg/L		0.1		E200.7	07/06/15 20:42 / sf
Nickel	ND	mg/L		0.05		E200.7	07/06/15 20:42 / sf
Selenium	ND	mg/L		0.001		E200.8	07/07/15 18:57 / smm
Uranium	ND	mg/L		0.0003		E200.8	07/09/15 20:13 / smm
Vanadium	ND	mg/L		0.1		E200.7	07/06/15 20:42 / sf
Zinc	ND	mg/L		0.01		E200.7	07/06/15 20:42 / sf

METALS - TOTAL

Iron	0.07	mg/L		0.03		E200.7	07/08/15 18:43 / sf
Manganese	ND	mg/L		0.01		E200.7	07/08/15 18:43 / sf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline
Lab ID: C15070021-007
Client Sample ID: MP141

Report Date: 07/23/15
Collection Date: 06/30/15 13:40
Date Received: 07/01/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Gross Alpha	-0.1	pCi/L	U			E900.0	07/10/15 18:34 / plj
Gross Alpha precision (±)	0.9	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Alpha MDC	1.5	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta	1.2	pCi/L	U			E900.0	07/10/15 18:34 / plj
Gross Beta precision (±)	2.0	pCi/L				E900.0	07/10/15 18:34 / plj
Gross Beta MDC	3.3	pCi/L				E900.0	07/10/15 18:34 / plj
Radium 226	0.14	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 226 MDC	0.12	pCi/L				E903.0	07/20/15 12:25 / dmf
Radium 228	-1	pCi/L	U			RA-05	07/14/15 13:59 / plj
Radium 228 precision (±)	0.8	pCi/L				RA-05	07/14/15 13:59 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/14/15 13:59 / plj

DATA QUALITY

A/C Balance (± 5)	-96.4	%				A1030 E	07/08/15 15:10 / kbh
Anions	0.18	meq/L				A1030 E	07/08/15 15:10 / kbh
Cations	0	meq/L				A1030 E	07/08/15 15:10 / kbh

- The ion balance is not appropriate for samples having a conductivity less than 300 umhos/cm.

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

MCL - Maximum contaminant level.
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: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R201177
Lab ID: MBLK	3	Method Blank					Run: MANTECH_150701B			07/01/15 15:34
Alkalinity, Total as CaCO ₃		2	mg/L	0.6						
Carbonate as CO ₃		ND	mg/L	1						
Bicarbonate as HCO ₃		2	mg/L	1						
Lab ID: LCS_150317										07/01/15 15:47
		Laboratory Control Sample					Run: MANTECH_150701B			
Alkalinity, Total as CaCO ₃		263	mg/L	5.0	104	90	110			
Lab ID: C15070020-002AMS										07/01/15 16:38
		Sample Matrix Spike					Run: MANTECH_150701B			
Alkalinity, Total as CaCO ₃		798	mg/L	5.2	107	80	120			
Lab ID: C15070021-007ADUP										07/01/15 17:44
	3	Sample Duplicate					Run: MANTECH_150701B			
Alkalinity, Total as CaCO ₃		7.82	mg/L	5.0				5.1	10	
Carbonate as CO ₃		ND	mg/L	5.0					10	
Bicarbonate as HCO ₃		9.55	mg/L	5.0				5.2	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
Project: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: PHSC_101-C_150701A		
Lab ID: CCV - SC 1413								Continuing Calibration Verification Standard		
Conductivity @ 25 C								07/01/15 13:01		
								1410	umhos/cm	
								5.0	100	
								90	110	
Method: A2510 B								Batch: R201148		
Lab ID: SC 2ND 1413								Run: PHSC_101-C_150701A		
Conductivity @ 25 C								07/01/15 12:04		
								1410	umhos/cm	
								5.0	100	
								90	110	
Lab ID: MBLK								Run: PHSC_101-C_150701A		
Conductivity @ 25 C								07/01/15 12:22		
								Method Blank		
								2	umhos/cm	
								0.8		
Lab ID: C15061076-002ADUP								Run: PHSC_101-C_150701A		
Conductivity @ 25 C								07/01/15 12:35		
								Sample Duplicate		
								1380	umhos/cm	
								5.0		
								0.2	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: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS150701A
Lab ID: MB-1_150701A		Method Blank					Run: BAL-18_150701A			07/01/15 16:48
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	9						
Lab ID: LCS-2_150701A		Laboratory Control Sample					Run: BAL-18_150701A			07/01/15 16:49
Solids, Total Dissolved TDS @ 180 C		1120	mg/L	11	100	90	110			
Lab ID: C15070021-003A DUP		Sample Duplicate					Run: BAL-18_150701A			07/01/15 16:53
Solids, Total Dissolved TDS @ 180 C		349	mg/L	9.9				3.4	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
Project: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-F C							Analytical Run: MANTECH_150701A		
Lab ID:	CCV-8644	Continuing Calibration Verification Standard							07/01/15 13:26	
Fluoride		2.00	mg/L	0.10	100	90	110			
Lab ID:	CCV-8644	Continuing Calibration Verification Standard							07/01/15 14:17	
Fluoride		2.00	mg/L	0.10	100	90	110			
Method:	A4500-F C							Batch: R201164		
Lab ID:	MBLK	Method Blank				Run: MANTECH_150701A			07/01/15 13:21	
Fluoride		ND	mg/L	0.01						
Lab ID:	LCS-8595	Laboratory Control Sample				Run: MANTECH_150701A			07/01/15 13:23	
Fluoride		1.96	mg/L	0.10	98	90	110			
Lab ID:	C15070008-001AMS	Sample Matrix Spike				Run: MANTECH_150701A			07/01/15 13:31	
Fluoride		2.00	mg/L	0.10	95	80	120			
Lab ID:	C15070008-001AMSD	Sample Matrix Spike Duplicate				Run: MANTECH_150701A			07/01/15 13:35	
Fluoride		2.00	mg/L	0.10	95	80	120	0.0	10	
Lab ID:	C15070021-007AMS	Sample Matrix Spike				Run: MANTECH_150701A			07/01/15 14:28	
Fluoride		1.96	mg/L	0.10	98	80	120			
Lab ID:	C15070021-007AMSD	Sample Matrix Spike Duplicate				Run: MANTECH_150701A			07/01/15 14:30	
Fluoride		1.96	mg/L	0.10	98	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC_101-C_150701A		
Lab ID: pH 6.86								Initial Calibration Verification Standard		
pH								07/01/15 11:47		
		6.85	s.u.	0.010	100	98	102			
Method: A4500-H B								Batch: R201148		
Lab ID: C15061076-002ADUP								Run: PHSC_101-C_150701A		
pH								07/01/15 12:35		
		7.77	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
Project: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G								Analytical Run: TECHNICON_150707A		
Lab ID: CCV-16		Continuing Calibration Verification Standard							07/07/15 11:14	
Nitrogen, Ammonia as N		0.995	mg/L	0.050	100	90	110			
Method: A4500-NH3 G										Batch: R201303
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150707A		07/07/15 10:49	
Nitrogen, Ammonia as N		ND	mg/L	0.01						
Lab ID: LFB-3		Laboratory Fortified Blank					Run: TECHNICON_150707A		07/07/15 10:52	
Nitrogen, Ammonia as N		1.93	mg/L	0.050	98	90	110			
Lab ID: C15070021-002EMS		Sample Matrix Spike					Run: TECHNICON_150707A		07/07/15 11:19	
Nitrogen, Ammonia as N		1.89	mg/L	0.050	96	90	110			
Lab ID: C15070021-002EMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150707A		07/07/15 11:20	
Nitrogen, Ammonia as N		1.90	mg/L	0.050	97	90	110	0.5	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: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150706A		
Lab ID: ICV	16 Initial Calibration Verification Standard								07/06/15 13:36	
Aluminum		5.04	mg/L	0.10	101	95	105			
Barium		1.01	mg/L	0.050	101	95	105			
Boron		1.02	mg/L	0.050	102	95	105			
Cadmium		0.479	mg/L	0.010	96	95	105			
Calcium		50.8	mg/L	1.0	102	95	105			
Chromium		0.981	mg/L	0.050	98	95	105			
Iron		5.07	mg/L	0.030	101	95	105			
Magnesium		50.1	mg/L	1.0	100	95	105			
Manganese		4.89	mg/L	0.010	98	95	105			
Molybdenum		0.998	mg/L	0.10	100	95	105			
Nickel		0.968	mg/L	0.050	97	95	105			
Potassium		51.0	mg/L	1.0	102	95	105			
Silicon		10.1	mg/L	0.10	101	95	105			
Sodium		51.9	mg/L	1.0	104	95	105			
Vanadium		0.996	mg/L	0.10	100	95	105			
Zinc		0.981	mg/L	0.010	98	95	105			
Lab ID: ICSA	16 Interference Check Sample A								07/06/15 13:55	
Aluminum		487	mg/L	0.10	97	80	120			
Barium		0.000140	mg/L	0.050						
Boron		0.0121	mg/L	0.050						
Cadmium		0.00471	mg/L	0.010						
Calcium		464	mg/L	1.0	93	80	120			
Chromium		0.0342	mg/L	0.050						
Iron		179	mg/L	0.030	89	80	120			
Magnesium		509	mg/L	1.0	102	80	120			
Manganese		-0.0238	mg/L	0.010						
Molybdenum		0.000710	mg/L	0.10						
Nickel		-0.00215	mg/L	0.050						
Potassium		0.000580	mg/L	1.0						
Silicon		0.00320	mg/L	0.10						
Sodium		0.459	mg/L	1.0						
Vanadium		0.000360	mg/L	0.10						
Zinc		-0.00455	mg/L	0.010						
Lab ID: ICSAB	16 Interference Check Sample AB								07/06/15 14:00	
Aluminum		475	mg/L	0.10	95	80	120			
Barium		0.463	mg/L	0.050	93	80	120			
Boron		0.00782	mg/L	0.050						
Cadmium		0.922	mg/L	0.010	92	80	120			
Calcium		460	mg/L	1.0	92	80	120			
Chromium		0.472	mg/L	0.050	94	80	120			
Iron		176	mg/L	0.030	88	80	120			
Magnesium		503	mg/L	1.0	101	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

Report Date: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150706A		
Lab ID: ICSAB	16	Interference Check Sample AB								07/06/15 14:00
Manganese		0.423	mg/L	0.010	85	80	120			
Molybdenum		-0.000490	mg/L	0.10						
Nickel		0.840	mg/L	0.050	84	80	120			
Potassium		-0.00114	mg/L	1.0						
Silicon		0.00454	mg/L	0.10						
Sodium		0.410	mg/L	1.0						
Vanadium		0.455	mg/L	0.10	91	80	120			
Zinc		0.913	mg/L	0.010	91	80	120			
Method: E200.7								Batch: R201285		
Lab ID: MB-150706A	16	Method Blank								07/06/15 14:19
				Run: ICP4-C_150706A						
Aluminum		ND	mg/L	0.007						
Barium		ND	mg/L	0.0001						
Boron		ND	mg/L	0.006						
Cadmium		ND	mg/L	0.0010						
Calcium		ND	mg/L	0.003						
Chromium		ND	mg/L	0.001						
Iron		ND	mg/L	0.004						
Magnesium		ND	mg/L	0.002						
Manganese		ND	mg/L	0.0003						
Molybdenum		ND	mg/L	0.003						
Nickel		ND	mg/L	0.003						
Potassium		ND	mg/L	0.04						
Silicon		ND	mg/L	0.02						
Sodium		ND	mg/L	0.1						
Vanadium		ND	mg/L	0.004						
Zinc		ND	mg/L	0.002						
Lab ID: LFB-150706A	16	Laboratory Fortified Blank								07/06/15 14:23
				Run: ICP4-C_150706A						
Aluminum		0.972	mg/L	0.10	97	85	115			
Barium		0.943	mg/L	0.050	94	85	115			
Boron		0.945	mg/L	0.050	95	85	115			
Cadmium		0.920	mg/L	0.010	92	85	115			
Calcium		47.4	mg/L	1.0	95	85	115			
Chromium		0.929	mg/L	0.050	93	85	115			
Iron		0.950	mg/L	0.030	95	85	115			
Magnesium		46.8	mg/L	1.0	94	85	115			
Manganese		0.931	mg/L	0.010	93	85	115			
Molybdenum		0.930	mg/L	0.10	93	85	115			
Nickel		0.905	mg/L	0.050	91	85	115			
Potassium		49.3	mg/L	1.0	99	85	115			
Silicon		0.481	mg/L	0.10	107	85	115			
Sodium		48.0	mg/L	1.0	96	85	115			
Vanadium		0.945	mg/L	0.10	95	85	115			

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: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R201285
Lab ID: LFB-150706A	16	Laboratory Fortified Blank				Run: ICP4-C_150706A				07/06/15 14:23
Zinc		0.912	mg/L	0.010	91	85	115			
Lab ID: C15070008-001BMS2	16	Sample Matrix Spike				Run: ICP4-C_150706A				07/06/15 19:27
Aluminum		1.94	mg/L	0.030	94	70	130			
Barium		1.93	mg/L	0.050	94	70	130			
Boron		1.97	mg/L	0.050	94	70	130			
Cadmium		1.92	mg/L	0.0022	94	70	130			
Calcium		143	mg/L	1.0	94	70	130			
Chromium		1.92	mg/L	0.0050	93	70	130			
Iron		1.97	mg/L	0.030	97	70	130			
Magnesium		106	mg/L	1.0	94	70	130			
Manganese		1.94	mg/L	0.0031	94	70	130			
Molybdenum		1.91	mg/L	0.015	94	70	130			
Nickel		1.88	mg/L	0.011	92	70	130			
Potassium		96.1	mg/L	1.0	89	70	130			
Silicon		4.80	mg/L	0.10		70	130			A
Sodium		306	mg/L	1.0	81	70	130			
Vanadium		1.96	mg/L	0.010	96	70	130			
Zinc		1.90	mg/L	0.010	93	70	130			
Lab ID: C15070008-001BMSD	16	Sample Matrix Spike Duplicate				Run: ICP4-C_150706A				07/06/15 19:31
Aluminum		1.95	mg/L	0.030	95	70	130	0.5	20	
Barium		1.95	mg/L	0.050	95	70	130	0.8	20	
Boron		1.96	mg/L	0.050	94	70	130	0.2	20	
Cadmium		1.92	mg/L	0.0022	94	70	130	0.0	20	
Calcium		144	mg/L	1.0	95	70	130	0.4	20	
Chromium		1.91	mg/L	0.0050	93	70	130	0.5	20	
Iron		1.98	mg/L	0.030	97	70	130	0.7	20	
Magnesium		107	mg/L	1.0	94	70	130	0.3	20	
Manganese		1.95	mg/L	0.0031	95	70	130	0.4	20	
Molybdenum		1.94	mg/L	0.015	95	70	130	1.5	20	
Nickel		1.88	mg/L	0.011	92	70	130	0.1	20	
Potassium		96.4	mg/L	1.0	90	70	130	0.3	20	
Silicon		4.84	mg/L	0.10		70	130	0.8	20	A
Sodium		308	mg/L	1.0	83	70	130	0.6	20	
Vanadium		1.96	mg/L	0.010	96	70	130	0.1	20	
Zinc		1.91	mg/L	0.010	93	70	130	0.4	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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Analytical Run: ICP4-C_150707B
Lab ID: ICV	Initial Calibration Verification Standard									
Potassium		49.6	mg/L	1.0	99	95	105			07/07/15 13:22
Lab ID: ICSA	Interference Check Sample A									
Potassium		-0.0261	mg/L	1.0						07/07/15 13:45
Lab ID: ICSAB	Interference Check Sample AB									
Potassium		-0.0128	mg/L	1.0						07/07/15 13:49
Method: E200.7										Batch: R201333
Lab ID: MB-150707A	Method Blank									
Potassium		ND	mg/L	0.04						Run: ICP4-C_150707B 07/07/15 14:09
Lab ID: LFB-150707A	Laboratory Fortified Blank									
Potassium		49.2	mg/L	1.0	98	85	115			Run: ICP4-C_150707B 07/07/15 14:13
Lab ID: C15070021-003BMS2	Sample Matrix Spike									
Potassium		97.9	mg/L	1.0	91	70	130			Run: ICP4-C_150707B 07/07/15 14:29
Lab ID: C15070021-003BMSD	Sample Matrix Spike Duplicate									
Potassium		96.4	mg/L	1.0	90	70	130	1.6	20	Run: ICP4-C_150707B 07/07/15 14:32

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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7								Analytical Run: ICP4-C_150708A		
Lab ID: ICV	2	Initial Calibration Verification Standard								07/08/15 13:18
Iron		5.05	mg/L	0.030	101	95	105			
Manganese		4.86	mg/L	0.010	97	95	105			
Lab ID: ICSA	2	Interference Check Sample A								07/08/15 13:42
Iron		179	mg/L	0.030	89	80	120			
Manganese		-0.0245	mg/L	0.010						
Lab ID: ICSAB	2	Interference Check Sample AB								07/08/15 13:46
Iron		179	mg/L	0.030	89	80	120			
Manganese		0.429	mg/L	0.010	86	80	120			
Method: E200.7								Batch: 45129		
Lab ID: MB-45129	2	Method Blank								07/08/15 17:48
Iron		ND	mg/L	0.005						
Manganese		ND	mg/L	0.001						
Lab ID: LCS3-45129	2	Laboratory Control Sample								07/08/15 17:52
Iron		2.62	mg/L	0.030	105	85	115			
Manganese		2.54	mg/L	0.0012	102	85	115			
Lab ID: C15070021-001CMS3	2	Sample Matrix Spike								07/08/15 18:00
Iron		5.18	mg/L	0.030	102	70	130			
Manganese		4.97	mg/L	0.0023	99	70	130			
Lab ID: C15070021-001CMSD	2	Sample Matrix Spike Duplicate								07/08/15 18:19
Iron		5.27	mg/L	0.030	104	70	130	1.7	20	
Manganese		5.03	mg/L	0.0023	100	70	130	1.1	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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS2-C_150709B		
Lab ID: ICV	2	Initial Calibration Verification Standard								07/09/15 18:00
Mercury		0.00486	mg/L	0.0010	97	90	110			
Uranium		0.0482	mg/L	0.00030	96	90	110			
Method: E200.8								Batch: R201434		
Lab ID: LRB	2	Method Blank								07/09/15 13:14
Mercury		ND	mg/L	0.00010						
Uranium		ND	mg/L	1E-05						
Lab ID: LFB	2	Laboratory Fortified Blank								07/09/15 13:17
Mercury		0.00989	mg/L	0.0010	99	85	115			
Uranium		0.0489	mg/L	0.00030	98	85	115			
Lab ID: C15070276-003BMS4	2	Sample Matrix Spike								07/09/15 20:32
Mercury		0.0107	mg/L	0.00010	107	70	130			
Uranium		2.68	mg/L	0.00030		70	130			A
Lab ID: C15070276-003BMSD	2	Sample Matrix Spike Duplicate								07/09/15 20:35
Mercury		0.0112	mg/L	0.00010	112	70	130	4.2	20	
Uranium		2.68	mg/L	0.00030		70	130	0.0	20	A

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

Report Date: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS4-C_150706A		
Lab ID: ICV	7	Initial Calibration Verification Standard							07/07/15 15:01	
Arsenic		0.0494	mg/L	0.0010	99	90	110			
Copper		0.0495	mg/L	0.0010	99	90	110			
Lead		0.0490	mg/L	0.0010	98	90	110			
Mercury		0.00490	mg/L	0.0010	98	90	110			
Potassium		9.81	mg/L	0.0041	98	90	110			
Selenium		0.0531	mg/L	0.0010	106	90	110			
Uranium		0.0455	mg/L	0.00030	91	90	110			
Method: E200.8								Batch: R201289		
Lab ID: LRB	7	Method Blank							Run: ICPMS4-C_150706A 07/06/15 14:15	
Arsenic		ND	mg/L	5E-05						
Copper		ND	mg/L	3E-05						
Lead		ND	mg/L	2E-05						
Mercury		ND	mg/L	5E-05						
Potassium		0.02	mg/L	0.004						
Selenium		ND	mg/L	7E-05						
Uranium		ND	mg/L	9E-06						
Lab ID: LFB	7	Laboratory Fortified Blank							Run: ICPMS4-C_150706A 07/06/15 14:20	
Arsenic		0.0526	mg/L	0.0010	105	85	115			
Copper		0.0527	mg/L	0.0010	105	85	115			
Lead		0.0522	mg/L	0.0010	104	85	115			
Mercury		0.0101	mg/L	0.0010	101	85	115			
Potassium		12.3	mg/L	0.0041	98	85	115			
Selenium		0.0524	mg/L	0.0010	105	85	115			
Uranium		0.0506	mg/L	0.00030	101	85	115			
Lab ID: C15060969-002BMS4	7	Sample Matrix Spike							Run: ICPMS4-C_150706A 07/07/15 19:13	
Arsenic		0.0660	mg/L	0.0010	131	70	130			S
Copper		0.0513	mg/L	0.0050	101	70	130			
Lead		0.0540	mg/L	0.0010	108	70	130			
Mercury		0.0122	mg/L	0.00010	123	70	130			
Potassium		40.3	mg/L	1.0	127	70	130			
Selenium		0.0909	mg/L	0.0010	106	70	130			
Uranium		0.0924	mg/L	0.00030	103	70	130			
Lab ID: C15060969-002BMSD	7	Sample Matrix Spike Duplicate							Run: ICPMS4-C_150706A 07/07/15 19:19	
Arsenic		0.0686	mg/L	0.0010	136	70	130	4.0	20	S
Copper		0.0509	mg/L	0.0050	100	70	130	0.8	20	
Lead		0.0546	mg/L	0.0010	109	70	130	1.0	20	
Mercury		0.0127	mg/L	0.00010	127	70	130	3.9	20	
Potassium		41.2	mg/L	1.0	134	70	130	2.3	20	S
Selenium		0.0909	mg/L	0.0010	106	70	130	0.0	20	
Uranium		0.0916	mg/L	0.00030	101	70	130	0.9	20	

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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Analytical Run: ICPMS4-C_150710A
Lab ID: ICV	Initial Calibration Verification Standard									
Arsenic		0.0489	mg/L	0.0010	98	90	110			07/10/15 19:46
Method: E200.8										Batch: R201457
Lab ID: LRB	Method Blank									
Arsenic		ND	mg/L	5E-05				Run: ICPMS4-C_150710A		07/10/15 13:52
Lab ID: LFB	Laboratory Fortified Blank									
Arsenic		0.0511	mg/L	0.0010	102	85	115	Run: ICPMS4-C_150710A		07/10/15 13:58
Lab ID: C15070344-002BMS4	Sample Matrix Spike									
Arsenic		0.0554	mg/L	0.0010	110	70	130	Run: ICPMS4-C_150710A		07/10/15 22:45
Lab ID: C15070344-002BMSD	Sample Matrix Spike Duplicate									
Arsenic		0.0567	mg/L	0.0010	113	70	130	2.3	20	Run: ICPMS4-C_150710A 07/10/15 22:50

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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Analytical Run: IC2-C_150702A
Lab ID: ICV-070215	2	Initial Calibration Verification Standard								07/02/15 09:51
Chloride		9.46	mg/L	1.0	95	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			
Lab ID: CCV-070215-1	2	Continuing Calibration Verification Standard								07/02/15 11:23
Chloride		9.22	mg/L	1.0	92	90	110			
Sulfate		39.5	mg/L	1.0	99	90	110			
Method: E300.0										Batch: R201252
Lab ID: ICB-070215	2	Method Blank								Run: IC2-C_150702A 07/02/15 10:09
Chloride		ND	mg/L	0.01						
Sulfate		0.1	mg/L	0.03						
Lab ID: LFB-070215	2	Laboratory Fortified Blank								Run: IC2-C_150702A 07/02/15 10:46
Chloride		9.88	mg/L	1.0	99	90	110			
Sulfate		41.5	mg/L	1.0	103	90	110			
Lab ID: LFBD-070215	2	Laboratory Fortified Blank								Run: IC2-C_150702A 07/02/15 11:04
Chloride		9.91	mg/L	1.0	99	90	110			
Sulfate		41.5	mg/L	1.0	103	90	110			
Lab ID: C15070020-001AMS	2	Sample Matrix Spike								Run: IC2-C_150702A 07/02/15 12:00
Chloride		58.5	mg/L	1.0	104	90	110			
Sulfate		741	mg/L	2.1	91	90	110			
Lab ID: C15070020-001AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150702A 07/02/15 12:18
Chloride		59.7	mg/L	1.0	107	90	110	2.1	20	
Sulfate		761	mg/L	2.1	100	90	110	2.6	20	
Lab ID: C15070022-001AMS	2	Sample Matrix Spike								Run: IC2-C_150702A 07/02/15 17:13
Chloride		24.0	mg/L	1.0	103	90	110			
Sulfate		118	mg/L	1.0	101	90	110			
Lab ID: C15070022-001AMSD	2	Sample Matrix Spike Duplicate								Run: IC2-C_150702A 07/02/15 17:31
Chloride		23.8	mg/L	1.0	102	90	110	0.7	20	
Sulfate		117	mg/L	1.0	101	90	110	0.6	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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Analytical Run: TECHNICON_150706A		
Lab ID: CCV-16		Continuing Calibration Verification Standard							07/06/15 13:18	
Nitrogen, Nitrate+Nitrite as N		1.09	mg/L	0.10	109	90	110			
Lab ID: CCV-30		Continuing Calibration Verification Standard							07/06/15 13:53	
Nitrogen, Nitrate+Nitrite as N		1.09	mg/L	0.10	109	90	110			
Method: E353.2										Batch: R201274
Lab ID: MBLK-1		Method Blank					Run: TECHNICON_150706A		07/06/15 12:41	
Nitrogen, Nitrate+Nitrite as N		0.01	mg/L	0.008						
Lab ID: LFB-3		Laboratory Fortified Blank					Run: TECHNICON_150706A		07/06/15 12:46	
Nitrogen, Nitrate+Nitrite as N		2.10	mg/L	0.10	107	90	110			
Lab ID: C15070021-004EMS		Sample Matrix Spike					Run: TECHNICON_150706A		07/06/15 14:01	
Nitrogen, Nitrate+Nitrite as N		2.18	mg/L	0.10	111	90	110			S
- Matrix spike recoveries outside the acceptance range are considered matrix-related.										
Lab ID: C15070021-004EMSD		Sample Matrix Spike Duplicate					Run: TECHNICON_150706A		07/06/15 14:03	
Nitrogen, Nitrate+Nitrite as N		2.19	mg/L	0.10	112	90	110	0.5	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: 07/23/15

Project: MU1 Additional Baseline

Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: GrAB-2077
Lab ID: Th230-GrAB-2077		Laboratory Control Sample				Run: G542M_150709B				07/10/15 18:34
Gross Alpha		105	pCi/L		105	80	120			
Lab ID: Sr90-GrAB-2077		Laboratory Control Sample				Run: G542M_150709B				07/10/15 18:34
Gross Beta		184	pCi/L		94	80	120			
Lab ID: MB-GrAB-2077	6	Method Blank				Run: G542M_150709B				07/10/15 18:34
Gross Alpha		0.4	pCi/L							U
Gross Alpha precision (±)		1.0	pCi/L							
Gross Alpha MDC		2	pCi/L							
Gross Beta		-0.4	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Lab ID: C15070102-001DMS		Sample Matrix Spike				Run: G542M_150709B				07/10/15 18:34
Gross Alpha		107	pCi/L		104	70	130			
Lab ID: C15070102-001DMS		Sample Matrix Spike				Run: G542M_150709B				07/10/15 18:34
Gross Beta		200	pCi/L		100	70	130			
Lab ID: C15070102-002DDUP	6	Sample Duplicate				Run: G542M_150709B				07/10/15 18:34
Gross Alpha		18.4	pCi/L					7.8	58.5	
Gross Alpha precision (±)		4.42	pCi/L							
Gross Alpha MDC		1.92	pCi/L							
Gross Beta		4.36	pCi/L					42	84.4	
Gross Beta precision (±)		1.49	pCi/L							
Gross Beta MDC		3.37	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: UR Energy USA Inc
Project: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-7736
Lab ID: LCS-RA226-7736		Laboratory Control Sample				Run: TENNELEC-3_150708C				07/20/15 12:25
Radium 226		9.8	pCi/L		93	80	120			
Lab ID: MB-RA226-7736	3	Method Blank				Run: TENNELEC-3_150708C				07/20/15 12:25
Radium 226		0.2	pCi/L							
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Lab ID: C15070100-001HMS		Sample Matrix Spike				Run: TENNELEC-3_150708C				07/20/15 14:05
Radium 226		19	pCi/L		91	70	130			
Lab ID: C15070100-001HMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_150708C				07/20/15 14:06
Radium 226		19	pCi/L		90	70	130	1.1	49	

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: MU1 Additional Baseline

Report Date: 07/23/15
Work Order: C15070021

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05								Batch: RA228-4991	
Lab ID:	LCS-228-RA226-7736	Laboratory Control Sample				Run: TENNELEC-3_150708B			07/14/15 12:25	
Radium 228		5.8	pCi/L		105	80	120			
Lab ID:	MB-RA226-7736	3	Method Blank				Run: TENNELEC-3_150708B			07/14/15 12:25
Radium 228		-0.6	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Lab ID:	C15070119-001AMS	Sample Matrix Spike				Run: TENNELEC-3_150708B			07/14/15 12:25	
Radium 228		14	pCi/L		113	70	130			
Lab ID:	C15070119-001AMSD	Sample Matrix Spike Duplicate				Run: TENNELEC-3_150708B			07/14/15 12:25	
Radium 228		13	pCi/L		105	70	130	8.0	57.3	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



Work Order Receipt Checklist

UR Energy USA Inc

C15070021

Login completed by: Dorian Quis

Date Received: 7/1/2015

Reviewed by: BL2000\swaldrop

Received by: cjm

Reviewed Date: 7/6/2015

Carrier name: Hand Del

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	5.0°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" 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:

Samples for Guideline 8 Parameters were subsampled, filtered and preserved for Dissolved Metals and Radionuclides to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Total Metals were preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. The subsamples for Nitrate+Nitrite with 1 mL sulfuric acid per 250mL to pH <2. In accordance with the Clean Water Act, the Total Metals must be held for 24 hours prior to analysis.

Container temperature for Cooler 1 was 5.8°C, Cooler 2 was 5.6°C, Cooler 3 was 5.0°C, Cooler 4 was 6.8°C, and Cooler 5 was 7.2°C.

The following samples had radiation higher than 50 uR/HR: MP118 was ~60 uR/HR and MP115 was ~60 uR/HR.



Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: U.R. Energy		Project Name, PWS, Permit, Etc. MU1 Additional Baseline		Sample Origin State: WY		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: 5880 Enterprise Dr Suite 200 Casper WY 82609		Contact Name: Mike Gaylor		Phone/Fax: 307-265-2373 X321		Sampler: (Please Print) Jim Phillips	
Invoice Address: SAME		Invoice Contact & Phone: SAME		Purchase Order:		Quote/Bottle Order:	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data) <input type="checkbox"/> POTW/MWTP <input type="checkbox"/> Format: <input type="checkbox"/> State: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> Other: <input type="checkbox"/> NELAC		ANALYSIS REQUESTED SEE ATTACHED		Contact ELI prior to RUSH for charges and scheduling - See Instruction Page		Shipped by: Hand	
Matrix: Number of Containers Sample Type: A W S V B DW Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water		Guideline 8 Radiological Guide 8		Comments: C15070001		Receipt Temp 58, 56, 50, 68, 67, 72	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		Cooler ID(s): Various	
1 MU 109		6/30/15		8:15 AM		On Ice: <input checked="" type="checkbox"/> N	
2 MP 118		6/30/15		9:15 AM		Custody Seal On Bottle <input checked="" type="checkbox"/> Y N On Cooler <input checked="" type="checkbox"/> Y N	
3 MP 114		6/30/15		10:00 AM		Intact <input checked="" type="checkbox"/> Y N	
4 MP 115		6/30/15		10:50 AM		Signature Match <input checked="" type="checkbox"/> Y N	
5 MP 116		6/30/15		11:40 AM			
6 MP 117		6/30/15		12:40 PM			
7 MP 141		6/30/15		13:40 PM			
8							
9							
10							
Custody Record MUST be Signed		Date/Time: 6/30/15 14:50		Signature: Jim Phillips		Date/Time: 7/1/15 9:30	
Sample Disposal:		Return to Client:		Received by (print): Cheryl Smith		Signature:	

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. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.