SEMI-ANNUAL GROUND WATER EFFLUENT AND ENVIRONMENTAL MONITORING REPORT

SECOND HALF OF 2014 (JULY THRU DECEMBER)

9532395

UNITED NUCLEAR CORPORATION

P.O. Box 3077
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February 26, 2015
Mr. Andrew Persinko, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
#2 White Flint Mail Stop T7 E-18
Rockville, MD 20852-2738

RE: Second Half –July thru December 2014
Semi – Annual Ground Water Monitoring Report.
QA/QC Report and Effluent and Environmental Monitoring Report.

Dear Mr. Persinko

The above reports are submitted pursuant to our NRC Source Materials License NO. SUA-1475. Condition 30C and 12: Section V.A. 15 of the EPA Administrative Order for the Church Rock Site.

Although not part of the performance monitoring program requirement Zone 3 wells PB-3, PB-4, RW-11, NBL-2, RW-A, NW wells 1 thru 5, MW-6 and MW7 are also included in this report.

If you have any questions or recommendations, please advise.

Sincerely,

Max Chischilly Jr.
Radiation Safety Officer

dy
Enclosures

Cc. Robert Warren, Chester Engineers
Joe Davis GE
Earl Dixon, NMED
Freida White, NNEPA
Tom McLaughlin, NRC (3 Copies)
Janet Brooks, USEPA Region 6
Jack E. Whitten, NRC Region IV

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY TO DECEMBER OF 2014

FIELD DATA SHEET OF

THIRD AND FOURTH QUARTER

CONTROLS

SW ALLUVIUM

ZONE – 1

ZONE – 3

WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE

July MONTH Third QUARTER, 2014

SOUTHWEST ALLUVIUM

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
509-D	7/7/2014 O845	81.88	6949.5	6867.62	6,200	6.46	15.3
624	7/8/2014 O855	53.03	6898.7	6845.67	5,090	6.63	15.9
627	7/8/2014 1430	60.44	6892.4	6831.96	4,390	7.06	14.3
632	7/7/2014 1240	47.16	6903.6	6856.44	6,160	6.83	18.0
801	7/7/2014 1320	54.37	6904.3	6849.93	6,700	6.60	18.5
802	7/7/2014 1155	50.55	6907.1	6856.55	6,350	6.58	17.1
803	7/7/2014 1018	65.08	6922.6	6857.52	5,860	6.65	16.9
808	7/7/2014 1100	52.36	6910.7	6858.34	6,510	6.53	17.5
GW-1	7/7/2014 1505	64.04	6916.5	6852.46	6,180	6.67	19.4
GW-2	7/7/2014 1415	58.39	6912.9	6854.51	7,050	6.64	20.8
GW-3	7/8/2014 1100	55.49	6910.0	6854.51	5,230	6.63	19.5
EPA-23	O935	58.43	6926.5	6868.07	4,260	6.73	16.2
EPA-25	7/8/2014 1325	55.89	6903.4	6847.51	4,360	6.92	14.5
EPA-28	7/7/2014 1555	65.01	6917.9	6852.89	4,560	6.86	18.7
EPA-28 DUP *(QA/QC)	7/7/2014 1636	65.52	6917.9	6852.38	4,620	6.87	18.0
SBL -1	7/8/2014 O942	50.97	6896.3	6845.33	7,030	6.67	16.3
805	7/16/2014 1128	56.90	6915.6	6858.70			
807	7/16/2014 1122	61.30	6923.4	6862.10			

COMMENTS:

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE
OCTOBER MONTH FOURTH QUARTER, 2014

SOUTHWEST ALLUVIUM

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
509-D	10/6/2014 O843	82.06	6949.5	6867.44	6,360	6.52	13.2
624	10/7/2014 O940	52.76	6898.7	6845.94	5,340	6.70	13.4
627	10/7/2014 1242	60.45	6892.4	6831.95	4,400	6.99	17.4
632	10/6/2014 1232	47.35	6903.6	6856.25	6,620	6.52	15.8
801	10/6/2014 1320	54.58	6904.3	6849.72	6,520	6.65	15.8
802	10/6/2014 1150	50.75	6907.1	6856.35	6,430	6.59	15.5
803	10/6/2014 1017	65.34	6922.6	6857.26	5,840	6.59	14.0
808	10/6/2014 1100	52.59	6910.7	6858.11	6,250	6.55	15.5
GW-1	10/6/2014 1525	64.22	6916.5	6852.28	6,120	6.74	16.3
GW-2	10/6/2014 1410	58.58	6912.9	6854.32	7,690	6.42	17.1
GW-3	10/7/2014 1040	55.58	6910.0	6854.42	5,150	6.76	15.8
EPA-23	10/6/2014 O930	58.63	6926.5	6867.87	4,340	6.75	14.2
EPA-25	10/7/2014 1140	55.83	6903.4	6847.57	4,470	6.86	15.9
EPA-28	10/6/2014 1616	65.23	6917.9	6852.67	4,700	6.93	14.7
EPA-28 DUP *(QA/QC)	10/6/2014 1655	65.70	6917.9	6852.20	4,730	6.91	15.1
SBL -1	10/7/2014 O843	50.99	6896.3	6845.31	7,230	6.71	13.0
805	10/15/2014 1236	57.12	6915.6	6858.48			
807	10/15/2014 1243	61.55	6923.4	6861.85			

COMMENTS:

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE
JULY MONTH THIRD QUARTER, 2014

ZONE 1

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
	7/8/2014						
515-A	1630	106.01	7008.8	6902.79	9,010	6.21	14.7
	7/8/2014						
604	1717	104.95	7006.0	6901.05	6,140	5.89	14.5
	7/8/2014						
614	1530	105.24	7012.0	6906.76	7,640	6.60	15.1
	7/9/2014						
TWQ-142	1340	201.94	6983.4	6781.46	1,800	7.84	18.6
	7/9/2014						
EPA-2	1210	174.54	7019.5	6844.96	2,930	6.86	15.0
EPA-2 DUP	7/9/2014						
*(QA/QC)	1245	175.29	7019.5	6844.21	2,620	6.83	16.7
	7/9/2014						
EPA-4	1105	208.19	7069.8	6861.61	4,040	6.75	16.5
	7/9/2014						
EPA-5	1015	126.78	7011.5	6884.72	3,930	6.03	17.7
	7/9/2014						
EPA-7	O935	116.50	7011.7	6895.20	6,950	6.17	15.2
Rinsate	7/9/2014						
*(QA/QC)	1420				5	7.87	33.4
Field Blank	7/9/2014						
(QA/QC)	1440				4	5.83	21.7
	7/16/2014						
TWQ-143	1341	208.44	6989.6	6781.16			
	7/9/2014						
EPA-8	1149	216.53	7076.4	6859.87			
	7/16/2014						
505-A	1221	120.85	6963.1	6842.25			
	7/16/2014						
502-A	1206	196.12	7025.3	6829.18			
	7/16/2014						
501-A	1212	212.53	7048.0	6835.47			
	7/16/2014						
504-A	1328	201.09	7001.4	6800.31			
	7/16/2014						
412	1317	185.77	6979.4	6793.63			

COMMENTS:

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE
OCTOBER MONTH FOURTH QUARTER, 2014

ZONE 1

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
515-A	10/7/2014 1450	106.02	7008.8	6902.78	8,770	6.08	17.1
604	10/7/2014 1536	104.97	7006.0	6901.03	6,190	5.44	15.3
614	10/7/2014 1345	105.24	7012.0	6906.76	7,720	6.52	18.0
TWQ-142	10/8/2014 1330	201.78	6983.4	6781.62	1,899	7.97	15.2
EPA-2	10/8/2014 1205	174.48	7019.5	6845.02	3,150	6.98	13.8
EPA-2 DUP *(QA/QC)	10/8/2014 1250	175.23	7019.5	6844.27	3,190	6.92	14.2
EPA-4	10/8/2014 1100	208.20	7069.8	6861.60	4,350	6.92	14.1
EPA-5	10/8/2014 1010	126.76	7011.5	6884.74	4,170	6.11	14.8
EPA-7	10/8/2014 O918	116.44	7011.7	6895.26	7,310	6.25	13.6
Rinsate *(QA/QC)	10/8/2014 1420				3	8.08	19.9
Field Blank (QA/QC)	10/8/2014 1430				3	5.36	18.8
TWQ-143	10/15/2014 1358	208.35	6989.6	6781.25			
EPA-8	10/8/2014 1150	216.46	7076.4	6859.94			
505-A	10/15/2014 1311	120.85	6963.1	6842.25			
502-A	10/15/2014 1255	196.06	7025.3	6829.24			
501-A	10/15/2014 1300	212.53	7048.0	6835.47			
504-A	10/15/2014 1317	201.07	7001.4	6800.33			
412	10/15/2014 1326	185.74	6979.4	6793.66			

COMMENTS: _____

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE
JULY MONTH THIRD QUARTER, 2014

ZONE - 3

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
504-B	*No Sample see below		7001.8				
517	7/14/2014 1440	105.21	6971.29	6866.08	5,100	2.90	19.5
EPA-14	7/14/2014 1330	124.29	6963.88	6839.59	4,080	4.99	20.6
420	7/14/2014 1140	154.83	6982.6	6827.77	3,600	6.68	16.7
711	7/15/2014 1025	183.51	7042.75	6859.24	4,140	4.70	14.9
613	7/14/2014 1615	79.69	6961.3	6881.61	8,600	3.01	18.1
708	7/15/2014 O900	156.79	7011.73	6854.94	5,040	3.52	17.2
Rinsate (QA/QC)	7/15/2014 1345				4	5.67	33.1
Field Blank (QA/QC)	7/15/2014 1500				6	5.14	30.1
NBL-1	**NO SAMPLE SEE BELOW		6991.96				
EPA-9	7/9/2014 1147	170.53	7076.6	6906.07			
EPA-13	7/14/2014 O915	168.68	7031.66	6862.98	5,810	5.97	15.6
702	7/16/2014 1143	83.37	6974.2	6890.83			
710	7/16/2014 1259	165.09	7016.36	6851.27			
712	7/16/2014 1237	176.54	7022.16	6845.62			
713	7/16/2014 1309	167.76	7024.19	6856.43			
714	7/16/2014 1155	103.77	6962.54	6858.77			
701	7/16/2014 1150	84.63	6961.3	6876.67			
706	7/16/2014 1200	115.95	6972.12	6856.17			
707	7/16/2014 1303	161.22	7005.2	6843.98			
717	7/14/2014 1230	132.83	6972.07	6839.24	5,260	3.93	15.9
717 DUP. (QA/QC)	7/14/2014 1300	133.08	6972.07	6909.67	5,320	3.92	16.5
719	7/14/2014 1007	170.00	7001.48	6831.48	4,760	5.00	20.9
402	7/16/2014 1226	133.38	6968.20	6834.82			
446	7/16/2014 1359	160.08	6998.30	6838.22			
424**	7/16/2014 1230	140.94	6972.62	6831.68			

COMMENTS: *No Sample is collected due to the very low water volume in well 504-B and NBL-1 is dry.

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY AND TEMPERATURE
OCTOBER MONTH FOURTH QUARTER, 2014

ZONE - 3

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
504-B	*No Sample see below		7001.8				
517	10/13/2014 O942	105.20	6971.29	6866.09	5,380	2.80	12.6
EPA-14	10/13/2014 1645	124.37	6963.88	6839.51	3,840	5.37	14.2
420	10/13/2014 1535	155.04	6982.6	6827.56	3,690	6.77	15.5
711	10/13/2014 1230	183.47	7042.75	6859.28	4,210	4.71	14.4
613	10/13/2014 O830	79.83	6961.3	6881.47	8,760	3.00	12.9
708	10/13/2014 1055	156.84	7011.73	6854.89	5,100	3.51	14.5
Rinsate (QA/QC)	10/14/2014 1700				4	5.40	30.6
Field Blank (QA/QC)	10/14/2014 1800				6	5.50	17.1
NBL-1	**NO SAMPLE SEE BELOW		6991.96				
EPA-9	10/8/2014 1145	170.43	7076.6	6906.17			
EPA-13	10/13/2014 1310	168.68	7031.66	6862.98	5,920	5.99	15.3
702	10/15/2014 1225	83.34	6974.2	6890.86			
710	10/15/2014 1155	165.10	7016.36	6851.26			
712	10/15/2014 1159	176.71	7022.16	6845.45			
713	10/15/2014 1204	167.84	7024.19	6856.35			
714	10/15/2014 1135	103.84	6962.54	6858.70			
701	10/15/2014 1258	84.65	6961.3	6876.65			
706	10/15/2014 1144	116.12	6972.12	6856.00			
707	10/15/2014 1149	161.31	7005.2	6843.89			
717	10/14/2014 1125	132.96	6972.07	6839.11	5,310	3.75	15.7
717 DUP. (QA/QC)	10/14/2014 1310	133.23	6972.07	6909.52	5,380	3.74	17.5
719	10/13/2014 1355	170.09	7001.48	6831.39	4,850	5.24	16.1
402	10/15/2014 1130	133.62	6968.20	6834.58			
446	10/15/2014 1455	160.32	6998.30	6837.98			
424**	10/15/2014 1124	141.16	6972.62	6831.46			

COMMENTS: *No Sample is collected due to the very low water volume in well 504-B and NBL-1 is dry.

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE
JULY MONTH THIRD QUARTER, 2014
SUPPLEMENTAL

ZONE - 3

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
PB-2	7/17/2014 1348	187.09	6989.70	6802.61			
PB-3	7/15/2014 1215	189.71	6990.23	6800.52	4,430	3.61	25.0
NBL-2	7/15/2014 1105	166.31	6975.61	6809.30	3,400	6.73	14.3
RW-A	7/15/2014 1405	173.81	6983.23	6809.42	4,210	6.14	21.2
RW-11			6983.73				
NW-1	7/15/2014 1230	198.38	6997.15	6798.77	3,850	7.15	15.1
NW-2	7/15/2014 1245	195.79	6989.76	6793.97	4,170	6.33	17.8
NW-3	7/15/2014 1310	187.04	6985.57	6798.53	3,810	6.66	13.2
NW-4	7/15/2014 1345	200.12	6990.13	6790.01	3,990	6.84	23.1
NW-5	7/15/2014 1330	186.68	6985.85	6799.17	4,270	6.76	13.3
PB-4	7/15/2014 1305	188.82	6990.18	6801.36	4,670	2.95	25.1
MW-6	7/15/2014 1400	197.43	6990.94	6793.51	3,610	7.46	35.8
MW-7	7/15/2014 1120	194.16	6988.82	6794.66	3,520	6.57	18.1
IW-A	7/17/2014 1400	198.04	6992.77	6794.73			

COMMENTS: **No full collection for all lab analytical parameters due to very low water volume in well MW-6.

GROUND WATER FIELD MONITORING
WATER ELEVATIONS, PH, CONDUCTIVITY, AND TEMPERATURE
__October_____MONTH Fourth_____QUARTER, 2014___
SUPPLEMENTAL

ZONE - 3

WELL NO.	DEPTH SAMPLE DATE	DEPT TO WATER (FT)	REF. ELEV.	TOP OF WATER ELEV.	FIELD COND. (US/CM)	FIELD Ph (UNITS)	FIELD TEMP. (C)
PB-2	10/15/2014 1202	187.73	6989.70	6801.97			
PB-3	10/14/2014 1500	190.21	6990.23	6800.02	4,040	3.96	26.1
NBL-2	10/14/2014 O855	166.85	6975.61	6808.76	3,300	6.62	12.8
RW-A	10/14/2014 1030	173.03	6983.23	6810.20	3,650	6.09	14.5
RW-11	10/14/2014 1055	170.79	6983.73	6812.94	4,330	6.39	17.3
PB-4	10/14/2014 1400	189.34	6990.18	6800.84	4,870	2.98	18.8
MW-6	10/14/2014 1615	197.55	6990.94	6793.39	4,330	7.08	14.7
MW-7	10/14/2014 O945	193.34	6988.82	6795.48	3,580	6.73	15.2
MW-2	10/15/2014 1141	160.19	6996.94	6836.75			
MW-3	10/15/2014 1147	170.38	6986.38	6816.00			
NW-1	10/14/2014 1636	198.60	6997.15	6798.55	3,780	6.77	15.5
IW-A	10/15/2014 1110	198.60	6992.77	6794.17			
703	10/15/2014 1120	90.74	6978.92	6888.18			
709	10/15/2014 1135	159.73	7003.54	6843.81			
715	10/15/2014 1247	116.53	6963.92	6847.39			
716	10/15/2014 1242	125.63	6964.94	6839.31			
718	10/15/2014 1225	162.57	6995.06	6832.49			
RW-16	10/15/2014 1238	150.13	6979.73	6829.60			
RW-17	10/14/2014 1217	173.71	7012.78	6839.07			
NW-2	10/14/2014 1730	193.95	6989.76	6795.81	4,220	6.40	18.1
NW-3	10/14/2014 1703	187.52	6985.57	6798.05	3,850	6.75	12.5
NW-4	10/14/2014 1648	199.82	6990.13	6790.31	4,060	6.72	20.5
NW-5	10/14/2014 1719	187.14	6985.85	6798.71	4,300	6.74	12.9
Z3M-1	10/15/2014 1105	68.18	6996.30	6928.12			
Z3M-2	10/15/2014 1109	77.69	7009.30	6931.61			

COMMENTS: No sample collection for full analysis due to low water volume in well PB-3, PB-4 and MW-6.

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY TO DECEMBER OF 2014

SOUTH WEST ALLUVIUM

*509-D

624

627

*632

801

802

803

808

*GW-1

*GW-2

*GW-3

*EPA-23

EPA-25

*EPA-28

SBL-1

LEVELS ONLY

805

807

***POINT OF COMPLIANCE WELLS**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-001
Client Sample ID: 509-D

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 08:45
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2450	mg/L		5		A2320 B	07/10/14 19:19 / jba
Calcium	820	mg/L		1		E200.7	07/18/14 20:29 / sf
Chloride	352	mg/L	D	2		E300.0	07/10/14 15:30 / wc
Magnesium	356	mg/L		1		E200.7	07/18/14 20:29 / sf
Nitrogen, Ammonia as N	0.12	mg/L		0.05		A4500-NH3 G	07/14/14 12:59 / lr
Nitrogen, Nitrate+Nitrite as N	8.4	mg/L	D	0.2		E353.2	07/10/14 12:46 / lr
Potassium	13	mg/L		1		E200.7	07/18/14 20:29 / sf
Sodium	408	mg/L	D	2		E200.7	07/18/14 20:29 / sf
Sulfate	2090	mg/L	D	8		E300.0	07/10/14 15:30 / wc
PHYSICAL PROPERTIES							
pH	6.62	s.u.	H	0.01		A4500-H B	07/10/14 14:34 / alp
Solids, Total Dissolved TDS @ 180 C	5680	mg/L		100		A2540 C	07/11/14 13:32 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 13:52 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 21:44 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 13:52 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 13:52 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 16:35 / cp
Manganese	3.22	mg/L		0.01		E200.7	07/14/14 13:52 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 13:52 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 13:52 / sf
Uranium	0.222	mg/L		0.0003		E200.8	07/14/14 16:35 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:35 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 14:47 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:13 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.4	pCi/L	U			E909.0	08/03/14 07:06 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 07:06 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 07:06 / eli-cs
Radium 226	0.51	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	1.3	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.75	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.1	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.02	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-001
Client Sample ID: 509-D

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 08:45
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-3.30	%				A1030 E	07/21/14 14:05 / kbh
Anions	94.2	meq/L				A1030 E	07/21/14 14:05 / kbh
Cations	88.2	meq/L				A1030 E	07/21/14 14:05 / kbh
Solids, Total Dissolved Calculated	5300	mg/L				A1030 E	07/21/14 14:05 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:05 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 15:13 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 15:13 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 15:13 / jlr
Chloroform	ND	ug/L		0.50		E624	07/17/14 15:13 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/17/14 15:13 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/17/14 15:13 / jlr
Surr: Dibromofluoromethane	110	%REC		64.4-131		E624	07/17/14 15:13 / jlr
Surr: p-Bromofluorobenzene	108	%REC		67.1-133		E624	07/17/14 15:13 / jlr
Surr: Toluene-d8	106	%REC		79.7-125		E624	07/17/14 15:13 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-001
Client Sample ID: 509-D

Report Date: 11/19/14
Collection Date: 10/06/14 08:43
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2470	mg/L		5		A2320 B	10/10/14 05:32 / jba
Calcium	864	mg/L		1		E200.7	10/21/14 18:03 / sf
Chloride	353	mg/L	D	2		E300.0	10/17/14 22:35 / wc
Magnesium	345	mg/L		1		E200.7	10/21/14 18:03 / sf
Nitrogen, Ammonia as N	0.34	mg/L		0.05		A4500-NH3 G	10/10/14 17:26 / ljl
Nitrogen, Nitrate+Nitrite as N	10.9	mg/L	D	0.5		E353.2	10/13/14 12:00 / lr
Potassium	12	mg/L		1		E200.7	10/21/14 18:03 / sf
Sodium	399	mg/L		1		E200.7	10/21/14 18:03 / sf
Sulfate	2010	mg/L	D	8		E300.0	10/17/14 22:35 / wc
PHYSICAL PROPERTIES							
pH	6.64	s.u.	H	0.01		A4500-H B	10/10/14 11:26 / alp
Solids, Total Dissolved TDS @ 180 C	5500	mg/L		100		A2540 C	10/10/14 14:12 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:10 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 20:26 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 20:26 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 20:26 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 20:58 / clm
Manganese	3.16	mg/L		0.01		E200.7	10/21/14 21:10 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:10 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 20:26 / sf
Uranium	0.270	mg/L		0.0003		E200.8	11/06/14 20:58 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:10 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 16:15 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 14:58 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	-0.6	pCi/L	U			E909.0	10/29/14 18:19 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 18:19 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 18:19 / eli-cs
Radium 226	0.50	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 precision (±)	0.18	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 MDC	0.18	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 228	3.5	pCi/L				RA-05	10/17/14 12:05 / plj
Radium 228 precision (±)	0.95	pCi/L				RA-05	10/17/14 12:05 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	10/17/14 12:05 / plj
Thorium 230	0.04	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.09	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-001
Client Sample ID: 509-D

Report Date: 11/19/14
Collection Date: 10/06/14 08:43
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.06	%				A1030 E	10/22/14 16:25 / kbh
Anions	92.9	meq/L				A1030 E	10/22/14 16:25 / kbh
Cations	89.1	meq/L				A1030 E	10/22/14 16:25 / kbh
Solids, Total Dissolved Calculated	5300	mg/L				A1030 E	10/22/14 16:25 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/22/14 16:25 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 13:45 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 13:45 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 13:45 / jlr
Chloroform	ND	ug/L		0.50		E624	10/13/14 13:45 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/13/14 13:45 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		73.7-126		E624	10/13/14 13:45 / jlr
Surr: Dibromofluoromethane	100	%REC		64.4-131		E624	10/13/14 13:45 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		67.1-133		E624	10/13/14 13:45 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	10/13/14 13:45 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		509-D	509-D	509-D	509-D
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-001	C14070373-001	C14040132-001	C14010260-001
Bicarbonate as HCO3	mg/L	2470	2450	2530	2560
Calcium	mg/L	864	820	786	808
Chloride	mg/L	353	352	360	346
Magnesium	mg/L	345	356	382	442
Nitrogen, Ammonia as N	mg/L	0.34	0.12	ND(0.05)	3.58
Nitrogen, Nitrate+Nitrite as N	mg/L	10.9	8.4	8.7	4.9
Potassium	mg/L	12	13	12	14
Sodium	mg/L	399	408	370	409
Sulfate	mg/L	2010	2090	1860	2030
pH	s.u.	6.64	6.62	6.48	6.49
Solids, Total Dissolved TDS @ 180 C	mg/L	5500	5680	5300	5510
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	3.16	3.22	3.90	3.92
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.270	0.222	0.286	0.283
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.3	0.3	0.5	0.9
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.5	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	-0.6	0.4	-1	0.1
Lead 210 precision (±)	pCi/L	0.7	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.46	0.8
Radium 226	pCi/L	0.50	0.51	0.34	0.63
Radium 226 precision (±)	pCi/L	0.18	0.15	0.14	0.18
Radium 226 MDC	pCi/L	0.18	0.15	0.16	0.17
Radium 228	pCi/L	3.5	1.3	1.8	0.25
Radium 228 precision (±)	pCi/L	0.95	0.75	0.71	1.1
Radium 228 MDC	pCi/L	1.3	1.1	1.0	1.8
Thorium 230	pCi/L	0.04	0.02	0.02	0.05
Thorium 230 precision (±)	pCi/L	0.09	0.06	0.07	0.1
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	-2.06	-3.30	-2.19	0.407
Anions	meq/L	92.9	94.2	91.0	94.3
Cations	meq/L	89.1	88.2	87.1	95.1
Solids, Total Dissolved Calculated	mg/L	5300	5300	5100	5400
TDS Balance (0.80 - 1.20)		1.05	1.07	1.04	1.03
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-001
Client Sample ID: 624

Report Date: 08/28/14
Collection Date: 07/08/14 08:55
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1600	mg/L		5		A2320 B	07/11/14 20:05 / jba
Calcium	712	mg/L		1		E200.7	07/23/14 18:28 / sf
Chloride	204	mg/L	D	2		E300.0	07/14/14 16:49 / wc
Magnesium	444	mg/L		1		E200.7	07/23/14 18:28 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:35 / lr
Nitrogen, Nitrate+Nitrite as N	72	mg/L	D	2		E353.2	07/11/14 15:33 / lr
Potassium	6	mg/L		1		E200.7	07/23/14 18:28 / sf
Sodium	312	mg/L	D	2		E200.7	07/23/14 18:28 / sf
Sulfate	2180	mg/L	D	8		E300.0	07/14/14 16:49 / wc
PHYSICAL PROPERTIES							
pH	6.61	s.u.	H	0.01		A4500-H B	07/11/14 14:29 / tmm
Solids, Total Dissolved TDS @ 180 C	5220	mg/L		29		A2540 C	07/14/14 15:09 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/16/14 21:05 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 18:38 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 18:38 / cp
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 18:38 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 18:38 / cp
Manganese	0.16	mg/L		0.01		E200.7	07/16/14 21:05 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 21:05 / sf
Nickel	ND	mg/L		0.05		E200.7	07/16/14 21:05 / sf
Uranium	0.0408	mg/L		0.0003		E200.8	07/16/14 18:38 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 21:05 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 17:47 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:36 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.6	pCi/L	U			E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.04	pCi/L	U			E909.0	08/08/14 01:58 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 01:58 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 01:58 / eli-cs
Radium 226	0.35	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.13	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	2.3	pCi/L				RA-05	07/29/14 12:34 / plj
Radium 228 precision (±)	0.92	pCi/L				RA-05	07/29/14 12:34 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	07/29/14 12:34 / plj
Thorium 230	-0.001	pCi/L	U			E908.0	07/17/14 17:04 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E908.0	07/17/14 17:04 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	07/17/14 17:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-001
Client Sample ID: 624

Report Date: 08/28/14
Collection Date: 07/08/14 08:55
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	2.07	%				A1030 E	07/24/14 14:58 / kbh
Anions	82.3	meq/L				A1030 E	07/24/14 14:58 / kbh
Cations	85.8	meq/L				A1030 E	07/24/14 14:58 / kbh
Solids, Total Dissolved Calculated	5000	mg/L				A1030 E	07/24/14 14:58 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 14:58 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 15:08 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 15:08 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 15:08 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 15:08 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 15:08 / jlr
Surr: 1,2-Dichlorobenzene-d4	70.0	%REC	S	73.7-126		E624	07/18/14 15:08 / jlr
Surr: Dibromofluoromethane	78.0	%REC		64.4-131		E624	07/18/14 15:08 / jlr
Surr: p-Bromofluorobenzene	65.0	%REC	S	67.1-133		E624	07/18/14 15:08 / jlr
Surr: Toluene-d8	65.0	%REC	S	79.7-125		E624	07/18/14 15:08 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-002
Client Sample ID: 624

Report Date: 11/19/14
Collection Date: 10/07/14 09:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1620	mg/L		5		A2320 B	10/10/14 20:32 / jba
Calcium	684	mg/L		1		E200.7	10/23/14 19:04 / sf
Chloride	210	mg/L	D	2		E300.0	10/18/14 06:26 / wc
Magnesium	417	mg/L		1		E200.7	10/23/14 19:04 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:11 / ljl
Nitrogen, Nitrate+Nitrite as N	68	mg/L	D	10		E353.2	10/13/14 13:03 / lr
Potassium	6	mg/L		1		E200.7	10/23/14 19:04 / sf
Sodium	289	mg/L		1		E200.7	10/23/14 19:04 / sf
Sulfate	2220	mg/L	D	8		E300.0	10/18/14 06:26 / wc
PHYSICAL PROPERTIES							
pH	6.63	s.u.	H	0.01		A4500-H B	10/10/14 13:28 / alp
Solids, Total Dissolved TDS @ 180 C	5270	mg/L		30		A2540 C	10/13/14 16:01 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/16/14 14:34 / sf
Beryllium	ND	mg/L		0.001		E200.7	11/05/14 18:09 / sf
Cadmium	ND	mg/L		0.005		E200.7	11/05/14 18:09 / sf
Cobalt	ND	mg/L		0.01		E200.7	11/05/14 18:09 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 22:41 / clm
Manganese	0.13	mg/L		0.01		E200.7	10/16/14 14:34 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/16/14 14:34 / sf
Nickel	ND	mg/L		0.05		E200.7	10/16/14 14:34 / sf
Uranium	0.0385	mg/L		0.0003		E200.8	11/06/14 22:41 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/16/14 14:34 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 19:52 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:57 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.2	pCi/L	U			E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	-0.1	pCi/L	U			E909.0	10/29/14 00:57 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 00:57 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 00:57 / eli-cs
Radium 226	0.31	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 226 precision (±)	0.15	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 226 MDC	0.18	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 228	1.2	pCi/L	U			RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	0.86	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	10/20/14 13:21 / plj
Thorium 230	0.008	pCi/L	U			E908.0	10/22/14 09:27 / res
Thorium 230 precision (±)	0.05	pCi/L				E908.0	10/22/14 09:27 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	10/22/14 09:27 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-002
Client Sample ID: 624

Report Date: 11/19/14
Collection Date: 10/07/14 09:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.57	%				A1030 E	10/27/14 08:41 / kbh
Anions	83.7	meq/L				A1030 E	10/27/14 08:41 / kbh
Cations	81.1	meq/L				A1030 E	10/27/14 08:41 / kbh
Solids, Total Dissolved Calculated	5000	mg/L				A1030 E	10/27/14 08:41 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	10/27/14 08:41 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 00:53 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 00:53 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 00:53 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 00:53 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 00:53 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		73.7-126		E624	10/14/14 00:53 / jlr
Surr: Dibromofluoromethane	92.0	%REC		64.4-131		E624	10/14/14 00:53 / jlr
Surr: p-Bromofluorobenzene	88.0	%REC		67.1-133		E624	10/14/14 00:53 / jlr
Surr: Toluene-d8	97.0	%REC		79.7-125		E624	10/14/14 00:53 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		624	624	624	624
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/7/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100552-002	C14070432-001	C14040184-002	C14010260-010
Bicarbonate as HCO3	mg/L	1620	1600	1590	1580
Calcium	mg/L	684	712	711	677
Chloride	mg/L	210	204	209	205
Magnesium	mg/L	417	444	444	412
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	68	72	68	76
Potassium	mg/L	6	6	6	6
Sodium	mg/L	289	312	304	286
Sulfate	mg/L	2220	2180	2350	2150
pH	s.u.	6.63	6.61	6.70	6.59
Solids, Total Dissolved TDS @ 180 C	mg/L	5270	5220	5220	5220
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	0.3
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.13	0.16	0.15	0.17
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0385	0.0408	0.0421	0.0386
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.2	0.6	0.1	0.4
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.4	0.3	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.6	0.5	0.6
Lead 210	pCi/L	-0.1	0.04	1.3	0.5
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1	0.8
Radium 226	pCi/L	0.31	0.35	0.25	0.19
Radium 226 precision (±)	pCi/L	0.15	0.13	0.12	0.13
Radium 226 MDC	pCi/L	0.18	0.15	0.14	0.17
Radium 228	pCi/L	1.2	2.3	0.89	0.95
Radium 228 precision (±)	pCi/L	0.86	0.92	0.75	1.1
Radium 228 MDC	pCi/L	1.3	1.3	1.2	1.8
Thorium 230	pCi/L	0.008	-0.001	0.009	0.005
Thorium 230 precision (±)	pCi/L	0.05	0.03	0.06	0.06
Thorium 230 MDC	pCi/L	0.1	0.07	0.2	0.2
A/C Balance (± 5)	%	-1.57	2.07	-0.47	-0.764
Anions	meq/L	83.7	82.3	86.2	81.5
Cations	meq/L	81.1	85.8	85.4	80.3
Solids, Total Dissolved Calculated	mg/L	5000	5000	5200	4900
TDS Balance (0.80 - 1.20)		1.06	1.05	1.01	1.07
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-005
Client Sample ID: 627

Report Date: 08/28/14
Collection Date: 07/08/14 14:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	623	mg/L		5		A2320 B	07/11/14 20:42 / jba
Calcium	527	mg/L		1		E200.7	07/23/14 18:49 / sf
Chloride	33	mg/L	D	2		E300.0	07/14/14 17:58 / wc
Magnesium	237	mg/L		1		E200.7	07/23/14 18:49 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:45 / lr
Nitrogen, Nitrate+Nitrite as N	80	mg/L	D	2		E353.2	07/11/14 15:43 / lr
Potassium	6	mg/L		1		E200.7	07/23/14 18:49 / sf
Sodium	438	mg/L	D	2		E200.7	07/23/14 18:49 / sf
Sulfate	2310	mg/L	D	8		E300.0	07/14/14 17:58 / wc
PHYSICAL PROPERTIES							
pH	6.87	s.u.	H	0.01		A4500-H B	07/11/14 14:41 / tmm
Solids, Total Dissolved TDS @ 180 C	4240	mg/L		39		A2540 C	07/14/14 15:10 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.8	07/28/14 20:08 / clm
Beryllium	ND	mg/L		0.001		E200.8	07/28/14 20:08 / clm
Cadmium	ND	mg/L		0.005		E200.8	07/28/14 20:08 / clm
Cobalt	ND	mg/L		0.01		E200.8	07/28/14 20:08 / clm
Lead	ND	mg/L		0.001		E200.8	07/28/14 20:08 / clm
Manganese	0.03	mg/L		0.01		E200.8	07/28/14 20:08 / clm
Molybdenum	ND	mg/L		0.1		E200.8	07/28/14 20:08 / clm
Nickel	ND	mg/L		0.05		E200.8	07/28/14 20:08 / clm
Uranium	0.0198	mg/L		0.0003		E200.8	07/28/14 20:08 / clm
Vanadium	ND	mg/L		0.1		E200.8	07/28/14 20:08 / clm
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 18:59 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:48 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	-0.1	pCi/L	U			E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.01	pCi/L	U			E909.0	08/08/14 06:36 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 06:36 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 06:36 / eli-cs
Radium 226	0.20	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 226 precision (±)	0.12	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 228	0.09	pCi/L	U			RA-05	07/29/14 12:34 / plj
Radium 228 precision (±)	0.83	pCi/L				RA-05	07/29/14 12:34 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 12:34 / plj
Thorium 230	0.01	pCi/L	U			E908.0	07/17/14 17:04 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E908.0	07/17/14 17:04 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	07/17/14 17:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-005
Client Sample ID: 627

Report Date: 08/28/14
Collection Date: 07/08/14 14:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.03	%				A1030 E	07/24/14 14:59 / kbh
Anions	65.0	meq/L				A1030 E	07/24/14 14:59 / kbh
Cations	65.1	meq/L				A1030 E	07/24/14 14:59 / kbh
Solids, Total Dissolved Calculated	4200	mg/L				A1030 E	07/24/14 14:59 / kbh
TDS Balance (0.80 - 1.20)	1.00					A1030 E	07/24/14 14:59 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	1.11	ug/L		0.50		E624	07/18/14 17:26 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 17:26 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 17:26 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 17:26 / jlr
Trihalomethanes, Total	1.11	ug/L		0.50		E624	07/18/14 17:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/18/14 17:26 / jlr
Surr: Dibromofluoromethane	130	%REC		64.4-131		E624	07/18/14 17:26 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/18/14 17:26 / jlr
Surr: Toluene-d8	86.0	%REC		79.7-125		E624	07/18/14 17:26 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-005
Client Sample ID: 627

Report Date: 11/19/14
Collection Date: 10/07/14 12:42
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	613	mg/L		5		A2320 B	10/10/14 21:00 / jba
Calcium	527	mg/L		1		E200.7	10/23/14 19:15 / sf
Chloride	33	mg/L	D	2		E300.0	10/18/14 07:53 / wc
Magnesium	228	mg/L		1		E200.7	10/23/14 19:15 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:16 / ljl
Nitrogen, Nitrate+Nitrite as N	75	mg/L	D	10		E353.2	10/13/14 13:10 / lr
Potassium	5	mg/L		1		E200.7	10/23/14 19:15 / sf
Sodium	392	mg/L		1		E200.7	10/23/14 19:15 / sf
Sulfate	2230	mg/L	D	8		E300.0	10/18/14 07:53 / wc
PHYSICAL PROPERTIES							
pH	6.93	s.u.	H	0.01		A4500-H B	10/10/14 13:50 / alp
Solids, Total Dissolved TDS @ 180 C	4280	mg/L		30		A2540 C	10/13/14 16:02 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/16/14 14:46 / sf
Beryllium	ND	mg/L		0.001		E200.8	10/20/14 17:29 / cp
Cadmium	ND	mg/L		0.005		E200.8	10/20/14 17:29 / cp
Cobalt	ND	mg/L		0.01		E200.8	10/20/14 17:29 / cp
Lead	ND	mg/L		0.001		E200.8	11/06/14 23:05 / clm
Manganese	0.08	mg/L		0.01		E200.7	10/16/14 14:46 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/16/14 14:46 / sf
Nickel	ND	mg/L		0.05		E200.7	10/16/14 14:46 / sf
Uranium	0.0208	mg/L		0.0003		E200.8	11/06/14 23:05 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/16/14 14:46 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 20:28 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 16:08 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	10/21/14 14:43 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 14:43 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 14:43 / dmf
Lead 210	0.6	pCi/L	U			E909.0	10/29/14 04:26 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 04:26 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 04:26 / eli-cs
Radium 226	0.21	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.14	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	1.2	pCi/L	U			RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	0.90	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	10/20/14 13:21 / plj
Thorium 230	-0.01	pCi/L	U			E908.0	10/22/14 09:27 / res
Thorium 230 precision (±)	0.05	pCi/L				E908.0	10/22/14 09:27 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	10/22/14 09:27 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-005
Client Sample ID: 627

Report Date: 11/19/14
Collection Date: 10/07/14 12:42
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-0.65	%				A1030 E	10/27/14 08:42 / kbh
Anions	63.1	meq/L				A1030 E	10/27/14 08:42 / kbh
Cations	62.3	meq/L				A1030 E	10/27/14 08:42 / kbh
Solids, Total Dissolved Calculated	4100	mg/L				A1030 E	10/27/14 08:42 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/27/14 08:42 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 02:38 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 02:38 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 02:38 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 02:38 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 02:38 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		73.7-126		E624	10/14/14 02:38 / jlr
Surr: Dibromofluoromethane	93.0	%REC		64.4-131		E624	10/14/14 02:38 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		67.1-133		E624	10/14/14 02:38 / jlr
Surr: Toluene-d8	96.0	%REC		79.7-125		E624	10/14/14 02:38 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		627	627	627	627
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/7/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100552-005	C14070432-005	C14040184-003	C14010260-014
Bicarbonate as HCO3	mg/L	613	623	609	608
Calcium	mg/L	527	527	522	509
Chloride	mg/L	33	33	37	34
Magnesium	mg/L	228	237	231	224
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	75	80	83	86
Potassium	mg/L	5	6	6	5
Sodium	mg/L	392	438	438	400
Sulfate	mg/L	2230	2310	2230	2230
pH	s.u.	6.93	6.87	6.91	6.95
Solids, Total Dissolved TDS @ 180 C	mg/L	4280	4240	4210	4330
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.08	0.03	0.03	0.03
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0208	0.0198	0.0195	0.0209
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.3	-0.1	0.5	0.3
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.4	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.6	0.5	0.6
Lead 210	pCi/L	0.6	0.01	0.8	0.4
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1	0.8
Radium 226	pCi/L	0.21	0.20	0.43	0.33
Radium 226 precision (±)	pCi/L	0.14	0.12	0.14	0.14
Radium 226 MDC	pCi/L	0.19	0.16	0.15	0.16
Radium 228	pCi/L	1.2	0.09	-0.2	-0.2
Radium 228 precision (±)	pCi/L	0.90	0.83	0.89	1.2
Radium 228 MDC	pCi/L	1.4	1.4	1.5	2.1
Thorium 230	pCi/L	-0.01	0.01	0.04	0.04
Thorium 230 precision (±)	pCi/L	0.05	0.03	0.07	0.08
Thorium 230 MDC	pCi/L	0.2	0.07	0.2	0.2
A/C Balance (± 5)	%	-0.65	0.03	0.92	-1.42
Anions	meq/L	63.1	65.0	63.1	63.1
Cations	meq/L	62.3	65.1	64.3	61.4
Solids, Total Dissolved Calculated	mg/L	4100	4200	4100	4100
TDS Balance (0.80 - 1.20)		1.05	1.00	1.02	1.06
Trihalomethanes, Total	ug/L	ND(0.50)	1.11	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-006
Client Sample ID: 632

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 12:40
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1870	mg/L		5		A2320 B	07/10/14 20:52 / jba
Calcium	580	mg/L		1		E200.7	07/18/14 21:06 / sf
Chloride	226	mg/L	D	5		E300.0	07/10/14 18:07 / wc
Magnesium	758	mg/L		1		E200.7	07/18/14 21:06 / sf
Nitrogen, Ammonia as N	0.18	mg/L		0.05		A4500-NH3 G	07/14/14 13:10 / lr
Nitrogen, Nitrate+Nitrite as N	58	mg/L	D	2		E353.2	07/10/14 13:08 / lr
Potassium	10	mg/L		1		E200.7	07/18/14 21:06 / sf
Sodium	395	mg/L	D	3		E200.7	07/18/14 21:06 / sf
Sulfate	3410	mg/L	D	20		E300.0	07/10/14 18:07 / wc
PHYSICAL PROPERTIES							
pH	6.57	s.u.	H	0.01		A4500-H B	07/10/14 14:49 / alp
Solids, Total Dissolved TDS @ 180 C	7010	mg/L		100		A2540 C	07/11/14 13:50 / alp
METALS - TOTAL							
Aluminum	0.2	mg/L		0.1		E200.7	07/14/14 14:33 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:16 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:33 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:33 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 15:43 / cp
Manganese	1.52	mg/L		0.01		E200.7	07/14/14 14:33 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:33 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:33 / sf
Uranium	0.0622	mg/L		0.0003		E200.8	07/14/14 15:43 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 15:43 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 16:11 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:27 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.9	pCi/L	U			E909.0	08/03/14 12:53 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 12:53 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 12:53 / eli-cs
Radium 226	0.74	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.17	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	1.3	pCi/L	U			RA-05	09/23/14 12:39 / plj
Radium 228 precision (±)	2.3	pCi/L				RA-05	09/23/14 12:39 / plj
Radium 228 MDC	3.7	pCi/L				RA-05	09/23/14 12:39 / plj
Thorium 230	0.1	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-006
Client Sample ID: 632

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 12:40
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.48	%				A1030 E	07/21/14 14:07 / kbh
Anions	112	meq/L				A1030 E	07/21/14 14:07 / kbh
Cations	109	meq/L				A1030 E	07/21/14 14:07 / kbh
Solids, Total Dissolved Calculated	6600	mg/L				A1030 E	07/21/14 14:07 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:07 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 18:05 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 18:05 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 18:05 / jlr
Chloroform	4.00	ug/L		0.50		E624	07/17/14 18:05 / jlr
Trihalomethanes, Total	4.00	ug/L		0.50		E624	07/17/14 18:05 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/17/14 18:05 / jlr
Surr: Dibromofluoromethane	127	%REC		64.4-131		E624	07/17/14 18:05 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/17/14 18:05 / jlr
Surr: Toluene-d8	104	%REC		79.7-125		E624	07/17/14 18:05 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-006
Client Sample ID: 632

Report Date: 11/19/14
Collection Date: 10/06/14 12:32
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1870	mg/L		5		A2320 B	10/10/14 18:27 / jba
Calcium	584	mg/L		1		E200.7	10/21/14 18:22 / sf
Chloride	254	mg/L	D	5		E300.0	10/18/14 00:37 / wc
Magnesium	803	mg/L		1		E200.7	10/21/14 18:22 / sf
Nitrogen, Ammonia as N	0.34	mg/L		0.05		A4500-NH3 G	10/10/14 19:36 / ljl
Nitrogen, Nitrate+Nitrite as N	59	mg/L	D	10		E353.2	10/13/14 12:23 / lr
Potassium	10	mg/L		1		E200.7	10/21/14 18:22 / sf
Sodium	398	mg/L		1		E200.7	10/21/14 18:22 / sf
Sulfate	3490	mg/L	D	20		E300.0	10/18/14 00:37 / wc
PHYSICAL PROPERTIES							
pH	6.57	s.u.	H	0.01		A4500-H B	10/10/14 11:41 / alp
Solids, Total Dissolved TDS @ 180 C	7030	mg/L		100		A2540 C	10/10/14 14:13 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:48 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:18 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:18 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:18 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:39 / clm
Manganese	2.82	mg/L		0.01		E200.7	10/21/14 21:48 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:48 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:18 / sf
Uranium	0.0807	mg/L		0.0003		E200.8	11/06/14 21:39 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:48 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 17:39 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:47 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.1	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	1.2	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	1.0	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 precision (±)	0.24	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 228	1.3	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	0.02	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.07	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-006
Client Sample ID: 632

Report Date: 11/19/14
Collection Date: 10/06/14 12:32
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-0.79	%				A1030 E	10/22/14 16:26 / kbh
Anions	115	meq/L				A1030 E	10/22/14 16:26 / kbh
Cations	113	meq/L				A1030 E	10/22/14 16:26 / kbh
Solids, Total Dissolved Calculated	6700	mg/L				A1030 E	10/22/14 16:26 / kbh
TDS Balance (0.80 - 1.20)	1.04					A1030 E	10/22/14 16:26 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 16:40 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 16:40 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 16:40 / jlr
Chloroform	3.54	ug/L		0.50		E624	10/13/14 16:40 / jlr
Trihalomethanes, Total	3.54	ug/L		0.50		E624	10/13/14 16:40 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/13/14 16:40 / jlr
Surr: Dibromofluoromethane	106	%REC		64.4-131		E624	10/13/14 16:40 / jlr
Surr: p-Bromofluorobenzene	88.0	%REC		67.1-133		E624	10/13/14 16:40 / jlr
Surr: Toluene-d8	102	%REC		79.7-125		E624	10/13/14 16:40 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		632	632	632	632
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	9/29/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-006	C14070373-006	C14040132-007	C14010260-009
Bicarbonate as HCO3	mg/L	1870	1870	1870	1890
Calcium	mg/L	584	580	605	585
Chloride	mg/L	254	226	241	224
Magnesium	mg/L	803	758	807	786
Nitrogen, Ammonia as N	mg/L	0.34	0.18	0.29	0.30
Nitrogen, Nitrate+Nitrite as N	mg/L	59	58	63	62
Potassium	mg/L	10	10	10	10
Sodium	mg/L	398	395	410	393
Sulfate	mg/L	3490	3410	3340	3290
pH	s.u.	6.57	6.57	6.50	6.55
Solids, Total Dissolved TDS @ 180 C	mg/L	7030	7010	7000	6880
Aluminum	mg/L	ND(0.1)	0.2	0.8	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	0.002	ND(0.001)
Manganese	mg/L	2.82	1.52	2.69	2.66
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0807	0.0622	0.0886	0.0846
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1.1	0.5	1.4	1.4
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.3	0.6	0.6
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	1.2	0.9	0.9	0.8
Lead 210 precision (±)	pCi/L	0.8	0.7	0.9	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.4	0.8
Radium 226	pCi/L	1.0	0.74	0.76	0.91
Radium 226 precision (±)	pCi/L	0.24	0.17	0.19	0.20
Radium 226 MDC	pCi/L	0.19	0.16	0.16	0.16
Radium 228	pCi/L	1.3	1.3	1.2	3.1
Radium 228 precision (±)	pCi/L	1.0	2.3	0.67	1.2
Radium 228 MDC	pCi/L	1.6	3.7	1.0	1.7
Thorium 230	pCi/L	0.02	0.1	0.04	0.03
Thorium 230 precision (±)	pCi/L	0.07	0.09	0.07	0.07
Thorium 230 MDC	pCi/L	0.1	0.1	0.1	0.2
A/C Balance (± 5)	%	-0.79	-1.48	1.60	0.633
Anions	meq/L	115	112	111	110
Cations	meq/L	113	109	115	111
Solids, Total Dissolved Calculated	mg/L	6700	6600	6600	6500
TDS Balance (0.80 - 1.20)		1.04	1.07	1.06	1.06
Trihalomethanes, Total	ug/L	3.54	4.00	3.93	3.08

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-007
Client Sample ID: 801

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 13:20
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1610	mg/L		5		A2320 B	07/10/14 21:15 / jba
Calcium	544	mg/L		1		E200.7	07/18/14 21:10 / sf
Chloride	206	mg/L	D	5		E300.0	07/10/14 18:25 / wc
Magnesium	817	mg/L		1		E200.7	07/18/14 21:10 / sf
Nitrogen, Ammonia as N	4.52	mg/L		0.05		A4500-NH3 G	07/14/14 13:12 / lr
Nitrogen, Nitrate+Nitrite as N	42	mg/L	D	2		E353.2	07/10/14 13:11 / lr
Potassium	13	mg/L		1		E200.7	07/18/14 21:10 / sf
Sodium	371	mg/L	D	3		E200.7	07/18/14 21:10 / sf
Sulfate	3850	mg/L	D	20		E300.0	07/10/14 18:25 / wc
PHYSICAL PROPERTIES							
pH	6.64	s.u.	H	0.01		A4500-H B	07/10/14 14:52 / alp
Solids, Total Dissolved TDS @ 180 C	7260	mg/L		100		A2540 C	07/11/14 13:51 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:49 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:29 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:49 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:49 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 16:56 / cp
Manganese	7.00	mg/L		0.01		E200.7	07/14/14 14:49 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:49 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:49 / sf
Uranium	0.0340	mg/L		0.0003		E200.8	07/14/14 16:56 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:56 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 16:23 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:29 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.5	pCi/L	U			E909.0	08/03/14 14:02 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 14:02 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 14:02 / eli-cs
Radium 226	0.38	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.14	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	1.0	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.75	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.02	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-007
Client Sample ID: 801

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 13:20
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.74	%				A1030 E	07/21/14 14:07 / kbh
Anions	115	meq/L				A1030 E	07/21/14 14:07 / kbh
Cations	111	meq/L				A1030 E	07/21/14 14:07 / kbh
Solids, Total Dissolved Calculated	6800	mg/L				A1030 E	07/21/14 14:07 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:07 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 18:39 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 18:39 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 18:39 / jlr
Chloroform	2.28	ug/L		0.50		E624	07/17/14 18:39 / jlr
Trihalomethanes, Total	2.28	ug/L		0.50		E624	07/17/14 18:39 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/17/14 18:39 / jlr
Surr: Dibromofluoromethane	126	%REC		64.4-131		E624	07/17/14 18:39 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/17/14 18:39 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	07/17/14 18:39 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-007
Client Sample ID: 801

Report Date: 11/19/14
Collection Date: 10/06/14 13:20
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1620	mg/L		5		A2320 B	10/10/14 18:38 / jba
Calcium	545	mg/L		1		E200.7	10/21/14 18:45 / sf
Chloride	213	mg/L	D	5		E300.0	10/18/14 00:54 / wc
Magnesium	853	mg/L		1		E200.7	10/21/14 18:45 / sf
Nitrogen, Ammonia as N	5.7	mg/L	D	0.2		A4500-NH3 G	10/10/14 19:38 / ljl
Nitrogen, Nitrate+Nitrite as N	47	mg/L	D	10		E353.2	10/13/14 12:25 / lr
Potassium	12	mg/L		1		E200.7	10/21/14 18:45 / sf
Sodium	371	mg/L		1		E200.7	10/21/14 18:45 / sf
Sulfate	3900	mg/L	D	20		E300.0	10/18/14 00:54 / wc
PHYSICAL PROPERTIES							
pH	6.60	s.u.	H	0.01		A4500-H B	10/10/14 11:44 / alp
Solids, Total Dissolved TDS @ 180 C	7300	mg/L		100		A2540 C	10/10/14 14:14 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:52 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:22 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:22 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:22 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:43 / clm
Manganese	6.60	mg/L		0.01		E200.7	10/21/14 21:52 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:52 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:22 / sf
Uranium	0.0435	mg/L		0.0003		E200.8	11/06/14 21:43 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:52 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 18:15 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:48 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.5	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	0.6	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	0.60	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 precision (±)	0.20	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 MDC	0.20	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 228	0.99	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	-0.03	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.1	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-007
Client Sample ID: 801

Report Date: 11/19/14
Collection Date: 10/06/14 13:20
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.14	%				A1030 E	10/22/14 16:26 / kbh
Anions	117	meq/L				A1030 E	10/22/14 16:26 / kbh
Cations	114	meq/L				A1030 E	10/22/14 16:26 / kbh
Solids, Total Dissolved Calculated	6900	mg/L				A1030 E	10/22/14 16:26 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/22/14 16:26 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 17:16 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 17:16 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 17:16 / jlr
Chloroform	2.17	ug/L		0.50		E624	10/13/14 17:16 / jlr
Trihalomethanes, Total	2.17	ug/L		0.50		E624	10/13/14 17:16 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		73.7-126		E624	10/13/14 17:16 / jlr
Surr: Dibromofluoromethane	118	%REC		64.4-131		E624	10/13/14 17:16 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		67.1-133		E624	10/13/14 17:16 / jlr
Surr: Toluene-d8	103	%REC		79.7-125		E624	10/13/14 17:16 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		801	801	801	801
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-007	C14070373-007	C14040132-006	C14010260-006
Bicarbonate as HCO3	mg/L	1620	1610	1590	1590
Calcium	mg/L	545	544	568	552
Chloride	mg/L	213	206	220	210
Magnesium	mg/L	853	817	816	798
Nitrogen, Ammonia as N	mg/L	5.7	4.52	4.13	3.97
Nitrogen, Nitrate+Nitrite as N	mg/L	47	42	41	38
Potassium	mg/L	12	13	13	13
Sodium	mg/L	371	371	385	370
Sulfate	mg/L	3900	3850	3700	3670
pH	s.u.	6.60	6.64	6.57	6.65
Solids, Total Dissolved TDS @ 180 C	mg/L	7300	7260	7090	6780
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	6.60	7.00	6.82	6.58
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0435	0.0340	0.0488	0.0447
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.5	0.3	0.6	0.8
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.5	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	0.6	0.5	-0.9	0.6
Lead 210 precision (±)	pCi/L	0.8	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.4	0.8
Radium 226	pCi/L	0.60	0.38	0.47	0.51
Radium 226 precision (±)	pCi/L	0.20	0.14	0.17	0.16
Radium 226 MDC	pCi/L	0.20	0.16	0.18	0.17
Radium 228	pCi/L	0.99	1.0	1.0	1.2
Radium 228 precision (±)	pCi/L	1.1	0.75	0.74	1.1
Radium 228 MDC	pCi/L	1.7	1.2	1.2	1.8
Thorium 230	pCi/L	-0.03	0.02	0.07	0.03
Thorium 230 precision (±)	pCi/L	0.1	0.07	0.08	0.09
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	-1.14	-1.74	1.17	-3.42
Anions	meq/L	117	115	112	118
Cations	meq/L	114	111	115	110
Solids, Total Dissolved Calculated	mg/L	6900	6800	6700	7000
TDS Balance (0.80 - 1.20)		1.05	1.07	1.06	0.970
Trihalomethanes, Total	ug/L	2.17	2.28	1.92	2.12

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-005
Client Sample ID: 802

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 11:55
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2080	mg/L		5		A2320 B	07/10/14 20:28 / jba
Calcium	630	mg/L		1		E200.7	07/18/14 20:46 / sf
Chloride	184	mg/L	D	2		E300.0	07/10/14 17:50 / wc
Magnesium	755	mg/L		1		E200.7	07/18/14 20:46 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:09 / lr
Nitrogen, Nitrate+Nitrite as N	96	mg/L	D	5		E353.2	07/10/14 13:06 / lr
Potassium	5	mg/L		1		E200.7	07/18/14 20:46 / sf
Sodium	320	mg/L	D	3		E200.7	07/18/14 20:46 / sf
Sulfate	3100	mg/L	D	8		E300.0	07/10/14 17:50 / wc
PHYSICAL PROPERTIES							
pH	6.63	s.u.	H	0.01		A4500-H B	07/10/14 14:46 / alp
Solids, Total Dissolved TDS @ 180 C	6770	mg/L		100		A2540 C	07/11/14 13:47 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:29 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:12 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:29 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:29 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 16:52 / cp
Manganese	1.19	mg/L		0.01		E200.7	07/14/14 14:29 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:29 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:29 / sf
Uranium	0.104	mg/L		0.0003		E200.8	07/14/14 16:52 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:52 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 15:59 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:22 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	-0.05	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.4	pCi/L	U			E909.0	08/03/14 11:44 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 11:44 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 11:44 / eli-cs
Radium 226	0.11	pCi/L	U			E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.11	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.72	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.73	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.01	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-005
Client Sample ID: 802

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 11:55
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.43	%				A1030 E	07/21/14 14:06 / kbh
Anions	111	meq/L				A1030 E	07/21/14 14:06 / kbh
Cations	108	meq/L				A1030 E	07/21/14 14:06 / kbh
Solids, Total Dissolved Calculated	6500	mg/L				A1030 E	07/21/14 14:06 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/21/14 14:06 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 17:30 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 17:30 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 17:30 / jlr
Chloroform	11.6	ug/L		0.50		E624	07/17/14 17:30 / jlr
Trihalomethanes, Total	11.6	ug/L		0.50		E624	07/17/14 17:30 / jlr
Surr: 1,2-Dichlorobenzene-d4	116	%REC		73.7-126		E624	07/17/14 17:30 / jlr
Surr: Dibromofluoromethane	127	%REC		64.4-131		E624	07/17/14 17:30 / jlr
Surr: p-Bromofluorobenzene	108	%REC		67.1-133		E624	07/17/14 17:30 / jlr
Surr: Toluene-d8	105	%REC		79.7-125		E624	07/17/14 17:30 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-005
Client Sample ID: 802

Report Date: 11/19/14
Collection Date: 10/06/14 11:50
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2070	mg/L		5		A2320 B	10/10/14 18:16 / jba
Calcium	626	mg/L		1		E200.7	10/21/14 18:18 / sf
Chloride	184	mg/L	D	2		E300.0	10/18/14 00:19 / wc
Magnesium	777	mg/L		1		E200.7	10/21/14 18:18 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:34 / ljl
Nitrogen, Nitrate+Nitrite as N	110	mg/L	D	10		E353.2	10/13/14 12:20 / lr
Potassium	5	mg/L		1		E200.7	10/21/14 18:18 / sf
Sodium	334	mg/L		1		E200.7	10/21/14 18:18 / sf
Sulfate	3050	mg/L	D	8		E300.0	10/18/14 00:19 / wc
PHYSICAL PROPERTIES							
pH	6.58	s.u.	H	0.01		A4500-H B	10/10/14 11:38 / alp
Solids, Total Dissolved TDS @ 180 C	6850	mg/L		100		A2540 C	10/10/14 14:13 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:44 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:14 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:14 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:14 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:35 / clm
Manganese	1.23	mg/L		0.01		E200.7	10/21/14 21:44 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:44 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:14 / sf
Uranium	0.135	mg/L		0.0003		E200.8	11/06/14 21:35 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:44 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 17:27 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:04 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.1	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	0.3	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	0.31	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 precision (±)	0.16	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 228	0.33	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	0.99	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	0.04	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-005
Client Sample ID: 802

Report Date: 11/19/14
Collection Date: 10/06/14 11:50
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.26	%				A1030 E	10/22/14 16:26 / kbh
Anions	109	meq/L				A1030 E	10/22/14 16:26 / kbh
Cations	110	meq/L				A1030 E	10/22/14 16:26 / kbh
Solids, Total Dissolved Calculated	6400	mg/L				A1030 E	10/22/14 16:26 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	10/22/14 16:26 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 16:05 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 16:05 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 16:05 / jlr
Chloroform	7.96	ug/L		0.50		E624	10/13/14 16:05 / jlr
Trihalomethanes, Total	7.96	ug/L		0.50		E624	10/13/14 16:05 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		73.7-126		E624	10/13/14 16:05 / jlr
Surr: Dibromofluoromethane	92.0	%REC		64.4-131		E624	10/13/14 16:05 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		67.1-133		E624	10/13/14 16:05 / jlr
Surr: Toluene-d8	105	%REC		79.7-125		E624	10/13/14 16:05 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		802	802	802	802
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-005	C14070373-005	C14040132-005	C14010260-005
Bicarbonate as HCO3	mg/L	2070	2080	2040	2040
Calcium	mg/L	626	630	584	600
Chloride	mg/L	184	184	185	180
Magnesium	mg/L	777	755	752	769
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	110	96	102	101
Potassium	mg/L	5	5	5	5
Sodium	mg/L	334	320	338	322
Sulfate	mg/L	3050	3100	2990	3010
pH	s.u.	6.58	6.63	6.52	6.58
Solids, Total Dissolved TDS @ 180 C	mg/L	6850	6770	6700	6540
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	0.001	ND(0.001)
Manganese	mg/L	1.23	1.19	1.24	1.25
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.135	0.104	0.134	0.129
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.1	-0.05	1.2	0.4
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.5	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	0.3	0.4	-0.6	0.3
Lead 210 precision (±)	pCi/L	0.8	0.7	0.9	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.45	0.8
Radium 226	pCi/L	0.31	0.11	0.38	0.47
Radium 226 precision (±)	pCi/L	0.16	0.11	0.15	0.15
Radium 226 MDC	pCi/L	0.19	0.16	0.17	0.16
Radium 228	pCi/L	0.33	0.72	2.0	1.1
Radium 228 precision (±)	pCi/L	0.99	0.73	0.74	1.1
Radium 228 MDC	pCi/L	1.6	1.2	1.1	1.7
Thorium 230	pCi/L	0.04	0.01	-0.02	-0.02
Thorium 230 precision (±)	pCi/L	0.08	0.07	0.06	0.08
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	0.26	-1.43	-0.88	-0.27
Anions	meq/L	109	111	108	108
Cations	meq/L	110	108	106	107
Solids, Total Dissolved Calculated	mg/L	6400	6500	6300	6300
TDS Balance (0.80 - 1.20)		1.07	1.05	1.06	1.03
Trihalomethanes, Total	ug/L	7.96	11.6	10.2	10.4

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-003
Client Sample ID: 803

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 10:18
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1870	mg/L		5		A2320 B	07/10/14 19:41 / jba
Calcium	654	mg/L		1		E200.7	07/18/14 20:37 / sf
Chloride	171	mg/L	D	2		E300.0	07/10/14 17:15 / wc
Magnesium	697	mg/L		1		E200.7	07/18/14 20:37 / sf
Nitrogen, Ammonia as N	2.45	mg/L		0.05		A4500-NH3 G	07/14/14 13:05 / lr
Nitrogen, Nitrate+Nitrite as N	42	mg/L	D	2		E353.2	07/10/14 12:56 / lr
Potassium	14	mg/L		1		E200.7	07/18/14 20:37 / sf
Sodium	284	mg/L	D	2		E200.7	07/18/14 20:37 / sf
Sulfate	3270	mg/L	D	8		E300.0	07/10/14 17:15 / wc
PHYSICAL PROPERTIES							
pH	6.64	s.u.	H	0.01		A4500-H B	07/10/14 14:40 / alp
Solids, Total Dissolved TDS @ 180 C	6590	mg/L		100		A2540 C	07/11/14 13:46 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:01 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 21:51 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:01 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:01 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 16:43 / cp
Manganese	2.30	mg/L		0.01		E200.7	07/14/14 14:01 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:01 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:01 / sf
Uranium	0.0842	mg/L		0.0003		E200.8	07/14/14 16:43 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:43 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 13:08 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:19 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.4	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.5	pCi/L	U			E909.0	08/03/14 09:25 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 09:25 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 09:25 / eli-cs
Radium 226	0.27	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.13	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.83	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.76	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.03	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-003
Client Sample ID: 803

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 10:18
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.79	%				A1030 E	07/21/14 14:06 / kbh
Anions	107	meq/L				A1030 E	07/21/14 14:06 / kbh
Cations	103	meq/L				A1030 E	07/21/14 14:06 / kbh
Solids, Total Dissolved Calculated	6200	mg/L				A1030 E	07/21/14 14:06 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	07/21/14 14:06 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 16:21 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 16:21 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 16:21 / jlr
Chloroform	ND	ug/L		0.50		E624	07/17/14 16:21 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/17/14 16:21 / jlr
Surr: 1,2-Dichlorobenzene-d4	109	%REC		73.7-126		E624	07/17/14 16:21 / jlr
Surr: Dibromofluoromethane	116	%REC		64.4-131		E624	07/17/14 16:21 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/17/14 16:21 / jlr
Surr: Toluene-d8	103	%REC		79.7-125		E624	07/17/14 16:21 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-003
Client Sample ID: 803

Report Date: 11/19/14
Collection Date: 10/06/14 10:17
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1710	mg/L		5		A2320 B	10/10/14 05:52 / jba
Calcium	633	mg/L		1		E200.7	10/21/14 18:10 / sf
Chloride	146	mg/L	D	2		E300.0	10/17/14 23:45 / wc
Magnesium	714	mg/L		1		E200.7	10/21/14 18:10 / sf
Nitrogen, Ammonia as N	1.35	mg/L		0.05		A4500-NH3 G	10/10/14 19:24 / ljl
Nitrogen, Nitrate+Nitrite as N	34	mg/L	D	2		E353.2	10/13/14 12:05 / lr
Potassium	12	mg/L		1		E200.7	10/21/14 18:10 / sf
Sodium	273	mg/L		1		E200.7	10/21/14 18:10 / sf
Sulfate	3130	mg/L	D	8		E300.0	10/17/14 23:45 / wc
PHYSICAL PROPERTIES							
pH	6.56	s.u.	H	0.01		A4500-H B	10/10/14 11:32 / alp
Solids, Total Dissolved TDS @ 180 C	6300	mg/L		100		A2540 C	10/10/14 14:13 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:18 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 20:34 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 20:34 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 20:34 / sf
Lead	0.001	mg/L		0.001		E200.8	11/06/14 21:05 / clm
Manganese	2.95	mg/L		0.01		E200.7	10/21/14 21:18 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:18 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 20:34 / sf
Uranium	0.0783	mg/L		0.0003		E200.8	11/06/14 21:05 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:18 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 17:03 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:01 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	0.08	pCi/L	U			E909.0	10/29/14 20:38 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 20:38 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 20:38 / eli-cs
Radium 226	0.20	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 precision (±)	0.14	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 228	0.87	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	0.002	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.07	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-003
Client Sample ID: 803

Report Date: 11/19/14
Collection Date: 10/06/14 10:17
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	1.50	%				A1030 E	10/22/14 16:25 / kbh
Anions	99.6	meq/L				A1030 E	10/22/14 16:25 / kbh
Cations	103	meq/L				A1030 E	10/22/14 16:25 / kbh
Solids, Total Dissolved Calculated	5900	mg/L				A1030 E	10/22/14 16:25 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	10/22/14 16:25 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 14:55 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 14:55 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 14:55 / jlr
Chloroform	ND	ug/L		0.50		E624	10/13/14 14:55 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/13/14 14:55 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		73.7-126		E624	10/13/14 14:55 / jlr
Surr: Dibromofluoromethane	91.0	%REC		64.4-131		E624	10/13/14 14:55 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		67.1-133		E624	10/13/14 14:55 / jlr
Surr: Toluene-d8	102	%REC		79.7-125		E624	10/13/14 14:55 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		803	803	803	803
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-003	C14070373-003	C14040132-003	C14010260-003
Bicarbonate as HCO3	mg/L	1710	1870	1800	1780
Calcium	mg/L	633	654	565	594
Chloride	mg/L	146	171	166	159
Magnesium	mg/L	714	697	668	708
Nitrogen, Ammonia as N	mg/L	1.35	2.45	2.43	1.79
Nitrogen, Nitrate+Nitrite as N	mg/L	34	42	38	38
Potassium	mg/L	12	14	12	12
Sodium	mg/L	273	284	261	270
Sulfate	mg/L	3130	3270	3220	3230
pH	s.u.	6.56	6.64	6.50	6.54
Solids, Total Dissolved TDS @ 180 C	mg/L	6300	6590	6570	6460
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	0.001	ND(0.001)	0.001	0.002
Manganese	mg/L	2.95	2.30	2.50	2.82
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0783	0.0842	0.0944	0.0922
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.3	0.4	1.2	0.8
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.5	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	0.08	0.5	-0.7	-0.03
Lead 210 precision (±)	pCi/L	0.7	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.45	0.8
Radium 226	pCi/L	0.20	0.27	0.40	0.37
Radium 226 precision (±)	pCi/L	0.14	0.13	0.16	0.15
Radium 226 MDC	pCi/L	0.19	0.16	0.17	0.16
Radium 228	pCi/L	0.87	0.83	1.4	1.8
Radium 228 precision (±)	pCi/L	1.0	0.76	0.74	1.1
Radium 228 MDC	pCi/L	1.6	1.2	1.1	1.7
Thorium 230	pCi/L	0.002	0.03	0.03	0.06
Thorium 230 precision (±)	pCi/L	0.07	0.09	0.07	0.1
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	1.50	-1.79	-4.42	-1.75
Anions	meq/L	99.6	107	104	104
Cations	meq/L	103	103	95.0	100
Solids, Total Dissolved Calculated	mg/L	5900	6200	6000	6000
TDS Balance (0.80 - 1.20)		1.07	1.06	1.10	1.07
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	1.23

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-004
Client Sample ID: 808

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 11:00
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2160	mg/L		5		A2320 B	07/10/14 19:53 / jba
Calcium	673	mg/L		1		E200.7	07/18/14 20:42 / sf
Chloride	181	mg/L	D	5		E300.0	07/10/14 17:32 / wc
Magnesium	761	mg/L		1		E200.7	07/18/14 20:42 / sf
Nitrogen, Ammonia as N	0.11	mg/L		0.05		A4500-NH3 G	07/14/14 13:07 / lr
Nitrogen, Nitrate+Nitrite as N	56	mg/L	D	2		E353.2	07/10/14 13:03 / lr
Potassium	6	mg/L		1		E200.7	07/18/14 20:42 / sf
Sodium	328	mg/L	D	3		E200.7	07/18/14 20:42 / sf
Sulfate	3430	mg/L	D	20		E300.0	07/10/14 17:32 / wc
PHYSICAL PROPERTIES							
pH	6.60	s.u.	H	0.01		A4500-H B	07/10/14 14:43 / alp
Solids, Total Dissolved TDS @ 180 C	7140	mg/L		100		A2540 C	07/11/14 13:46 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:25 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 21:55 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:25 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:25 / sf
Lead	0.002	mg/L		0.001		E200.8	07/14/14 16:48 / cp
Manganese	1.42	mg/L		0.01		E200.7	07/14/14 14:25 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:25 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:25 / sf
Uranium	0.113	mg/L		0.0003		E200.8	07/14/14 16:48 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:48 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 15:47 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:21 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.1	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.2	pCi/L	U			E909.0	08/03/14 10:34 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 10:34 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 10:34 / eli-cs
Radium 226	0.06	pCi/L	U			E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.10	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.32	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.72	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	-0.005	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-004
Client Sample ID: 808

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 11:00
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.17	%				A1030 E	07/21/14 14:06 / kbh
Anions	116	meq/L				A1030 E	07/21/14 14:06 / kbh
Cations	111	meq/L				A1030 E	07/21/14 14:06 / kbh
Solids, Total Dissolved Calculated	6700	mg/L				A1030 E	07/21/14 14:06 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:06 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 16:56 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 16:56 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 16:56 / jlr
Chloroform	2.90	ug/L		0.50		E624	07/17/14 16:56 / jlr
Trihalomethanes, Total	2.90	ug/L		0.50		E624	07/17/14 16:56 / jlr
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	07/17/14 16:56 / jlr
Surr: Dibromofluoromethane	122	%REC		64.4-131		E624	07/17/14 16:56 / jlr
Surr: p-Bromofluorobenzene	106	%REC		67.1-133		E624	07/17/14 16:56 / jlr
Surr: Toluene-d8	104	%REC		79.7-125		E624	07/17/14 16:56 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-004
Client Sample ID: 808

Report Date: 11/19/14
Collection Date: 10/06/14 11:00
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2090	mg/L		5		A2320 B	10/10/14 06:04 / jba
Calcium	669	mg/L		1		E200.7	10/21/14 18:14 / sf
Chloride	182	mg/L	D	2		E300.0	10/18/14 00:02 / wc
Magnesium	725	mg/L		1		E200.7	10/21/14 18:14 / sf
Nitrogen, Ammonia as N	1.73	mg/L		0.05		A4500-NH3 G	10/10/14 19:29 / ljl
Nitrogen, Nitrate+Nitrite as N	31	mg/L	D	2		E353.2	10/13/14 12:13 / lr
Potassium	8	mg/L		1		E200.7	10/21/14 18:14 / sf
Sodium	356	mg/L		1		E200.7	10/21/14 18:14 / sf
Sulfate	3220	mg/L	D	8		E300.0	10/18/14 00:02 / wc
PHYSICAL PROPERTIES							
pH	6.60	s.u.	H	0.01		A4500-H B	10/10/14 11:35 / alp
Solids, Total Dissolved TDS @ 180 C	6750	mg/L		100		A2540 C	10/10/14 14:13 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/15/14 16:49 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 20:38 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 20:38 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 20:38 / sf
Lead	0.002	mg/L		0.001		E200.8	11/06/14 21:09 / clm
Manganese	1.71	mg/L		0.01		E200.7	10/15/14 16:49 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/15/14 16:49 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 20:38 / sf
Uranium	0.0980	mg/L		0.0003		E200.8	11/06/14 21:09 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/15/14 16:49 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 17:15 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:02 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.4	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	0.2	pCi/L	U			E909.0	10/29/14 21:48 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 21:48 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 21:48 / eli-cs
Radium 226	0.33	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 precision (±)	0.16	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 MDC	0.20	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 228	1.1	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	-0.004	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.06	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-004
Client Sample ID: 808

Report Date: 11/19/14
Collection Date: 10/06/14 11:00
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0	%				A1030 E	10/22/14 16:25 / kbh
Anions	109	meq/L				A1030 E	10/22/14 16:25 / kbh
Cations	109	meq/L				A1030 E	10/22/14 16:25 / kbh
Solids, Total Dissolved Calculated	6400	mg/L				A1030 E	10/22/14 16:25 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	10/22/14 16:25 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 15:30 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 15:30 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 15:30 / jlr
Chloroform	1.85	ug/L		0.50		E624	10/13/14 15:30 / jlr
Trihalomethanes, Total	1.85	ug/L		0.50		E624	10/13/14 15:30 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/13/14 15:30 / jlr
Surr: Dibromofluoromethane	95.0	%REC		64.4-131		E624	10/13/14 15:30 / jlr
Surr: p-Bromofluorobenzene	85.0	%REC		67.1-133		E624	10/13/14 15:30 / jlr
Surr: Toluene-d8	102	%REC		79.7-125		E624	10/13/14 15:30 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		808	808	808	808
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-004	C14070373-004	C14040132-004	C14010260-004
Bicarbonate as HCO3	mg/L	2090	2160	2130	2140
Calcium	mg/L	669	673	699	682
Chloride	mg/L	182	181	189	179
Magnesium	mg/L	725	761	787	750
Nitrogen, Ammonia as N	mg/L	1.73	0.11	0.83	0.94
Nitrogen, Nitrate+Nitrite as N	mg/L	31	56	46	42
Potassium	mg/L	8	6	7	7
Sodium	mg/L	356	328	350	346
Sulfate	mg/L	3220	3430	3240	3260
pH	s.u.	6.60	6.60	6.48	6.54
Solids, Total Dissolved TDS @ 180 C	mg/L	6750	7140	6920	6680
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	0.002	0.002	0.002	0.002
Manganese	mg/L	1.71	1.42	1.74	1.88
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0980	0.113	0.126	0.113
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.4	0.1	0.2	0.6
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.4	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	0.2	0.2	-0.6	0.3
Lead 210 precision (±)	pCi/L	0.7	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.4	0.8
Radium 226	pCi/L	0.33	0.06	0.22	0.36
Radium 226 precision (±)	pCi/L	0.16	0.10	0.13	0.14
Radium 226 MDC	pCi/L	0.20	0.16	0.17	0.16
Radium 228	pCi/L	1.1	0.32	1.8	0.23
Radium 228 precision (±)	pCi/L	1.0	0.72	0.75	1.0
Radium 228 MDC	pCi/L	1.7	1.2	1.1	1.7
Thorium 230	pCi/L	-0.004	-0.005	-0.02	-0.01
Thorium 230 precision (±)	pCi/L	0.06	0.06	0.05	0.06
Thorium 230 MDC	pCi/L	0.1	0.2	0.2	0.2
A/C Balance (± 5)	%	0	-2.17	1.95	0.206
Anions	meq/L	109	116	111	111
Cations	meq/L	109	111	115	111
Solids, Total Dissolved Calculated	mg/L	6400	6700	6500	6400
TDS Balance (0.80 - 1.20)		1.06	1.07	1.06	1.04
Trihalomethanes, Total	ug/L	1.85	2.90	2.35	1.40

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-009
Client Sample ID: GW-1

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 15:05
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1420	mg/L		5		A2320 B	07/10/14 21:37 / jba
Calcium	728	mg/L		1		E200.7	07/18/14 21:18 / sf
Chloride	238	mg/L	D	2		E300.0	07/10/14 18:59 / wc
Magnesium	545	mg/L		1		E200.7	07/18/14 21:18 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:15 / lr
Nitrogen, Nitrate+Nitrite as N	87	mg/L	D	5		E353.2	07/10/14 13:16 / lr
Potassium	8	mg/L		1		E200.7	07/18/14 21:18 / sf
Sodium	420	mg/L	D	2		E200.7	07/18/14 21:18 / sf
Sulfate	2770	mg/L	D	8		E300.0	07/10/14 18:59 / wc
PHYSICAL PROPERTIES							
pH	6.87	s.u.	H	0.01		A4500-H B	07/10/14 15:02 / alp
Solids, Total Dissolved TDS @ 180 C	5750	mg/L		100		A2540 C	07/11/14 13:52 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:57 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:36 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:57 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:57 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 17:05 / cp
Manganese	0.12	mg/L		0.01		E200.7	07/14/14 14:57 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:57 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:57 / sf
Uranium	0.0844	mg/L		0.0003		E200.8	07/14/14 17:05 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 17:05 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 16:47 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:32 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.2	pCi/L	U			E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 21:05 / lmc
Lead 210	0.4	pCi/L	U			E909.0	08/03/14 16:21 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 16:21 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 16:21 / eli-cs
Radium 226	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.11	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.35	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.70	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.1	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.009	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-009
Client Sample ID: GW-1

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 15:05
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	2.99	%				A1030 E	07/21/14 14:08 / kbh
Anions	93.8	meq/L				A1030 E	07/21/14 14:08 / kbh
Cations	99.6	meq/L				A1030 E	07/21/14 14:08 / kbh
Solids, Total Dissolved Calculated	5800	mg/L				A1030 E	07/21/14 14:08 / kbh
TDS Balance (0.80 - 1.20)	0.99					A1030 E	07/21/14 14:08 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 23:48 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 23:48 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 23:48 / jlr
Chloroform	1.18	ug/L		0.50		E624	07/17/14 23:48 / jlr
Trihalomethanes, Total	1.18	ug/L		0.50		E624	07/17/14 23:48 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/17/14 23:48 / jlr
Surr: Dibromofluoromethane	124	%REC		64.4-131		E624	07/17/14 23:48 / jlr
Surr: p-Bromofluorobenzene	103	%REC		67.1-133		E624	07/17/14 23:48 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/17/14 23:48 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-009
Client Sample ID: GW-1

Report Date: 11/19/14
Collection Date: 10/06/14 15:25
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1740	mg/L		5		A2320 B	10/10/14 19:02 / jba
Calcium	590	mg/L		1		E200.7	10/23/14 18:56 / sf
Chloride	248	mg/L	D	2		E300.0	10/23/14 17:01 / wc
Magnesium	560	mg/L		1		E200.7	10/23/14 18:56 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:41 / ljl
Nitrogen, Nitrate+Nitrite as N	87	mg/L	D	10		E353.2	10/13/14 12:30 / lr
Potassium	7	mg/L		1		E200.7	10/23/14 18:56 / sf
Sodium	397	mg/L		1		E200.7	10/23/14 18:56 / sf
Sulfate	2790	mg/L	D	8		E300.0	10/23/14 17:01 / wc
PHYSICAL PROPERTIES							
pH	6.74	s.u.	H	0.01		A4500-H B	10/10/14 11:51 / alp
Solids, Total Dissolved TDS @ 180 C	6130	mg/L		100		A2540 C	10/10/14 14:14 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 22:00 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:30 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:30 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:30 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:50 / clm
Manganese	0.07	mg/L		0.01		E200.7	10/21/14 22:00 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 22:00 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:30 / sf
Uranium	0.102	mg/L		0.0003		E200.8	11/06/14 21:50 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 22:00 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 18:40 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:51 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.6	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	0.2	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	0.31	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 precision (±)	0.15	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 MDC	0.18	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 228	0.96	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	0.97	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	0.003	pCi/L	U			E908.0	11/04/14 09:37 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/04/14 09:37 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/04/14 09:37 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-009
Client Sample ID: GW-1

Report Date: 11/19/14
Collection Date: 10/06/14 15:25
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.61	%				A1030 E	10/28/14 10:42 / kbh
Anions	96.0	meq/L				A1030 E	10/28/14 10:42 / kbh
Cations	93.0	meq/L				A1030 E	10/28/14 10:42 / kbh
Solids, Total Dissolved Calculated	5600	mg/L				A1030 E	10/28/14 10:42 / kbh
TDS Balance (0.80 - 1.20)	1.09					A1030 E	10/28/14 10:42 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 18:26 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 18:26 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 18:26 / jlr
Chloroform	2.20	ug/L		0.50		E624	10/13/14 18:26 / jlr
Trihalomethanes, Total	2.20	ug/L		0.50		E624	10/13/14 18:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/13/14 18:26 / jlr
Surr: Dibromofluoromethane	92.0	%REC		64.4-131		E624	10/13/14 18:26 / jlr
Surr: p-Bromofluorobenzene	83.0	%REC		67.1-133		E624	10/13/14 18:26 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	10/13/14 18:26 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		GW-1	GW-1	GW-1	GW-1
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-009	C14070373-009	C14040132-009	C14010260-007
Bicarbonate as HCO3	mg/L	1740	1420	1910	1900
Calcium	mg/L	590	728	730	716
Chloride	mg/L	248	238	239	235
Magnesium	mg/L	560	545	572	563
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	87	87	91	92
Potassium	mg/L	7	8	7	8
Sodium	mg/L	397	420	411	404
Sulfate	mg/L	2790	2770	2740	2720
pH	s.u.	6.74	6.87	6.66	6.70
Solids, Total Dissolved TDS @ 180 C	mg/L	6130	5750	6250	6200
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.07	0.12	0.12	0.11
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.102	0.0844	0.122	0.113
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.6	0.2	0.1	0.1
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.3	0.3	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.5	0.6
Lead 210	pCi/L	0.2	0.4	-0.8	0.6
Lead 210 precision (±)	pCi/L	0.8	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.4	0.8
Radium 226	pCi/L	0.31	0.16	0.14	0.23
Radium 226 precision (±)	pCi/L	0.15	0.11	0.11	0.12
Radium 226 MDC	pCi/L	0.18	0.15	0.16	0.15
Radium 228	pCi/L	0.96	0.35	0.88	0.99
Radium 228 precision (±)	pCi/L	0.97	0.70	0.66	1.0
Radium 228 MDC	pCi/L	1.5	1.1	1.0	1.6
Thorium 230	pCi/L	0.003	0.009	0.0007	-0.01
Thorium 230 precision (±)	pCi/L	0.08	0.06	0.07	0.05
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	-1.61	2.99	0.18	-0.251
Anions	meq/L	96.0	93.8	101	100
Cations	meq/L	93.0	99.6	102	99.9
Solids, Total Dissolved Calculated	mg/L	5600	5800	6000	6000
TDS Balance (0.80 - 1.20)		1.09	0.99	1.03	1.04
Trihalomethanes, Total	ug/L	2.20	1.18	2.00	1.18

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-008
Client Sample ID: GW-2

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 14:15
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1940	mg/L		5		A2320 B	07/10/14 21:27 / jba
Calcium	551	mg/L		1		E200.7	07/18/14 21:14 / sf
Chloride	200	mg/L	D	5		E300.0	07/10/14 18:42 / wc
Magnesium	1120	mg/L		1		E200.7	07/18/14 21:14 / sf
Nitrogen, Ammonia as N	4.66	mg/L		0.05		A4500-NH3 G	07/14/14 13:14 / lr
Nitrogen, Nitrate+Nitrite as N	14	mg/L	D	1		E353.2	07/10/14 13:13 / lr
Potassium	20	mg/L		1		E200.7	07/18/14 21:14 / sf
Sodium	378	mg/L	D	3		E200.7	07/18/14 21:14 / sf
Sulfate	4870	mg/L	D	20		E300.0	07/10/14 18:42 / wc
PHYSICAL PROPERTIES							
pH	6.56	s.u.	H	0.01		A4500-H B	07/10/14 14:59 / alp
Solids, Total Dissolved TDS @ 180 C	8680	mg/L		100		A2540 C	07/11/14 13:51 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 14:53 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:32 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 14:53 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 14:53 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 17:01 / cp
Manganese	1.57	mg/L		0.01		E200.7	07/14/14 14:53 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 14:53 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 14:53 / sf
Uranium	0.0710	mg/L		0.0003		E200.8	07/14/14 17:01 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 17:01 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 16:35 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:30 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.2	pCi/L	U			E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 21:05 / lmc
Lead 210	-0.009	pCi/L	U			E909.0	08/03/14 15:12 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 15:12 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 15:12 / eli-cs
Radium 226	0.22	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.12	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	1.1	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.77	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.05	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-008
Client Sample ID: GW-2

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 14:15
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-0.90	%				A1030 E	07/21/14 14:07 / kbh
Anions	140	meq/L				A1030 E	07/21/14 14:07 / kbh
Cations	137	meq/L				A1030 E	07/21/14 14:07 / kbh
Solids, Total Dissolved Calculated	8200	mg/L				A1030 E	07/21/14 14:07 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	07/21/14 14:07 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 23:14 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 23:14 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 23:14 / jlr
Chloroform	3.43	ug/L		0.50		E624	07/17/14 23:14 / jlr
Trihalomethanes, Total	3.43	ug/L		0.50		E624	07/17/14 23:14 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/17/14 23:14 / jlr
Surr: Dibromofluoromethane	124	%REC		64.4-131		E624	07/17/14 23:14 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/17/14 23:14 / jlr
Surr: Toluene-d8	102	%REC		79.7-125		E624	07/17/14 23:14 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-008
Client Sample ID: GW-2

Report Date: 11/19/14
Collection Date: 10/06/14 14:10
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	2210	mg/L		5		A2320 B	10/10/14 18:51 / jba
Calcium	574	mg/L		1		E200.7	10/21/14 18:49 / sf
Chloride	201	mg/L	D	5		E300.0	10/18/14 01:12 / wc
Magnesium	1200	mg/L		1		E200.7	10/21/14 18:49 / sf
Nitrogen, Ammonia as N	5.5	mg/L	D	0.2		A4500-NH3 G	10/10/14 19:39 / ljl
Nitrogen, Nitrate+Nitrite as N	14	mg/L	D	1		E353.2	10/13/14 12:28 / lr
Potassium	19	mg/L		1		E200.7	10/21/14 18:49 / sf
Sodium	389	mg/L	D	2		E200.7	10/21/14 18:49 / sf
Sulfate	4840	mg/L	D	20		E300.0	10/18/14 01:12 / wc
PHYSICAL PROPERTIES							
pH	6.43	s.u.	H	0.01		A4500-H B	10/10/14 11:47 / alp
Solids, Total Dissolved TDS @ 180 C	8790	mg/L		100		A2540 C	10/10/14 14:14 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/31/14 21:26 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:26 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:26 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:26 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:46 / clm
Manganese	1.54	mg/L		0.01		E200.7	10/21/14 21:56 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:56 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:26 / sf
Uranium	0.0867	mg/L		0.0003		E200.8	11/06/14 21:46 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:56 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 18:27 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:50 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.4	pCi/L	U			E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	0.9	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	0.28	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 precision (±)	0.18	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 MDC	0.23	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 228	0.77	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	-0.05	pCi/L	U			E908.0	11/04/14 09:37 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/04/14 09:37 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/04/14 09:37 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-008
Client Sample ID: GW-2

Report Date: 11/19/14
Collection Date: 10/06/14 14:10
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.49	%				A1030 E	10/22/14 16:27 / kbh
Anions	144	meq/L				A1030 E	10/22/14 16:27 / kbh
Cations	145	meq/L				A1030 E	10/22/14 16:27 / kbh
Solids, Total Dissolved Calculated	8400	mg/L				A1030 E	10/22/14 16:27 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/22/14 16:27 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 17:51 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 17:51 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 17:51 / jlr
Chloroform	6.04	ug/L		0.50		E624	10/13/14 17:51 / jlr
Trihalomethanes, Total	6.04	ug/L		0.50		E624	10/13/14 17:51 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/13/14 17:51 / jlr
Surr: Dibromofluoromethane	113	%REC		64.4-131		E624	10/13/14 17:51 / jlr
Surr: p-Bromofluorobenzene	86.0	%REC		67.1-133		E624	10/13/14 17:51 / jlr
Surr: Toluene-d8	104	%REC		79.7-125		E624	10/13/14 17:51 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		GW-2	GW-2	GW-2	GW-2
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-008	C14070373-008	C14040132-008	C14010260-008
Bicarbonate as HCO3	mg/L	2210	1940	2210	2180
Calcium	mg/L	574	551	574	575
Chloride	mg/L	201	200	212	206
Magnesium	mg/L	1200	1120	1150	1170
Nitrogen, Ammonia as N	mg/L	5.5	4.66	3.91	3.06
Nitrogen, Nitrate+Nitrite as N	mg/L	14	14	14	14
Potassium	mg/L	19	20	18	18
Sodium	mg/L	389	378	385	387
Sulfate	mg/L	4840	4870	4680	4600
pH	s.u.	6.43	6.56	6.43	6.39
Solids, Total Dissolved TDS @ 180 C	mg/L	8790	8680	8740	8500
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	0.01
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	1.54	1.57	1.63	1.60
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0867	0.0710	0.0990	0.0918
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.4	0.2	0.2	0.3
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.3	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.5	0.6
Lead 210	pCi/L	0.9	-0.009	-1	0.2
Lead 210 precision (±)	pCi/L	0.8	0.7	0.8	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.46	0.8
Radium 226	pCi/L	0.28	0.22	0.25	0.39
Radium 226 precision (±)	pCi/L	0.18	0.12	0.15	0.15
Radium 226 MDC	pCi/L	0.23	0.16	0.19	0.17
Radium 228	pCi/L	0.77	1.1	1.8	1.1
Radium 228 precision (±)	pCi/L	1.2	0.77	0.81	1.1
Radium 228 MDC	pCi/L	2.0	1.2	1.2	1.8
Thorium 230	pCi/L	-0.05	0.05	-0.004	0.01
Thorium 230 precision (±)	pCi/L	0.08	0.08	0.05	0.07
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	0.49	-0.90	0	1.50
Anions	meq/L	144	140	141	138
Cations	meq/L	145	137	141	143
Solids, Total Dissolved Calculated	mg/L	8400	8200	8200	8100
TDS Balance (0.80 - 1.20)		1.05	1.06	1.07	1.05
Trihalomethanes, Total	ug/L	6.04	3.43	8.56	3.36

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-003
Client Sample ID: GW-3

Report Date: 08/28/14
Collection Date: 07/08/14 11:00
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1780	mg/L		5		A2320 B	07/11/14 20:24 / jba
Calcium	864	mg/L		1		E200.7	07/23/14 18:36 / sf
Chloride	165	mg/L	D	2		E300.0	07/14/14 17:24 / wc
Magnesium	335	mg/L		1		E200.7	07/23/14 18:36 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:39 / lr
Nitrogen, Nitrate+Nitrite as N	80	mg/L	D	2		E353.2	07/11/14 15:38 / lr
Potassium	9	mg/L		1		E200.7	07/23/14 18:36 / sf
Sodium	334	mg/L	D	2		E200.7	07/23/14 18:36 / sf
Sulfate	2280	mg/L	D	8		E300.0	07/14/14 17:24 / wc
PHYSICAL PROPERTIES							
pH	6.64	s.u.	H	0.01		A4500-H B	07/11/14 14:35 / tmm
Solids, Total Dissolved TDS @ 180 C	5500	mg/L		41		A2540 C	07/14/14 15:10 / tmm
METALS - TOTAL							
Aluminum	1.1	mg/L		0.1		E200.7	07/16/14 21:21 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 18:43 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 18:43 / cp
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 18:43 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 18:43 / cp
Manganese	1.61	mg/L		0.01		E200.7	07/16/14 21:21 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 21:21 / sf
Nickel	ND	mg/L		0.05		E200.7	07/16/14 21:21 / sf
Uranium	0.320	mg/L		0.0003		E200.8	07/16/14 18:43 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 21:21 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 18:11 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:45 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.2	pCi/L	U			E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	-0.3	pCi/L	U			E909.0	08/08/14 04:17 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 04:17 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 04:17 / eli-cs
Radium 226	0.24	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 226 precision (±)	0.12	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 228	0.14	pCi/L	U			RA-05	07/29/14 12:34 / plj
Radium 228 precision (±)	0.84	pCi/L				RA-05	07/29/14 12:34 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 12:34 / plj
Thorium 230	0.01	pCi/L	U			E908.0	07/17/14 17:04 / dmf
Thorium 230 precision (±)	0.03	pCi/L				E908.0	07/17/14 17:04 / dmf
Thorium 230 MDC	0.08	pCi/L				E908.0	07/17/14 17:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-003
Client Sample ID: GW-3

Report Date: 08/28/14
Collection Date: 07/08/14 11:00
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-0.91	%				A1030 E	07/24/14 14:58 / kbh
Anions	87.0	meq/L				A1030 E	07/24/14 14:58 / kbh
Cations	85.5	meq/L				A1030 E	07/24/14 14:58 / kbh
Solids, Total Dissolved Calculated	5200	mg/L				A1030 E	07/24/14 14:58 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 14:58 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 16:17 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 16:17 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 16:17 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 16:17 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 16:17 / jlr
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	07/18/14 16:17 / jlr
Surr: Dibromofluoromethane	133	%REC	S	64.4-131		E624	07/18/14 16:17 / jlr
Surr: p-Bromofluorobenzene	106	%REC		67.1-133		E624	07/18/14 16:17 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/18/14 16:17 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-003
Client Sample ID: GW-3

Report Date: 11/19/14
Collection Date: 10/07/14 10:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1680	mg/L		5		A2320 B	10/10/14 20:42 / jba
Calcium	835	mg/L		1		E200.7	10/23/14 19:08 / sf
Chloride	162	mg/L	D	2		E300.0	10/18/14 07:18 / wc
Magnesium	301	mg/L		1		E200.7	10/23/14 19:08 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:13 / ljl
Nitrogen, Nitrate+Nitrite as N	84	mg/L	D	10		E353.2	10/13/14 13:05 / lr
Potassium	8	mg/L		1		E200.7	10/23/14 19:08 / sf
Sodium	297	mg/L		1		E200.7	10/23/14 19:08 / sf
Sulfate	2250	mg/L	D	8		E300.0	10/18/14 07:18 / wc
PHYSICAL PROPERTIES							
pH	6.63	s.u.	H	0.01		A4500-H B	10/10/14 13:40 / alp
Solids, Total Dissolved TDS @ 180 C	5400	mg/L		30		A2540 C	10/13/14 16:01 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/16/14 14:38 / sf
Beryllium	ND	mg/L		0.001		E200.7	11/05/14 18:13 / sf
Cadmium	ND	mg/L		0.005		E200.7	11/05/14 18:13 / sf
Cobalt	ND	mg/L		0.01		E200.7	11/05/14 18:13 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 22:45 / clm
Manganese	1.22	mg/L		0.01		E200.7	10/16/14 14:38 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/16/14 14:38 / sf
Nickel	ND	mg/L		0.05		E200.7	10/16/14 14:38 / sf
Uranium	0.371	mg/L		0.0003		E200.8	11/06/14 22:45 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/16/14 14:38 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 20:04 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 16:02 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	-0.03	pCi/L	U			E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	0.009	pCi/L	U			E909.0	10/29/14 02:07 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 02:07 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 02:07 / eli-cs
Radium 226	0.18	pCi/L	U			E903.0	10/27/14 08:43 / rdw
Radium 226 precision (±)	0.14	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 228	1.6	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	0.91	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	10/20/14 13:21 / plj
Thorium 230	0.03	pCi/L	U			E908.0	10/22/14 09:27 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	10/22/14 09:27 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	10/22/14 09:27 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-003
Client Sample ID: GW-3

Report Date: 11/19/14
Collection Date: 10/07/14 10:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-3.16	%				A1030 E	10/27/14 08:41 / kbh
Anions	84.8	meq/L				A1030 E	10/27/14 08:41 / kbh
Cations	79.6	meq/L				A1030 E	10/27/14 08:41 / kbh
Solids, Total Dissolved Calculated	5100	mg/L				A1030 E	10/27/14 08:41 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	10/27/14 08:41 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 01:28 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 01:28 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 01:28 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 01:28 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 01:28 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/14/14 01:28 / jlr
Surr: Dibromofluoromethane	94.0	%REC		64.4-131		E624	10/14/14 01:28 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		67.1-133		E624	10/14/14 01:28 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/14/14 01:28 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		GW-3	GW-3	GW-3	GW-3
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/7/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100552-003	C14070432-003	C14040184-005	C14010260-016
Bicarbonate as HCO3	mg/L	1680	1780	1780	1780
Calcium	mg/L	835	864	935	897
Chloride	mg/L	162	165	172	168
Magnesium	mg/L	301	335	310	299
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	0.07	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	84	80	77	83
Potassium	mg/L	8	9	9	8
Sodium	mg/L	297	334	334	313
Sulfate	mg/L	2250	2280	2290	2280
pH	s.u.	6.63	6.64	6.73	6.63
Solids, Total Dissolved TDS @ 180 C	mg/L	5400	5500	5330	5380
Aluminum	mg/L	ND(0.1)	1.1	0.2	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	1.22	1.61	1.56	1.61
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.371	0.320	0.365	0.358
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	-0.03	0.2	0.1	0.4
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.4	0.3	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.6	0.5	0.6
Lead 210	pCi/L	0.009	-0.3	0.9	0.2
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1	1.0
Radium 226	pCi/L	0.18	0.24	0.22	0.33
Radium 226 precision (±)	pCi/L	0.14	0.12	0.12	0.14
Radium 226 MDC	pCi/L	0.19	0.16	0.15	0.16
Radium 228	pCi/L	1.6	0.14	0.82	1.1
Radium 228 precision (±)	pCi/L	0.91	0.84	0.96	1.2
Radium 228 MDC	pCi/L	1.4	1.4	1.5	2.0
Thorium 230	pCi/L	0.03	0.01	0.02	-0.005
Thorium 230 precision (±)	pCi/L	0.08	0.03	0.07	0.06
Thorium 230 MDC	pCi/L	0.2	0.08	0.2	0.2
A/C Balance (± 5)	%	-3.16	-0.91	-0.10	-2.05
Anions	meq/L	84.8	87.0	87.1	86.7
Cations	meq/L	79.6	85.5	86.9	83.2
Solids, Total Dissolved Calculated	mg/L	5100	5200	5300	5200
TDS Balance (0.80 - 1.20)		1.07	1.05	1.01	1.04
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-002
Client Sample ID: EPA-23

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 09:35
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1290	mg/L		5		A2320 B	07/10/14 19:29 / jba
Calcium	655	mg/L		1		E200.7	07/18/14 20:33 / sf
Chloride	102	mg/L	D	2		E300.0	07/10/14 16:23 / wc
Magnesium	368	mg/L		1		E200.7	07/18/14 20:33 / sf
Nitrogen, Ammonia as N	0.60	mg/L		0.05		A4500-NH3 G	07/14/14 13:04 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/10/14 12:48 / lr
Potassium	11	mg/L		1		E200.7	07/18/14 20:33 / sf
Sodium	142	mg/L	D	2		E200.7	07/18/14 20:33 / sf
Sulfate	2360	mg/L	D	8		E300.0	07/10/14 16:23 / wc
PHYSICAL PROPERTIES							
pH	6.79	s.u.	H	0.01		A4500-H B	07/10/14 14:37 / alp
Solids, Total Dissolved TDS @ 180 C	4600	mg/L		33		A2540 C	07/11/14 13:46 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 13:56 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 21:48 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 13:56 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 13:56 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 16:39 / cp
Manganese	5.92	mg/L		0.01		E200.7	07/14/14 13:56 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 13:56 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 13:56 / sf
Uranium	0.0274	mg/L		0.0003		E200.8	07/14/14 16:39 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 16:39 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 14:59 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:18 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	-0.03	pCi/L	U			E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 18:03 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 18:03 / lmc
Lead 210	0.6	pCi/L	U			E909.0	08/03/14 08:15 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 08:15 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 08:15 / eli-cs
Radium 226	0.39	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.14	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.65	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.71	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.1	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.03	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-002
Client Sample ID: EPA-23

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 09:35
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.51	%				A1030 E	07/21/14 14:06 / kbh
Anions	73.1	meq/L				A1030 E	07/21/14 14:06 / kbh
Cations	69.5	meq/L				A1030 E	07/21/14 14:06 / kbh
Solids, Total Dissolved Calculated	4300	mg/L				A1030 E	07/21/14 14:06 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:06 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/17/14 15:47 / jlr
Bromoform	ND	ug/L		0.50		E624	07/17/14 15:47 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/17/14 15:47 / jlr
Chloroform	ND	ug/L		0.50		E624	07/17/14 15:47 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/17/14 15:47 / jlr
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	07/17/14 15:47 / jlr
Surr: Dibromofluoromethane	119	%REC		64.4-131		E624	07/17/14 15:47 / jlr
Surr: p-Bromofluorobenzene	112	%REC		67.1-133		E624	07/17/14 15:47 / jlr
Surr: Toluene-d8	108	%REC		79.7-125		E624	07/17/14 15:47 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-002
Client Sample ID: EPA-23

Report Date: 11/19/14
Collection Date: 10/06/14 09:30
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1300	mg/L		5		A2320 B	10/10/14 05:41 / jba
Calcium	669	mg/L		1		E200.7	10/21/14 18:07 / sf
Chloride	102	mg/L	D	2		E300.0	10/17/14 23:27 / wc
Magnesium	390	mg/L		1		E200.7	10/21/14 18:07 / sf
Nitrogen, Ammonia as N	0.90	mg/L		0.05		A4500-NH3 G	10/10/14 17:28 / ljl
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/13/14 12:03 / lr
Potassium	11	mg/L		1		E200.7	10/21/14 18:07 / sf
Sodium	152	mg/L		1		E200.7	10/21/14 18:07 / sf
Sulfate	2330	mg/L	D	8		E300.0	10/17/14 23:27 / wc
PHYSICAL PROPERTIES							
pH	6.75	s.u.	H	0.01		A4500-H B	10/10/14 11:29 / alp
Solids, Total Dissolved TDS @ 180 C	4670	mg/L		40		A2540 C	10/10/14 14:12 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 21:14 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 20:30 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 20:30 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 20:30 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:01 / clm
Manganese	5.77	mg/L		0.01		E200.7	10/21/14 21:14 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 21:14 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 20:30 / sf
Uranium	0.0313	mg/L		0.0003		E200.8	11/06/14 21:01 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 21:14 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 16:51 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 14:59 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.4	pCi/L	U			E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 11:18 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 11:18 / dmf
Lead 210	0.009	pCi/L	U			E909.0	10/29/14 19:28 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 19:28 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 19:28 / eli-cs
Radium 226	0.40	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 precision (±)	0.17	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/22/14 11:27 / rdw
Radium 228	2.7	pCi/L				RA-05	10/17/14 12:05 / plj
Radium 228 precision (±)	0.94	pCi/L				RA-05	10/17/14 12:05 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	10/17/14 12:05 / plj
Thorium 230	0.01	pCi/L	U			E908.0	11/03/14 16:45 / res
Thorium 230 precision (±)	0.06	pCi/L				E908.0	11/03/14 16:45 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/03/14 16:45 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-002
Client Sample ID: EPA-23

Report Date: 11/19/14
Collection Date: 10/06/14 09:30
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-0.17	%				A1030 E	10/22/14 16:25 / kbh
Anions	72.6	meq/L				A1030 E	10/22/14 16:25 / kbh
Cations	72.4	meq/L				A1030 E	10/22/14 16:25 / kbh
Solids, Total Dissolved Calculated	4300	mg/L				A1030 E	10/22/14 16:25 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	10/22/14 16:25 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 14:20 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 14:20 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 14:20 / jlr
Chloroform	ND	ug/L		0.50		E624	10/13/14 14:20 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/13/14 14:20 / jlr
Surr: 1,2-Dichlorobenzene-d4	91.0	%REC		73.7-126		E624	10/13/14 14:20 / jlr
Surr: Dibromofluoromethane	89.0	%REC		64.4-131		E624	10/13/14 14:20 / jlr
Surr: p-Bromofluorobenzene	88.0	%REC		67.1-133		E624	10/13/14 14:20 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/13/14 14:20 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		EPA-23	EPA-23	EPA-23	EPA-23
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/6/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/18/2014
Analyte	RUnits	C14100513-002	C14070373-002	C14040132-002	C14010260-002
Bicarbonate as HCO3	mg/L	1300	1290	1280	1270
Calcium	mg/L	669	655	616	621
Chloride	mg/L	102	102	106	100
Magnesium	mg/L	390	368	358	370
Nitrogen, Ammonia as N	mg/L	0.90	0.60	0.67	0.51
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	11	11	10	10
Sodium	mg/L	152	142	137	142
Sulfate	mg/L	2330	2360	2280	2300
pH	s.u.	6.75	6.79	6.66	6.70
Solids, Total Dissolved TDS @ 180 C	mg/L	4670	4600	4620	4680
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	5.77	5.92	5.98	6.30
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0313	0.0274	0.0324	0.0314
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.4	-0.03	0.08	0.04
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.3	0.4	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.6	0.6
Lead 210	pCi/L	0.009	0.6	-0.3	0.1
Lead 210 precision (±)	pCi/L	0.7	0.7	0.9	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.45	0.8
Radium 226	pCi/L	0.40	0.39	0.25	0.41
Radium 226 precision (±)	pCi/L	0.17	0.14	0.14	0.16
Radium 226 MDC	pCi/L	0.19	0.15	0.17	0.18
Radium 228	pCi/L	2.7	0.65	1.4	1.4
Radium 228 precision (±)	pCi/L	0.94	0.71	0.74	1.2
Radium 228 MDC	pCi/L	1.3	1.1	1.1	1.9
Thorium 230	pCi/L	0.01	0.03	0.0007	0.03
Thorium 230 precision (±)	pCi/L	0.06	0.07	0.06	0.07
Thorium 230 MDC	pCi/L	0.1	0.2	0.2	0.2
A/C Balance (± 5)	%	-0.17	-2.51	-3.57	-2.59
Anions	meq/L	72.6	73.1	71.4	71.5
Cations	meq/L	72.4	69.5	66.5	67.9
Solids, Total Dissolved Calculated	mg/L	4300	4300	4200	4200
TDS Balance (0.80 - 1.20)		1.08	1.07	1.11	1.12
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-004
Client Sample ID: EPA-25

Report Date: 08/28/14
Collection Date: 07/08/14 13:25
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1020	mg/L		5		A2320 B	07/11/14 20:33 / jba
Calcium	727	mg/L		1		E200.7	07/23/14 18:40 / sf
Chloride	115	mg/L	D	2		E300.0	07/14/14 17:41 / wc
Magnesium	251	mg/L		1		E200.7	07/23/14 18:40 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:40 / lr
Nitrogen, Nitrate+Nitrite as N	69	mg/L	D	2		E353.2	07/11/14 15:40 / lr
Potassium	8	mg/L		1		E200.7	07/23/14 18:40 / sf
Sodium	213	mg/L	D	2		E200.7	07/23/14 18:40 / sf
Sulfate	1810	mg/L	D	8		E300.0	07/14/14 17:41 / wc
PHYSICAL PROPERTIES							
pH	6.89	s.u.	H	0.01		A4500-H B	07/11/14 14:38 / tmm
Solids, Total Dissolved TDS @ 180 C	4060	mg/L		31		A2540 C	07/14/14 15:10 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/16/14 21:24 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 18:47 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 18:47 / cp
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 18:47 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 18:47 / cp
Manganese	0.27	mg/L		0.01		E200.7	07/16/14 21:24 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 21:24 / sf
Nickel	ND	mg/L		0.05		E200.7	07/16/14 21:24 / sf
Uranium	0.111	mg/L		0.0003		E200.8	07/16/14 18:47 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 21:24 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 18:47 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:47 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.05	pCi/L	U			E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.06	pCi/L	U			E909.0	08/08/14 05:26 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 05:26 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 05:26 / eli-cs
Radium 226	0.10	pCi/L	U			E903.0	08/04/14 11:52 / lmc
Radium 226 precision (±)	0.11	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 11:52 / lmc
Radium 228	0.94	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.76	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.04	pCi/L	U			E908.0	07/17/14 17:04 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	07/17/14 17:04 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	07/17/14 17:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-004
Client Sample ID: EPA-25

Report Date: 08/28/14
Collection Date: 07/08/14 13:25
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	3.32	%				A1030 E	07/24/14 14:58 / kbh
Anions	62.2	meq/L				A1030 E	07/24/14 14:58 / kbh
Cations	66.4	meq/L				A1030 E	07/24/14 14:58 / kbh
Solids, Total Dissolved Calculated	3900	mg/L				A1030 E	07/24/14 14:58 / kbh
TDS Balance (0.80 - 1.20)	1.03					A1030 E	07/24/14 14:58 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 16:51 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 16:51 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 16:51 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 16:51 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 16:51 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/18/14 16:51 / jlr
Surr: Dibromofluoromethane	129	%REC		64.4-131		E624	07/18/14 16:51 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/18/14 16:51 / jlr
Surr: Toluene-d8	97.0	%REC		79.7-125		E624	07/18/14 16:51 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-004
Client Sample ID: EPA-25

Report Date: 11/19/14
Collection Date: 10/07/14 11:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1330	mg/L		5		A2320 B	10/10/14 20:52 / jba
Calcium	766	mg/L		1		E200.7	10/23/14 19:12 / sf
Chloride	120	mg/L	D	2		E300.0	10/18/14 07:35 / wc
Magnesium	234	mg/L		1		E200.7	10/23/14 19:12 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:14 / ljl
Nitrogen, Nitrate+Nitrite as N	68	mg/L	D	10		E353.2	10/13/14 13:08 / lr
Potassium	8	mg/L		1		E200.7	10/23/14 19:12 / sf
Sodium	200	mg/L		1		E200.7	10/23/14 19:12 / sf
Sulfate	1880	mg/L	D	8		E300.0	10/18/14 07:35 / wc
PHYSICAL PROPERTIES							
pH	6.84	s.u.	H	0.01		A4500-H B	10/10/14 13:46 / alp
Solids, Total Dissolved TDS @ 180 C	4380	mg/L		30		A2540 C	10/13/14 16:01 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/16/14 14:42 / sf
Beryllium	ND	mg/L		0.001		E200.7	11/05/14 18:21 / sf
Cadmium	ND	mg/L		0.005		E200.7	11/05/14 18:21 / sf
Cobalt	ND	mg/L		0.01		E200.7	11/05/14 18:21 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 23:02 / clm
Manganese	0.35	mg/L		0.01		E200.7	10/16/14 14:42 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/16/14 14:42 / sf
Nickel	ND	mg/L		0.05		E200.7	10/16/14 14:42 / sf
Uranium	0.128	mg/L		0.0003		E200.8	11/06/14 23:02 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/16/14 14:42 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 20:16 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 16:07 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.09	pCi/L	U			E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	-0.2	pCi/L	U			E909.0	10/29/14 03:16 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 03:16 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 03:16 / eli-cs
Radium 226	0.09	pCi/L	U			E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.13	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.20	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	1.1	pCi/L	U			RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	0.94	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	10/20/14 13:21 / plj
Thorium 230	0.04	pCi/L	U			E908.0	10/22/14 09:27 / res
Thorium 230 precision (±)	0.09	pCi/L				E908.0	10/22/14 09:27 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	10/22/14 09:27 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-004
Client Sample ID: EPA-25

Report Date: 11/19/14
Collection Date: 10/07/14 11:40
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.15	%				A1030 E	10/27/14 08:41 / kbh
Anions	69.2	meq/L				A1030 E	10/27/14 08:41 / kbh
Cations	66.3	meq/L				A1030 E	10/27/14 08:41 / kbh
Solids, Total Dissolved Calculated	4200	mg/L				A1030 E	10/27/14 08:41 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/27/14 08:41 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 02:03 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 02:03 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 02:03 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 02:03 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 02:03 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/14/14 02:03 / jlr
Surr: Dibromofluoromethane	86.0	%REC		64.4-131		E624	10/14/14 02:03 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		67.1-133		E624	10/14/14 02:03 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	10/14/14 02:03 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		EPA-25	EPA-25	EPA-25	EPA-25
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/7/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100552-004	C14070432-004	C14040184-004	C14010260-015
Bicarbonate as HCO3	mg/L	1330	1020	1250	1260
Calcium	mg/L	766	727	778	745
Chloride	mg/L	120	115	121	109
Magnesium	mg/L	234	251	232	227
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	68	69	68	81
Potassium	mg/L	8	8	8	7
Sodium	mg/L	200	213	205	192
Sulfate	mg/L	1880	1810	1830	1800
pH	s.u.	6.84	6.89	7.05	6.86
Solids, Total Dissolved TDS @ 180 C	mg/L	4380	4060	4200	4300
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.35	0.27	0.17	0.86
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.128	0.111	0.124	0.128
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.09	0.05	-0.2	-0.04
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.4	0.2	0.3
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.6	0.5	0.6
Lead 210	pCi/L	-0.2	0.06	-0.06	-0.1
Lead 210 precision (±)	pCi/L	0.7	0.7	0.7	0.4
Lead 210 MDC	pCi/L	1.2	1.2	1.1	0.8
Radium 226	pCi/L	0.09	0.10	0.17	0.12
Radium 226 precision (±)	pCi/L	0.13	0.11	0.11	0.12
Radium 226 MDC	pCi/L	0.20	0.16	0.15	0.18
Radium 228	pCi/L	1.1	0.94	0.42	-1
Radium 228 precision (±)	pCi/L	0.94	0.76	0.94	1.3
Radium 228 MDC	pCi/L	1.5	1.2	1.5	2.3
Thorium 230	pCi/L	0.04	0.04	0.03	-0.008
Thorium 230 precision (±)	pCi/L	0.09	0.04	0.07	0.08
Thorium 230 MDC	pCi/L	0.2	0.07	0.2	0.2
A/C Balance (± 5)	%	-2.15	3.32	-1.20	-1.37
Anions	meq/L	69.2	62.2	68.7	66.2
Cations	meq/L	66.3	66.4	67.0	64.4
Solids, Total Dissolved Calculated	mg/L	4200	3900	4200	4000
TDS Balance (0.80 - 1.20)		1.05	1.03	1.00	1.07
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-010
Client Sample ID: EPA-28

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 15:55
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	777	mg/L		5		A2320 B	07/10/14 21:46 / jba
Calcium	534	mg/L		1		E200.7	07/18/14 21:34 / sf
Chloride	114	mg/L	D	2		E300.0	07/10/14 19:17 / wc
Magnesium	462	mg/L		1		E200.7	07/18/14 21:34 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:17 / lr
Nitrogen, Nitrate+Nitrite as N	26	mg/L	D	2		E353.2	07/10/14 13:18 / lr
Potassium	12	mg/L		1		E200.7	07/18/14 21:34 / sf
Sodium	221	mg/L	D	2		E200.7	07/18/14 21:34 / sf
Sulfate	2840	mg/L	D	8		E300.0	07/10/14 19:17 / wc
PHYSICAL PROPERTIES							
pH	6.86	s.u.	H	0.01		A4500-H B	07/10/14 15:05 / alp
Solids, Total Dissolved TDS @ 180 C	5010	mg/L		37		A2540 C	07/11/14 13:52 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/14/14 15:05 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/23/14 22:39 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/14/14 15:05 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/14/14 15:05 / sf
Lead	ND	mg/L		0.001		E200.8	07/14/14 17:10 / cp
Manganese	0.79	mg/L		0.01		E200.7	07/14/14 15:05 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/14/14 15:05 / sf
Nickel	ND	mg/L		0.05		E200.7	07/14/14 15:05 / sf
Uranium	0.0388	mg/L		0.0003		E200.8	07/14/14 17:10 / cp
Vanadium	ND	mg/L		0.1		E200.8	07/14/14 17:10 / cp
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 16:59 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:33 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.3	pCi/L	U			E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	07/21/14 21:05 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/21/14 21:05 / lmc
Lead 210	1.1	pCi/L	U			E909.0	08/03/14 17:30 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/03/14 17:30 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 17:30 / eli-cs
Radium 226	0.48	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.93	pCi/L	U			RA-05	07/29/14 11:01 / plj
Radium 228 precision (±)	0.73	pCi/L				RA-05	07/29/14 11:01 / plj
Radium 228 MDC	1.1	pCi/L				RA-05	07/29/14 11:01 / plj
Thorium 230	0.04	pCi/L	U			E908.0	07/28/14 16:52 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	07/28/14 16:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/28/14 16:52 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070373-010
Client Sample ID: EPA-28

Revised Date: 09/29/14
Report Date: 08/28/14
Collection Date: 07/07/14 15:55
DateReceived: 07/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-1.40	%				A1030 E	07/21/14 14:08 / kbh
Anions	76.7	meq/L				A1030 E	07/21/14 14:08 / kbh
Cations	74.6	meq/L				A1030 E	07/21/14 14:08 / kbh
Solids, Total Dissolved Calculated	4700	mg/L				A1030 E	07/21/14 14:08 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	07/21/14 14:08 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 00:23 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 00:23 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 00:23 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 00:23 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 00:23 / jlr
Surr: 1,2-Dichlorobenzene-d4	113	%REC		73.7-126		E624	07/18/14 00:23 / jlr
Surr: Dibromofluoromethane	128	%REC		64.4-131		E624	07/18/14 00:23 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/18/14 00:23 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/18/14 00:23 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-010
Client Sample ID: EPA-28

Report Date: 11/19/14
Collection Date: 10/06/14 16:16
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	724	mg/L		5		A2320 B	10/10/14 19:10 / jba
Calcium	498	mg/L		1		E200.7	10/21/14 18:56 / sf
Chloride	117	mg/L	D	2		E300.0	10/18/14 02:21 / wc
Magnesium	461	mg/L		1		E200.7	10/21/14 18:56 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:43 / ljl
Nitrogen, Nitrate+Nitrite as N	23	mg/L	D	1		E353.2	10/13/14 12:33 / lr
Potassium	11	mg/L		1		E200.7	10/21/14 18:56 / sf
Sodium	231	mg/L		1		E200.7	10/21/14 18:56 / sf
Sulfate	2920	mg/L	D	8		E300.0	10/18/14 02:21 / wc
PHYSICAL PROPERTIES							
pH	6.84	s.u.	H	0.01		A4500-H B	10/10/14 12:18 / alp
Solids, Total Dissolved TDS @ 180 C	5010	mg/L		40		A2540 C	10/10/14 14:14 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/21/14 22:04 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 21:34 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 21:34 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 21:34 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 21:53 / clm
Manganese	0.72	mg/L		0.01		E200.7	10/21/14 22:04 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/21/14 22:04 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 21:34 / sf
Uranium	0.0452	mg/L		0.0003		E200.8	11/06/14 21:53 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/21/14 22:04 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 18:52 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:53 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	0.5	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	0.64	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 precision (±)	0.20	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/22/14 13:00 / rdw
Radium 228	1.2	pCi/L	U			RA-05	10/17/14 13:45 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/17/14 13:45 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/17/14 13:45 / plj
Thorium 230	0.01	pCi/L	U			E908.0	11/04/14 09:37 / res
Thorium 230 precision (±)	0.06	pCi/L				E908.0	11/04/14 09:37 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/04/14 09:37 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100513-010
Client Sample ID: EPA-28

Report Date: 11/19/14
Collection Date: 10/06/14 16:16
DateReceived: 10/09/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.97	%				A1030 E	10/22/14 16:27 / kbh
Anions	77.6	meq/L				A1030 E	10/22/14 16:27 / kbh
Cations	73.1	meq/L				A1030 E	10/22/14 16:27 / kbh
Solids, Total Dissolved Calculated	4700	mg/L				A1030 E	10/22/14 16:27 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	10/22/14 16:27 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 23:07 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 23:07 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 23:07 / jlr
Chloroform	ND	ug/L		0.50		E624	10/13/14 23:07 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/13/14 23:07 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/13/14 23:07 / jlr
Surr: Dibromofluoromethane	93.0	%REC		64.4-131		E624	10/13/14 23:07 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		67.1-133		E624	10/13/14 23:07 / jlr
Surr: Toluene-d8	94.0	%REC		79.7-125		E624	10/13/14 23:07 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		EPA-28	EPA-28	EPA-28	EPA-28
Collection Date:		10/6/2014	7/7/2014	3/31/2014	1/7/2014
Receive Date:		10/9/2014	7/10/2014	4/3/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	6/19/2014	2/18/2014
Analyte	RUnits	C14100513-010	C14070373-010	C14040132-010	C14010260-012
Bicarbonate as HCO3	mg/L	724	777	777	793
Calcium	mg/L	498	534	566	505
Chloride	mg/L	117	114	119	118
Magnesium	mg/L	461	462	515	460
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	23	26	29	24
Potassium	mg/L	11	12	12	11
Sodium	mg/L	231	221	247	225
Sulfate	mg/L	2920	2840	2720	2760
pH	s.u.	6.84	6.86	6.78	6.81
Solids, Total Dissolved TDS @ 180 C	mg/L	5010	5010	5000	5090
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.72	0.79	0.82	0.79
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0452	0.0388	0.0526	0.0499
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1	0.3	0.8	0.8
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.3	0.4	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.5	0.5	0.6
Lead 210	pCi/L	0.5	1.1	0.05	0.2
Lead 210 precision (±)	pCi/L	0.8	0.8	0.9	0.5
Lead 210 MDC	pCi/L	1.3	1.2	1.4	0.8
Radium 226	pCi/L	0.64	0.48	0.59	0.59
Radium 226 precision (±)	pCi/L	0.20	0.15	0.18	0.17
Radium 226 MDC	pCi/L	0.19	0.15	0.18	0.17
Radium 228	pCi/L	1.2	0.93	0.29	2.6
Radium 228 precision (±)	pCi/L	1.0	0.73	1.5	1.4
Radium 228 MDC	pCi/L	1.6	1.1	2.5	2.1
Thorium 230	pCi/L	0.01	0.04	0.04	-0.009
Thorium 230 precision (±)	pCi/L	0.06	0.07	0.08	0.06
Thorium 230 MDC	pCi/L	0.1	0.2	0.2	0.2
A/C Balance (± 5)	%	-2.97	-1.40	4.62	-1.76
Anions	meq/L	77.6	76.7	74.5	75.8
Cations	meq/L	73.1	74.6	81.7	73.2
Solids, Total Dissolved Calculated	mg/L	4700	4700	4700	4600
TDS Balance (0.80 - 1.20)		1.06	1.07	1.07	1.10
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-002
Client Sample ID: SBL-1

Report Date: 08/28/14
Collection Date: 07/08/14 09:42
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	467	mg/L		5		A2320 B	07/11/14 20:12 / jba
Calcium	502	mg/L		1		E200.7	07/23/14 18:32 / sf
Chloride	73	mg/L	D	5		E300.0	07/14/14 17:06 / wc
Magnesium	1280	mg/L		1		E200.7	07/23/14 18:32 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:37 / lr
Nitrogen, Nitrate+Nitrite as N	36	mg/L	D	2		E353.2	07/11/14 15:35 / lr
Potassium	15	mg/L		1		E200.7	07/23/14 18:32 / sf
Sodium	309	mg/L	D	3		E200.7	07/23/14 18:32 / sf
Sulfate	5900	mg/L	D	20		E300.0	07/14/14 17:06 / wc
PHYSICAL PROPERTIES							
pH	6.83	s.u.	H	0.01		A4500-H B	07/11/14 14:32 / tmm
Solids, Total Dissolved TDS @ 180 C	9270	mg/L		100		A2540 C	07/14/14 15:09 / tmm
METALS - TOTAL							
Aluminum	0.3	mg/L	D	0.2		E200.7	07/16/14 21:09 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 18:56 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 18:56 / cp
Cobalt	0.02	mg/L		0.01		E200.8	07/16/14 18:56 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 18:56 / cp
Manganese	3.68	mg/L		0.01		E200.7	07/16/14 21:09 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 21:09 / sf
Nickel	0.08	mg/L		0.05		E200.7	07/16/14 21:09 / sf
Uranium	0.0104	mg/L		0.0003		E200.8	07/16/14 18:56 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 21:09 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/28/14 17:59 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:41 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.4	pCi/L	U			E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.1	pCi/L	U			E909.0	08/08/14 03:07 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 03:07 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 03:07 / eli-cs
Radium 226	0.41	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 precision (±)	0.15	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 226 MDC	0.16	pCi/L				E903.0	08/04/14 10:19 / lmc
Radium 228	0.97	pCi/L	U			RA-05	07/29/14 12:34 / plj
Radium 228 precision (±)	0.90	pCi/L				RA-05	07/29/14 12:34 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 12:34 / plj
Thorium 230	0.04	pCi/L	U			E908.0	07/17/14 17:04 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	07/17/14 17:04 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	07/17/14 17:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14070432-002
Client Sample ID: SBL-1

Report Date: 08/28/14
Collection Date: 07/08/14 09:42
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	3.29	%				A1030 E	07/24/14 14:58 / kbh
Anions	135	meq/L				A1030 E	07/24/14 14:58 / kbh
Cations	144	meq/L				A1030 E	07/24/14 14:58 / kbh
Solids, Total Dissolved Calculated	8500	mg/L				A1030 E	07/24/14 14:58 / kbh
TDS Balance (0.80 - 1.20)	1.10					A1030 E	07/24/14 14:58 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 15:42 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 15:42 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 15:42 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 15:42 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 15:42 / jlr
Surr: 1,2-Dichlorobenzene-d4	107	%REC		73.7-126		E624	07/18/14 15:42 / jlr
Surr: Dibromofluoromethane	126	%REC		64.4-131		E624	07/18/14 15:42 / jlr
Surr: p-Bromofluorobenzene	103	%REC		67.1-133		E624	07/18/14 15:42 / jlr
Surr: Toluene-d8	99.0	%REC		79.7-125		E624	07/18/14 15:42 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-001
Client Sample ID: SBL-1

Report Date: 11/19/14
Collection Date: 10/07/14 08:43
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	447	mg/L		5		A2320 B	10/10/14 20:13 / jba
Calcium	473	mg/L		1		E200.7	10/23/14 19:00 / sf
Chloride	75	mg/L	D	5		E300.0	10/18/14 05:33 / wc
Magnesium	1130	mg/L		1		E200.7	10/23/14 19:00 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 19:06 / ljl
Nitrogen, Nitrate+Nitrite as N	36	mg/L	D	2		E353.2	10/13/14 13:00 / lr
Potassium	13	mg/L		1		E200.7	10/23/14 19:00 / sf
Sodium	271	mg/L		1		E200.7	10/23/14 19:00 / sf
Sulfate	5890	mg/L	D	20		E300.0	10/18/14 05:33 / wc
PHYSICAL PROPERTIES							
pH	6.75	s.u.	H	0.01		A4500-H B	10/10/14 13:25 / alp
Solids, Total Dissolved TDS @ 180 C	9040	mg/L		100		A2540 C	10/13/14 16:00 / lr
METALS - TOTAL							
Aluminum	0.6	mg/L	D	0.2		E200.7	10/16/14 14:30 / sf
Beryllium	ND	mg/L		0.001		E200.7	11/05/14 18:05 / sf
Cadmium	ND	mg/L		0.005		E200.7	11/05/14 18:05 / sf
Cobalt	0.03	mg/L		0.01		E200.7	11/05/14 18:05 / sf
Lead	ND	mg/L		0.001		E200.8	11/06/14 22:38 / clm
Manganese	3.38	mg/L		0.01		E200.7	10/16/14 14:30 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/16/14 14:30 / sf
Nickel	0.09	mg/L		0.05		E200.7	11/05/14 18:05 / sf
Uranium	0.0110	mg/L		0.0003		E200.8	11/06/14 22:38 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/16/14 14:30 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/27/14 19:40 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/05/14 15:56 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.8	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/21/14 12:55 / dmf
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	10/21/14 12:55 / dmf
Lead 210	0.4	pCi/L	U			E909.0	10/28/14 21:29 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/28/14 21:29 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/28/14 21:29 / eli-cs
Radium 226	0.44	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 226 precision (±)	0.21	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 226 MDC	0.24	pCi/L				E903.0	10/27/14 08:43 / rdw
Radium 228	3.7	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/20/14 13:21 / plj
Thorium 230	0.05	pCi/L	U			E908.0	10/22/14 09:27 / res
Thorium 230 precision (±)	0.09	pCi/L				E908.0	10/22/14 09:27 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	10/22/14 09:27 / res

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: SW Alluvium
Lab ID: C14100552-001
Client Sample ID: SBL-1

Report Date: 11/19/14
Collection Date: 10/07/14 08:43
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.20	%				A1030 E	10/27/14 08:41 / kbh
Anions	135	meq/L				A1030 E	10/27/14 08:41 / kbh
Cations	129	meq/L				A1030 E	10/27/14 08:41 / kbh
Solids, Total Dissolved Calculated	8200	mg/L				A1030 E	10/27/14 08:41 / kbh
TDS Balance (0.80 - 1.20)	1.10					A1030 E	10/27/14 08:41 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 00:18 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 00:18 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 00:18 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 00:18 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 00:18 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		73.7-126		E624	10/14/14 00:18 / jlr
Surr: Dibromofluoromethane	96.0	%REC		64.4-131		E624	10/14/14 00:18 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		67.1-133		E624	10/14/14 00:18 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/14/14 00:18 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Alluvium Monitor Wells					
Well ID:		SBL-1	SBL-1	SBL-1	SBL-1
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/7/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100552-001	C14070432-002	C14040184-001	C14010260-011
Bicarbonate as HCO3	mg/L	447	467	424	451
Calcium	mg/L	473	502	490	478
Chloride	mg/L	75	73	79	77
Magnesium	mg/L	1130	1280	1220	1180
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	0.35
Nitrogen, Nitrate+Nitrite as N	mg/L	36	36	43	40
Potassium	mg/L	13	15	13	14
Sodium	mg/L	271	309	291	287
Sulfate	mg/L	5890	5900	5640	5890
pH	s.u.	6.75	6.83	6.77	6.76
Solids, Total Dissolved TDS @ 180 C	mg/L	9040	9270	8840	9150
Aluminum	mg/L	0.6	0.3	0.5	0.1
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.03	0.02	0.03	0.03
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	3.38	3.68	3.69	3.92
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.09	0.08	0.08	0.08
Uranium	mg/L	0.0110	0.0104	0.0129	0.0120
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.8	0.4	0.7	1
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.4	0.4	0.5
Gross Alpha minus Rn & U MDC	pCi/L	0.5	0.6	0.5	0.6
Lead 210	pCi/L	0.4	0.1	0.09	0.09
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1	0.8
Radium 226	pCi/L	0.44	0.41	0.64	0.64
Radium 226 precision (±)	pCi/L	0.21	0.15	0.17	0.18
Radium 226 MDC	pCi/L	0.24	0.16	0.16	0.18
Radium 228	pCi/L	3.7	0.97	2.7	3.6
Radium 228 precision (±)	pCi/L	1.2	0.90	0.93	1.3
Radium 228 MDC	pCi/L	1.8	1.4	1.3	1.9
Thorium 230	pCi/L	0.05	0.04	-0.004	-0.02
Thorium 230 precision (±)	pCi/L	0.09	0.04	0.05	0.06
Thorium 230 MDC	pCi/L	0.2	0.07	0.2	0.2
A/C Balance (± 5)	%	-2.20	3.29	3.17	-0.215
Anions	meq/L	135	135	129	135
Cations	meq/L	129	144	138	134
Solids, Total Dissolved Calculated	mg/L	8200	8500	8100	8300
TDS Balance (0.80 - 1.20)		1.10	1.10	1.09	1.10
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY TO DECEMBER OF 2014

ZONE – 1

515-A

*604

*614

TWQ-142

EPA-2

*EPA-4

*EPA-5

*EPA-7

LEVELS ONLY

TWQ-143

EPA-8

505-A

502-A

501-A

504-A

412

***POINT OF COMPLIANCE WELLS**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-002
Client Sample ID: 515-A

Report Date: 08/28/14
Collection Date: 07/08/14 16:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	846	mg/L		5		A2320 B	07/11/14 21:00 / jba
Calcium	446	mg/L		1		E200.7	07/23/14 18:57 / sf
Chloride	371	mg/L	D	5		E300.0	07/14/14 20:00 / wc
Magnesium	1310	mg/L		1		E200.7	07/23/14 18:57 / sf
Nitrogen, Ammonia as N	23	mg/L	D	5		A4500-NH3 G	07/14/14 14:36 / lr
Nitrogen, Nitrate+Nitrite as N	41	mg/L	D	2		E353.2	07/11/14 15:58 / lr
Potassium	19	mg/L		1		E200.7	07/23/14 18:57 / sf
Sodium	623	mg/L	D	3		E200.7	07/23/14 18:57 / sf
Sulfate	6330	mg/L	D	20		E300.0	07/14/14 20:00 / wc
PHYSICAL PROPERTIES							
pH	6.18	s.u.	H	0.01		A4500-H B	07/11/14 14:47 / tmm
Solids, Total Dissolved TDS @ 180 C	10200	mg/L		100		A2540 C	07/14/14 15:11 / tmm
METALS - TOTAL							
Aluminum	0.7	mg/L	D	0.2		E200.7	07/16/14 23:49 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 21:25 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 21:25 / cp
Cobalt	0.02	mg/L		0.01		E200.8	07/16/14 21:25 / cp
Lead	0.001	mg/L		0.001		E200.8	07/16/14 21:25 / cp
Manganese	7.82	mg/L		0.01		E200.7	07/16/14 23:49 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 23:49 / sf
Nickel	0.09	mg/L		0.05		E200.7	07/16/14 23:49 / sf
Uranium	0.0081	mg/L		0.0003		E200.8	07/16/14 21:25 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 23:49 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 13:32 / eli-h
Selenium-IV	0.002	mg/L		0.001		A3114 B	07/24/14 12:57 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	3.2	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.8	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.7	pCi/L	U			E909.0	08/03/14 20:59 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 20:59 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 20:59 / eli-cs
Radium 226	1.7	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.25	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	4.6	pCi/L				RA-05	07/29/14 12:37 / plj
Radium 228 precision (±)	0.99	pCi/L				RA-05	07/29/14 12:37 / plj
Radium 228 MDC	1.3	pCi/L				RA-05	07/29/14 12:37 / plj
Thorium 230	0.04	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-002
Client Sample ID: 515-A

Report Date: 08/28/14
Collection Date: 07/08/14 16:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.13	%				A1030 E	07/24/14 14:59 / kbh
Anions	159	meq/L				A1030 E	07/24/14 14:59 / kbh
Cations	160	meq/L				A1030 E	07/24/14 14:59 / kbh
Solids, Total Dissolved Calculated	9700	mg/L				A1030 E	07/24/14 14:59 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 14:59 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/19/14 05:26 / jlr
Bromoform	ND	ug/L		0.50		E624	07/19/14 05:26 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/19/14 05:26 / jlr
Chloroform	248	ug/L		5.0		E624	07/17/14 19:48 / jlr
Trihalomethanes, Total	248	ug/L		0.50		E624	07/19/14 05:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	07/19/14 05:26 / jlr
Surr: Dibromofluoromethane	143	%REC	S	64.4-131		E624	07/19/14 05:26 / jlr
Surr: p-Bromofluorobenzene	108	%REC		67.1-133		E624	07/19/14 05:26 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/19/14 05:26 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-002
Client Sample ID: 515-A

Report Date: 11/21/14
Collection Date: 10/07/14 14:50
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	861	mg/L		5		A2320 B	10/10/14 21:18 / jba
Calcium	445	mg/L		1		E200.7	10/24/14 17:04 / sf
Chloride	375	mg/L	D	5		E300.0	10/18/14 08:45 / wc
Magnesium	1310	mg/L		1		E200.7	10/24/14 17:04 / sf
Nitrogen, Ammonia as N	25.3	mg/L	D	0.5		A4500-NH3 G	10/10/14 19:59 / ljl
Nitrogen, Nitrate+Nitrite as N	39	mg/L	D	1		E353.2	10/13/14 13:15 / lr
Potassium	15	mg/L		1		E200.7	10/24/14 17:04 / sf
Sodium	566	mg/L	D	2		E200.7	10/24/14 17:04 / sf
Sulfate	6350	mg/L	D	20		E300.0	10/18/14 08:45 / wc
PHYSICAL PROPERTIES							
pH	6.07	s.u.	H	0.01		A4500-H B	10/10/14 13:59 / alp
Solids, Total Dissolved TDS @ 180 C	10500	mg/L		100		A2540 C	10/13/14 16:03 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/31/14 22:47 / sf
Beryllium	ND	mg/L		0.001		E200.8	11/13/14 19:03 / cp
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 22:47 / sf
Cobalt	0.02	mg/L		0.01		E200.7	10/31/14 22:47 / sf
Lead	0.001	mg/L		0.001		E200.8	11/12/14 02:20 / clm
Manganese	7.50	mg/L		0.01		E200.7	10/17/14 19:36 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 19:36 / sf
Nickel	0.10	mg/L		0.05		E200.7	10/31/14 22:47 / sf
Uranium	0.0114	mg/L		0.0003		E200.8	11/12/14 02:20 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 19:36 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 15:18 / eli-h
Selenium-IV	0.002	mg/L		0.001		A3114 B	11/06/14 14:16 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	2.1	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U Precision (±)	0.5	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Lead 210	0.4	pCi/L	U			E909.0	10/29/14 06:45 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 06:45 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 06:45 / eli-cs
Radium 226	3.7	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.47	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.24	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	4.6	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	1.3	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/20/14 13:21 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-002
Client Sample ID: 515-A

Report Date: 11/21/14
Collection Date: 10/07/14 14:50
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.02	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.09	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	-0.78	%				A1030 E	10/28/14 10:42 / kbh
Anions	159	meq/L				A1030 E	10/28/14 10:42 / kbh
Cations	157	meq/L				A1030 E	10/28/14 10:42 / kbh
Solids, Total Dissolved Calculated	9600	mg/L				A1030 E	10/28/14 10:42 / kbh
TDS Balance (0.80 - 1.20)	1.09					A1030 E	10/28/14 10:42 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/13/14 19:36 / jlr
Bromoform	ND	ug/L		0.50		E624	10/13/14 19:36 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/13/14 19:36 / jlr
Chloroform	247	ug/L		5.0		E624	10/13/14 19:01 / jlr
Trihalomethanes, Total	247	ug/L		0.50		E624	10/13/14 19:36 / jlr
Surr: 1,2-Dichlorobenzene-d4	95.0	%REC		73.7-126		E624	10/13/14 19:36 / jlr
Surr: Dibromofluoromethane	101	%REC		64.4-131		E624	10/13/14 19:36 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		67.1-133		E624	10/13/14 19:36 / jlr
Surr: Toluene-d8	103	%REC		79.7-125		E624	10/13/14 19:36 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		515-A	515-A	515-A	515-A
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/8/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/25/2014
Analyte	RUnits	C14100554-002	C14070433-002	C14040183-002	C14010262-003
Bicarbonate as HCO3	mg/L	861	846	907	839
Calcium	mg/L	445	446	454	445
Chloride	mg/L	375	371	395	384
Magnesium	mg/L	1310	1310	1310	1280
Nitrogen, Ammonia as N	mg/L	25.3	23	23.6	29
Nitrogen, Nitrate+Nitrite as N	mg/L	39	41	42	42
Potassium	mg/L	15	19	19	18
Sodium	mg/L	566	623	638	588
Sulfate	mg/L	6350	6330	6380	6390
pH	s.u.	6.07	6.18	6.15	6.22
Solids, Total Dissolved TDS @ 180 C	mg/L	10500	10200	10400	10100
Aluminum	mg/L	ND(0.1)	0.7	0.5	0.3
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.02	0.02	0.02	0.02
Lead	mg/L	0.001	0.001	0.002	0.002
Manganese	mg/L	7.50	7.82	7.70	7.76
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.10	0.09	0.10	0.12
Uranium	mg/L	0.0114	0.0081	0.0112	0.0093
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	0.002	0.002	0.003	0.001
Gross Alpha minus Rn & U	pCi/L	2.1	3.2	4.9	4.8
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.5	0.8	0.8	1
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.7
Lead 210	pCi/L	0.4	0.7	0.8	0.6
Lead 210 precision (±)	pCi/L	0.7	0.7	0.7	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.0	0.8
Radium 226	pCi/L	3.7	1.7	2.0	2.2
Radium 226 precision (±)	pCi/L	0.47	0.25	0.30	0.27
Radium 226 MDC	pCi/L	0.24	0.15	0.17	0.15
Radium 228	pCi/L	4.6	4.6	4.7	3.6
Radium 228 precision (±)	pCi/L	1.3	0.99	0.94	1.2
Radium 228 MDC	pCi/L	1.8	1.3	1.2	1.8
Thorium 230	pCi/L	0.02	0.04	0.02	0.1
Thorium 230 precision (±)	pCi/L	0.09	0.05	0.06	0.08
Thorium 230 MDC	pCi/L	0.2	0.1	0.1	0.1
A/C Balance (± 5)	%	-0.78	0.13	-0.44	-1.61
Anions	meq/L	159	159	161	159
Cations	meq/L	157	160	160	154
Solids, Total Dissolved Calculated	mg/L	9600	9700	9800	9600
TDS Balance (0.80 - 1.20)		1.09	1.05	1.06	1.05
Trihalomethanes, Total	ug/L	247	248	251	51.6 *

* Trihalomethanes result from C14010872.

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-003
Client Sample ID: 604

Report Date: 08/28/14
Collection Date: 07/08/14 17:17
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	28	mg/L		5		A2320 B	07/11/14 21:07 / jba
Calcium	458	mg/L		1		E200.7	07/23/14 19:01 / sf
Chloride	59	mg/L	D	2		E300.0	07/17/14 19:35 / wc
Magnesium	866	mg/L		1		E200.7	07/23/14 19:01 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 14:29 / lr
Nitrogen, Nitrate+Nitrite as N	64	mg/L	D	5		E353.2	07/11/14 16:00 / lr
Potassium	12	mg/L		1		E200.7	07/23/14 19:01 / sf
Sodium	332	mg/L	D	2		E200.7	07/23/14 19:01 / sf
Sulfate	4650	mg/L	D	8		E300.0	07/14/14 20:18 / wc
PHYSICAL PROPERTIES							
pH	5.45	s.u.	H	0.01		A4500-H B	07/11/14 14:50 / tmm
Solids, Total Dissolved TDS @ 180 C	7000	mg/L		100		A2540 C	07/14/14 15:11 / tmm
METALS - TOTAL							
Aluminum	0.9	mg/L		0.1		E200.7	07/16/14 23:53 / sf
Beryllium	0.001	mg/L		0.001		E200.8	07/16/14 21:04 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 21:04 / cp
Cobalt	0.09	mg/L	D	0.03		E200.7	07/16/14 23:53 / sf
Lead	ND	mg/L		0.001		E200.8	07/16/14 21:04 / cp
Manganese	3.83	mg/L		0.01		E200.7	07/16/14 23:53 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 23:53 / sf
Nickel	0.18	mg/L		0.05		E200.7	07/16/14 23:53 / sf
Uranium	0.0005	mg/L		0.0003		E200.8	07/16/14 21:04 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 23:53 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 13:44 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:59 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.7	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	0.3	pCi/L	U			E909.0	08/03/14 22:08 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 22:08 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 22:08 / eli-cs
Radium 226	1.1	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.20	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	3.9	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.009	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-003
Client Sample ID: 604

Report Date: 08/28/14
Collection Date: 07/08/14 17:17
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	2.62	%				A1030 E	07/24/14 14:59 / kbh
Anions	103	meq/L				A1030 E	07/24/14 14:59 / kbh
Cations	109	meq/L				A1030 E	07/24/14 14:59 / kbh
Solids, Total Dissolved Calculated	6700	mg/L				A1030 E	07/24/14 14:59 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 14:59 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 18:00 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 18:00 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 18:00 / jlr
Chloroform	10.8	ug/L		0.50		E624	07/18/14 18:00 / jlr
Trihalomethanes, Total	10.8	ug/L		0.50		E624	07/18/14 18:00 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/18/14 18:00 / jlr
Surr: Dibromofluoromethane	132	%REC	S	64.4-131		E624	07/18/14 18:00 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/18/14 18:00 / jlr
Surr: Toluene-d8	95.0	%REC		79.7-125		E624	07/18/14 18:00 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-003
Client Sample ID: 604

Report Date: 11/21/14
Collection Date: 10/07/14 15:36
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	28	mg/L		5		A2320 B	10/10/14 21:25 / jba
Calcium	435	mg/L		1		E200.7	10/24/14 17:07 / sf
Chloride	68	mg/L	D	2		E300.0	10/18/14 09:03 / wc
Magnesium	798	mg/L		1		E200.7	10/24/14 17:07 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 20:01 / ljl
Nitrogen, Nitrate+Nitrite as N	56	mg/L	D	5		E353.2	10/14/14 11:14 / lr
Potassium	10	mg/L		1		E200.7	10/24/14 17:07 / sf
Sodium	287	mg/L		1		E200.7	10/24/14 17:07 / sf
Sulfate	4710	mg/L	D	8		E300.0	10/18/14 09:03 / wc
PHYSICAL PROPERTIES							
pH	5.54	s.u.	H	0.01		A4500-H B	10/10/14 14:02 / alp
Solids, Total Dissolved TDS @ 180 C	7060	mg/L		100		A2540 C	10/13/14 16:03 / lr
METALS - TOTAL							
Aluminum	0.9	mg/L		0.1		E200.7	10/17/14 19:40 / sf
Beryllium	0.001	mg/L		0.001		E200.7	10/31/14 22:51 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 22:51 / sf
Cobalt	0.10	mg/L		0.01		E200.7	10/31/14 22:51 / sf
Lead	0.001	mg/L		0.001		E200.8	11/12/14 02:24 / clm
Manganese	3.74	mg/L		0.01		E200.7	10/17/14 19:40 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 19:40 / sf
Nickel	0.19	mg/L		0.05		E200.7	10/31/14 22:51 / sf
Uranium	0.0004	mg/L		0.0003		E200.8	11/12/14 02:24 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 19:40 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 15:30 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:18 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.6	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Lead 210	0.3	pCi/L	U			E909.0	10/29/14 07:55 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 07:55 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 07:55 / eli-cs
Radium 226	2.1	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.35	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.22	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	5.4	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/20/14 13:21 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-003
Client Sample ID: 604

Report Date: 11/21/14
Collection Date: 10/07/14 15:36
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.02	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	-2.37	%				A1030 E	10/28/14 10:43 / kbh
Anions	105	meq/L				A1030 E	10/28/14 10:43 / kbh
Cations	100	meq/L				A1030 E	10/28/14 10:43 / kbh
Solids, Total Dissolved Calculated	6600	mg/L				A1030 E	10/28/14 10:43 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	10/28/14 10:43 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 03:14 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 03:14 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 03:14 / jlr
Chloroform	6.64	ug/L		0.50		E624	10/14/14 03:14 / jlr
Trihalomethanes, Total	6.64	ug/L		0.50		E624	10/14/14 03:14 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/14/14 03:14 / jlr
Surr: Dibromofluoromethane	99.0	%REC		64.4-131		E624	10/14/14 03:14 / jlr
Surr: p-Bromofluorobenzene	84.0	%REC		67.1-133		E624	10/14/14 03:14 / jlr
Surr: Toluene-d8	104	%REC		79.7-125		E624	10/14/14 03:14 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 5.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		604	604	604	604
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/8/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/25/2014
Analyte	RUnits	C14100554-003	C14070433-003	C14040183-003	C14010262-002
Bicarbonate as HCO3	mg/L	28	28	20	26
Calcium	mg/L	435	458	463	447
Chloride	mg/L	68	59	74	64
Magnesium	mg/L	798	866	807	796
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	56	64	75	63
Potassium	mg/L	10	12	12	11
Sodium	mg/L	287	332	317	298
Sulfate	mg/L	4710	4650	5100	4460
pH	s.u.	5.54	5.45	5.75	5.60
Solids, Total Dissolved TDS @ 180 C	mg/L	7060	7000	7240	6910
Aluminum	mg/L	0.9	0.9	1.1	0.3
Beryllium	mg/L	0.001	0.001	0.002	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.10	0.09	0.12	0.11
Lead	mg/L	0.001	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	3.74	3.83	4.02	4.47
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.19	0.18	0.20	0.20
Uranium	mg/L	0.0004	0.0005	0.0004	0.0003
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1.6	1.7	4.1	5.5
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.6	0.7	1.0
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.7
Lead 210	pCi/L	0.3	0.3	0.6	0.3
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.0	0.8
Radium 226	pCi/L	2.1	1.1	1.3	1.3
Radium 226 precision (±)	pCi/L	0.35	0.20	0.23	0.21
Radium 226 MDC	pCi/L	0.22	0.15	0.16	0.14
Radium 228	pCi/L	5.4	3.9	4.0	5.7
Radium 228 precision (±)	pCi/L	1.2	1.1	0.85	1.1
Radium 228 MDC	pCi/L	1.6	1.5	1.1	1.4
Thorium 230	pCi/L	0.02	0.009	0.02	0.02
Thorium 230 precision (±)	pCi/L	0.08	0.05	0.04	0.06
Thorium 230 MDC	pCi/L	0.2	0.1	0.1	0.1
A/C Balance (± 5)	%	-2.37	2.62	-4.59	0.718
Anions	meq/L	105	103	114	99.6
Cations	meq/L	100	109	104	101
Solids, Total Dissolved Calculated	mg/L	6600	6700	7100	6400
TDS Balance (0.80 - 1.20)		1.06	1.05	1.02	1.08
Trihalomethanes, Total	ug/L	6.64	10.8	7.92	6.68

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-001
Client Sample ID: 614

Report Date: 08/28/14
Collection Date: 07/08/14 15:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1250	mg/L		5		A2320 B	07/11/14 20:51 / jba
Calcium	527	mg/L		1		E200.7	07/23/14 18:53 / sf
Chloride	268	mg/L	D	5		E300.0	07/14/14 19:08 / wc
Magnesium	734	mg/L		1		E200.7	07/23/14 18:53 / sf
Nitrogen, Ammonia as N	143	mg/L	D	5		A4500-NH3 G	07/14/14 14:34 / lr
Nitrogen, Nitrate+Nitrite as N	138	mg/L	D	5		E353.2	07/11/14 15:50 / lr
Potassium	16	mg/L		1		E200.7	07/23/14 18:53 / sf
Sodium	495	mg/L	D	3		E200.7	07/23/14 18:53 / sf
Sulfate	3860	mg/L	D	20		E300.0	07/14/14 19:08 / wc
PHYSICAL PROPERTIES							
pH	6.57	s.u.	H	0.01		A4500-H B	07/11/14 14:44 / tmm
Solids, Total Dissolved TDS @ 180 C	7180	mg/L		100		A2540 C	07/14/14 15:10 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.8	07/16/14 21:21 / cp
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 21:21 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 21:21 / cp
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 21:21 / cp
Lead	0.002	mg/L		0.001		E200.8	07/16/14 21:21 / cp
Manganese	0.56	mg/L		0.01		E200.7	07/16/14 23:45 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/16/14 23:45 / sf
Nickel	ND	mg/L		0.05		E200.7	07/16/14 23:45 / sf
Uranium	0.0412	mg/L		0.0003		E200.8	07/16/14 21:21 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/16/14 23:45 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 13:20 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 12:53 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	2.0	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 07:56 / lmc
Lead 210	0.5	pCi/L	U			E909.0	08/03/14 19:49 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 19:49 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 19:49 / eli-cs
Radium 226	0.59	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.15	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.14	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	5.0	pCi/L				RA-05	07/29/14 12:37 / plj
Radium 228 precision (±)	0.94	pCi/L				RA-05	07/29/14 12:37 / plj
Radium 228 MDC	1.2	pCi/L				RA-05	07/29/14 12:37 / plj
Thorium 230	0.02	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-001
Client Sample ID: 614

Report Date: 08/28/14
Collection Date: 07/08/14 15:30
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.24	%				A1030 E	07/24/14 14:59 / kbh
Anions	118	meq/L				A1030 E	07/24/14 14:59 / kbh
Cations	119	meq/L				A1030 E	07/24/14 14:59 / kbh
Solids, Total Dissolved Calculated	7200	mg/L				A1030 E	07/24/14 14:59 / kbh
TDS Balance (0.80 - 1.20)	1.00					A1030 E	07/24/14 14:59 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/19/14 04:52 / jlr
Bromoform	ND	ug/L		0.50		E624	07/19/14 04:52 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/19/14 04:52 / jlr
Chloroform	124	ug/L		5.0		E624	07/17/14 19:14 / jlr
Trihalomethanes, Total	124	ug/L		0.50		E624	07/19/14 04:52 / jlr
Surr: 1,2-Dichlorobenzene-d4	116	%REC		73.7-126		E624	07/19/14 04:52 / jlr
Surr: Dibromofluoromethane	140	%REC	S	64.4-131		E624	07/19/14 04:52 / jlr
Surr: p-Bromofluorobenzene	109	%REC		67.1-133		E624	07/19/14 04:52 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/19/14 04:52 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-001
Client Sample ID: 614

Report Date: 11/21/14
Collection Date: 10/07/14 13:45
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	1250	mg/L		5		A2320 B	10/10/14 21:10 / jba
Calcium	536	mg/L		1		E200.7	10/24/14 17:00 / sf
Chloride	263	mg/L	D	5		E300.0	10/18/14 08:28 / wc
Magnesium	706	mg/L		1		E200.7	10/24/14 17:00 / sf
Nitrogen, Ammonia as N	100	mg/L	D	5		A4500-NH3 G	10/10/14 19:58 / ljl
Nitrogen, Nitrate+Nitrite as N	169	mg/L	D	20		E353.2	10/13/14 13:13 / lr
Potassium	14	mg/L		1		E200.7	10/24/14 17:00 / sf
Sodium	436	mg/L		1		E200.7	10/24/14 17:00 / sf
Sulfate	3690	mg/L	D	20		E300.0	10/18/14 08:28 / wc
PHYSICAL PROPERTIES							
pH	6.63	s.u.	H	0.01		A4500-H B	10/10/14 13:56 / alp
Solids, Total Dissolved TDS @ 180 C	7200	mg/L		100		A2540 C	10/13/14 16:02 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/31/14 22:43 / sf
Beryllium	ND	mg/L		0.001		E200.8	11/13/14 18:59 / cp
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 22:43 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 22:43 / sf
Lead	0.004	mg/L		0.001		E200.8	11/12/14 02:15 / clm
Manganese	0.71	mg/L		0.01		E200.7	10/17/14 19:32 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 19:32 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 22:43 / sf
Uranium	0.0464	mg/L		0.0003		E200.8	11/12/14 02:15 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 19:32 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 14:42 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:15 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.8	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Lead 210	0.4	pCi/L	U			E909.0	10/29/14 05:36 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 05:36 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 05:36 / eli-cs
Radium 226	0.94	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.23	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	4.1	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	10/20/14 13:21 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-001
Client Sample ID: 614

Report Date: 11/21/14
Collection Date: 10/07/14 13:45
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.04	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.2	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.3	pCi/L				E908.0	11/05/14 09:50 / res
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-1.71	%				A1030 E	10/28/14 10:42 / kbh
Anions	115	meq/L				A1030 E	10/28/14 10:42 / kbh
Cations	111	meq/L				A1030 E	10/28/14 10:42 / kbh
Solids, Total Dissolved Calculated	6900	mg/L				A1030 E	10/28/14 10:42 / kbh
TDS Balance (0.80 - 1.20)	1.04					A1030 E	10/28/14 10:42 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 04:59 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 04:59 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 04:59 / jlr
Chloroform	80.0	ug/L		0.50		E624	10/14/14 04:59 / jlr
Trihalomethanes, Total	80.0	ug/L		0.50		E624	10/14/14 04:59 / jlr
Surr: 1,2-Dichlorobenzene-d4	102	%REC		73.7-126		E624	10/14/14 04:59 / jlr
Surr: Dibromofluoromethane	98.0	%REC		64.4-131		E624	10/14/14 04:59 / jlr
Surr: p-Bromofluorobenzene	96.0	%REC		67.1-133		E624	10/14/14 04:59 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/14/14 04:59 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 6.							

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		614	614	614	614
Collection Date:		10/7/2014	7/8/2014	4/1/2014	1/8/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/10/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/25/2014
Analyte	RUnits	C14100554-001	C14070433-001	C14040183-001	C14010262-001
Bicarbonate as HCO3	mg/L	1250	1250	1310	1140
Calcium	mg/L	536	527	569	521
Chloride	mg/L	263	268	274	258
Magnesium	mg/L	706	734	729	693
Nitrogen, Ammonia as N	mg/L	100	143	145	154
Nitrogen, Nitrate+Nitrite as N	mg/L	169	138	164	134
Potassium	mg/L	14	16	16	15
Sodium	mg/L	436	495	506	444
Sulfate	mg/L	3690	3860	3710	3730
pH	s.u.	6.63	6.57	6.56	6.74
Solids, Total Dissolved TDS @ 180 C	mg/L	7200	7180	7140	6930
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	0.004	0.002	0.002	0.002
Manganese	mg/L	0.71	0.56	0.62	0.62
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0464	0.0412	0.0507	0.0505
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	0.002	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.8	2.0	2.4	2.9
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.6	0.5	0.8
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.7
Lead 210	pCi/L	0.4	0.5	0.3	0.3
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.5
Lead 210 MDC	pCi/L	1.2	1.2	1.0	0.8
Radium 226	pCi/L	0.94	0.59	0.67	0.84
Radium 226 precision (±)	pCi/L	0.23	0.15	0.17	0.17
Radium 226 MDC	pCi/L	0.19	0.14	0.15	0.13
Radium 228	pCi/L	4.1	5.0	4.8	4.6
Radium 228 precision (±)	pCi/L	1.0	0.94	0.85	0.99
Radium 228 MDC	pCi/L	1.4	1.2	1.0	1.3
Thorium 230	pCi/L	0.04	0.02	0.03	0.01
Thorium 230 precision (±)	pCi/L	0.2	0.09	0.07	0.06
Thorium 230 MDC	pCi/L	0.3	0.2	0.2	0.2
A/C Balance (± 5)	%	-1.71	0.24	1.94	-0.710
Anions	meq/L	115	118	117	115
Cations	meq/L	111	119	121	113
Solids, Total Dissolved Calculated	mg/L	6900	7200	7100	6900
TDS Balance (0.80 - 1.20)		1.04	1.00	1.01	1.00
Trihalomethanes, Total	ug/L	80.0	124	149	66.4 *

* Trihalomethanes result from C14010872.

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-009
Client Sample ID: TWQ-142

Report Date: 08/28/14
Collection Date: 07/09/14 13:40
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	307	mg/L		5		A2320 B	07/11/14 22:01 / jba
Calcium	59	mg/L		1		E200.7	07/23/14 19:57 / sf
Chloride	17	mg/L		1		E300.0	07/14/14 22:02 / wc
Magnesium	34	mg/L		1		E200.7	07/23/14 19:57 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 14:04 / lr
Nitrogen, Nitrate+Nitrite as N	0.5	mg/L		0.1		E353.2	07/11/14 16:15 / lr
Potassium	4	mg/L		1		E200.7	07/23/14 19:57 / sf
Sodium	370	mg/L		1		E200.7	07/23/14 19:57 / sf
Sulfate	741	mg/L	D	2		E300.0	07/14/14 22:02 / wc
PHYSICAL PROPERTIES							
pH	7.42	s.u.	H	0.01		A4500-H B	07/11/14 15:20 / tmm
Solids, Total Dissolved TDS @ 180 C	1330	mg/L		19		A2540 C	07/14/14 15:13 / tmm
METALS - TOTAL							
Aluminum	0.2	mg/L		0.1		E200.7	07/17/14 00:39 / sf
Beryllium	ND	mg/L		0.001		E200.7	07/17/14 00:39 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/17/14 00:39 / sf
Cobalt	ND	mg/L		0.01		E200.7	07/17/14 00:39 / sf
Lead	ND	mg/L		0.001		E200.8	07/16/14 22:14 / cp
Manganese	0.03	mg/L		0.01		E200.7	07/17/14 00:39 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/17/14 00:39 / sf
Nickel	ND	mg/L		0.05		E200.7	07/17/14 00:39 / sf
Uranium	ND	mg/L		0.0003		E200.8	07/16/14 22:14 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/17/14 00:39 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 15:20 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 13:11 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.8	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.5	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	-0.07	pCi/L	U			E909.0	08/07/14 22:29 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/07/14 22:29 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/07/14 22:29 / eli-cs
Radium 226	0.68	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.16	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	0.1	pCi/L	U			RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	0.89	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.03	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-009
Client Sample ID: TWQ-142

Report Date: 08/28/14
Collection Date: 07/09/14 13:40
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	2.26	%				A1030 E	07/24/14 15:01 / kbh
Anions	21.0	meq/L				A1030 E	07/24/14 15:01 / kbh
Cations	22.0	meq/L				A1030 E	07/24/14 15:01 / kbh
Solids, Total Dissolved Calculated	1400	mg/L				A1030 E	07/24/14 15:01 / kbh
TDS Balance (0.80 - 1.20)	0.95					A1030 E	07/24/14 15:01 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/19/14 03:09 / jlr
Bromoform	ND	ug/L		0.50		E624	07/19/14 03:09 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/19/14 03:09 / jlr
Chloroform	ND	ug/L		0.50		E624	07/19/14 03:09 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/19/14 03:09 / jlr
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	07/19/14 03:09 / jlr
Surr: Dibromofluoromethane	130	%REC		64.4-131		E624	07/19/14 03:09 / jlr
Surr: p-Bromofluorobenzene	107	%REC		67.1-133		E624	07/19/14 03:09 / jlr
Surr: Toluene-d8	105	%REC		79.7-125		E624	07/19/14 03:09 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-009
Client Sample ID: TWQ-142

Report Date: 11/21/14
Collection Date: 10/08/14 13:30
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	322	mg/L		5		A2320 B	10/10/14 22:19 / jba
Calcium	65	mg/L		1		E200.7	10/24/14 18:16 / sf
Chloride	16	mg/L		1		E300.0	10/18/14 12:14 / wc
Magnesium	33	mg/L		1		E200.7	10/24/14 18:16 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 18:19 / ljl
Nitrogen, Nitrate+Nitrite as N	0.5	mg/L		0.1		E353.2	10/14/14 11:34 / lr
Potassium	4	mg/L		1		E200.7	10/24/14 18:16 / sf
Sodium	319	mg/L		1		E200.7	10/24/14 18:16 / sf
Sulfate	707	mg/L	D	2		E300.0	10/18/14 12:14 / wc
PHYSICAL PROPERTIES							
pH	7.40	s.u.	H	0.01		A4500-H B	10/10/14 14:23 / alp
Solids, Total Dissolved TDS @ 180 C	1340	mg/L		20		A2540 C	10/13/14 16:05 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/17/14 20:48 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/17/14 20:48 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/17/14 20:48 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 23:48 / sf
Lead	ND	mg/L		0.001		E200.8	11/12/14 03:17 / clm
Manganese	0.02	mg/L		0.01		E200.7	10/17/14 20:48 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 20:48 / sf
Nickel	ND	mg/L		0.05		E200.7	10/17/14 20:48 / sf
Uranium	0.0006	mg/L		0.0003		E200.8	11/12/14 03:17 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 20:48 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 16:43 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:34 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.2	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:09 / dmf
Lead 210	0.2	pCi/L	U			E909.0	10/29/14 14:51 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 14:51 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 14:51 / eli-cs
Radium 226	1.0	pCi/L				E903.0	10/27/14 12:13 / rdw
Radium 226 precision (±)	0.23	pCi/L				E903.0	10/27/14 12:13 / rdw
Radium 226 MDC	0.18	pCi/L				E903.0	10/27/14 12:13 / rdw
Radium 228	0.79	pCi/L	U			RA-05	10/20/14 14:55 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/20/14 14:55 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-009
Client Sample ID: TWQ-142

Report Date: 11/21/14
Collection Date: 10/08/14 13:30
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.04	pCi/L	U			E908.0	11/05/14 14:10 / res
Thorium 230 precision (±)	0.09	pCi/L				E908.0	11/05/14 14:10 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/05/14 14:10 / res
DATA QUALITY							
A/C Balance (± 5)	-1.54	%				A1030 E	10/28/14 10:44 / kbh
Anions	20.5	meq/L				A1030 E	10/28/14 10:44 / kbh
Cations	19.9	meq/L				A1030 E	10/28/14 10:44 / kbh
Solids, Total Dissolved Calculated	1300	mg/L				A1030 E	10/28/14 10:44 / kbh
TDS Balance (0.80 - 1.20)	1.02					A1030 E	10/28/14 10:44 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 22:55 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 22:55 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 22:55 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 22:55 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 22:55 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		73.7-126		E624	10/14/14 22:55 / jlr
Surr: Dibromofluoromethane	92.0	%REC		64.4-131		E624	10/14/14 22:55 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		67.1-133		E624	10/14/14 22:55 / jlr
Surr: Toluene-d8	72.0	%REC	S	79.7-125		E624	10/14/14 22:55 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:

RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		TWQ-142	TWQ-142	TWQ-142	TWQ-142
Collection Date:		10/8/2014	7/9/2014	4/2/2014	1/14/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/17/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100554-009	C14070433-009	C14040183-009	C14010520-006
Bicarbonate as HCO3	mg/L	322	307	308	306
Calcium	mg/L	65	59	67	66
Chloride	mg/L	16	17	18	17
Magnesium	mg/L	33	34	35	33
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	0.36
Nitrogen, Nitrate+Nitrite as N	mg/L	0.5	0.5	0.7	0.1
Potassium	mg/L	4	4	4	4
Sodium	mg/L	319	370	363	331
Sulfate	mg/L	707	741	717	707
pH	s.u.	7.40	7.42	7.43	7.97
Solids, Total Dissolved TDS @ 180 C	mg/L	1340	1330	1350	1360
Aluminum	mg/L	ND(0.1)	0.2	0.2	0.2
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.02	0.03	0.04	0.04
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0006	ND(0.0003)	0.0003	0.0004
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1.2	0.8	1.3	0.5
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.5	0.4	0.3
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.4
Lead 210	pCi/L	0.2	-0.07	0.4	0.2
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1.0	0.9
Radium 226	pCi/L	1.0	0.68	0.68	1.3
Radium 226 precision (±)	pCi/L	0.23	0.16	0.18	0.21
Radium 226 MDC	pCi/L	0.18	0.15	0.16	0.14
Radium 228	pCi/L	0.79	0.1	2.4	0.48
Radium 228 precision (±)	pCi/L	1.0	0.89	0.77	0.59
Radium 228 MDC	pCi/L	1.6	1.5	1.1	0.96
Thorium 230	pCi/L	0.04	0.03	0.02	0.07
Thorium 230 precision (±)	pCi/L	0.09	0.05	0.05	0.09
Thorium 230 MDC	pCi/L	0.2	0.1	0.1	0.2
A/C Balance (± 5)	%	-1.54	2.26	3.84	0.660
Anions	meq/L	20.5	21.0	20.5	20.3
Cations	meq/L	19.9	22.0	22.2	20.6
Solids, Total Dissolved Calculated	mg/L	1300	1400	1400	1300
TDS Balance (0.80 - 1.20)		1.02	0.95	0.99	1.02
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-007
Client Sample ID: EPA-2

Report Date: 08/28/14
Collection Date: 07/09/14 12:10
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	304	mg/L		5		A2320 B	07/11/14 21:45 / jba
Calcium	370	mg/L		1		E200.7	07/23/14 19:49 / sf
Chloride	22	mg/L		1		E300.0	07/14/14 21:27 / wc
Magnesium	176	mg/L		1		E200.7	07/23/14 19:49 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 14:00 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/11/14 16:10 / lr
Potassium	7	mg/L		1		E200.7	07/23/14 19:49 / sf
Sodium	214	mg/L	D	2		E200.7	07/23/14 19:49 / sf
Sulfate	1860	mg/L	D	4		E300.0	07/14/14 21:27 / wc
PHYSICAL PROPERTIES							
pH	6.88	s.u.	H	0.01		A4500-H B	07/11/14 15:11 / tmm
Solids, Total Dissolved TDS @ 180 C	2990	mg/L		20		A2540 C	07/14/14 15:12 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/17/14 00:16 / sf
Beryllium	ND	mg/L		0.001		E200.7	07/17/14 00:16 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/17/14 00:16 / sf
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 22:05 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 22:05 / cp
Manganese	1.37	mg/L		0.01		E200.7	07/17/14 00:16 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/17/14 00:16 / sf
Nickel	ND	mg/L		0.05		E200.7	07/17/14 00:16 / sf
Uranium	0.0014	mg/L		0.0003		E200.8	07/16/14 22:05 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/17/14 00:16 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 14:56 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 13:08 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.8	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	0.1	pCi/L	U			E909.0	08/07/14 20:10 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/07/14 20:10 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/07/14 20:10 / eli-cs
Radium 226	1.1	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.20	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.14	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	2.5	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	0.97	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.02	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-007
Client Sample ID: EPA-2

Report Date: 08/28/14
Collection Date: 07/09/14 12:10
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.22	%				A1030 E	07/24/14 15:01 / kbh
Anions	44.4	meq/L				A1030 E	07/24/14 15:01 / kbh
Cations	42.5	meq/L				A1030 E	07/24/14 15:01 / kbh
Solids, Total Dissolved Calculated	2800	mg/L				A1030 E	07/24/14 15:01 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 15:01 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/19/14 02:00 / jlr
Bromoform	ND	ug/L		0.50		E624	07/19/14 02:00 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/19/14 02:00 / jlr
Chloroform	ND	ug/L		0.50		E624	07/19/14 02:00 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/19/14 02:00 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/19/14 02:00 / jlr
Surr: Dibromofluoromethane	130	%REC		64.4-131		E624	07/19/14 02:00 / jlr
Surr: p-Bromofluorobenzene	107	%REC		67.1-133		E624	07/19/14 02:00 / jlr
Surr: Toluene-d8	108	%REC		79.7-125		E624	07/19/14 02:00 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-007
Client Sample ID: EPA-2

Report Date: 11/21/14
Collection Date: 10/08/14 12:05
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	298	mg/L		5		A2320 B	10/10/14 22:02 / jba
Calcium	394	mg/L		1		E200.7	10/24/14 18:08 / sf
Chloride	21	mg/L		1		E300.0	10/18/14 11:39 / wc
Magnesium	180	mg/L		1		E200.7	10/24/14 18:08 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 20:08 / ljl
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/14/14 11:29 / lr
Potassium	7	mg/L		1		E200.7	10/24/14 18:08 / sf
Sodium	221	mg/L		1		E200.7	10/24/14 18:08 / sf
Sulfate	1820	mg/L	D	4		E300.0	10/18/14 11:39 / wc
PHYSICAL PROPERTIES							
pH	7.02	s.u.	H	0.01		A4500-H B	10/10/14 14:17 / alp
Solids, Total Dissolved TDS @ 180 C	3070	mg/L		20		A2540 C	10/13/14 16:04 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/17/14 20:33 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 23:12 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 23:12 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 23:12 / sf
Lead	ND	mg/L		0.001		E200.8	11/12/14 02:41 / clm
Manganese	1.55	mg/L		0.01		E200.7	10/17/14 20:33 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 20:33 / sf
Nickel	ND	mg/L		0.05		E200.7	10/17/14 20:33 / sf
Uranium	0.0022	mg/L		0.0003		E200.8	11/12/14 02:41 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 20:33 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 16:19 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:31 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.7	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:09 / dmf
Lead 210	0.1	pCi/L	U			E909.0	10/29/14 12:32 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 12:32 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 12:32 / eli-cs
Radium 226	1.4	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.26	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	3.5	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	10/20/14 14:55 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-007
Client Sample ID: EPA-2

Report Date: 11/21/14
Collection Date: 10/08/14 12:05
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.008	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.1	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	0.99	%				A1030 E	10/28/14 10:44 / kbh
Anions	43.4	meq/L				A1030 E	10/28/14 10:44 / kbh
Cations	44.3	meq/L				A1030 E	10/28/14 10:44 / kbh
Solids, Total Dissolved Calculated	2800	mg/L				A1030 E	10/28/14 10:44 / kbh
TDS Balance (0.80 - 1.20)	1.09					A1030 E	10/28/14 10:44 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 21:45 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 21:45 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 21:45 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 21:45 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 21:45 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		73.7-126		E624	10/14/14 21:45 / jlr
Surr: Dibromofluoromethane	92.0	%REC		64.4-131		E624	10/14/14 21:45 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		67.1-133		E624	10/14/14 21:45 / jlr
Surr: Toluene-d8	97.0	%REC		79.7-125		E624	10/14/14 21:45 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		EPA-2	EPA-2	EPA-2	EPA-2
Collection Date:		10/8/2014	7/9/2014	4/2/2014	1/13/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/17/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100554-007	C14070433-007	C14040183-007	C14010520-004
Bicarbonate as HCO3	mg/L	298	304	323	319
Calcium	mg/L	394	370	392	386
Chloride	mg/L	21	22	23	22
Magnesium	mg/L	180	176	175	172
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	0.18	0.42
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	7	7	7	7
Sodium	mg/L	221	214	219	206
Sulfate	mg/L	1820	1860	1790	1860
pH	s.u.	7.02	6.88	6.77	6.92
Solids, Total Dissolved TDS @ 180 C	mg/L	3070	2990	2990	2980
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	1.55	1.37	1.62	1.53
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0022	0.0014	0.0016	0.0021
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1.7	1.8	2.7	1.2
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.6	0.6	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.4
Lead 210	pCi/L	0.1	0.1	0.2	0.3
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1.0	0.9
Radium 226	pCi/L	1.4	1.1	1.3	1.0
Radium 226 precision (±)	pCi/L	0.26	0.20	0.22	0.19
Radium 226 MDC	pCi/L	0.19	0.14	0.14	0.14
Radium 228	pCi/L	3.5	2.5	3.2	1.9
Radium 228 precision (±)	pCi/L	1.2	0.97	0.75	0.67
Radium 228 MDC	pCi/L	1.7	1.4	0.99	0.96
Thorium 230	pCi/L	0.008	0.02	0.04	0.07
Thorium 230 precision (±)	pCi/L	0.1	0.05	0.09	0.08
Thorium 230 MDC	pCi/L	0.2	0.1	0.2	0.1
A/C Balance (± 5)	%	0.99	-2.22	0.53	-2.38
Anions	meq/L	43.4	44.4	43.2	44.7
Cations	meq/L	44.3	42.5	43.6	42.6
Solids, Total Dissolved Calculated	mg/L	2800	2800	2800	2800
TDS Balance (0.80 - 1.20)		1.09	1.05	1.07	1.05
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-006
Client Sample ID: EPA-4

Report Date: 08/28/14
Collection Date: 07/09/14 11:05
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	135	mg/L		5		A2320 B	07/11/14 21:37 / jba
Calcium	527	mg/L		1		E200.7	07/23/14 19:45 / sf
Chloride	34	mg/L	D	2		E300.0	07/14/14 21:10 / wc
Magnesium	402	mg/L		1		E200.7	07/23/14 19:45 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/14/14 13:59 / lr
Nitrogen, Nitrate+Nitrite as N	0.5	mg/L		0.1		E353.2	07/11/14 16:08 / lr
Potassium	9	mg/L		1		E200.7	07/23/14 19:45 / sf
Sodium	191	mg/L	D	2		E200.7	07/23/14 19:45 / sf
Sulfate	2950	mg/L	D	8		E300.0	07/14/14 21:10 / wc
PHYSICAL PROPERTIES							
pH	7.43	s.u.	H	0.01		A4500-H B	07/11/14 15:08 / tmm
Solids, Total Dissolved TDS @ 180 C	4330	mg/L		43		A2540 C	07/14/14 15:12 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/17/14 00:12 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 22:01 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 22:01 / cp
Cobalt	ND	mg/L		0.01		E200.8	07/16/14 22:01 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 22:01 / cp
Manganese	2.76	mg/L		0.01		E200.7	07/17/14 00:12 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/17/14 00:12 / sf
Nickel	ND	mg/L		0.05		E200.7	07/17/14 00:12 / sf
Uranium	ND	mg/L		0.0003		E200.8	07/16/14 22:01 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/17/14 00:12 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 14:44 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 13:07 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	0.7	pCi/L	U			E909.0	08/04/14 01:36 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/04/14 01:36 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/04/14 01:36 / eli-cs
Radium 226	1.0	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.19	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.14	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	2.1	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	0.95	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.05	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-006
Client Sample ID: EPA-4

Report Date: 08/28/14
Collection Date: 07/09/14 11:05
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	2.51	%				A1030 E	07/24/14 15:01 / kbh
Anions	64.6	meq/L				A1030 E	07/24/14 15:01 / kbh
Cations	67.9	meq/L				A1030 E	07/24/14 15:01 / kbh
Solids, Total Dissolved Calculated	4200	mg/L				A1030 E	07/24/14 15:01 / kbh
TDS Balance (0.80 - 1.20)	1.03					A1030 E	07/24/14 15:01 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/19/14 01:26 / jlr
Bromoform	ND	ug/L		0.50		E624	07/19/14 01:26 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/19/14 01:26 / jlr
Chloroform	ND	ug/L		0.50		E624	07/19/14 01:26 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/19/14 01:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/19/14 01:26 / jlr
Surr: Dibromofluoromethane	128	%REC		64.4-131		E624	07/19/14 01:26 / jlr
Surr: p-Bromofluorobenzene	106	%REC		67.1-133		E624	07/19/14 01:26 / jlr
Surr: Toluene-d8	106	%REC		79.7-125		E624	07/19/14 01:26 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-006
Client Sample ID: EPA-4

Report Date: 11/21/14
Collection Date: 10/08/14 11:00
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	149	mg/L		5		A2320 B	10/10/14 21:55 / jba
Calcium	477	mg/L		1		E200.7	10/24/14 17:19 / sf
Chloride	34	mg/L	D	2		E300.0	10/18/14 10:47 / wc
Magnesium	374	mg/L		1		E200.7	10/24/14 17:19 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 20:06 / ljl
Nitrogen, Nitrate+Nitrite as N	0.6	mg/L		0.1		E353.2	10/14/14 11:26 / lr
Potassium	8	mg/L		1		E200.7	10/24/14 17:19 / sf
Sodium	175	mg/L		1		E200.7	10/24/14 17:19 / sf
Sulfate	2910	mg/L	D	8		E300.0	10/18/14 10:47 / wc
PHYSICAL PROPERTIES							
pH	7.02	s.u.	H	0.01		A4500-H B	10/10/14 14:14 / alp
Solids, Total Dissolved TDS @ 180 C	4520	mg/L		40		A2540 C	10/13/14 16:04 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/17/14 20:29 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 23:07 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 23:07 / sf
Cobalt	ND	mg/L		0.01		E200.7	10/31/14 23:07 / sf
Lead	ND	mg/L		0.001		E200.8	11/12/14 02:36 / clm
Manganese	2.41	mg/L		0.01		E200.7	10/17/14 20:29 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 20:29 / sf
Nickel	ND	mg/L		0.05		E200.7	10/17/14 20:29 / sf
Uranium	0.0005	mg/L		0.0003		E200.8	11/12/14 02:36 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 20:29 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 16:06 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:26 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	2.3	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U Precision (±)	0.5	pCi/L				E900.1	10/28/14 10:09 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:09 / dmf
Lead 210	0.3	pCi/L	U			E909.0	10/29/14 11:23 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 11:23 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 11:23 / eli-cs
Radium 226	1.8	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.29	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.18	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	3.4	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	10/20/14 14:55 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-006
Client Sample ID: EPA-4

Report Date: 11/21/14
Collection Date: 10/08/14 11:00
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	-0.02	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.05	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.2	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	-1.32	%				A1030 E	10/28/14 10:44 / kbh
Anions	64.1	meq/L				A1030 E	10/28/14 10:44 / kbh
Cations	62.4	meq/L				A1030 E	10/28/14 10:44 / kbh
Solids, Total Dissolved Calculated	4100	mg/L				A1030 E	10/28/14 10:44 / kbh
TDS Balance (0.80 - 1.20)	1.11					A1030 E	10/28/14 10:44 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 21:10 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 21:10 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 21:10 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 21:10 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 21:10 / jlr
Surr: 1,2-Dichlorobenzene-d4	92.0	%REC		73.7-126		E624	10/14/14 21:10 / jlr
Surr: Dibromofluoromethane	88.0	%REC		64.4-131		E624	10/14/14 21:10 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		67.1-133		E624	10/14/14 21:10 / jlr
Surr: Toluene-d8	103	%REC		79.7-125		E624	10/14/14 21:10 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		EPA-4	EPA-4	EPA-4	EPA-4
Collection Date:		10/8/2014	7/9/2014	4/2/2014	1/13/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/17/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100554-006	C14070433-006	C14040183-006	C14010520-001
Bicarbonate as HCO3	mg/L	149	135	174	180
Calcium	mg/L	477	527	558	565
Chloride	mg/L	34	34	40	38
Magnesium	mg/L	374	402	386	384
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	0.70
Nitrogen, Nitrate+Nitrite as N	mg/L	0.6	0.5	0.7	1.9
Potassium	mg/L	8	9	9	9
Sodium	mg/L	175	191	189	185
Sulfate	mg/L	2910	2950	2970	3130
pH	s.u.	7.02	7.43	6.77	6.82
Solids, Total Dissolved TDS @ 180 C	mg/L	4520	4330	4450	4700
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	2.41	2.76	3.33	3.26
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.0005	ND(0.0003)	0.0003	0.0005
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	2.3	1.6	3.1	1.3
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.5	0.6	0.6	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.4
Lead 210	pCi/L	0.3	0.7	0.2	0.3
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1.0	1
Radium 226	pCi/L	1.8	1.0	1.0	1.1
Radium 226 precision (±)	pCi/L	0.29	0.19	0.20	0.19
Radium 226 MDC	pCi/L	0.18	0.14	0.15	0.14
Radium 228	pCi/L	3.4	2.1	3.0	3.2
Radium 228 precision (±)	pCi/L	1.1	0.95	0.77	0.61
Radium 228 MDC	pCi/L	1.6	1.4	1.0	0.76
Thorium 230	pCi/L	-0.02	0.05	0.02	0.07
Thorium 230 precision (±)	pCi/L	0.05	0.07	0.05	0.07
Thorium 230 MDC	pCi/L	0.2	0.1	0.1	0.1
A/C Balance (± 5)	%	-1.32	2.51	1.55	-0.824
Anions	meq/L	64.1	64.6	65.9	69.3
Cations	meq/L	62.4	67.9	68.0	68.1
Solids, Total Dissolved Calculated	mg/L	4100	4200	4300	4400
TDS Balance (0.80 - 1.20)		1.11	1.03	1.04	1.06
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-005
Client Sample ID: EPA-5

Report Date: 08/28/14
Collection Date: 07/09/14 10:15
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	50	mg/L		5		A2320 B	07/11/14 21:30 / jba
Calcium	450	mg/L		1		E200.7	07/23/14 19:29 / sf
Chloride	35	mg/L	D	2		E300.0	07/14/14 20:53 / wc
Magnesium	497	mg/L		1		E200.7	07/23/14 19:29 / sf
Nitrogen, Ammonia as N	0.27	mg/L		0.05		A4500-NH3 G	07/14/14 13:57 / lr
Nitrogen, Nitrate+Nitrite as N	2.7	mg/L	D	0.2		E353.2	07/11/14 16:05 / lr
Potassium	7	mg/L		1		E200.7	07/23/14 19:29 / sf
Sodium	110	mg/L	D	2		E200.7	07/23/14 19:29 / sf
Sulfate	3130	mg/L	D	8		E300.0	07/14/14 20:53 / wc
PHYSICAL PROPERTIES							
pH	6.21	s.u.	H	0.01		A4500-H B	07/11/14 15:05 / tmm
Solids, Total Dissolved TDS @ 180 C	4640	mg/L		38		A2540 C	07/14/14 15:12 / tmm
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/17/14 00:08 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 21:56 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 21:56 / cp
Cobalt	0.07	mg/L	D	0.03		E200.7	07/17/14 00:08 / sf
Lead	ND	mg/L		0.001		E200.8	07/16/14 21:56 / cp
Manganese	0.88	mg/L		0.01		E200.7	07/17/14 00:08 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/17/14 00:08 / sf
Nickel	0.09	mg/L		0.05		E200.7	07/17/14 00:08 / sf
Uranium	0.0007	mg/L		0.0003		E200.8	07/16/14 21:56 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/17/14 00:08 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 14:32 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 13:05 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.3	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.5	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	-0.05	pCi/L	U			E909.0	08/04/14 00:27 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/04/14 00:27 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/04/14 00:27 / eli-cs
Radium 226	1.2	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.20	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.14	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	1.8	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	0.92	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.4	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.04	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-005
Client Sample ID: EPA-5

Report Date: 08/28/14
Collection Date: 07/09/14 10:15
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.89	%				A1030 E	07/24/14 15:00 / kbh
Anions	67.1	meq/L				A1030 E	07/24/14 15:00 / kbh
Cations	68.3	meq/L				A1030 E	07/24/14 15:00 / kbh
Solids, Total Dissolved Calculated	4300	mg/L				A1030 E	07/24/14 15:00 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	07/24/14 15:00 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 19:09 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 19:09 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 19:09 / jlr
Chloroform	ND	ug/L		0.50		E624	07/18/14 19:09 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/18/14 19:09 / jlr
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	07/18/14 19:09 / jlr
Surr: Dibromofluoromethane	134	%REC	S	64.4-131		E624	07/18/14 19:09 / jlr
Surr: p-Bromofluorobenzene	108	%REC		67.1-133		E624	07/18/14 19:09 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	07/18/14 19:09 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-005
Client Sample ID: EPA-5

Report Date: 11/21/14
Collection Date: 10/08/14 10:10
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	48	mg/L		5		A2320 B	10/10/14 21:40 / jba
Calcium	451	mg/L		1		E200.7	10/24/14 17:15 / sf
Chloride	37	mg/L	D	2		E300.0	10/18/14 09:37 / wc
Magnesium	464	mg/L		1		E200.7	10/24/14 17:15 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 20:04 / ljl
Nitrogen, Nitrate+Nitrite as N	3.7	mg/L	D	0.2		E353.2	10/14/14 11:24 / lr
Potassium	6	mg/L		1		E200.7	10/24/14 17:15 / sf
Sodium	99	mg/L		1		E200.7	10/24/14 17:15 / sf
Sulfate	3180	mg/L	D	8		E300.0	10/18/14 09:37 / wc
PHYSICAL PROPERTIES							
pH	6.15	s.u.	H	0.01		A4500-H B	10/10/14 14:11 / alp
Solids, Total Dissolved TDS @ 180 C	4660	mg/L		30		A2540 C	10/13/14 16:04 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/17/14 20:25 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/31/14 22:59 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 22:59 / sf
Cobalt	0.10	mg/L		0.01		E200.7	10/31/14 22:59 / sf
Lead	0.002	mg/L		0.001		E200.8	11/12/14 02:32 / clm
Manganese	0.80	mg/L		0.01		E200.7	10/17/14 20:25 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 20:25 / sf
Nickel	0.10	mg/L		0.05		E200.7	10/17/14 20:25 / sf
Uranium	0.0004	mg/L		0.0003		E200.8	11/12/14 02:32 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 20:25 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 15:54 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:21 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	1.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Lead 210	0.1	pCi/L	U			E909.0	10/29/14 10:13 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 10:13 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 10:13 / eli-cs
Radium 226	1.4	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.27	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	1.6	pCi/L	U			RA-05	10/20/14 14:55 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	10/20/14 14:55 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	10/20/14 14:55 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-005
Client Sample ID: EPA-5

Report Date: 11/21/14
Collection Date: 10/08/14 10:10
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.05	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	-2.31	%				A1030 E	10/28/14 10:43 / kbh
Anions	68.2	meq/L				A1030 E	10/28/14 10:43 / kbh
Cations	65.1	meq/L				A1030 E	10/28/14 10:43 / kbh
Solids, Total Dissolved Calculated	4300	mg/L				A1030 E	10/28/14 10:43 / kbh
TDS Balance (0.80 - 1.20)	1.09					A1030 E	10/28/14 10:43 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 20:34 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 20:34 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 20:34 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 20:34 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 20:34 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		73.7-126		E624	10/14/14 20:34 / jlr
Surr: Dibromofluoromethane	91.0	%REC		64.4-131		E624	10/14/14 20:34 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		67.1-133		E624	10/14/14 20:34 / jlr
Surr: Toluene-d8	99.0	%REC		79.7-125		E624	10/14/14 20:34 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		EPA-5	EPA-5	EPA-5	EPA-5
Collection Date:		10/8/2014	7/9/2014	4/1/2014	1/13/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/17/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100554-005	C14070433-005	C14040183-005	C14010520-002
Bicarbonate as HCO3	mg/L	48	50	66	57
Calcium	mg/L	451	450	464	464
Chloride	mg/L	37	35	42	37
Magnesium	mg/L	464	497	490	481
Nitrogen, Ammonia as N	mg/L	ND(0.05)	0.27	0.10	1.55
Nitrogen, Nitrate+Nitrite as N	mg/L	3.7	2.7	3.5	1.9
Potassium	mg/L	6	7	6	6
Sodium	mg/L	99	110	106	107
Sulfate	mg/L	3180	3130	3090	3190
pH	s.u.	6.15	6.21	5.92	6.05
Solids, Total Dissolved TDS @ 180 C	mg/L	4660	4640	4540	4560
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.10	0.07	0.08	0.05
Lead	mg/L	0.002	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	0.80	0.88	0.91	0.96
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.10	0.09	0.10	0.10
Uranium	mg/L	0.0004	0.0007	0.0003	0.0004
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	1.4	1.3	2.4	1.3
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.4	0.5	0.6	0.4
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.4
Lead 210	pCi/L	0.1	-0.05	0.1	0.4
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1.1	1
Radium 226	pCi/L	1.4	1.2	1.2	1.3
Radium 226 precision (±)	pCi/L	0.27	0.20	0.22	0.20
Radium 226 MDC	pCi/L	0.19	0.14	0.15	0.14
Radium 228	pCi/L	1.6	1.8	2.7	2.1
Radium 228 precision (±)	pCi/L	1.1	0.92	0.77	0.58
Radium 228 MDC	pCi/L	1.7	1.4	1.1	0.78
Thorium 230	pCi/L	0.05	0.04	0.06	0.1
Thorium 230 precision (±)	pCi/L	0.08	0.05	0.06	0.07
Thorium 230 MDC	pCi/L	0.1	0.1	0.1	0.1
A/C Balance (± 5)	%	-2.31	0.89	1.11	-0.703
Anions	meq/L	68.2	67.1	66.8	68.6
Cations	meq/L	65.1	68.3	68.3	67.7
Solids, Total Dissolved Calculated	mg/L	4300	4300	4300	4300
TDS Balance (0.80 - 1.20)		1.09	1.08	1.07	1.05
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	0.54	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-004
Client Sample ID: EPA-7

Report Date: 08/28/14
Collection Date: 07/09/14 09:35
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	678	mg/L		5		A2320 B	07/11/14 21:23 / jba
Calcium	490	mg/L		1		E200.7	07/23/14 19:05 / sf
Chloride	229	mg/L	D	5		E300.0	07/14/14 20:35 / wc
Magnesium	929	mg/L		1		E200.7	07/23/14 19:05 / sf
Nitrogen, Ammonia as N	0.05	mg/L		0.05		A4500-NH3 G	07/14/14 13:55 / lr
Nitrogen, Nitrate+Nitrite as N	126	mg/L	D	5		E353.2	07/11/14 16:03 / lr
Potassium	9	mg/L		1		E200.7	07/23/14 19:05 / sf
Sodium	410	mg/L	D	3		E200.7	07/23/14 19:05 / sf
Sulfate	4310	mg/L	D	20		E300.0	07/14/14 20:35 / wc
PHYSICAL PROPERTIES							
pH	6.46	s.u.	H	0.01		A4500-H B	07/11/14 15:02 / tmm
Solids, Total Dissolved TDS @ 180 C	7610	mg/L		100		A2540 C	07/14/14 15:11 / tmm
METALS - TOTAL							
Aluminum	0.2	mg/L	D	0.2		E200.7	07/17/14 00:04 / sf
Beryllium	ND	mg/L		0.001		E200.8	07/16/14 21:29 / cp
Cadmium	ND	mg/L		0.005		E200.8	07/16/14 21:29 / cp
Cobalt	0.03	mg/L		0.01		E200.8	07/16/14 21:29 / cp
Lead	ND	mg/L		0.001		E200.8	07/16/14 21:29 / cp
Manganese	1.40	mg/L		0.01		E200.7	07/17/14 00:04 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/17/14 00:04 / sf
Nickel	ND	mg/L		0.05		E200.7	07/17/14 00:04 / sf
Uranium	0.0017	mg/L		0.0003		E200.8	07/16/14 21:29 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/17/14 00:04 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/29/14 13:56 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 13:04 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.5	pCi/L	U			E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U Precision (±)	0.4	pCi/L				E900.1	07/22/14 09:29 / lmc
Gross Alpha minus Rn & U MDC	0.6	pCi/L				E900.1	07/22/14 09:29 / lmc
Lead 210	-0.09	pCi/L	U			E909.0	08/03/14 23:17 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/03/14 23:17 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/03/14 23:17 / eli-cs
Radium 226	0.42	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 precision (±)	0.14	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 226 MDC	0.15	pCi/L				E903.0	08/05/14 09:28 / lmc
Radium 228	3.8	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	07/29/14 14:10 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	07/29/14 14:10 / plj
Thorium 230	0.02	pCi/L	U			E908.0	07/29/14 17:56 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	07/29/14 17:56 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	07/29/14 17:56 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14070433-004
Client Sample ID: EPA-7

Report Date: 08/28/14
Collection Date: 07/09/14 09:35
DateReceived: 07/11/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	1.17	%				A1030 E	07/24/14 15:00 / kbh
Anions	116	meq/L				A1030 E	07/24/14 15:00 / kbh
Cations	119	meq/L				A1030 E	07/24/14 15:00 / kbh
Solids, Total Dissolved Calculated	7300	mg/L				A1030 E	07/24/14 15:00 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/24/14 15:00 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/18/14 18:34 / jlr
Bromoform	ND	ug/L		0.50		E624	07/18/14 18:34 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/18/14 18:34 / jlr
Chloroform	0.71	ug/L		0.50		E624	07/18/14 18:34 / jlr
Trihalomethanes, Total	0.71	ug/L		0.50		E624	07/18/14 18:34 / jlr
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	07/18/14 18:34 / jlr
Surr: Dibromofluoromethane	136	%REC	S	64.4-131		E624	07/18/14 18:34 / jlr
Surr: p-Bromofluorobenzene	106	%REC		67.1-133		E624	07/18/14 18:34 / jlr
Surr: Toluene-d8	96.0	%REC		79.7-125		E624	07/18/14 18:34 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-004
Client Sample ID: EPA-7

Report Date: 11/21/14
Collection Date: 10/08/14 09:19
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	685	mg/L		5		A2320 B	10/10/14 21:34 / jba
Calcium	486	mg/L		1		E200.7	10/24/14 17:11 / sf
Chloride	234	mg/L	D	5		E300.0	10/18/14 09:20 / wc
Magnesium	882	mg/L		1		E200.7	10/24/14 17:11 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/10/14 20:03 / ljl
Nitrogen, Nitrate+Nitrite as N	122	mg/L	D	5		E353.2	10/14/14 11:21 / lr
Potassium	8	mg/L		1		E200.7	10/24/14 17:11 / sf
Sodium	372	mg/L	D	2		E200.7	10/24/14 17:11 / sf
Sulfate	4310	mg/L	D	20		E300.0	10/18/14 09:20 / wc
PHYSICAL PROPERTIES							
pH	6.38	s.u.	H	0.01		A4500-H B	10/10/14 14:05 / alp
Solids, Total Dissolved TDS @ 180 C	7720	mg/L		100		A2540 C	10/13/14 16:03 / lr
METALS - TOTAL							
Aluminum	0.2	mg/L		0.1		E200.8	11/12/14 02:28 / clm
Beryllium	ND	mg/L		0.001		E200.8	11/13/14 19:06 / cp
Cadmium	ND	mg/L		0.005		E200.7	10/31/14 22:55 / sf
Cobalt	0.04	mg/L		0.01		E200.7	10/31/14 22:55 / sf
Lead	ND	mg/L		0.001		E200.8	11/12/14 02:28 / clm
Manganese	1.30	mg/L		0.01		E200.7	10/17/14 20:22 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/17/14 20:22 / sf
Nickel	ND	mg/L		0.05		E200.7	10/31/14 22:55 / sf
Uranium	0.0023	mg/L		0.0003		E200.8	11/12/14 02:28 / clm
Vanadium	ND	mg/L		0.1		E200.7	10/17/14 20:22 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	10/31/14 15:42 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:20 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	0.6	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U Precision (±)	0.3	pCi/L				E900.1	10/28/14 08:35 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 08:35 / dmf
Lead 210	-0.6	pCi/L	U			E909.0	10/29/14 09:04 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	10/29/14 09:04 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	10/29/14 09:04 / eli-cs
Radium 226	1.2	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 precision (±)	0.28	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 226 MDC	0.23	pCi/L				E903.0	10/27/14 10:29 / rdw
Radium 228	1.6	pCi/L	U			RA-05	10/20/14 13:21 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	10/20/14 13:21 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	10/20/14 13:21 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-1
Lab ID: C14100554-004
Client Sample ID: EPA-7

Report Date: 11/21/14
Collection Date: 10/08/14 09:19
DateReceived: 10/10/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.05	pCi/L	U			E908.0	11/05/14 09:50 / res
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/05/14 09:50 / res
Thorium 230 MDC	0.1	pCi/L				E908.0	11/05/14 09:50 / res
DATA QUALITY							
A/C Balance (± 5)	-1.35	%				A1030 E	10/28/14 10:43 / kbh
Anions	116	meq/L				A1030 E	10/28/14 10:43 / kbh
Cations	113	meq/L				A1030 E	10/28/14 10:43 / kbh
Solids, Total Dissolved Calculated	7200	mg/L				A1030 E	10/28/14 10:43 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	10/28/14 10:43 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/14/14 03:49 / jlr
Bromoform	ND	ug/L		0.50		E624	10/14/14 03:49 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/14/14 03:49 / jlr
Chloroform	ND	ug/L		0.50		E624	10/14/14 03:49 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/14/14 03:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		73.7-126		E624	10/14/14 03:49 / jlr
Surr: Dibromofluoromethane	93.0	%REC		64.4-131		E624	10/14/14 03:49 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		67.1-133		E624	10/14/14 03:49 / jlr
Surr: Toluene-d8	99.0	%REC		79.7-125		E624	10/14/14 03:49 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 1 Monitor Wells					
Well ID:		EPA-7	EPA-7	EPA-7	EPA-7
Collection Date:		10/8/2014	7/9/2014	4/1/2014	1/13/2014
Receive Date:		10/10/2014	7/11/2014	4/4/2014	1/17/2014
Report Date:		11/21/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100554-004	C14070433-004	C14040183-004	C14010520-003
Bicarbonate as HCO3	mg/L	685	678	668	669
Calcium	mg/L	486	490	513	486
Chloride	mg/L	234	229	241	240
Magnesium	mg/L	882	929	911	912
Nitrogen, Ammonia as N	mg/L	ND(0.05)	0.05	ND(0.05)	0.13
Nitrogen, Nitrate+Nitrite as N	mg/L	122	126	143	135
Potassium	mg/L	8	9	9	8
Sodium	mg/L	372	410	408	381
Sulfate	mg/L	4310	4310	4180	4360
pH	s.u.	6.38	6.46	6.18	6.31
Solids, Total Dissolved TDS @ 180 C	mg/L	7720	7610	7520	7650
Aluminum	mg/L	0.2	0.2	0.2	0.3
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.04	0.03	0.04	0.02
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	1.30	1.40	1.38	1.43
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	ND(0.05)	ND(0.05)	0.05	ND(0.05)
Uranium	mg/L	0.0023	0.0017	0.0019	0.0018
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	0.6	0.5	1.6	0.2
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.3	0.4	0.5	0.3
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.6	0.4	0.4
Lead 210	pCi/L	-0.6	-0.09	0.2	0.06
Lead 210 precision (±)	pCi/L	0.7	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.2	1.2	1.0	1
Radium 226	pCi/L	1.2	0.42	0.64	0.57
Radium 226 precision (±)	pCi/L	0.28	0.14	0.19	0.16
Radium 226 MDC	pCi/L	0.23	0.15	0.18	0.15
Radium 228	pCi/L	1.6	3.8	2.0	0.62
Radium 228 precision (±)	pCi/L	1.1	1.1	0.82	0.64
Radium 228 MDC	pCi/L	1.7	1.5	1.2	1.0
Thorium 230	pCi/L	0.05	0.02	0.0	0.06
Thorium 230 precision (±)	pCi/L	0.08	0.05	0.03	0.07
Thorium 230 MDC	pCi/L	0.1	0.1	0.1	0.1
A/C Balance (± 5)	%	-1.35	1.17	2.26	-0.563
Anions	meq/L	116	116	113	117
Cations	meq/L	113	119	119	116
Solids, Total Dissolved Calculated	mg/L	7200	7300	7100	7300
TDS Balance (0.80 - 1.20)		1.08	1.05	1.05	1.05
Trihalomethanes, Total	ug/L	ND(0.50)	0.71	1.47	0.70

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

QUARTERLY SAMPLING

SEMI-ANNUAL GROUND WATER MONITORING REPORT

JULY TO DECEMBER OF 2014

ZONE-3

*517

EPA-14

420

*711

*613

*708

EPA-13

717

719

LEVELS ONLY

EPA-9

702

710

712

713

714

701

706

707

402

446

424

***POINT OF COMPLIANCE WELLS**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-007
Client Sample ID: 517

Report Date: 08/28/14
Collection Date: 07/14/14 14:40
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:25 / jba
Calcium	438	mg/L		1		E200.7	07/29/14 03:07 / sf
Chloride	40	mg/L	D	2		E300.0	07/22/14 13:52 / wc
Magnesium	490	mg/L		1		E200.7	07/29/14 03:07 / sf
Nitrogen, Ammonia as N	9.6	mg/L	D	0.2		A4500-NH3 G	07/23/14 10:59 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 14:48 / lr
Potassium	12	mg/L		1		E200.7	07/29/14 03:07 / sf
Sodium	144	mg/L	D	2		E200.7	07/29/14 03:07 / sf
Sulfate	4170	mg/L	D	8		E300.0	07/22/14 13:52 / wc
PHYSICAL PROPERTIES							
pH	3.21	s.u.	H	0.01		A4500-H B	07/18/14 14:07 / alp
Solids, Total Dissolved TDS @ 180 C	5570	mg/L		39		A2540 C	07/18/14 12:25 / alp
METALS - TOTAL							
Aluminum	16.9	mg/L		0.1		E200.7	07/29/14 21:12 / sf
Beryllium	0.014	mg/L		0.001		E200.7	07/29/14 21:12 / sf
Cadmium	0.009	mg/L		0.005		E200.7	07/29/14 21:12 / sf
Cobalt	0.92	mg/L		0.01		E200.7	07/29/14 21:12 / sf
Lead	0.022	mg/L		0.001		E200.8	08/02/14 00:32 / clm
Manganese	12.1	mg/L		0.01		E200.7	07/29/14 21:12 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:12 / sf
Nickel	1.00	mg/L		0.05		E200.7	07/29/14 21:12 / sf
Uranium	0.213	mg/L		0.0003		E200.8	08/02/14 00:32 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:12 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 14:49 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 14:01 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	11.7	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	1.2	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	0.8	pCi/L	U			E909.0	08/08/14 14:43 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/08/14 14:43 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 14:43 / eli-cs
Radium 226	5.4	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 precision (±)	0.43	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 228	3.5	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.65	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.80	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	17.1	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 precision (±)	3.4	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 MDC	0.4	pCi/L				E908.0	07/29/14 13:22 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-007
Client Sample ID: 517

Report Date: 08/28/14
Collection Date: 07/14/14 14:40
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-5.01	%				A1030 E	07/29/14 12:16 / kbh
Anions	88.3	meq/L				A1030 E	07/29/14 12:16 / kbh
Cations	79.8	meq/L				A1030 E	07/29/14 12:16 / kbh
Solids, Total Dissolved Calculated	5300	mg/L				A1030 E	07/29/14 12:16 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/29/14 12:16 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/26/14 00:02 / jlr
Bromoform	ND	ug/L		0.50		E624	07/26/14 00:02 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/26/14 00:02 / jlr
Chloroform	5.60	ug/L		0.50		E624	07/26/14 00:02 / jlr
Trihalomethanes, Total	5.60	ug/L		0.50		E624	07/26/14 00:02 / jlr
Surr: 1,2-Dichlorobenzene-d4	113	%REC		73.7-126		E624	07/26/14 00:02 / jlr
Surr: Dibromofluoromethane	122	%REC		64.4-131		E624	07/26/14 00:02 / jlr
Surr: p-Bromofluorobenzene	98.0	%REC		67.1-133		E624	07/26/14 00:02 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/26/14 00:02 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 4.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-002
Client Sample ID: 517

Report Date: 11/24/14
Collection Date: 10/13/14 09:42
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 18:51 / jba
Calcium	449	mg/L		1		E200.7	10/24/14 19:56 / sf
Chloride	42	mg/L	D	2		E300.0	10/19/14 13:16 / wc
Magnesium	523	mg/L		1		E200.7	10/24/14 19:56 / sf
Nitrogen, Ammonia as N	9.2	mg/L	D	0.5		A4500-NH3 G	10/21/14 11:04 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 12:28 / lr
Potassium	12	mg/L		1		E200.7	10/24/14 19:56 / sf
Sodium	145	mg/L		1		E200.7	10/24/14 19:56 / sf
Sulfate	4110	mg/L	D	8		E300.0	10/19/14 13:16 / wc
PHYSICAL PROPERTIES							
pH	2.91	s.u.	H	0.01		A4500-H B	10/16/14 15:21 / ljl
Solids, Total Dissolved TDS @ 180 C	5760	mg/L		40		A2540 C	10/17/14 15:43 / lr
METALS - TOTAL							
Aluminum	17.9	mg/L		0.1		E200.7	10/27/14 18:25 / sf
Beryllium	0.015	mg/L		0.001		E200.7	10/27/14 18:25 / sf
Cadmium	0.010	mg/L		0.005		E200.7	10/27/14 18:25 / sf
Cobalt	0.94	mg/L		0.01		E200.7	10/27/14 18:25 / sf
Lead	0.016	mg/L		0.001		E200.8	11/19/14 05:26 / cp
Manganese	12.4	mg/L		0.01		E200.7	10/27/14 18:25 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 14:37 / sf
Nickel	1.01	mg/L		0.05		E200.7	10/27/14 18:25 / sf
Uranium	0.264	mg/L		0.0003		E200.8	11/19/14 05:26 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:25 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 19:29 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:40 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	13.3	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	1.1	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	1.7	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	9.0	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 precision (±)	0.54	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 MDC	0.16	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 228	8.7	pCi/L				RA-05	10/23/14 12:48 / plj
Radium 228 precision (±)	1.5	pCi/L				RA-05	10/23/14 12:48 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	10/23/14 12:48 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-002
Client Sample ID: 517

Report Date: 11/24/14
Collection Date: 10/13/14 09:42
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	11.2	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 precision (±)	1.8	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 MDC	0.3	pCi/L				E908.0	11/17/14 09:18 / dmf
DATA QUALITY							
A/C Balance (± 5)	-2.50	%				A1030 E	10/28/14 10:45 / kbh
Anions	87.0	meq/L				A1030 E	10/28/14 10:45 / kbh
Cations	82.8	meq/L				A1030 E	10/28/14 10:45 / kbh
Solids, Total Dissolved Calculated	5300	mg/L				A1030 E	10/28/14 10:45 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	10/28/14 10:45 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 04:27 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 04:27 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 04:27 / jld
Chloroform	4.80	ug/L		0.50		E624	10/18/14 04:27 / jld
Trihalomethanes, Total	4.80	ug/L		0.50		E624	10/18/14 04:27 / jld
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	10/18/14 04:27 / jld
Surr: Dibromofluoromethane	117	%REC		64.4-131		E624	10/18/14 04:27 / jld
Surr: p-Bromofluorobenzene	115	%REC		67.1-133		E624	10/18/14 04:27 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 04:27 / jld

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.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		517	517	517	517
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/7/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/10/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100756-002	C14070667-007	C14040377-002	C14010261-002
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	449	438	452	449
Chloride	mg/L	42	40	45	40
Magnesium	mg/L	523	490	504	500
Nitrogen, Ammonia as N	mg/L	9.2	9.6	9.6	9.2
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	12	12	12	11
Sodium	mg/L	145	144	152	145
Sulfate	mg/L	4110	4170	4250	3880
pH	s.u.	2.91	3.21	3.00	2.94
Solids, Total Dissolved TDS @ 180 C	mg/L	5760	5570	5630	5620
Aluminum	mg/L	17.9	16.9	15.8	17.7
Beryllium	mg/L	0.015	0.014	0.012	0.014
Cadmium	mg/L	0.010	0.008	0.010	0.008
Cobalt	mg/L	0.94	0.92	0.93	0.93
Lead	mg/L	0.016	0.022	0.022	0.027
Manganese	mg/L	12.4	12.1	11.8	12.0
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	1.01	1.00	0.96	1.04
Uranium	mg/L	0.264	0.213	0.210	0.204
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	13.3	11.7	5.6	29.2
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.1	1.2	0.6	2.2
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.7
Lead 210	pCi/L	1.7	0.8	1.4	1.7
Lead 210 precision (±)	pCi/L	0.8	0.8	0.6	0.7
Lead 210 MDC	pCi/L	1.3	1.2	1	1
Radium 226	pCi/L	9.0	5.4	9.0	4.8
Radium 226 precision (±)	pCi/L	0.54	0.43	0.54	0.35
Radium 226 MDC	pCi/L	0.16	0.13	0.16	0.12
Radium 228	pCi/L	8.7	3.5	5.7	6.9
Radium 228 precision (±)	pCi/L	1.5	0.65	1.1	1.0
Radium 228 MDC	pCi/L	1.9	0.80	1.4	1.2
Thorium 230	pCi/L	11.2	17.1	12.9	13.5
Thorium 230 precision (±)	pCi/L	1.8	3.4	2.4	2.2
Thorium 230 MDC	pCi/L	0.3	0.4	0.4	0.3
A/C Balance (± 5)	%	-2.50	-5.01	-5.20	1.49
Anions	meq/L	87.0	88.3	89.8	82.1
Cations	meq/L	82.8	79.8	81.0	84.6
Solids, Total Dissolved Calculated	mg/L	5300	5300	5400	5100
TDS Balance (0.80 - 1.20)		1.08	1.05	1.03	1.11
Trihalomethanes, Total	ug/L	4.80	5.60	4.08	4.48

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-006
Client Sample ID: EPA-14

Report Date: 08/28/14
Collection Date: 07/14/14 13:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:23 / jba
Calcium	515	mg/L		1		E200.7	07/30/14 02:00 / sf
Chloride	62	mg/L	D	2		E300.0	07/22/14 13:34 / wc
Magnesium	394	mg/L		1		E200.7	07/30/14 02:00 / sf
Nitrogen, Ammonia as N	39	mg/L	D	1		A4500-NH3 G	07/23/14 10:57 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 14:46 / lr
Potassium	13	mg/L		1		E200.7	07/30/14 02:00 / sf
Sodium	163	mg/L	D	2		E200.7	07/30/14 02:00 / sf
Sulfate	3540	mg/L	D	8		E300.0	07/22/14 13:34 / wc
PHYSICAL PROPERTIES							
pH	4.39	s.u.	H	0.01		A4500-H B	07/18/14 14:04 / alp
Solids, Total Dissolved TDS @ 180 C	4810	mg/L		35		A2540 C	07/18/14 12:25 / alp
METALS - TOTAL							
Aluminum	21.9	mg/L		0.1		E200.7	07/29/14 21:08 / sf
Beryllium	0.020	mg/L		0.001		E200.7	07/29/14 21:08 / sf
Cadmium	0.008	mg/L		0.005		E200.7	07/29/14 21:08 / sf
Cobalt	0.70	mg/L		0.01		E200.7	07/29/14 21:08 / sf
Lead	0.009	mg/L		0.001		E200.8	08/02/14 00:27 / clm
Manganese	13.9	mg/L		0.01		E200.7	07/29/14 21:08 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:08 / sf
Nickel	0.69	mg/L		0.05		E200.7	07/29/14 21:08 / sf
Uranium	0.0237	mg/L		0.0003		E200.8	08/02/14 00:27 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:08 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 14:37 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 16:01 / kja
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	9.8	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	1.1	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	1.3	pCi/L				E909.0	08/08/14 13:34 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/08/14 13:34 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 13:34 / eli-cs
Radium 226	7.4	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 precision (±)	0.50	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 228	9.5	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 precision (±)	0.85	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 MDC	0.80	pCi/L				RA-05	07/30/14 13:46 / plj
Thorium 230	0.2	pCi/L	U			E908.0	08/06/14 09:04 / dmf
Thorium 230 precision (±)	0.3	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 MDC	0.5	pCi/L				E908.0	08/06/14 09:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-006
Client Sample ID: EPA-14

Report Date: 08/28/14
Collection Date: 07/14/14 13:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.41	%				A1030 E	07/30/14 15:26 / kbh
Anions	75.6	meq/L				A1030 E	07/30/14 15:26 / kbh
Cations	70.7	meq/L				A1030 E	07/30/14 15:26 / kbh
Solids, Total Dissolved Calculated	4700	mg/L				A1030 E	07/30/14 15:26 / kbh
TDS Balance (0.80 - 1.20)	1.02					A1030 E	07/30/14 15:26 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 02:25 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 02:25 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 02:25 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 02:25 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 02:25 / jlr
Surr: 1,2-Dichlorobenzene-d4	115	%REC		73.7-126		E624	07/24/14 02:25 / jlr
Surr: Dibromofluoromethane	142	%REC	S	64.4-131		E624	07/24/14 02:25 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/24/14 02:25 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/24/14 02:25 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 5.							

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-008
Client Sample ID: EPA-14

Report Date: 11/24/14
Collection Date: 10/13/14 16:45
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 19:21 / jba
Calcium	496	mg/L		1		E200.7	10/24/14 21:04 / sf
Chloride	58	mg/L	D	2		E300.0	10/19/14 15:50 / wc
Magnesium	346	mg/L		1		E200.7	10/24/14 21:04 / sf
Nitrogen, Ammonia as N	25	mg/L	D	2		A4500-NH3 G	10/21/14 11:22 / lr
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	10/17/14 12:43 / lr
Potassium	12	mg/L		1		E200.7	10/24/14 21:04 / sf
Sodium	159	mg/L		1		E200.7	10/24/14 21:04 / sf
Sulfate	3020	mg/L	D	8		E300.0	10/19/14 15:50 / wc
PHYSICAL PROPERTIES							
pH	4.94	s.u.	H	0.01		A4500-H B	10/16/14 15:39 / ljl
Solids, Total Dissolved TDS @ 180 C	4370	mg/L		40		A2540 C	10/17/14 15:44 / lr
METALS - TOTAL							
Aluminum	12.9	mg/L		0.1		E200.7	10/27/14 19:05 / sf
Beryllium	0.010	mg/L		0.001		E200.7	10/27/14 19:05 / sf
Cadmium	0.006	mg/L		0.005		E200.7	10/27/14 19:05 / sf
Cobalt	0.42	mg/L		0.01		E200.7	10/27/14 19:05 / sf
Lead	0.007	mg/L		0.001		E200.8	11/19/14 05:53 / cp
Manganese	10.1	mg/L		0.01		E200.7	10/27/14 19:05 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 15:18 / sf
Nickel	0.39	mg/L		0.05		E200.7	10/27/14 19:05 / sf
Uranium	0.0128	mg/L		0.0003		E200.8	11/19/14 05:53 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 19:05 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 20:41 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:55 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	10.3	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	1	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	1	pCi/L	U			E909.0	11/20/14 10:33 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 10:33 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 10:33 / eli-cs
Radium 226	8.8	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 precision (±)	0.54	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 MDC	0.16	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 228	13	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 precision (±)	2.0	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 MDC	2.3	pCi/L				RA-05	10/23/14 14:22 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-008
Client Sample ID: EPA-14

Report Date: 11/24/14
Collection Date: 10/13/14 16:45
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.7	pCi/L	U			E908.0	11/06/14 09:37 / dmf
Thorium 230 precision (±)	0.6	pCi/L				E908.0	11/06/14 09:37 / dmf
Thorium 230 MDC	1	pCi/L				E908.0	11/06/14 09:37 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.03	%				A1030 E	10/28/14 10:47 / kbh
Anions	64.8	meq/L				A1030 E	10/28/14 10:47 / kbh
Cations	62.2	meq/L				A1030 E	10/28/14 10:47 / kbh
Solids, Total Dissolved Calculated	4100	mg/L				A1030 E	10/28/14 10:47 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	10/28/14 10:47 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 07:58 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 07:58 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 07:58 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 07:58 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 07:58 / jld
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	10/18/14 07:58 / jld
Surr: Dibromofluoromethane	118	%REC		64.4-131		E624	10/18/14 07:58 / jld
Surr: p-Bromofluorobenzene	116	%REC		67.1-133		E624	10/18/14 07:58 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 07:58 / jld

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		EPA-14	EPA-14	EPA-14	EPA-14
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/14/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-008	C14070667-006	C14040377-010	C14010521-007
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	496	515	482	506
Chloride	mg/L	58	62	68	63
Magnesium	mg/L	346	394	438	442
Nitrogen, Ammonia as N	mg/L	25	39	32	35
Nitrogen, Nitrate+Nitrite as N	mg/L	0.1	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	12	13	16	15
Sodium	mg/L	159	163	181	175
Sulfate	mg/L	3020	3540	3850	3610
pH	s.u.	4.94	4.39	4.76	4.72
Solids, Total Dissolved TDS @ 180 C	mg/L	4370	4810	5070	5380
Aluminum	mg/L	12.9	21.9	18.4	15.2
Beryllium	mg/L	0.010	0.020	0.022	0.015
Cadmium	mg/L	0.006	0.008	0.009	0.010
Cobalt	mg/L	0.42	0.70	0.76	0.81
Lead	mg/L	0.007	0.009	0.009	0.013
Manganese	mg/L	10.1	13.9	14.3	15.5
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.39	0.69	0.71	0.82
Uranium	mg/L	0.0128	0.0237	0.0226	0.0157
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	10.3	9.8	9.5	13.6
Gross Alpha minus Rn & U Precision (±)	pCi/L	1	1.1	0.8	1
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.4
Lead 210	pCi/L	1	1.3	1.7	1.9
Lead 210 precision (±)	pCi/L	0.8	0.8	0.7	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1.1	0.9
Radium 226	pCi/L	8.8	7.4	13	10
Radium 226 precision (±)	pCi/L	0.54	0.50	0.65	0.54
Radium 226 MDC	pCi/L	0.16	0.13	0.16	0.14
Radium 228	pCi/L	13	9.5	16	12
Radium 228 precision (±)	pCi/L	2.0	0.85	1.7	1.1
Radium 228 MDC	pCi/L	2.3	0.80	1.7	0.97
Thorium 230	pCi/L	0.7	0.2	0.2	0.5
Thorium 230 precision (±)	pCi/L	0.6	0.3	0.3	0.4
Thorium 230 MDC	pCi/L	1	0.5	0.5	0.6
A/C Balance (± 5)	%	-2.03	-3.41	2.40	-3.40
Anions	meq/L	64.8	75.6	82.3	77.2
Cations	meq/L	62.2	70.7	86.3	72.2
Solids, Total Dissolved Calculated	mg/L	4100	4700	5000	4800
TDS Balance (0.80 - 1.20)		1.06	1.02	1.00	1.11
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-003
Client Sample ID: 420

Report Date: 08/28/14
Collection Date: 07/14/14 11:40
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	427	mg/L		5		A2320 B	07/18/14 19:10 / jba
Calcium	765	mg/L		1		E200.7	07/29/14 02:31 / sf
Chloride	52	mg/L		1		E300.0	07/22/14 12:42 / wc
Magnesium	169	mg/L		1		E200.7	07/29/14 02:31 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/23/14 10:52 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 14:38 / lr
Potassium	7	mg/L		1		E200.7	07/29/14 02:31 / sf
Sodium	157	mg/L	D	2		E200.7	07/29/14 02:31 / sf
Sulfate	2330	mg/L	D	4		E300.0	07/22/14 12:42 / wc
PHYSICAL PROPERTIES							
pH	7.07	s.u.	H	0.01		A4500-H B	07/18/14 13:55 / alp
Solids, Total Dissolved TDS @ 180 C	3680	mg/L		40		A2540 C	07/18/14 12:25 / alp
METALS - TOTAL							
Aluminum	1.3	mg/L		0.1		E200.7	07/29/14 20:27 / sf
Beryllium	ND	mg/L		0.001		E200.8	08/01/14 23:44 / clm
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 20:27 / sf
Cobalt	0.01	mg/L		0.01		E200.7	07/29/14 20:27 / sf
Lead	0.004	mg/L		0.001		E200.8	08/01/14 23:44 / clm
Manganese	1.18	mg/L		0.01		E200.7	07/29/14 20:27 / sf
Molybdenum	1.3	mg/L		0.1		E200.7	07/29/14 20:27 / sf
Nickel	ND	mg/L		0.05		E200.7	07/29/14 20:27 / sf
Uranium	0.386	mg/L		0.0003		E200.8	08/01/14 23:44 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 20:27 / sf
METALS - SPECIATED							
Arsenic-III	0.002	mg/L		0.001		E1632AM	07/31/14 13:37 / eli-h
Selenium-IV	0.002	mg/L		0.001		A3114 B	07/24/14 15:54 / kja
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	6.0	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	0.5	pCi/L	U			E909.0	08/08/14 10:05 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 10:05 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 10:05 / eli-cs
Radium 226	5.2	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 precision (±)	0.45	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 228	5.9	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 precision (±)	0.80	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 MDC	0.90	pCi/L				RA-05	07/30/14 13:46 / plj
Thorium 230	0.5	pCi/L				E908.0	08/13/14 09:11 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	08/13/14 09:11 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	08/13/14 09:11 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-003
Client Sample ID: 420

Report Date: 08/28/14
Collection Date: 07/14/14 11:40
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	1.83	%				A1030 E	07/29/14 12:15 / kbh
Anions	57.0	meq/L				A1030 E	07/29/14 12:15 / kbh
Cations	59.1	meq/L				A1030 E	07/29/14 12:15 / kbh
Solids, Total Dissolved Calculated	3700	mg/L				A1030 E	07/29/14 12:15 / kbh
TDS Balance (0.80 - 1.20)	1.00					A1030 E	07/29/14 12:15 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 00:42 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 00:42 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 00:42 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 00:42 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 00:42 / jlr
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	07/24/14 00:42 / jlr
Surr: Dibromofluoromethane	136	%REC	S	64.4-131		E624	07/24/14 00:42 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/24/14 00:42 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/24/14 00:42 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 8.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-007
Client Sample ID: 420

Report Date: 11/24/14
Collection Date: 10/13/14 15:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	434	mg/L		5		A2320 B	10/16/14 19:16 / jba
Calcium	736	mg/L		1		E200.7	10/24/14 21:00 / sf
Chloride	55	mg/L	D	2		E300.0	10/19/14 15:35 / wc
Magnesium	162	mg/L		1		E200.7	10/24/14 21:00 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/21/14 11:17 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 12:40 / lr
Potassium	7	mg/L		1		E200.7	10/24/14 21:00 / sf
Sodium	157	mg/L		1		E200.7	10/24/14 21:00 / sf
Sulfate	2460	mg/L	D	8		E300.0	10/19/14 15:35 / wc
PHYSICAL PROPERTIES							
pH	6.97	s.u.	H	0.01		A4500-H B	10/16/14 15:36 / ljl
Solids, Total Dissolved TDS @ 180 C	4000	mg/L		40		A2540 C	10/17/14 15:44 / lr
METALS - TOTAL							
Aluminum	1.4	mg/L		0.1		E200.7	10/27/14 18:57 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/27/14 18:57 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 18:57 / sf
Cobalt	0.02	mg/L		0.01		E200.7	10/27/14 18:57 / sf
Lead	0.005	mg/L		0.001		E200.8	11/19/14 05:36 / cp
Manganese	1.86	mg/L		0.01		E200.7	10/27/14 18:57 / sf
Molybdenum	1.3	mg/L		0.1		E200.7	10/28/14 15:03 / sf
Nickel	ND	mg/L		0.05		E200.7	10/27/14 18:57 / sf
Uranium	0.337	mg/L		0.0003		E200.8	11/19/14 05:36 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:57 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 20:29 / eli-h
Selenium-IV	0.003	mg/L		0.001		A3114 B	11/06/14 14:54 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	6.0	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	0.8	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	0.8	pCi/L	U			E909.0	11/20/14 09:23 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 09:23 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 09:23 / eli-cs
Radium 226	6.3	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 precision (±)	0.46	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 MDC	0.17	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 228	10	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 precision (±)	1.9	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 MDC	2.3	pCi/L				RA-05	10/23/14 14:22 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-007
Client Sample ID: 420

Report Date: 11/24/14
Collection Date: 10/13/14 15:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.3	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	11/17/14 09:18 / dmf
DATA QUALITY							
A/C Balance (± 5)	-2.48	%				A1030 E	10/28/14 10:47 / kbh
Anions	60.0	meq/L				A1030 E	10/28/14 10:47 / kbh
Cations	57.1	meq/L				A1030 E	10/28/14 10:47 / kbh
Solids, Total Dissolved Calculated	3800	mg/L				A1030 E	10/28/14 10:47 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/28/14 10:47 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 07:22 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 07:22 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 07:22 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 07:22 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 07:22 / jld
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	10/18/14 07:22 / jld
Surr: Dibromofluoromethane	118	%REC		64.4-131		E624	10/18/14 07:22 / jld
Surr: p-Bromofluorobenzene	116	%REC		67.1-133		E624	10/18/14 07:22 / jld
Surr: Toluene-d8	99.0	%REC		79.7-125		E624	10/18/14 07:22 / jld

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.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		420	420	420	420
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/13/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-007	C14070667-003	C14040377-007	C14010521-004
Bicarbonate as HCO3	mg/L	434	427	492	523
Calcium	mg/L	736	765	729	723
Chloride	mg/L	55	52	53	52
Magnesium	mg/L	162	169	164	155
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	7	7	7	7
Sodium	mg/L	157	157	159	151
Sulfate	mg/L	2460	2330	2220	2170
pH	s.u.	6.97	7.07	6.81	6.74
Solids, Total Dissolved TDS @ 180 C	mg/L	4000	3680	3790	3840
Aluminum	mg/L	1.4	1.3	0.3	1.2
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.02	0.01	0.02	0.02
Lead	mg/L	0.005	0.004	0.001	0.002
Manganese	mg/L	1.86	1.18	1.27	2.12
Molybdenum	mg/L	1.3	1.3	0.7	1.1
Nickel	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Uranium	mg/L	0.337	0.386	0.387	0.407
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	0.002	0.002	0.002
Selenium-IV	mg/L	0.003	0.002	ND(0.001)	0.002
Gross Alpha minus Rn & U	pCi/L	6.0	6.0	4.7	10.1
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.8	0.9	0.6	1.0
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	0.8	0.5	1.3	2.8
Lead 210 precision (±)	pCi/L	0.8	0.7	0.7	0.7
Lead 210 MDC	pCi/L	1.3	1.2	1.1	0.9
Radium 226	pCi/L	6.3	5.2	4.5	4.5
Radium 226 precision (±)	pCi/L	0.46	0.45	0.42	0.36
Radium 226 MDC	pCi/L	0.17	0.15	0.18	0.14
Radium 228	pCi/L	10	5.9	5.4	8.3
Radium 228 precision (±)	pCi/L	1.9	0.80	1.2	0.92
Radium 228 MDC	pCi/L	2.3	0.90	1.6	0.94
Thorium 230	pCi/L	0.3	0.5	0.07	0.3
Thorium 230 precision (±)	pCi/L	0.1	0.2	0.07	0.2
Thorium 230 MDC	pCi/L	0.2	0.2	0.1	0.2
A/C Balance (± 5)	%	-2.48	1.83	0.95	0.251
Anions	meq/L	60.0	57.0	55.9	55.2
Cations	meq/L	57.1	59.1	56.9	55.5
Solids, Total Dissolved Calculated	mg/L	3800	3700	3600	3500
TDS Balance (0.80 - 1.20)		1.05	1.00	1.05	1.09
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-010
Client Sample ID: 711

Report Date: 08/28/14
Collection Date: 07/15/14 10:25
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:34 / jba
Calcium	455	mg/L		1		E200.7	07/29/14 03:20 / sf
Chloride	18	mg/L	D	2		E300.0	07/22/14 15:54 / wc
Magnesium	429	mg/L		1		E200.7	07/29/14 03:20 / sf
Nitrogen, Ammonia as N	0.46	mg/L		0.05		A4500-NH3 G	07/21/14 15:17 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 15:06 / lr
Potassium	11	mg/L		1		E200.7	07/29/14 03:20 / sf
Sodium	102	mg/L	D	2		E200.7	07/29/14 03:20 / sf
Sulfate	3320	mg/L	D	8		E300.0	07/22/14 15:54 / wc
PHYSICAL PROPERTIES							
pH	3.11	s.u.	H	0.01		A4500-H B	07/18/14 14:28 / alp
Solids, Total Dissolved TDS @ 180 C	4580	mg/L		31		A2540 C	07/18/14 12:29 / alp
METALS - TOTAL							
Aluminum	0.3	mg/L		0.1		E200.7	07/29/14 21:28 / sf
Beryllium	0.003	mg/L		0.001		E200.8	08/02/14 00:45 / clm
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 21:28 / sf
Cobalt	0.26	mg/L		0.01		E200.7	07/29/14 21:28 / sf
Lead	0.010	mg/L		0.001		E200.8	08/02/14 00:45 / clm
Manganese	4.82	mg/L		0.01		E200.7	07/29/14 21:28 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:28 / sf
Nickel	0.26	mg/L		0.05		E200.7	07/29/14 21:28 / sf
Uranium	0.0192	mg/L		0.0003		E200.8	08/02/14 00:45 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:28 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 15:25 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 14:07 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	4.2	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U Precision (±)	0.7	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 22:06 / lmc
Lead 210	0.1	pCi/L	U			E909.0	08/08/14 18:12 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 18:12 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 18:12 / eli-cs
Radium 226	3.3	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 precision (±)	0.34	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 228	5.4	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.72	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.80	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	0.04	pCi/L	U			E908.0	08/06/14 09:04 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	08/06/14 09:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-010
Client Sample ID: 711

Report Date: 08/28/14
Collection Date: 07/15/14 10:25
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.47	%				A1030 E	07/29/14 12:17 / kbh
Anions	69.8	meq/L				A1030 E	07/29/14 12:17 / kbh
Cations	66.4	meq/L				A1030 E	07/29/14 12:17 / kbh
Solids, Total Dissolved Calculated	4300	mg/L				A1030 E	07/29/14 12:17 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	07/29/14 12:17 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 04:08 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 04:08 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 04:08 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 04:08 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 04:08 / jlr
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	07/24/14 04:08 / jlr
Surr: Dibromofluoromethane	123	%REC		64.4-131		E624	07/24/14 04:08 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/24/14 04:08 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/24/14 04:08 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 4.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-004
Client Sample ID: 711

Report Date: 11/24/14
Collection Date: 10/13/14 12:30
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 18:57 / jba
Calcium	457	mg/L		1		E200.7	10/24/14 20:11 / sf
Chloride	20	mg/L	D	2		E300.0	10/19/14 14:48 / wc
Magnesium	446	mg/L		1		E200.7	10/24/14 20:11 / sf
Nitrogen, Ammonia as N	0.62	mg/L		0.05		A4500-NH3 G	10/21/14 11:07 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 12:33 / lr
Potassium	10	mg/L		1		E200.7	10/24/14 20:11 / sf
Sodium	101	mg/L		1		E200.7	10/24/14 20:11 / sf
Sulfate	3400	mg/L	D	8		E300.0	10/19/14 14:48 / wc
PHYSICAL PROPERTIES							
pH	3.07	s.u.	H	0.01		A4500-H B	10/16/14 15:27 / ljl
Solids, Total Dissolved TDS @ 180 C	4790	mg/L		40		A2540 C	10/17/14 15:43 / lr
METALS - TOTAL							
Aluminum	0.3	mg/L		0.1		E200.7	10/27/14 18:33 / sf
Beryllium	0.003	mg/L		0.001		E200.7	10/28/14 14:44 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 18:33 / sf
Cobalt	0.29	mg/L		0.01		E200.7	10/27/14 18:33 / sf
Lead	0.020	mg/L		0.001		E200.8	11/07/14 22:12 / cp
Manganese	4.98	mg/L		0.01		E200.7	10/27/14 18:33 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 14:44 / sf
Nickel	0.28	mg/L		0.05		E200.7	10/27/14 18:33 / sf
Uranium	0.140	mg/L		0.0003		E200.8	11/07/14 22:12 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:33 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 19:53 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:49 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	6.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	0.8	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	0.09	pCi/L	U			E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	5.0	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 precision (±)	0.41	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 MDC	0.16	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 228	11	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 precision (±)	1.8	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 MDC	2.2	pCi/L				RA-05	10/23/14 14:22 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-004
Client Sample ID: 711

Report Date: 11/24/14
Collection Date: 10/13/14 12:30
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.02	pCi/L	U			E908.0	11/06/14 09:37 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	11/06/14 09:37 / dmf
Thorium 230 MDC	0.3	pCi/L				E908.0	11/06/14 09:37 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.58	%				A1030 E	10/28/14 10:46 / kbh
Anions	71.5	meq/L				A1030 E	10/28/14 10:46 / kbh
Cations	67.9	meq/L				A1030 E	10/28/14 10:46 / kbh
Solids, Total Dissolved Calculated	4400	mg/L				A1030 E	10/28/14 10:46 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	10/28/14 10:46 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 05:37 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 05:37 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 05:37 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 05:37 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 05:37 / jld
Surr: 1,2-Dichlorobenzene-d4	112	%REC		73.7-126		E624	10/18/14 05:37 / jld
Surr: Dibromofluoromethane	110	%REC		64.4-131		E624	10/18/14 05:37 / jld
Surr: p-Bromofluorobenzene	115	%REC		67.1-133		E624	10/18/14 05:37 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 05:37 / jld

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		711	711	711	711
Collection Date:		10/13/2014	7/15/2014	4/7/2014	1/15/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-004	C14070667-010	C14040377-004	C14010521-011
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	14
Calcium	mg/L	457	455	472	476
Chloride	mg/L	20	18	19	17
Magnesium	mg/L	446	429	455	450
Nitrogen, Ammonia as N	mg/L	0.62	0.46	0.45	0.43
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	10	11	11	10
Sodium	mg/L	101	102	103	104
Sulfate	mg/L	3400	3320	3510	2900
pH	s.u.	3.07	3.11	3.79	5.33
Solids, Total Dissolved TDS @ 180 C	mg/L	4790	4580	4690	4420
Aluminum	mg/L	0.3	0.3	0.3	0.4
Beryllium	mg/L	0.003	0.003	0.002	0.002
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.29	0.26	0.27	0.23
Lead	mg/L	0.020	0.010	0.007	0.003
Manganese	mg/L	4.98	4.82	4.77	4.29
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	0.3
Nickel	mg/L	0.28	0.26	0.25	0.22
Uranium	mg/L	0.140	0.0192	0.0199	0.0159
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	0.007	0.005
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	6.4	4.2	4.1	6.0
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.8	0.7	0.5	0.8
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	0.09	0.1	0.7	0.9
Lead 210 precision (±)	pCi/L	0.8	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1	0.9
Radium 226	pCi/L	5.0	3.3	5.4	4.1
Radium 226 precision (±)	pCi/L	0.41	0.34	0.42	0.34
Radium 226 MDC	pCi/L	0.16	0.13	0.16	0.14
Radium 228	pCi/L	11	5.4	7.4	6.4
Radium 228 precision (±)	pCi/L	1.8	0.72	1.2	0.84
Radium 228 MDC	pCi/L	2.2	0.80	1.4	0.92
Thorium 230	pCi/L	0.02	0.04	0.3	0.2
Thorium 230 precision (±)	pCi/L	0.1	0.08	0.2	0.1
Thorium 230 MDC	pCi/L	0.3	0.2	0.2	0.2
A/C Balance (± 5)	%	-2.58	-2.47	-2.95	3.53
Anions	meq/L	71.5	69.8	73.6	61.1
Cations	meq/L	67.9	66.4	69.3	65.6
Solids, Total Dissolved Calculated	mg/L	4400	4300	4600	4000
TDS Balance (0.80 - 1.20)		1.08	1.06	1.02	1.11
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-008
Client Sample ID: 613

Report Date: 08/28/14
Collection Date: 07/14/14 16:15
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:28 / jba
Calcium	422	mg/L		1		E200.7	07/29/14 03:12 / sf
Chloride	132	mg/L	D	5		E300.0	07/22/14 14:09 / wc
Magnesium	693	mg/L		1		E200.7	07/29/14 03:12 / sf
Nitrogen, Ammonia as N	180	mg/L	D	2		A4500-NH3 G	07/23/14 11:00 / lr
Nitrogen, Nitrate+Nitrite as N	2.9	mg/L	D	0.5		E353.2	07/18/14 14:51 / lr
Potassium	ND	mg/L		1		E200.7	07/29/14 03:12 / sf
Sodium	243	mg/L	D	3		E200.7	07/29/14 03:12 / sf
Sulfate	9060	mg/L	D	20		E300.0	07/22/14 14:09 / wc
PHYSICAL PROPERTIES							
pH	3.00	s.u.	H	0.01		A4500-H B	07/18/14 14:10 / alp
Solids, Total Dissolved TDS @ 180 C	11300	mg/L		100		A2540 C	07/18/14 12:26 / alp
METALS - TOTAL							
Aluminum	590	mg/L		0.1		E200.7	07/29/14 21:20 / sf
Beryllium	0.171	mg/L	D	0.002		E200.7	07/29/14 21:20 / sf
Cadmium	0.047	mg/L	D	0.006		E200.7	07/29/14 21:20 / sf
Cobalt	1.80	mg/L	D	0.02		E200.7	07/29/14 21:20 / sf
Lead	0.004	mg/L		0.001		E200.8	08/02/14 00:36 / clm
Manganese	49.7	mg/L		0.01		E200.7	07/29/14 21:20 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:20 / sf
Nickel	1.78	mg/L		0.05		E200.7	07/29/14 21:20 / sf
Uranium	0.893	mg/L		0.0003		E200.8	08/02/14 00:36 / clm
Vanadium	1.4	mg/L		0.1		E200.7	07/29/14 21:20 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 15:01 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 14:03 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	23.2	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U Precision (±)	1.6	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 22:06 / lmc
Lead 210	1.0	pCi/L	U			E909.0	08/08/14 15:53 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/08/14 15:53 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 15:53 / eli-cs
Radium 226	7.6	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 precision (±)	0.53	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 228	0.39	pCi/L	U			RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.54	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.87	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	749	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 precision (±)	122	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 MDC	12.1	pCi/L				E908.0	07/29/14 13:22 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-008
Client Sample ID: 613

Report Date: 08/28/14
Collection Date: 07/14/14 16:15
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-3.75	%				A1030 E	07/29/14 12:16 / kbh
Anions	193	meq/L				A1030 E	07/29/14 12:16 / kbh
Cations	179	meq/L				A1030 E	07/29/14 12:16 / kbh
Solids, Total Dissolved Calculated	11000	mg/L				A1030 E	07/29/14 12:16 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	07/29/14 12:16 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 05:16 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 05:16 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 05:16 / jlr
Chloroform	116	ug/L		5.0		E624	07/23/14 20:09 / jlr
Trihalomethanes, Total	116	ug/L		0.50		E624	07/24/14 05:16 / jlr
Surr: 1,2-Dichlorobenzene-d4	109	%REC		73.7-126		E624	07/24/14 05:16 / jlr
Surr: Dibromofluoromethane	138	%REC	S	64.4-131		E624	07/24/14 05:16 / jlr
Surr: p-Bromofluorobenzene	100	%REC		67.1-133		E624	07/24/14 05:16 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	07/24/14 05:16 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 4.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-001
Client Sample ID: 613

Report Date: 11/24/14
Collection Date: 10/13/14 08:30
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 18:45 / jba
Calcium	430	mg/L		1		E200.7	10/24/14 19:53 / sf
Chloride	137	mg/L	D	5		E300.0	10/19/14 13:00 / wc
Magnesium	704	mg/L		1		E200.7	10/24/14 19:53 / sf
Nitrogen, Ammonia as N	176	mg/L	D	2		A4500-NH3 G	10/21/14 11:02 / lr
Nitrogen, Nitrate+Nitrite as N	2.8	mg/L	D	0.2		E353.2	10/17/14 12:25 / lr
Potassium	ND	mg/L		1		E200.7	10/24/14 19:53 / sf
Sodium	242	mg/L		1		E200.7	10/24/14 19:53 / sf
Sulfate	8810	mg/L	D	20		E300.0	10/19/14 13:00 / wc
PHYSICAL PROPERTIES							
pH	2.99	s.u.	H	0.01		A4500-H B	10/16/14 15:18 / ljl
Solids, Total Dissolved TDS @ 180 C	11800	mg/L		100		A2540 C	10/17/14 15:42 / lr
METALS - TOTAL							
Aluminum	560	mg/L		0.1		E200.7	10/27/14 18:00 / sf
Beryllium	0.165	mg/L		0.001		E200.7	10/27/14 18:00 / sf
Cadmium	0.040	mg/L		0.005		E200.7	10/27/14 18:00 / sf
Cobalt	1.79	mg/L		0.01		E200.7	10/27/14 18:00 / sf
Lead	0.026	mg/L		0.001		E200.8	11/19/14 05:23 / cp
Manganese	47.0	mg/L		0.01		E200.7	10/27/14 18:00 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 14:33 / sf
Nickel	1.78	mg/L		0.05		E200.7	10/27/14 18:00 / sf
Uranium	0.902	mg/L		0.0003		E200.8	11/19/14 05:23 / cp
Vanadium	0.9	mg/L		0.1		E200.7	10/27/14 18:00 / sf
METALS - SPECIATED							
Arsenic-III	0.002	mg/L		0.001		E1632AM	11/06/14 18:53 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:38 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	25.5	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	1.5	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	1.5	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	8.5	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 precision (±)	0.58	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 MDC	0.19	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 228	0.75	pCi/L	U			RA-05	10/23/14 12:48 / plj
Radium 228 precision (±)	1.4	pCi/L				RA-05	10/23/14 12:48 / plj
Radium 228 MDC	2.2	pCi/L				RA-05	10/23/14 12:48 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-001
Client Sample ID: 613

Report Date: 11/24/14
Collection Date: 10/13/14 08:30
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	698	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 precision (±)	99.1	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 MDC	11.9	pCi/L				E908.0	11/17/14 09:18 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.22	%				A1030 E	10/28/14 10:45 / kbh
Anions	188	meq/L				A1030 E	10/28/14 10:45 / kbh
Cations	177	meq/L				A1030 E	10/28/14 10:45 / kbh
Solids, Total Dissolved Calculated	10000	mg/L				A1030 E	10/28/14 10:45 / kbh
TDS Balance (0.80 - 1.20)	1.12					A1030 E	10/28/14 10:45 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 03:52 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 03:52 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 03:52 / jld
Chloroform	66.4	ug/L		5.0		E624	10/20/14 19:27 / jlr
Trihalomethanes, Total	66.4	ug/L		0.50		E624	10/18/14 03:52 / jld
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	10/18/14 03:52 / jld
Surr: Dibromofluoromethane	118	%REC		64.4-131		E624	10/18/14 03:52 / jld
Surr: p-Bromofluorobenzene	110	%REC		67.1-133		E624	10/18/14 03:52 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 03:52 / jld

- The sample was received in the laboratory with a pH > 2. The pH was 4.

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.

UNC Mining and Milling ChurchRock Operations

GroundWater Monitoring Summary: Zone 3 Monitor Wells

Well ID:		613	613	613	613
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/7/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/10/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/18/2014
Analyte	RUnits	C14100756-001	C14070667-008	C14040377-001	C14010261-001
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	430	422	428	432
Chloride	mg/L	137	132	168	132
Magnesium	mg/L	704	693	708	712
Nitrogen, Ammonia as N	mg/L	176	180	175	171
Nitrogen, Nitrate+Nitrite as N	mg/L	2.8	2.9	3.0	3.4
Potassium	mg/L	ND(1)	ND(1)	1	1
Sodium	mg/L	242	243	244	243
Sulfate	mg/L	8810	9060	9230	8690
pH	s.u.	2.99	3.00	2.98	2.98
Solids, Total Dissolved TDS @ 180 C	mg/L	11800	11300	11800	11400
Aluminum	mg/L	560	590	615	613
Beryllium	mg/L	0.165	0.171	0.160	0.174
Cadmium	mg/L	0.040	0.047	0.042	0.041
Cobalt	mg/L	1.79	1.80	1.71	1.90
Lead	mg/L	0.026	0.004	0.007	0.007
Manganese	mg/L	47.0	49.7	52.0	50.5
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	1.78	1.78	1.72	1.86
Uranium	mg/L	0.902	0.893	0.919	0.971
Vanadium	mg/L	0.9	1.4	1.4	1.5
Arsenic-III	mg/L	0.002	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	25.5	23.2	14.9	54.1
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.5	1.6	1	2.9
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.7
Lead 210	pCi/L	1.5	1.0	0.9	2.0
Lead 210 precision (±)	pCi/L	0.8	0.8	0.6	0.7
Lead 210 MDC	pCi/L	1.3	1.2	1.0	1
Radium 226	pCi/L	8.5	7.6	9.5	6.4
Radium 226 precision (±)	pCi/L	0.58	0.53	0.57	0.44
Radium 226 MDC	pCi/L	0.19	0.14	0.17	0.14
Radium 228	pCi/L	0.75	0.39	1.0	1.5
Radium 228 precision (±)	pCi/L	1.4	0.54	0.94	0.90
Radium 228 MDC	pCi/L	2.2	0.87	1.5	1.4
Thorium 230	pCi/L	698	749	658	711
Thorium 230 precision (±)	pCi/L	99.1	122	105	71.0
Thorium 230 MDC	pCi/L	11.9	12.1	11.7	4.1
A/C Balance (+ 5)	%	-3.22	-3.75	-4.94	4.97
Anions	meq/L	188	193	197	186
Cations	meq/L	177	179	179	205
Solids, Total Dissolved Calculated	mg/L	10000	11000	11000	10000
TDS Balance (0.80 - 1.20)		1.12	1.08	1.07	1.12
Trihalomethanes, Total	ug/L	66.4	116	84.8	67.6

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-009
Client Sample ID: 708

Report Date: 08/28/14
Collection Date: 07/15/14 09:00
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:31 / jba
Calcium	421	mg/L		1		E200.7	07/29/14 03:16 / sf
Chloride	29	mg/L	D	2		E300.0	07/22/14 15:02 / wc
Magnesium	564	mg/L		1		E200.7	07/29/14 03:16 / sf
Nitrogen, Ammonia as N	1.41	mg/L		0.05		A4500-NH3 G	07/23/14 11:02 / lr
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	07/18/14 14:58 / lr
Potassium	7	mg/L		1		E200.7	07/29/14 03:16 / sf
Sodium	122	mg/L	D	2		E200.7	07/29/14 03:16 / sf
Sulfate	4530	mg/L	D	8		E300.0	07/22/14 15:02 / wc
PHYSICAL PROPERTIES							
pH	3.15	s.u.	H	0.01		A4500-H B	07/18/14 14:13 / alp
Solids, Total Dissolved TDS @ 180 C	6350	mg/L		33		A2540 C	07/18/14 12:26 / alp
METALS - TOTAL							
Aluminum	54.6	mg/L		0.1		E200.7	07/29/14 21:24 / sf
Beryllium	0.057	mg/L		0.001		E200.7	07/29/14 21:24 / sf
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 21:24 / sf
Cobalt	0.54	mg/L		0.01		E200.7	07/29/14 21:24 / sf
Lead	0.004	mg/L		0.001		E200.8	08/02/14 00:40 / clm
Manganese	13.2	mg/L		0.01		E200.7	07/29/14 21:24 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:24 / sf
Nickel	0.66	mg/L		0.05		E200.7	07/29/14 21:24 / sf
Uranium	0.132	mg/L		0.0003		E200.8	08/02/14 00:40 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:24 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 15:13 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 14:05 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	10.3	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U Precision (±)	1.1	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 22:06 / lmc
Lead 210	1.8	pCi/L				E909.0	08/08/14 17:03 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/08/14 17:03 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 17:03 / eli-cs
Radium 226	6.9	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 precision (±)	0.48	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 228	3.1	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.62	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.79	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	0.4	pCi/L	U			E908.0	08/06/14 09:04 / dmf
Thorium 230 precision (±)	0.3	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 MDC	0.4	pCi/L				E908.0	08/06/14 09:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-009
Client Sample ID: 708

Report Date: 08/28/14
Collection Date: 07/15/14 09:00
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.61	%				A1030 E	07/29/14 12:16 / kbh
Anions	95.6	meq/L				A1030 E	07/29/14 12:16 / kbh
Cations	90.8	meq/L				A1030 E	07/29/14 12:16 / kbh
Solids, Total Dissolved Calculated	5700	mg/L				A1030 E	07/29/14 12:16 / kbh
TDS Balance (0.80 - 1.20)	1.12					A1030 E	07/29/14 12:16 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 03:33 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 03:33 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 03:33 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 03:33 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 03:33 / jlr
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	07/24/14 03:33 / jlr
Surr: Dibromofluoromethane	119	%REC		64.4-131		E624	07/24/14 03:33 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/24/14 03:33 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/24/14 03:33 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 3.							

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-003
Client Sample ID: 708

Report Date: 11/24/14
Collection Date: 10/13/14 10:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 18:54 / jba
Calcium	432	mg/L		1		E200.7	10/24/14 20:00 / sf
Chloride	31	mg/L	D	2		E300.0	10/19/14 14:02 / wc
Magnesium	538	mg/L		1		E200.7	10/24/14 20:00 / sf
Nitrogen, Ammonia as N	1.48	mg/L		0.05		A4500-NH3 G	10/21/14 11:06 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 12:30 / lr
Potassium	1	mg/L		1		E200.7	10/24/14 20:00 / sf
Sodium	116	mg/L		1		E200.7	10/24/14 20:00 / sf
Sulfate	4430	mg/L	D	8		E300.0	10/19/14 14:02 / wc
PHYSICAL PROPERTIES							
pH	2.93	s.u.	H	0.01		A4500-H B	10/16/14 15:24 / ljl
Solids, Total Dissolved TDS @ 180 C	6240	mg/L		40		A2540 C	10/17/14 15:43 / lr
METALS - TOTAL							
Aluminum	49.5	mg/L		0.1		E200.7	10/27/14 18:29 / sf
Beryllium	0.058	mg/L		0.001		E200.7	10/27/14 18:29 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 18:29 / sf
Cobalt	0.55	mg/L		0.01		E200.7	10/27/14 18:29 / sf
Lead	0.003	mg/L		0.001		E200.8	11/19/14 05:57 / cp
Manganese	13.2	mg/L		0.01		E200.7	10/27/14 18:29 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 14:40 / sf
Nickel	0.65	mg/L		0.05		E200.7	10/27/14 18:29 / sf
Uranium	0.118	mg/L		0.0003		E200.8	11/19/14 05:57 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:29 / sf
METALS - SPECIATED							
Arsenic-III	0.002	mg/L		0.001		E1632AM	11/06/14 19:41 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:45 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	11.7	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	1.1	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	10/29/14 09:00 / eli-cs
Radium 226	8.3	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 precision (±)	0.52	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 226 MDC	0.16	pCi/L				E903.0	10/28/14 07:46 / rdw
Radium 228	5.5	pCi/L				RA-05	10/23/14 12:48 / plj
Radium 228 precision (±)	1.4	pCi/L				RA-05	10/23/14 12:48 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/23/14 12:48 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-003
Client Sample ID: 708

Report Date: 11/24/14
Collection Date: 10/13/14 10:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.7	pCi/L	U			E908.0	11/06/14 09:37 / dmf
Thorium 230 precision (±)	0.7	pCi/L				E908.0	11/06/14 09:37 / dmf
Thorium 230 MDC	1.1	pCi/L				E908.0	11/06/14 09:37 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.63	%				A1030 E	10/28/14 10:46 / kbh
Anions	93.7	meq/L				A1030 E	10/28/14 10:46 / kbh
Cations	87.1	meq/L				A1030 E	10/28/14 10:46 / kbh
Solids, Total Dissolved Calculated	5600	mg/L				A1030 E	10/28/14 10:46 / kbh
TDS Balance (0.80 - 1.20)	1.11					A1030 E	10/28/14 10:46 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 05:02 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 05:02 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 05:02 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 05:02 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 05:02 / jld
Surr: 1,2-Dichlorobenzene-d4	115	%REC		73.7-126		E624	10/18/14 05:02 / jld
Surr: Dibromofluoromethane	116	%REC		64.4-131		E624	10/18/14 05:02 / jld
Surr: p-Bromofluorobenzene	117	%REC		67.1-133		E624	10/18/14 05:02 / jld
Surr: Toluene-d8	99.0	%REC		79.7-125		E624	10/18/14 05:02 / jld

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		708	708	708	708
Collection Date:		10/13/2014	7/15/2014	4/7/2014	1/13/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-003	C14070667-009	C14040377-003	C14010521-001
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	432	421	446	453
Chloride	mg/L	31	29	32	32
Magnesium	mg/L	538	564	579	558
Nitrogen, Ammonia as N	mg/L	1.48	1.41	1.29	1.47
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	0.1	0.6	ND(0.1)
Potassium	mg/L	1	7	14	14
Sodium	mg/L	116	122	127	124
Sulfate	mg/L	4430	4530	4610	4370
pH	s.u.	2.93	3.15	3.01	2.85
Solids, Total Dissolved TDS @ 180 C	mg/L	6240	6350	6310	6260
Aluminum	mg/L	49.5	54.6	35.3	50.3
Beryllium	mg/L	0.058	0.056	0.048	0.053
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.55	0.54	0.58	0.56
Lead	mg/L	0.003	0.004	0.007	0.002
Manganese	mg/L	13.2	13.2	14.0	13.2
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.65	0.66	0.65	0.69
Uranium	mg/L	0.118	0.132	0.106	0.132
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	0.002	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	11.7	10.3	10.7	14.3
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.1	1.1	0.8	1.2
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	1.3	1.8	1.9	1.2
Lead 210 precision (±)	pCi/L	0.8	0.8	0.7	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1.0	0.9
Radium 226	pCi/L	8.3	6.9	9.1	11
Radium 226 precision (±)	pCi/L	0.52	0.48	0.54	0.46
Radium 226 MDC	pCi/L	0.16	0.13	0.16	0.13
Radium 228	pCi/L	5.5	3.1	5.4	4.4
Radium 228 precision (±)	pCi/L	1.4	0.62	1.1	0.67
Radium 228 MDC	pCi/L	1.8	0.79	1.4	0.78
Thorium 230	pCi/L	0.7	0.4	0.2	0.2
Thorium 230 precision (±)	pCi/L	0.7	0.3	0.2	0.2
Thorium 230 MDC	pCi/L	1.1	0.4	0.3	0.2
A/C Balance (± 5)	%	-3.63	-2.61	-2.80	4.27
Anions	meq/L	93.7	95.6	97.5	92.5
Cations	meq/L	87.1	90.8	92.2	101
Solids, Total Dissolved Calculated	mg/L	5600	5700	5900	5600
TDS Balance (0.80 - 1.20)		1.11	1.12	1.07	1.11
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-001
Client Sample ID: EPA-13

Report Date: 08/28/14
Collection Date: 07/14/14 09:15
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	69	mg/L		5		A2320 B	07/18/14 18:56 / jba
Calcium	473	mg/L		1		E200.7	07/29/14 02:23 / sf
Chloride	43	mg/L	D	2		E300.0	07/22/14 12:07 / wc
Magnesium	914	mg/L		1		E200.7	07/29/14 02:23 / sf
Nitrogen, Ammonia as N	0.14	mg/L		0.05		A4500-NH3 G	07/23/14 10:49 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 14:33 / lr
Potassium	14	mg/L		1		E200.7	07/29/14 02:23 / sf
Sodium	172	mg/L	D	2		E200.7	07/29/14 02:23 / sf
Sulfate	5010	mg/L	D	8		E300.0	07/22/14 12:07 / wc
PHYSICAL PROPERTIES							
pH	6.30	s.u.	H	0.01		A4500-H B	07/18/14 13:49 / alp
Solids, Total Dissolved TDS @ 180 C	6890	mg/L		100		A2540 C	07/18/14 12:23 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/29/14 20:19 / sf
Beryllium	0.002	mg/L		0.001		E200.8	08/01/14 23:35 / clm
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 20:19 / sf
Cobalt	0.10	mg/L		0.01		E200.7	07/29/14 20:19 / sf
Lead	ND	mg/L		0.001		E200.8	08/01/14 23:35 / clm
Manganese	6.90	mg/L		0.01		E200.7	07/29/14 20:19 / sf
Molybdenum	0.2	mg/L		0.1		E200.7	07/29/14 20:19 / sf
Nickel	0.25	mg/L		0.05		E200.7	07/29/14 20:19 / sf
Uranium	0.0167	mg/L		0.0003		E200.8	08/01/14 23:35 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 20:19 / sf
METALS - SPECIATED							
Arsenic-III	0.006	mg/L		0.001		E1632AM	07/31/14 13:13 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 15:48 / kja
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	5.9	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	0.1	pCi/L	U			E909.0	08/08/14 07:46 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 07:46 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 07:46 / eli-cs
Radium 226	4.4	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 precision (±)	0.40	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 228	5.9	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.76	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.85	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	0.4	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	08/06/14 09:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-001
Client Sample ID: EPA-13

Report Date: 08/28/14
Collection Date: 07/14/14 09:15
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.02	%				A1030 E	07/29/14 12:15 / kbh
Anions	107	meq/L				A1030 E	07/29/14 12:15 / kbh
Cations	107	meq/L				A1030 E	07/29/14 12:15 / kbh
Solids, Total Dissolved Calculated	6700	mg/L				A1030 E	07/29/14 12:15 / kbh
TDS Balance (0.80 - 1.20)	1.03					A1030 E	07/29/14 12:15 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/23/14 23:34 / jlr
Bromoform	ND	ug/L		0.50		E624	07/23/14 23:34 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/23/14 23:34 / jlr
Chloroform	ND	ug/L		0.50		E624	07/23/14 23:34 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/23/14 23:34 / jlr
Surr: 1,2-Dichlorobenzene-d4	110	%REC		73.7-126		E624	07/23/14 23:34 / jlr
Surr: Dibromofluoromethane	130	%REC		64.4-131		E624	07/23/14 23:34 / jlr
Surr: p-Bromofluorobenzene	104	%REC		67.1-133		E624	07/23/14 23:34 / jlr
Surr: Toluene-d8	94.0	%REC		79.7-125		E624	07/23/14 23:34 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-005
Client Sample ID: EPA-13

Report Date: 11/24/14
Collection Date: 10/13/14 13:10
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	54	mg/L		5		A2320 B	10/16/14 19:04 / jba
Calcium	458	mg/L		1		E200.7	10/24/14 20:15 / sf
Chloride	45	mg/L	D	2		E300.0	10/19/14 15:04 / wc
Magnesium	920	mg/L		1		E200.7	10/24/14 20:15 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/21/14 11:09 / lr
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	10/17/14 12:35 / lr
Potassium	14	mg/L		1		E200.7	10/24/14 20:15 / sf
Sodium	168	mg/L		1		E200.7	10/24/14 20:15 / sf
Sulfate	5030	mg/L	D	8		E300.0	10/19/14 15:04 / wc
PHYSICAL PROPERTIES							
pH	6.28	s.u.	H	0.01		A4500-H B	10/16/14 15:30 / ljl
Solids, Total Dissolved TDS @ 180 C	7540	mg/L		100		A2540 C	10/17/14 15:43 / lr
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/27/14 18:49 / sf
Beryllium	ND	mg/L		0.001		E200.8	11/19/14 05:29 / cp
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 18:49 / sf
Cobalt	0.09	mg/L		0.01		E200.7	10/27/14 18:49 / sf
Lead	ND	mg/L		0.001		E200.8	11/19/14 05:29 / cp
Manganese	6.63	mg/L		0.01		E200.7	10/27/14 18:49 / sf
Molybdenum	0.2	mg/L		0.1		E200.7	10/28/14 14:56 / sf
Nickel	0.25	mg/L		0.05		E200.7	10/27/14 18:49 / sf
Uranium	0.0091	mg/L		0.0003		E200.8	11/19/14 05:29 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:49 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 20:05 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:51 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	8.0	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	1.2	pCi/L	U			E909.0	11/20/14 07:04 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 07:04 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 07:04 / eli-cs
Radium 226	6.6	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 precision (±)	0.53	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 MDC	0.20	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 228	18	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 precision (±)	2.5	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 MDC	2.8	pCi/L				RA-05	10/23/14 14:22 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-005
Client Sample ID: EPA-13

Report Date: 11/24/14
Collection Date: 10/13/14 13:10
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.1	pCi/L	U			E908.0	11/06/14 09:37 / dmf
Thorium 230 precision (±)	0.3	pCi/L				E908.0	11/06/14 09:37 / dmf
Thorium 230 MDC	0.5	pCi/L				E908.0	11/06/14 09:37 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-0.34	%				A1030 E	10/28/14 10:46 / kbh
Anions	107	meq/L				A1030 E	10/28/14 10:46 / kbh
Cations	106	meq/L				A1030 E	10/28/14 10:46 / kbh
Solids, Total Dissolved Calculated	6700	mg/L				A1030 E	10/28/14 10:46 / kbh
TDS Balance (0.80 - 1.20)	1.13					A1030 E	10/28/14 10:46 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 06:12 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 06:12 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 06:12 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 06:12 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 06:12 / jld
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	10/18/14 06:12 / jld
Surr: Dibromofluoromethane	117	%REC		64.4-131		E624	10/18/14 06:12 / jld
Surr: p-Bromofluorobenzene	118	%REC		67.1-133		E624	10/18/14 06:12 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 06:12 / jld

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		EPA-13	EPA-13	EPA-13	EPA-13
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/13/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-005	C14070667-001	C14040377-005	C14010521-002
Bicarbonate as HCO3	mg/L	54	69	62	56
Calcium	mg/L	458	472	502	508
Chloride	mg/L	45	43	45	45
Magnesium	mg/L	920	914	936	926
Nitrogen, Ammonia as N	mg/L	ND(0.05)	0.14	ND(0.05)	0.19
Nitrogen, Nitrate+Nitrite as N	mg/L	0.1	ND(0.1)	ND(0.1)	ND(0.1)
Potassium	mg/L	14	14	15	14
Sodium	mg/L	168	172	174	170
Sulfate	mg/L	5030	5010	4900	4920
pH	s.u.	6.28	6.30	6.11	6.21
Solids, Total Dissolved TDS @ 180 C	mg/L	7540	6890	6970	7020
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	0.002	0.002	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.09	0.10	0.09	0.07
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	6.63	6.90	6.49	6.67
Molybdenum	mg/L	0.2	0.2	0.2	0.2
Nickel	mg/L	0.25	0.25	0.25	0.22
Uranium	mg/L	0.0091	0.0167	0.0117	0.0098
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	0.006	0.005	0.001
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	8.0	5.9	5.1	7.5
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.9	0.9	0.6	0.9
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	1.2	0.1	0.8	0.8
Lead 210 precision (±)	pCi/L	0.8	0.7	0.6	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1.0	0.9
Radium 226	pCi/L	6.6	4.4	5.7	9.4
Radium 226 precision (±)	pCi/L	0.53	0.40	0.43	0.55
Radium 226 MDC	pCi/L	0.20	0.14	0.15	0.16
Radium 228	pCi/L	18	5.9	9.5	8.1
Radium 228 precision (±)	pCi/L	2.5	0.76	1.3	0.98
Radium 228 MDC	pCi/L	2.8	0.85	1.4	1.0
Thorium 230	pCi/L	0.1	0.4	0.3	0.2
Thorium 230 precision (±)	pCi/L	0.3	0.2	0.1	0.2
Thorium 230 MDC	pCi/L	0.5	0.2	0.2	0.2
A/C Balance (± 5)	%	-0.34	0.02	2.68	2.09
Anions	meq/L	107	107	104	105
Cations	meq/L	106	107	110	109
Solids, Total Dissolved Calculated	mg/L	6700	6700	6600	6600
TDS Balance (0.80 - 1.20)		1.13	1.03	1.05	1.06
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-004
Client Sample ID: 717

Report Date: 08/28/14
Collection Date: 07/14/14 12:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:13 / jba
Calcium	454	mg/L		1		E200.7	07/29/14 02:35 / sf
Chloride	64	mg/L	D	2		E300.0	07/22/14 13:00 / wc
Magnesium	502	mg/L		1		E200.7	07/29/14 02:35 / sf
Nitrogen, Ammonia as N	54	mg/L	D	1		A4500-NH3 G	07/23/14 10:54 / lr
Nitrogen, Nitrate+Nitrite as N	30	mg/L	D	2		E353.2	07/18/14 14:41 / lr
Potassium	10	mg/L		1		E200.7	07/29/14 02:35 / sf
Sodium	174	mg/L	D	2		E200.7	07/29/14 02:35 / sf
Sulfate	4560	mg/L	D	8		E300.0	07/22/14 13:00 / wc
PHYSICAL PROPERTIES							
pH	3.83	s.u.	H	0.01		A4500-H B	07/18/14 13:58 / alp
Solids, Total Dissolved TDS @ 180 C	6210	mg/L		30		A2540 C	07/18/14 12:25 / alp
METALS - TOTAL							
Aluminum	160	mg/L		0.1		E200.7	07/29/14 21:00 / sf
Beryllium	0.136	mg/L		0.001		E200.7	07/29/14 21:00 / sf
Cadmium	0.018	mg/L		0.005		E200.7	07/29/14 21:00 / sf
Cobalt	0.98	mg/L		0.01		E200.7	07/29/14 21:00 / sf
Lead	0.016	mg/L		0.001		E200.8	08/02/14 00:01 / clm
Manganese	19.9	mg/L		0.01		E200.7	07/29/14 21:00 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 21:00 / sf
Nickel	0.94	mg/L		0.05		E200.7	07/29/14 21:00 / sf
Uranium	0.0734	mg/L		0.0003		E200.8	08/20/14 16:32 / cp
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:00 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 13:49 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 15:56 / kja
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	19.7	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	1.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	2.3	pCi/L				E909.0	08/08/14 11:14 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	08/08/14 11:14 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 11:14 / eli-cs
Radium 226	12	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 precision (±)	0.65	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 228	19	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	07/30/14 13:46 / plj
Radium 228 MDC	0.85	pCi/L				RA-05	07/30/14 13:46 / plj
Thorium 230	0.9	pCi/L	U			E908.0	08/13/14 09:11 / dmf
Thorium 230 precision (±)	0.7	pCi/L				E908.0	08/13/14 09:11 / dmf
Thorium 230 MDC	1	pCi/L				E908.0	08/13/14 09:11 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-004
Client Sample ID: 717

Report Date: 08/28/14
Collection Date: 07/14/14 12:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.16	%				A1030 E	07/29/14 12:15 / kbh
Anions	99.1	meq/L				A1030 E	07/29/14 12:15 / kbh
Cations	94.9	meq/L				A1030 E	07/29/14 12:15 / kbh
Solids, Total Dissolved Calculated	5900	mg/L				A1030 E	07/29/14 12:15 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	07/29/14 12:15 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/25/14 22:54 / jlr
Bromoform	ND	ug/L		0.50		E624	07/25/14 22:54 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/25/14 22:54 / jlr
Chloroform	2.34	ug/L		0.50		E624	07/25/14 22:54 / jlr
Trihalomethanes, Total	2.34	ug/L		0.50		E624	07/25/14 22:54 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/25/14 22:54 / jlr
Surr: Dibromofluoromethane	115	%REC		64.4-131		E624	07/25/14 22:54 / jlr
Surr: p-Bromofluorobenzene	98.0	%REC		67.1-133		E624	07/25/14 22:54 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	07/25/14 22:54 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 4.							

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-005
Client Sample ID: 717

Report Date: 11/24/14
Collection Date: 10/14/14 11:25
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/17/14 18:37 / wc
Calcium	458	mg/L		1		E200.7	10/20/14 16:23 / sf
Chloride	68	mg/L	D	2		E300.0	10/19/14 20:13 / wc
Magnesium	492	mg/L		1		E200.7	10/20/14 16:23 / sf
Nitrogen, Ammonia as N	52	mg/L	D	2		A4500-NH3 G	10/21/14 13:07 / lr
Nitrogen, Nitrate+Nitrite as N	26	mg/L	D	2		E353.2	10/17/14 14:35 / lr
Potassium	8	mg/L		1		E200.7	10/20/14 16:23 / sf
Sodium	165	mg/L		1		E200.7	10/20/14 16:23 / sf
Sulfate	4630	mg/L	D	8		E300.0	10/19/14 20:13 / wc
PHYSICAL PROPERTIES							
pH	3.70	s.u.	H	0.01		A4500-H B	10/17/14 16:59 / ljl
Solids, Total Dissolved TDS @ 180 C	6470	mg/L		40		A2540 C	10/20/14 12:35 / alp
METALS - TOTAL							
Aluminum	171	mg/L		0.1		E200.7	10/27/14 20:02 / sf
Beryllium	0.134	mg/L		0.001		E200.7	10/27/14 20:02 / sf
Cadmium	0.020	mg/L		0.005		E200.7	10/27/14 20:02 / sf
Cobalt	0.96	mg/L		0.01		E200.7	10/27/14 20:02 / sf
Lead	0.019	mg/L		0.001		E200.8	11/07/14 21:58 / cp
Manganese	19.3	mg/L		0.01		E200.7	10/27/14 20:02 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 15:45 / sf
Nickel	0.94	mg/L		0.05		E200.7	10/27/14 20:02 / sf
Uranium	0.120	mg/L		0.0003		E200.8	11/07/14 21:58 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 20:02 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/07/14 15:57 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 15:10 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	26.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U Precision (±)	1.5	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Lead 210	3.7	pCi/L				E909.0	11/22/14 05:00 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	11/22/14 05:00 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/22/14 05:00 / eli-cs
Radium 226	15	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 precision (±)	0.61	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 MDC	0.09	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 228	43	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 precision (±)	2.6	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	10/28/14 12:28 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-005
Client Sample ID: 717

Report Date: 11/24/14
Collection Date: 10/14/14 11:25
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	5.6	pCi/L				E908.0	11/17/14 09:19 / dmf
Thorium 230 precision (±)	1.5	pCi/L				E908.0	11/17/14 09:19 / dmf
Thorium 230 MDC	0.9	pCi/L				E908.0	11/17/14 09:19 / dmf
DATA QUALITY							
A/C Balance (± 5)	-4.80	%				A1030 E	10/21/14 13:55 / kbh
Anions	101	meq/L				A1030 E	10/21/14 13:55 / kbh
Cations	91.6	meq/L				A1030 E	10/21/14 13:55 / kbh
Solids, Total Dissolved Calculated	6000	mg/L				A1030 E	10/21/14 13:55 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	10/21/14 13:55 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/21/14 02:28 / jlr
Bromoform	ND	ug/L		0.50		E624	10/21/14 02:28 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/21/14 02:28 / jlr
Chloroform	5.00	ug/L		0.50		E624	10/21/14 02:28 / jlr
Trihalomethanes, Total	5.00	ug/L		0.50		E624	10/21/14 02:28 / jlr
Surr: 1,2-Dichlorobenzene-d4	99.0	%REC		73.7-126		E624	10/21/14 02:28 / jlr
Surr: Dibromofluoromethane	120	%REC		64.4-131		E624	10/21/14 02:28 / jlr
Surr: p-Bromofluorobenzene	82.0	%REC		67.1-133		E624	10/21/14 02:28 / jlr
Surr: Toluene-d8	103	%REC		79.7-125		E624	10/21/14 02:28 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 4.

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.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		717	717	717	717
Collection Date:		10/14/2014	7/14/2014	4/7/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100818-005	C14070667-004	C14040377-008	C14010521-005
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	458	454	466	473
Chloride	mg/L	68	64	69	64
Magnesium	mg/L	492	502	500	486
Nitrogen, Ammonia as N	mg/L	52	54	47	50
Nitrogen, Nitrate+Nitrite as N	mg/L	26	30	27	30
Potassium	mg/L	8	10	11	12
Sodium	mg/L	165	174	178	171
Sulfate	mg/L	4630	4560	4680	4480
pH	s.u.	3.70	3.83	3.92	3.95
Solids, Total Dissolved TDS @ 180 C	mg/L	6470	6210	6250	6230
Aluminum	mg/L	171	160	157	151
Beryllium	mg/L	0.134	0.136	0.120	0.129
Cadmium	mg/L	0.020	0.018	0.018	0.013
Cobalt	mg/L	0.96	0.98	0.94	0.91
Lead	mg/L	0.019	0.016	0.015	0.013
Manganese	mg/L	19.3	19.9	19.3	19.8
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.94	0.94	0.89	0.90
Uranium	mg/L	0.120	0.0734	0.0484	0.0398
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	26.4	19.7	13.4	28.2
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.5	1.5	0.9	1.7
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	3.7	2.3	2.6	2.4
Lead 210 precision (±)	pCi/L	0.9	0.8	0.8	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1.1	0.9
Radium 226	pCi/L	15	12	19	15
Radium 226 precision (±)	pCi/L	0.61	0.65	0.80	0.66
Radium 226 MDC	pCi/L	0.09	0.14	0.16	0.19
Radium 228	pCi/L	43	19	34	27
Radium 228 precision (±)	pCi/L	2.6	1.2	2.3	1.5
Radium 228 MDC	pCi/L	1.9	0.85	1.8	0.96
Thorium 230	pCi/L	5.6	0.9	0.4	0.4
Thorium 230 precision (±)	pCi/L	1.5	0.7	0.4	0.2
Thorium 230 MDC	pCi/L	0.9	1	0.7	0.2
A/C Balance (± 5)	%	-4.80	-2.16	-3.75	1.44
Anions	meq/L	101	99.1	102	97.4
Cations	meq/L	91.6	94.9	94.5	100
Solids, Total Dissolved Calculated	mg/L	6000	5900	6100	5900
TDS Balance (0.80 - 1.20)		1.07	1.05	1.02	1.06
Trihalomethanes, Total	ug/L	5.00	2.34	3.65	4.24

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-002
Client Sample ID: 719

Report Date: 08/28/14
Collection Date: 07/14/14 10:07
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 19:02 / jba
Calcium	477	mg/L		1		E200.7	07/29/14 02:27 / sf
Chloride	29	mg/L	D	2		E300.0	07/22/14 12:25 / wc
Magnesium	690	mg/L		1		E200.7	07/29/14 02:27 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	07/23/14 10:50 / lr
Nitrogen, Nitrate+Nitrite as N	0.4	mg/L		0.1		E353.2	07/18/14 14:36 / lr
Potassium	14	mg/L		1		E200.7	07/29/14 02:27 / sf
Sodium	149	mg/L	D	2		E200.7	07/29/14 02:27 / sf
Sulfate	4120	mg/L	D	8		E300.0	07/22/14 12:25 / wc
PHYSICAL PROPERTIES							
pH	5.06	s.u.	H	0.01		A4500-H B	07/18/14 13:52 / alp
Solids, Total Dissolved TDS @ 180 C	5830	mg/L		45		A2540 C	07/18/14 12:24 / alp
METALS - TOTAL							
Aluminum	2.0	mg/L		0.1		E200.7	07/29/14 20:23 / sf
Beryllium	0.002	mg/L		0.001		E200.8	08/01/14 23:40 / clm
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 20:23 / sf
Cobalt	0.30	mg/L		0.01		E200.7	07/29/14 20:23 / sf
Lead	ND	mg/L		0.001		E200.8	08/01/14 23:40 / clm
Manganese	5.78	mg/L		0.01		E200.7	07/29/14 20:23 / sf
Molybdenum	ND	mg/L		0.1		E200.7	07/29/14 20:23 / sf
Nickel	0.40	mg/L		0.05		E200.7	07/29/14 20:23 / sf
Uranium	0.0255	mg/L		0.0003		E200.8	08/01/14 23:40 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 20:23 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	07/31/14 13:25 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 15:53 / kja
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	6.7	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	07/31/14 16:40 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 16:40 / lmc
Lead 210	0.4	pCi/L	U			E909.0	08/08/14 08:55 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	08/08/14 08:55 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	08/08/14 08:55 / eli-cs
Radium 226	5.2	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 precision (±)	0.45	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	08/04/14 22:02 / trs
Radium 228	8.7	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 precision (±)	0.91	pCi/L				RA-05	07/30/14 13:45 / plj
Radium 228 MDC	0.91	pCi/L				RA-05	07/30/14 13:45 / plj
Thorium 230	0.3	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	07/29/14 13:22 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	07/29/14 13:22 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-002
Client Sample ID: 719

Report Date: 08/28/14
Collection Date: 07/14/14 10:07
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	0.31	%				A1030 E	07/29/14 12:15 / kbh
Anions	86.8	meq/L				A1030 E	07/29/14 12:15 / kbh
Cations	87.4	meq/L				A1030 E	07/29/14 12:15 / kbh
Solids, Total Dissolved Calculated	5500	mg/L				A1030 E	07/29/14 12:15 / kbh
TDS Balance (0.80 - 1.20)	1.06					A1030 E	07/29/14 12:15 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 00:08 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 00:08 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 00:08 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 00:08 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 00:08 / jlr
Surr: 1,2-Dichlorobenzene-d4	111	%REC		73.7-126		E624	07/24/14 00:08 / jlr
Surr: Dibromofluoromethane	130	%REC		64.4-131		E624	07/24/14 00:08 / jlr
Surr: p-Bromofluorobenzene	105	%REC		67.1-133		E624	07/24/14 00:08 / jlr
Surr: Toluene-d8	98.0	%REC		79.7-125		E624	07/24/14 00:08 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 5.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-006
Client Sample ID: 719

Report Date: 11/24/14
Collection Date: 10/13/14 13:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/16/14 19:09 / jba
Calcium	479	mg/L		1		E200.7	10/24/14 20:19 / sf
Chloride	31	mg/L	D	2		E300.0	10/19/14 15:19 / wc
Magnesium	687	mg/L		1		E200.7	10/24/14 20:19 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/21/14 11:10 / lr
Nitrogen, Nitrate+Nitrite as N	0.4	mg/L		0.1		E353.2	10/17/14 12:38 / lr
Potassium	13	mg/L		1		E200.7	10/24/14 20:19 / sf
Sodium	144	mg/L		1		E200.7	10/24/14 20:19 / sf
Sulfate	4170	mg/L	D	8		E300.0	10/19/14 15:19 / wc
PHYSICAL PROPERTIES							
pH	5.08	s.u.	H	0.01		A4500-H B	10/16/14 15:33 / ljl
Solids, Total Dissolved TDS @ 180 C	6060	mg/L		40		A2540 C	10/17/14 15:44 / lr
METALS - TOTAL							
Aluminum	3.2	mg/L		0.1		E200.7	10/27/14 18:53 / sf
Beryllium	0.002	mg/L		0.001		E200.8	11/19/14 05:33 / cp
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 18:53 / sf
Cobalt	0.29	mg/L		0.01		E200.7	10/27/14 18:53 / sf
Lead	ND	mg/L		0.001		E200.8	11/19/14 05:33 / cp
Manganese	5.60	mg/L		0.01		E200.7	10/27/14 18:53 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 15:00 / sf
Nickel	0.37	mg/L		0.05		E200.7	10/27/14 18:53 / sf
Uranium	0.0327	mg/L		0.0003		E200.8	11/19/14 05:33 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 18:53 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 20:17 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 14:52 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	7.9	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	10/28/14 10:54 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 10:54 / dmf
Lead 210	0.3	pCi/L	U			E909.0	11/20/14 08:14 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 08:14 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 08:14 / eli-cs
Radium 226	7.1	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 precision (±)	0.49	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 226 MDC	0.16	pCi/L				E903.0	10/28/14 09:23 / rdw
Radium 228	21	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 precision (±)	2.3	pCi/L				RA-05	10/23/14 14:22 / plj
Radium 228 MDC	2.2	pCi/L				RA-05	10/23/14 14:22 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100756-006
Client Sample ID: 719

Report Date: 11/24/14
Collection Date: 10/13/14 13:55
DateReceived: 10/16/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.4	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	11/17/14 09:18 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	11/17/14 09:18 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.39	%				A1030 E	10/28/14 10:46 / kbh
Anions	87.7	meq/L				A1030 E	10/28/14 10:46 / kbh
Cations	87.0	meq/L				A1030 E	10/28/14 10:46 / kbh
Solids, Total Dissolved Calculated	5500	mg/L				A1030 E	10/28/14 10:46 / kbh
TDS Balance (0.80 - 1.20)	1.09					A1030 E	10/28/14 10:46 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/18/14 06:48 / jld
Bromoform	ND	ug/L		0.50		E624	10/18/14 06:48 / jld
Chlorodibromomethane	ND	ug/L		0.50		E624	10/18/14 06:48 / jld
Chloroform	ND	ug/L		0.50		E624	10/18/14 06:48 / jld
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/18/14 06:48 / jld
Surr: 1,2-Dichlorobenzene-d4	114	%REC		73.7-126		E624	10/18/14 06:48 / jld
Surr: Dibromofluoromethane	119	%REC		64.4-131		E624	10/18/14 06:48 / jld
Surr: p-Bromofluorobenzene	115	%REC		67.1-133		E624	10/18/14 06:48 / jld
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/18/14 06:48 / jld

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.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		719	719	719	719
Collection Date:		10/13/2014	7/14/2014	4/7/2014	1/13/2014
Receive Date:		10/16/2014	7/18/2014	4/10/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100756-006	C14070667-002	C14040377-006	C14010521-003
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Calcium	mg/L	479	476	494	497
Chloride	mg/L	31	29	32	29
Magnesium	mg/L	687	690	681	670
Nitrogen, Ammonia as N	mg/L	ND(0.05)	ND(0.05)	ND(0.05)	ND(0.05)
Nitrogen, Nitrate+Nitrite as N	mg/L	0.4	0.4	0.4	0.6
Potassium	mg/L	13	14	13	13
Sodium	mg/L	144	149	149	143
Sulfate	mg/L	4170	4120	4060	4170
pH	s.u.	5.08	5.06	5.38	5.46
Solids, Total Dissolved TDS @ 180 C	mg/L	6060	5830	5750	5870
Aluminum	mg/L	3.2	2.0	1.3	0.8
Beryllium	mg/L	0.002	0.002	0.001	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.29	0.30	0.30	0.28
Lead	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	5.60	5.78	5.37	5.62
Molybdenum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nickel	mg/L	0.37	0.40	0.39	0.40
Uranium	mg/L	0.0327	0.0255	0.0171	0.0093
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	7.9	6.7	5.6	7.4
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.9	0.9	0.6	0.9
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.3	0.5
Lead 210	pCi/L	0.3	0.4	0.5	0.4
Lead 210 precision (±)	pCi/L	0.8	0.7	0.7	0.6
Lead 210 MDC	pCi/L	1.3	1.2	1.1	0.9
Radium 226	pCi/L	7.1	5.2	7.1	4.6
Radium 226 precision (±)	pCi/L	0.49	0.45	0.47	0.37
Radium 226 MDC	pCi/L	0.16	0.15	0.15	0.15
Radium 228	pCi/L	21	8.7	16	12
Radium 228 precision (±)	pCi/L	2.3	0.91	1.4	1.1
Radium 228 MDC	pCi/L	2.2	0.91	1.3	0.98
Thorium 230	pCi/L	0.4	0.3	0.08	0.1
Thorium 230 precision (±)	pCi/L	0.2	0.2	0.1	0.1
Thorium 230 MDC	pCi/L	0.2	0.2	0.2	0.2
A/C Balance (± 5)	%	-0.39	0.31	1.15	-0.741
Anions	meq/L	87.7	86.8	85.5	87.7
Cations	meq/L	87.0	87.4	87.5	86.4
Solids, Total Dissolved Calculated	mg/L	5500	5500	5400	5500
TDS Balance (0.80 - 1.20)		1.09	1.06	1.06	1.06
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

SEMI-ANNUAL GROUND WATER MONITORING REPORT

SUPPLEMENTAL QUARTERLY/ MONTHLY SAMPLING

JULY TO DECEMBER OF 2014

ZONE-3

PB-3

PB-4

NBL-2

RW-A

NW-1

NW-2

NW-3

NW-4

NW-5

MW-6

MW-7

RW-11 (OCTOBER ONLY)

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-002
Client Sample ID: PB-3

Report Date: 08/28/14
Collection Date: 07/15/14 12:15
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 17:15 / jba
Chloride	28	mg/L	D	2		E300.0	07/19/14 08:02 / wc
PHYSICAL PROPERTIES							
pH	4.00	s.u.	H	0.01		A4500-H B	07/18/14 12:21 / alp
Solids, Total Dissolved TDS @ 180 C	4730	mg/L		39		A2540 C	07/18/14 12:19 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-002
Client Sample ID: PB-3

Report Date: 11/19/14
Collection Date: 10/14/14 15:00
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/17/14 18:59 / wc
Chloride	27	mg/L	D	2		E300.0	10/20/14 02:39 / wc
PHYSICAL PROPERTIES							
pH	3.92	s.u.	H	0.01		A4500-H B	10/17/14 18:18 / ljl
Solids, Total Dissolved TDS @ 180 C	4560	mg/L		30		A2540 C	10/20/14 12:38 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		PB-3	PB-3	PB-3	PB-3
Collection Date:		10/14/2014	7/15/2014	4/8/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100822-002	C14070666-002	C14040424-003	C14010518-002
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Chloride	mg/L	27	28	27	26
pH	s.u.	3.92	4.00	2.62	2.78
Solids, Total Dissolved TDS @ 180 C	mg/L	4560	4730	5200	4890

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-003
Client Sample ID: PB-4

Report Date: 08/28/14
Collection Date: 07/15/14 13:05
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	07/18/14 17:18 / jba
Chloride	32	mg/L	D	2		E300.0	07/19/14 08:20 / wc
PHYSICAL PROPERTIES							
pH	2.83	s.u.	H	0.01		A4500-H B	07/18/14 12:24 / alp
Solids, Total Dissolved TDS @ 180 C	5660	mg/L		32		A2540 C	07/18/14 12:19 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-001
Client Sample ID: PB-4

Report Date: 11/19/14
Collection Date: 10/14/14 14:00
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	ND	mg/L		5		A2320 B	10/17/14 18:56 / wc
Chloride	32	mg/L	D	2		E300.0	10/20/14 02:23 / wc
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	5440	mg/L		30		A2540 C	10/20/14 12:38 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		PB-4	PB-4	PB-4	PB-4
Collection Date:		10/14/2014	7/15/2014	4/8/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100822-001	C14070666-003	C14040424-002	C14010518-003
Bicarbonate as HCO3	mg/L	ND(5)	ND(5)	ND(5)	ND(5)
Chloride	mg/L	32	32	31	29
pH	s.u.	2.88	2.83	2.85	2.75
Solids, Total Dissolved TDS @ 180 C	mg/L	5440	5660	5580	6150

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-001
Client Sample ID: NBL-2

Report Date: 08/28/14
Collection Date: 07/15/14 11:05
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	381	mg/L		5		A2320 B	07/18/14 17:12 / jba
Chloride	48	mg/L		1		E300.0	07/19/14 07:45 / wc
PHYSICAL PROPERTIES							
pH	6.66	s.u.	H	0.01		A4500-H B	07/18/14 12:18 / alp
Solids, Total Dissolved TDS @ 180 C	3470	mg/L		36		A2540 C	07/18/14 12:19 / alp

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.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-001
Client Sample ID: NBL-2

Report Date: 11/24/14
Collection Date: 10/14/14 08:55
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	368	mg/L		5		A2320 B	10/17/14 18:13 / wc
Calcium	592	mg/L		1		E200.7	10/20/14 16:01 / sf
Chloride	44	mg/L	D	2		E300.0	10/19/14 19:11 / wc
Magnesium	169	mg/L		1		E200.7	10/20/14 16:01 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/21/14 11:50 / lr
Nitrogen, Nitrate+Nitrite as N	0.3	mg/L		0.1		E353.2	10/17/14 14:20 / lr
Potassium	7	mg/L		1		E200.7	10/20/14 16:01 / sf
Sodium	136	mg/L		1		E200.7	10/20/14 16:01 / sf
Sulfate	2210	mg/L	D	8		E300.0	10/19/14 19:11 / wc
PHYSICAL PROPERTIES							
pH	6.53	s.u.	H	0.01		A4500-H B	10/17/14 16:47 / ljl
Solids, Total Dissolved TDS @ 180 C	3520	mg/L		50		A2540 C	10/20/14 12:34 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/27/14 19:09 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/27/14 19:09 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 19:09 / sf
Cobalt	0.03	mg/L		0.01		E200.7	10/27/14 19:09 / sf
Lead	0.003	mg/L		0.001		E200.8	11/05/14 16:50 / cp
Manganese	2.11	mg/L		0.01		E200.7	10/27/14 19:09 / sf
Molybdenum	ND	mg/L		0.1		E200.7	10/28/14 15:22 / sf
Nickel	ND	mg/L		0.05		E200.7	10/27/14 19:09 / sf
Uranium	0.111	mg/L		0.0003		E200.8	11/05/14 16:50 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 19:09 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/06/14 20:53 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 15:04 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	5.1	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U Precision (±)	0.7	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Lead 210	-0.05	pCi/L	U			E909.0	11/20/14 22:07 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 22:07 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 22:07 / eli-cs
Radium 226	4.9	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 precision (±)	0.35	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 MDC	0.09	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 228	15	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 precision (±)	1.7	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/28/14 12:28 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-001
Client Sample ID: NBL-2

Report Date: 11/24/14
Collection Date: 10/14/14 08:55
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.07	pCi/L	U			E908.0	11/11/14 17:48 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	11/11/14 17:48 / dmf
Thorium 230 MDC	0.3	pCi/L				E908.0	11/11/14 17:48 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-3.71	%				A1030 E	10/21/14 11:11 / kbh
Anions	53.3	meq/L				A1030 E	10/21/14 11:11 / kbh
Cations	49.5	meq/L				A1030 E	10/21/14 11:11 / kbh
Solids, Total Dissolved Calculated	3400	mg/L				A1030 E	10/21/14 11:11 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/22/14 16:28 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/20/14 20:02 / jlr
Bromoform	ND	ug/L		0.50		E624	10/20/14 20:02 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/20/14 20:02 / jlr
Chloroform	ND	ug/L		0.50		E624	10/20/14 20:02 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/20/14 20:02 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		73.7-126		E624	10/20/14 20:02 / jlr
Surr: Dibromofluoromethane	89.0	%REC		64.4-131		E624	10/20/14 20:02 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		67.1-133		E624	10/20/14 20:02 / jlr
Surr: Toluene-d8	100	%REC		79.7-125		E624	10/20/14 20:02 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 6.							

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NBL-2	NBL-2	NBL-2	NBL-2
Collection Date:		10/14/2014	7/15/2014	4/8/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100818-001	C14070666-001	C14040424-001	C14010518-001
Bicarbonate as HCO3	mg/L	368	381	396	398
Calcium	mg/L	592			
Chloride	mg/L	44	48	50	51
Magnesium	mg/L	169			
Nitrogen, Ammonia as N	mg/L	ND(0.05)			
Nitrogen, Nitrate+Nitrite as N	mg/L	0.3			
Potassium	mg/L	7			
Sodium	mg/L	136			
Sulfate	mg/L	2210			
pH	s.u.	6.53	6.66	6.62	6.51
Solids, Total Dissolved TDS @ 180 C	mg/L	3520	3470	3560	3540
Aluminum	mg/L	ND(0.1)			
Beryllium	mg/L	ND(0.001)			
Cadmium	mg/L	ND(0.005)			
Cobalt	mg/L	0.03			
Lead	mg/L	0.003			
Manganese	mg/L	2.11			
Molybdenum	mg/L	ND(0.1)			
Nickel	mg/L	ND(0.05)			
Uranium	mg/L	0.111			
Vanadium	mg/L	ND(0.1)			
Arsenic-III	mg/L	ND(0.001)			
Selenium-IV	mg/L	ND(0.001)			
Gross Alpha minus Rn & U	pCi/L	5.1			
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.7			
Gross Alpha minus Rn & U MDC	pCi/L	0.4			
Lead 210	pCi/L	-0.05			
Lead 210 precision (±)	pCi/L	0.8			
Lead 210 MDC	pCi/L	1.3			
Radium 226	pCi/L	4.9			
Radium 226 precision (±)	pCi/L	0.35			
Radium 226 MDC	pCi/L	0.09			
Radium 228	pCi/L	15			
Radium 228 precision (±)	pCi/L	1.7			
Radium 228 MDC	pCi/L	1.8			
Thorium 230	pCi/L	0.07			
Thorium 230 precision (±)	pCi/L	0.2			
Thorium 230 MDC	pCi/L	0.3			
A/C Balance (± 5)	%	-3.71			
Anions	meq/L	53.3			
Cations	meq/L	49.5			
Solids, Total Dissolved Calculated	mg/L	3400			
TDS Balance (0.80 - 1.20)		1.05			
Trihalomethanes, Total	ug/L	ND(0.50)			

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-010
Client Sample ID: RW-A

Report Date: 08/28/14
Collection Date: 07/15/14 14:05
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	165	mg/L		5		A2320 B	07/18/14 18:49 / jba
Chloride	32	mg/L	D	2		E300.0	07/22/14 11:50 / wc
PHYSICAL PROPERTIES							
pH	6.28	s.u.	H	0.01		A4500-H B	07/18/14 12:45 / alp
Solids, Total Dissolved TDS @ 180 C	4560	mg/L		44		A2540 C	07/18/14 12:21 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-003
Client Sample ID: RW-A

Report Date: 11/24/14
Collection Date: 10/14/14 10:30
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	165	mg/L		5		A2320 B	10/17/14 18:27 / wc
Calcium	550	mg/L		1		E200.7	10/20/14 16:08 / sf
Chloride	36	mg/L	D	2		E300.0	10/19/14 19:42 / wc
Magnesium	272	mg/L		1		E200.7	10/20/14 16:08 / sf
Nitrogen, Ammonia as N	2.79	mg/L		0.05		A4500-NH3 G	10/21/14 11:54 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 14:25 / lr
Potassium	9	mg/L		1		E200.7	10/20/14 16:08 / sf
Sodium	126	mg/L		1		E200.7	10/20/14 16:08 / sf
Sulfate	2660	mg/L	D	8		E300.0	10/19/14 19:42 / wc
PHYSICAL PROPERTIES							
pH	6.24	s.u.	H	0.01		A4500-H B	10/17/14 16:53 / ljl
Solids, Total Dissolved TDS @ 180 C	4010	mg/L		40		A2540 C	10/20/14 12:34 / alp
METALS - TOTAL							
Aluminum	7.8	mg/L		0.1		E200.7	10/27/14 19:38 / sf
Beryllium	0.007	mg/L		0.001		E200.7	10/27/14 19:38 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 19:38 / sf
Cobalt	0.27	mg/L		0.01		E200.7	10/27/14 19:38 / sf
Lead	0.011	mg/L		0.001		E200.8	11/05/14 16:59 / cp
Manganese	4.82	mg/L		0.01		E200.7	10/27/14 19:38 / sf
Molybdenum	0.3	mg/L		0.1		E200.7	10/28/14 15:29 / sf
Nickel	0.32	mg/L		0.05		E200.7	10/27/14 19:38 / sf
Uranium	0.138	mg/L		0.0003		E200.8	11/05/14 16:59 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 19:38 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/07/14 15:33 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 15:07 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	20.8	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U Precision (±)	1.3	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Lead 210	2.3	pCi/L				E909.0	11/22/14 00:23 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	11/22/14 00:23 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/22/14 00:23 / eli-cs
Radium 226	15	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 precision (±)	0.62	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 MDC	0.09	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 228	32	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 precision (±)	2.3	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/28/14 12:28 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-003
Client Sample ID: RW-A

Report Date: 11/24/14
Collection Date: 10/14/14 10:30
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	5.2	pCi/L				E908.0	11/17/14 09:19 / dmf
Thorium 230 precision (±)	0.9	pCi/L				E908.0	11/17/14 09:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	11/17/14 09:19 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.14	%				A1030 E	10/21/14 11:11 / kbh
Anions	59.1	meq/L				A1030 E	10/21/14 11:11 / kbh
Cations	55.5	meq/L				A1030 E	10/21/14 11:11 / kbh
Solids, Total Dissolved Calculated	3800	mg/L				A1030 E	10/21/14 11:11 / kbh
TDS Balance (0.80 - 1.20)	1.07					A1030 E	10/22/14 16:28 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/21/14 01:18 / jlr
Bromoform	ND	ug/L		0.50		E624	10/21/14 01:18 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/21/14 01:18 / jlr
Chloroform	ND	ug/L		0.50		E624	10/21/14 01:18 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/21/14 01:18 / jlr
Surr: 1,2-Dichlorobenzene-d4	101	%REC		73.7-126		E624	10/21/14 01:18 / jlr
Surr: Dibromofluoromethane	121	%REC		64.4-131		E624	10/21/14 01:18 / jlr
Surr: p-Bromofluorobenzene	82.0	%REC		67.1-133		E624	10/21/14 01:18 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	10/21/14 01:18 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		RW-A	RW-A	RW-A	RW-A
Collection Date:		10/14/2014	7/15/2014	4/9/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100818-003	C14070666-010	C14040424-008	C14010518-006
Bicarbonate as HCO3	mg/L	165	165	171	205
Calcium	mg/L	550			
Chloride	mg/L	36	32	34	33
Magnesium	mg/L	272			
Nitrogen, Ammonia as N	mg/L	2.79			
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)			
Potassium	mg/L	9			
Sodium	mg/L	126			
Sulfate	mg/L	2660			
pH	s.u.	6.24	6.28	6.30	6.28
Solids, Total Dissolved TDS @ 180 C	mg/L	4010	4560	4620	4370
Aluminum	mg/L	7.8			
Beryllium	mg/L	0.007			
Cadmium	mg/L	ND(0.005)			
Cobalt	mg/L	0.27			
Lead	mg/L	0.011			
Manganese	mg/L	4.82			
Molybdenum	mg/L	0.3			
Nickel	mg/L	0.32			
Uranium	mg/L	0.138			
Vanadium	mg/L	ND(0.1)			
Arsenic-III	mg/L	ND(0.001)			
Selenium-IV	mg/L	ND(0.001)			
Gross Alpha minus Rn & U	pCi/L	20.8			
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.3			
Gross Alpha minus Rn & U MDC	pCi/L	0.4			
Lead 210	pCi/L	2.3			
Lead 210 precision (±)	pCi/L	0.9			
Lead 210 MDC	pCi/L	1.3			
Radium 226	pCi/L	15			
Radium 226 precision (±)	pCi/L	0.62			
Radium 226 MDC	pCi/L	0.09			
Radium 228	pCi/L	32			
Radium 228 precision (±)	pCi/L	2.3			
Radium 228 MDC	pCi/L	1.8			
Thorium 230	pCi/L	5.2			
Thorium 230 precision (±)	pCi/L	0.9			
Thorium 230 MDC	pCi/L	0.2			
A/C Balance (± 5)	%	-3.14			
Anions	meq/L	59.1			
Cations	meq/L	55.5			
Solids, Total Dissolved Calculated	mg/L	3800			
TDS Balance (0.80 - 1.20)		1.07			
Trihalomethanes, Total	ug/L	ND(0.50)			

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-005
Client Sample ID: NW-1

Report Date: 08/28/14
Collection Date: 07/15/14 12:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	441	mg/L		5		A2320 B	07/18/14 17:56 / jba
Chloride	21	mg/L		1		E300.0	07/19/14 08:55 / wc
PHYSICAL PROPERTIES							
pH	6.99	s.u.	H	0.01		A4500-H B	07/18/14 12:30 / alp
Solids, Total Dissolved TDS @ 180 C	3950	mg/L		28		A2540 C	07/18/14 12:20 / alp

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.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-003
Client Sample ID: NW-1

Report Date: 11/19/14
Collection Date: 10/14/14 16:36
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	495	mg/L		5		A2320 B	10/17/14 19:07 / wc
Chloride	18	mg/L	D	2		E300.0	10/20/14 02:54 / wc
PHYSICAL PROPERTIES							
pH	7.06	s.u.	H	0.01		A4500-H B	10/17/14 18:21 / ljl
Solids, Total Dissolved TDS @ 180 C	3910	mg/L		30		A2540 C	10/20/14 12:38 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NW-1	NW-1	NW-1	NW-1
Collection Date:		10/14/2014	7/15/2014	4/9/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100822-003	C14070666-005	C14040424-004	C14010518-004
Bicarbonate as HCO3	mg/L	495	441	415	369
Chloride	mg/L	18	21	20	20
pH	s.u.	7.06	6.99	6.90	6.87
Solids, Total Dissolved TDS @ 180 C	mg/L	3910	3950	4080	4210

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-006
Client Sample ID: NW-2

Report Date: 08/28/14
Collection Date: 07/15/14 12:45
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	228	mg/L		5		A2320 B	07/18/14 18:11 / jba
Chloride	36	mg/L	D	2		E300.0	07/19/14 09:12 / wc
PHYSICAL PROPERTIES							
pH	6.41	s.u.	H	0.01		A4500-H B	07/18/14 12:33 / alp
Solids, Total Dissolved TDS @ 180 C	4490	mg/L		42		A2540 C	07/18/14 12:20 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-007
Client Sample ID: NW-2

Report Date: 11/19/14
Collection Date: 10/14/14 17:30
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	203	mg/L		5		A2320 B	10/20/14 14:36 / jba
Chloride	35	mg/L	D	2		E300.0	10/20/14 03:56 / wc
PHYSICAL PROPERTIES							
pH	6.28	s.u.	H	0.01		A4500-H B	10/17/14 18:33 / ljl
Solids, Total Dissolved TDS @ 180 C	4670	mg/L		40		A2540 C	10/20/14 12:39 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NW-2	NW-2	NW-2	NW-2
Collection Date:		10/14/2014	7/15/2014	4/9/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100822-007	C14070666-006	C14040424-007	C14010518-008
Bicarbonate as HCO3	mg/L	203	228	210	239
Chloride	mg/L	35	36	36	36
pH	s.u.	6.28	6.41	6.37	6.34
Solids, Total Dissolved TDS @ 180 C	mg/L	4670	4490	4520	4570

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-007
Client Sample ID: NW-3

Report Date: 08/28/14
Collection Date: 07/15/14 13:10
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	468	mg/L		5		A2320 B	07/18/14 18:27 / jba
Chloride	39	mg/L		1		E300.0	07/19/14 09:30 / wc
PHYSICAL PROPERTIES							
pH	6.83	s.u.	H	0.01		A4500-H B	07/18/14 12:36 / alp
Solids, Total Dissolved TDS @ 180 C	3920	mg/L		43		A2540 C	07/18/14 12:20 / alp

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.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-005
Client Sample ID: NW-3

Report Date: 11/19/14
Collection Date: 10/14/14 17:03
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	441	mg/L		5		A2320 B	10/17/14 19:21 / wc
Chloride	38	mg/L	D	2		E300.0	10/20/14 03:25 / wc
PHYSICAL PROPERTIES							
pH	6.78	s.u.	H	0.01		A4500-H B	10/17/14 18:27 / ljl
Solids, Total Dissolved TDS @ 180 C	4070	mg/L		30		A2540 C	10/20/14 12:39 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NW-3	NW-3	NW-3	NW-3
Collection Date:		10/14/2014	7/15/2014	4/9/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/11/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/16/2014	2/11/2014
Analyte	RUnits	C14100822-005	C14070666-007	C14040424-005	C14010518-007
Bicarbonate as HCO3	mg/L	441	468	464	413
Chloride	mg/L	38	39	38	37
pH	s.u.	6.78	6.83	6.77	6.66
Solids, Total Dissolved TDS @ 180 C	mg/L	4070	3920	4040	3970

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-009
Client Sample ID: NW-4

Report Date: 08/28/14
Collection Date: 07/15/14 13:45
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	104	mg/L		5		A2320 B	07/18/14 18:42 / jba
Chloride	25	mg/L	D	2		E300.0	07/22/14 10:33 / wc
PHYSICAL PROPERTIES							
pH	6.97	s.u.	H	0.01		A4500-H B	07/18/14 12:42 / alp
Solids, Total Dissolved TDS @ 180 C	4280	mg/L		34		A2540 C	07/18/14 12:21 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-004
Client Sample ID: NW-4

Report Date: 11/19/14
Collection Date: 10/14/14 16:48
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	96	mg/L		5		A2320 B	10/17/14 19:15 / wc
Chloride	25	mg/L	D	2		E300.0	10/20/14 03:09 / wc
PHYSICAL PROPERTIES							
pH	6.96	s.u.	H	0.01		A4500-H B	10/17/14 18:24 / ljl
Solids, Total Dissolved TDS @ 180 C	4530	mg/L		40		A2540 C	10/20/14 12:38 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NW-4	NW-4	NW-4	NW-4
Collection Date:		10/14/2014	7/15/2014	1/14/2014	10/15/2013
Receive Date:		10/17/2014	7/18/2014	1/17/2014	10/18/2013
Report Date:		11/19/2014	8/28/2014	2/11/2014	11/22/2013
Analyte	RUnits	C14100822-004	C14070666-009	C14010518-005	C13100716-001
Bicarbonate as HCO3	mg/L	96	104	90	109
Chloride	mg/L	25	25	26	31
pH	s.u.	6.96	6.97	6.70	6.69
Solids, Total Dissolved TDS @ 180 C	mg/L	4530	4280	4210	4430

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-008
Client Sample ID: NW-5

Report Date: 08/28/14
Collection Date: 07/15/14 13:30
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	373	mg/L		5		A2320 B	07/18/14 18:35 / jba
Chloride	39	mg/L	D	2		E300.0	07/19/14 09:47 / wc
PHYSICAL PROPERTIES							
pH	6.89	s.u.	H	0.01		A4500-H B	07/18/14 12:39 / alp
Solids, Total Dissolved TDS @ 180 C	4620	mg/L		39		A2540 C	07/18/14 12:21 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-006
Client Sample ID: NW-5

Report Date: 11/19/14
Collection Date: 10/14/14 17:19
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	316	mg/L		5		A2320 B	10/17/14 19:29 / wc
Chloride	34	mg/L	D	2		E300.0	10/20/14 03:40 / wc
PHYSICAL PROPERTIES							
pH	6.81	s.u.	H	0.01		A4500-H B	10/17/14 18:30 / ljl
Solids, Total Dissolved TDS @ 180 C	4840	mg/L		30		A2540 C	10/20/14 12:39 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		NW-5	NW-5	NW-5	NW-5
Collection Date:		10/14/2014	7/15/2014	4/9/2014	10/15/2013
Receive Date:		10/17/2014	7/18/2014	4/11/2014	10/18/2013
Report Date:		11/19/2014	8/28/2014	5/16/2014	11/22/2013
Analyte	RUnits	C14100822-006	C14070666-008	C14040424-006	C13100716-004
Bicarbonate as HCO3	mg/L	316	373	372	348
Chloride	mg/L	34	39	38	27
pH	s.u.	6.81	6.89	6.91	6.73
Solids, Total Dissolved TDS @ 180 C	mg/L	4840	4620	4730	4540

****Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.**

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070666-004
Client Sample ID: MW-6

Report Date: 08/28/14
Collection Date: 07/15/14 14:00
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	142	mg/L		5		A2320 B	07/18/14 17:26 / jba
Chloride	27	mg/L		1		E300.0	07/19/14 08:37 / wc
PHYSICAL PROPERTIES							
pH	7.41	s.u.	H	0.01		A4500-H B	07/18/14 12:27 / alp
Solids, Total Dissolved TDS @ 180 C	3810	mg/L		38		A2540 C	07/18/14 12:20 / alp

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.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100822-008
Client Sample ID: MW-6

Report Date: 11/19/14
Collection Date: 10/14/14 16:15
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	194	mg/L		5		A2320 B	10/20/14 14:44 / jba
Chloride	31	mg/L	D	2		E300.0	10/20/14 04:42 / wc
PHYSICAL PROPERTIES							
pH	7.41	s.u.	H	0.01		A4500-H B	10/17/14 18:36 / ljl
Solids, Total Dissolved TDS @ 180 C	5110	mg/L		40		A2540 C	10/20/14 12:39 / alp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		MW-6	MW-6	MW-6	MW-6
Collection Date:		10/14/2014	7/15/2014	4/8/2014	1/15/2014
Receive Date:		10/17/2014	7/18/2014	4/14/2014	1/17/2014
Report Date:		11/19/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100822-008	C14070666-004	C14040436-001	C14010521-012
Bicarbonate as HCO3	mg/L	194	142	197	186
Calcium	mg/L			513	546
Chloride	mg/L	31	27	30	30
Magnesium	mg/L			392	420
Nitrogen, Ammonia as N	mg/L			0.40	0.39
Nitrogen, Nitrate+Nitrite as N	mg/L			ND(0.1)	ND(0.1)
Potassium	mg/L			10	10
Sodium	mg/L			151	159
Sulfate	mg/L			3080	3050
pH	s.u.	7.41	7.41	6.99	6.61
Solids, Total Dissolved TDS @ 180 C	mg/L	5110	3810	4670	4740
Aluminum	mg/L			0.1	ND(0.1)
Beryllium	mg/L			ND(0.001)	ND(0.001)
Cadmium	mg/L			ND(0.005)	ND(0.005)
Cobalt	mg/L			0.10	0.10
Lead	mg/L			ND(0.001)	ND(0.001)
Manganese	mg/L			4.07	4.27
Molybdenum	mg/L			2.1	2.2
Nickel	mg/L			0.14	0.15
Uranium	mg/L			0.0367	0.0442
Vanadium	mg/L			ND(0.1)	ND(0.1)
Arsenic-III	mg/L			ND(0.001)	0.001
Selenium-IV	mg/L			ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L			4.5	3.3
Gross Alpha minus Rn & U Precision (±)	pCi/L			0.6	0.6
Gross Alpha minus Rn & U MDC	pCi/L			0.4	0.5
Lead 210	pCi/L			-0.6	0.04
Lead 210 precision (±)	pCi/L			0.6	0.6
Lead 210 MDC	pCi/L			1.1	0.9
Radium 226	pCi/L			3.5	2.8
Radium 226 precision (±)	pCi/L			0.36	0.29
Radium 226 MDC	pCi/L			0.16	0.14
Radium 228	pCi/L			5.7	4.7
Radium 228 precision (±)	pCi/L			0.99	0.77
Radium 228 MDC	pCi/L			1.2	0.92
Thorium 230	pCi/L			0.004	0.08
Thorium 230 precision (±)	pCi/L			0.05	0.05
Thorium 230 MDC	pCi/L			0.2	0.08
A/C Balance (± 5)	%			-2.67	1.20
Anions	meq/L			68.2	67.4
Cations	meq/L			64.7	69.1
Solids, Total Dissolved Calculated	mg/L			4300	4300
TDS Balance (0.80 - 1.20)				1.09	1.09
Trihalomethanes, Total	ug/L			ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-011
Client Sample ID: MW-7

Report Date: 08/28/14
Collection Date: 07/15/14 11:20
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	391	mg/L		5		A2320 B	07/18/14 19:42 / jba
Calcium	591	mg/L		1		E200.7	07/29/14 03:28 / sf
Chloride	41	mg/L		1		E300.0	07/22/14 16:11 / wc
Magnesium	217	mg/L		1		E200.7	07/29/14 03:28 / sf
Nitrogen, Ammonia as N	0.40	mg/L		0.05		A4500-NH3 G	07/21/14 15:22 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/18/14 15:08 / lr
Potassium	8	mg/L		1		E200.7	07/29/14 03:28 / sf
Sodium	148	mg/L		1		E200.7	07/29/14 03:28 / sf
Sulfate	2370	mg/L	D	4		E300.0	07/22/14 16:11 / wc
PHYSICAL PROPERTIES							
pH	6.61	s.u.	H	0.01		A4500-H B	07/18/14 14:31 / alp
Solids, Total Dissolved TDS @ 180 C	3700	mg/L		32		A2540 C	07/18/14 12:30 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	07/29/14 21:44 / sf
Beryllium	ND	mg/L		0.001		E200.8	08/02/14 01:20 / clm
Cadmium	ND	mg/L		0.005		E200.7	07/29/14 21:44 / sf
Cobalt	0.05	mg/L		0.01		E200.7	07/29/14 21:44 / sf
Lead	ND	mg/L		0.001		E200.8	08/02/14 01:20 / clm
Manganese	3.17	mg/L		0.01		E200.7	07/29/14 21:44 / sf
Molybdenum	0.7	mg/L		0.1		E200.7	07/29/14 21:44 / sf
Nickel	0.06	mg/L		0.05		E200.7	07/29/14 21:44 / sf
Uranium	0.143	mg/L		0.0003		E200.8	08/02/14 01:20 / clm
Vanadium	ND	mg/L		0.1		E200.7	07/29/14 21:44 / sf
METALS - SPECIATED							
Arsenic-III	0.016	mg/L		0.001		E1632AM	08/01/14 15:32 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	07/24/14 14:08 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	9.1	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U Precision (±)	1.0	pCi/L				E900.1	07/31/14 22:06 / lmc
Gross Alpha minus Rn & U MDC	0.5	pCi/L				E900.1	07/31/14 22:06 / lmc
Lead 210	0.5	pCi/L	U			E909.0	08/12/14 17:18 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	08/12/14 17:18 / eli-cs
Lead 210 MDC	1.0	pCi/L				E909.0	08/12/14 17:18 / eli-cs
Radium 226	7.2	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 precision (±)	0.50	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	08/04/14 23:39 / trs
Radium 228	8.7	pCi/L				RA-05	07/30/14 15:19 / plj
Radium 228 precision (±)	0.96	pCi/L				RA-05	07/30/14 15:19 / plj
Radium 228 MDC	0.99	pCi/L				RA-05	07/30/14 15:19 / plj
Thorium 230	0.08	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	08/06/14 09:04 / dmf
Thorium 230 MDC	0.05	pCi/L				E908.0	08/06/14 09:04 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14070667-011
Client Sample ID: MW-7

Report Date: 08/28/14
Collection Date: 07/15/14 11:20
DateReceived: 07/18/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
A/C Balance (± 5)	-2.58	%				A1030 E	07/29/14 12:17 / kbh
Anions	56.9	meq/L				A1030 E	07/29/14 12:17 / kbh
Cations	54.0	meq/L				A1030 E	07/29/14 12:17 / kbh
Solids, Total Dissolved Calculated	3600	mg/L				A1030 E	07/29/14 12:17 / kbh
TDS Balance (0.80 - 1.20)	1.04					A1030 E	07/29/14 12:17 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	07/24/14 04:42 / jlr
Bromoform	ND	ug/L		0.50		E624	07/24/14 04:42 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	07/24/14 04:42 / jlr
Chloroform	ND	ug/L		0.50		E624	07/24/14 04:42 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	07/24/14 04:42 / jlr
Surr: 1,2-Dichlorobenzene-d4	113	%REC		73.7-126		E624	07/24/14 04:42 / jlr
Surr: Dibromofluoromethane	138	%REC	S	64.4-131		E624	07/24/14 04:42 / jlr
Surr: p-Bromofluorobenzene	106	%REC		67.1-133		E624	07/24/14 04:42 / jlr
Surr: Toluene-d8	96.0	%REC		79.7-125		E624	07/24/14 04:42 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 7.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
S - Spike recovery outside of advisory limits.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-002
Client Sample ID: MW-7

Report Date: 11/24/14
Collection Date: 10/14/14 09:45
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	378	mg/L		5		A2320 B	10/17/14 18:21 / wc
Calcium	614	mg/L		1		E200.7	10/20/14 16:05 / sf
Chloride	43	mg/L	D	2		E300.0	10/19/14 19:26 / wc
Magnesium	216	mg/L		1		E200.7	10/20/14 16:05 / sf
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	10/21/14 11:52 / lr
Nitrogen, Nitrate+Nitrite as N	0.4	mg/L		0.1		E353.2	10/17/14 14:23 / lr
Potassium	7	mg/L		1		E200.7	10/20/14 16:05 / sf
Sodium	136	mg/L		1		E200.7	10/20/14 16:05 / sf
Sulfate	2430	mg/L	D	8		E300.0	10/19/14 19:26 / wc
PHYSICAL PROPERTIES							
pH	6.91	s.u.	H	0.01		A4500-H B	10/17/14 16:50 / ljl
Solids, Total Dissolved TDS @ 180 C	3840	mg/L		40		A2540 C	10/20/14 12:34 / alp
METALS - TOTAL							
Aluminum	ND	mg/L		0.1		E200.7	10/27/14 19:33 / sf
Beryllium	ND	mg/L		0.001		E200.7	10/27/14 19:33 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 19:33 / sf
Cobalt	0.04	mg/L		0.01		E200.7	10/27/14 19:33 / sf
Lead	0.003	mg/L		0.001		E200.8	11/05/14 16:55 / cp
Manganese	2.98	mg/L		0.01		E200.7	10/27/14 19:33 / sf
Molybdenum	0.6	mg/L		0.1		E200.7	10/28/14 15:26 / sf
Nickel	0.06	mg/L		0.05		E200.7	10/27/14 19:33 / sf
Uranium	0.143	mg/L		0.0003		E200.8	11/05/14 16:55 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 19:33 / sf
METALS - SPECIATED							
Arsenic-III	ND	mg/L		0.001		E1632AM	11/07/14 14:57 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 15:06 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	8.7	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U Precision (±)	0.9	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Lead 210	0.4	pCi/L	U			E909.0	11/20/14 23:16 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	11/20/14 23:16 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/20/14 23:16 / eli-cs
Radium 226	8.2	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 precision (±)	0.46	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 MDC	0.09	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 228	20	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 precision (±)	1.9	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	10/28/14 12:28 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-002
Client Sample ID: MW-7

Report Date: 11/24/14
Collection Date: 10/14/14 09:45
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.06	pCi/L	U			E908.0	11/11/14 17:48 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	11/11/14 17:48 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	11/11/14 17:48 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.15	%				A1030 E	10/21/14 11:11 / kbh
Anions	58.1	meq/L				A1030 E	10/21/14 11:11 / kbh
Cations	54.5	meq/L				A1030 E	10/21/14 11:11 / kbh
Solids, Total Dissolved Calculated	3600	mg/L				A1030 E	10/21/14 11:11 / kbh
TDS Balance (0.80 - 1.20)	1.05					A1030 E	10/22/14 16:28 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/21/14 00:43 / jlr
Bromoform	ND	ug/L		0.50		E624	10/21/14 00:43 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/21/14 00:43 / jlr
Chloroform	ND	ug/L		0.50		E624	10/21/14 00:43 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/21/14 00:43 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		73.7-126		E624	10/21/14 00:43 / jlr
Surr: Dibromofluoromethane	118	%REC		64.4-131		E624	10/21/14 00:43 / jlr
Surr: p-Bromofluorobenzene	86.0	%REC		67.1-133		E624	10/21/14 00:43 / jlr
Surr: Toluene-d8	101	%REC		79.7-125		E624	10/21/14 00:43 / jlr

- The sample was received in the laboratory with a pH > 2. The pH was 6.

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		MW-7	MW-7	MW-7	MW-7
Collection Date:		10/14/2014	7/15/2014	4/8/2014	1/14/2014
Receive Date:		10/17/2014	7/18/2014	4/14/2014	1/17/2014
Report Date:		11/24/2014	8/28/2014	5/19/2014	2/27/2014
Analyte	RUnits	C14100818-002	C14070667-011	C14040436-002	C14010521-008
Bicarbonate as HCO3	mg/L	378	391	415	422
Calcium	mg/L	614	591	626	664
Chloride	mg/L	43	41	45	43
Magnesium	mg/L	216	217	208	211
Nitrogen, Ammonia as N	mg/L	ND(0.05)	0.40	ND(0.05)	0.45
Nitrogen, Nitrate+Nitrite as N	mg/L	0.4	ND(0.1)	0.4	ND(0.1)
Potassium	mg/L	7	8	8	8
Sodium	mg/L	136	148	147	153
Sulfate	mg/L	2430	2370	2280	2230
pH	s.u.	6.91	6.61	6.91	7.12
Solids, Total Dissolved TDS @ 180 C	mg/L	3840	3700	3780	3850
Aluminum	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.04	0.05	0.04	0.03
Lead	mg/L	0.003	ND(0.001)	ND(0.001)	ND(0.001)
Manganese	mg/L	2.98	3.16	2.84	2.74
Molybdenum	mg/L	0.6	0.7	0.7	0.7
Nickel	mg/L	0.06	0.06	0.06	0.06
Uranium	mg/L	0.143	0.143	0.179	0.223
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	ND(0.001)	0.016	ND(0.001)	ND(0.001)
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	8.7	9.1	7.9	8.5
Gross Alpha minus Rn & U Precision (±)	pCi/L	0.9	1.0	0.8	0.9
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.5	0.4	0.5
Lead 210	pCi/L	0.4	0.5	0.3	-0.07
Lead 210 precision (±)	pCi/L	0.8	0.6	0.7	0.6
Lead 210 MDC	pCi/L	1.3	1.0	1.1	0.9
Radium 226	pCi/L	8.2	7.2	8.4	7.3
Radium 226 precision (±)	pCi/L	0.46	0.50	0.56	0.46
Radium 226 MDC	pCi/L	0.09	0.13	0.16	0.14
Radium 228	pCi/L	20	8.7	12	8.9
Radium 228 precision (±)	pCi/L	1.9	0.96	1.3	0.94
Radium 228 MDC	pCi/L	1.9	0.99	1.3	0.94
Thorium 230	pCi/L	0.06	0.08	0.02	0.06
Thorium 230 precision (±)	pCi/L	0.08	0.04	0.07	0.05
Thorium 230 MDC	pCi/L	0.1	0.05	0.2	0.07
A/C Balance (± 5)	%	-3.15	-2.58	-0.62	2.57
Anions	meq/L	58.1	56.9	55.6	54.5
Cations	meq/L	54.5	54.0	54.9	57.4
Solids, Total Dissolved Calculated	mg/L	3600	3600	3500	3500
TDS Balance (0.80 - 1.20)		1.05	1.04	1.07	1.09
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-004
Client Sample ID: RW-11

Report Date: 11/24/14
Collection Date: 10/14/14 10:55
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Bicarbonate as HCO3	156	mg/L		5		A2320 B	10/17/14 18:34 / wc
Calcium	542	mg/L		1		E200.7	10/20/14 16:12 / sf
Chloride	37	mg/L	D	2		E300.0	10/19/14 19:57 / wc
Magnesium	419	mg/L		1		E200.7	10/20/14 16:12 / sf
Nitrogen, Ammonia as N	2.74	mg/L		0.05		A4500-NH3 G	10/21/14 11:56 / lr
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	10/17/14 14:28 / lr
Potassium	11	mg/L		1		E200.7	10/20/14 16:12 / sf
Sodium	133	mg/L		1		E200.7	10/20/14 16:12 / sf
Sulfate	3240	mg/L	D	8		E300.0	10/19/14 19:57 / wc
PHYSICAL PROPERTIES							
pH	6.42	s.u.	H	0.01		A4500-H B	10/17/14 16:56 / ljl
Solids, Total Dissolved TDS @ 180 C	4860	mg/L		40		A2540 C	10/20/14 12:34 / alp
METALS - TOTAL							
Aluminum	0.2	mg/L		0.1		E200.7	10/27/14 19:46 / sf
Beryllium	0.002	mg/L		0.001		E200.7	10/27/14 19:46 / sf
Cadmium	ND	mg/L		0.005		E200.7	10/27/14 19:46 / sf
Cobalt	0.32	mg/L		0.01		E200.7	10/27/14 19:46 / sf
Lead	0.032	mg/L		0.001		E200.8	11/05/14 16:34 / cp
Manganese	6.01	mg/L		0.01		E200.7	10/27/14 19:46 / sf
Molybdenum	0.5	mg/L		0.1		E200.7	10/28/14 15:33 / sf
Nickel	0.34	mg/L		0.05		E200.7	10/27/14 19:46 / sf
Uranium	0.142	mg/L		0.0003		E200.8	11/05/14 16:34 / cp
Vanadium	ND	mg/L		0.1		E200.7	10/27/14 19:46 / sf
METALS - SPECIATED							
Arsenic-III	0.004	mg/L		0.001		E1632AM	11/07/14 15:45 / eli-h
Selenium-IV	ND	mg/L		0.001		A3114 B	11/06/14 15:09 / tkr
RADIONUCLIDES - TOTAL							
Gross Alpha minus Rn & U	14.7	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U Precision (±)	1.1	pCi/L				E900.1	10/28/14 11:00 / dmf
Gross Alpha minus Rn & U MDC	0.4	pCi/L				E900.1	10/28/14 11:00 / dmf
Lead 210	2.4	pCi/L				E909.0	11/22/14 01:32 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	11/22/14 01:32 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	11/22/14 01:32 / eli-cs
Radium 226	10	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 precision (±)	0.51	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 226 MDC	0.09	pCi/L				E903.0	11/03/14 10:22 / rdw
Radium 228	33	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 precision (±)	2.3	pCi/L				RA-05	10/28/14 12:28 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	10/28/14 12:28 / plj

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: United Nuclear Corporation
Project: Zone-3
Lab ID: C14100818-004
Client Sample ID: RW-11

Report Date: 11/24/14
Collection Date: 10/14/14 10:55
DateReceived: 10/17/14
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - TOTAL							
Thorium 230	0.4	pCi/L	U			E908.0	11/11/14 17:48 / dmf
Thorium 230 precision (±)	0.3	pCi/L				E908.0	11/11/14 17:48 / dmf
Thorium 230 MDC	0.4	pCi/L				E908.0	11/11/14 17:48 / dmf
- See Case Narrative regarding Th230 analysis.							
DATA QUALITY							
A/C Balance (± 5)	-2.48	%				A1030 E	10/21/14 11:11 / kbh
Anions	71.0	meq/L				A1030 E	10/21/14 11:11 / kbh
Cations	67.6	meq/L				A1030 E	10/21/14 11:11 / kbh
Solids, Total Dissolved Calculated	4500	mg/L				A1030 E	10/21/14 11:11 / kbh
TDS Balance (0.80 - 1.20)	1.08					A1030 E	10/22/14 16:29 / kbh
VOLATILE ORGANIC COMPOUNDS							
Bromodichloromethane	ND	ug/L		0.50		E624	10/21/14 01:53 / jlr
Bromoform	ND	ug/L		0.50		E624	10/21/14 01:53 / jlr
Chlorodibromomethane	ND	ug/L		0.50		E624	10/21/14 01:53 / jlr
Chloroform	ND	ug/L		0.50		E624	10/21/14 01:53 / jlr
Trihalomethanes, Total	ND	ug/L		0.50		E624	10/21/14 01:53 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		73.7-126		E624	10/21/14 01:53 / jlr
Surr: Dibromofluoromethane	121	%REC		64.4-131		E624	10/21/14 01:53 / jlr
Surr: p-Bromofluorobenzene	83.0	%REC		67.1-133		E624	10/21/14 01:53 / jlr
Surr: Toluene-d8	104	%REC		79.7-125		E624	10/21/14 01:53 / jlr
- The sample was received in the laboratory with a pH > 2. The pH was 6.							

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

UNC Mining and Milling ChurchRock Operations					
GroundWater Monitoring Summary: Zone 3 Monitor Wells					
Well ID:		RW-11	RW-11	RW-11	RW-11
Collection Date:		10/14/2014	10/15/2013	10/16/2012	10/11/2011
Receive Date:		10/17/2014	10/18/2013	10/19/2012	10/14/2011
Report Date:		11/24/2014	11/25/2013	11/20/2012	11/30/2011
Analyte	RUnits	C14100818-004	C13100698-003	C12100835-016	C11100573-013
Bicarbonate as HCO3	mg/L	156	192	220	209
Calcium	mg/L	542	556	594	556
Chloride	mg/L	37	37	38	38
Magnesium	mg/L	419	390	373	308
Nitrogen, Ammonia as N	mg/L	2.74	2.02	1.9	1.8
Nitrogen, Nitrate+Nitrite as N	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.5)
Potassium	mg/L	11	11	11	11
Sodium	mg/L	133	139	145	144
Sulfate	mg/L	3240	3170	2880	2800
pH	s.u.	6.42	6.22	6.22	7.34
Solids, Total Dissolved TDS @ 180 C	mg/L	4860	4700	4540	4130
Aluminum	mg/L	0.2	ND(0.1)	ND(0.1)	ND(0.1)
Beryllium	mg/L	0.002	ND(0.001)	ND(0.001)	ND(0.01)
Cadmium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.32	0.30	0.25	0.21
Lead	mg/L	0.032	0.059	ND(0.001)	ND(0.05)
Manganese	mg/L	6.01	5.99	5.12	4.68
Molybdenum	mg/L	0.5	0.2	0.2	0.1
Nickel	mg/L	0.34	0.34	0.29	0.24
Uranium	mg/L	0.142	0.139	0.140	0.134
Vanadium	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Arsenic-III	mg/L	0.004	ND(0.001)	ND(0.001)	0.006
Selenium-IV	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Gross Alpha minus Rn & U	pCi/L	14.7	14.2	9.8	10.1
Gross Alpha minus Rn & U Precision (±)	pCi/L	1.1	1.5	0.8	1
Gross Alpha minus Rn & U MDC	pCi/L	0.4	0.7	0.2	0.4
Lead 210	pCi/L	2.4	0.3	0.5	0.5
Lead 210 precision (±)	pCi/L	0.9	0.5	0.6	0.8
Lead 210 MDC	pCi/L	1.3	0.9	1	1.3
Radium 226	pCi/L	10	10	9.7	9.6
Radium 226 precision (±)	pCi/L	0.51	0.64	0.63	0.56
Radium 226 MDC	pCi/L	0.09	0.16	0.18	0.13
Radium 228	pCi/L	33	13	20	13
Radium 228 precision (±)	pCi/L	2.3	1.3	1.8	1.2
Radium 228 MDC	pCi/L	1.8	1.3	1.6	1.2
Thorium 230	pCi/L	0.4	0.5	0.2	0.03
Thorium 230 precision (±)	pCi/L	0.3	0.2	0.2	0.2
Thorium 230 MDC	pCi/L	0.4	0.2	0.4	0.4
A/C Balance (± 5)	%	-2.48	-2.85	1.81	-2.56
Anions	meq/L	71.0	70.2	64.7	62.9
Cations	meq/L	67.6	66.3	67.1	59.7
Solids, Total Dissolved Calculated	mg/L	4500	4400	4200	3980
TDS Balance (0.80 - 1.20)		1.08	1.07	1.09	1.04
Trihalomethanes, Total	ug/L	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

**Note: The data presented on this form is intended for summary purposes only. Laboratory approved data is contained within the attached database reports.

SEMI-ANNUAL

EFFLUENT AND ENVIRONMENTAL MONITORING REPORT

JULY TO DECEMBER OF 2014

AVAILABLE MONITORING DATA

- **ENVIRONMENTAL INSPECTION REPORT (continued this procedure to show and maintain the integrity of the tailings area).**

- **GROUND WATER RESULT (GW-3 water well reported in accordance to Regulatory Guide 4.14 format).**

- **PERIMETER AIR PARTICULATE (reported in accordance to Regulatory Guide 4.14 format).**

Note: Perimeter gamma results are reported in second half of 2013 and supplemental perimeter air particulate results are in this report when all monitoring data became available

ENVIRONMENTAL INSPECTION REPORTS

ENVIRONMENTAL INSPECTION

DATE: 7-30-14 TIME START: 1015

INSPECTOR: Mat Chuckley Jr. TIME END: 1155

TAILINGS AREA:	OKAY		PROBLEM	COMMENTS
1. Fences	✓			
2. Air Monitors	–	NA	–	Under RWP
3. Radiation Warning Signs	✓			
4. Locked Gates	✓			

ACTION TAKEN:

ENVIRONMENTAL INSPECTION

DATE: 8-25-14 TIME START: 1020

INSPECTOR: Mike Chadlly Jr. TIME END: 1130

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	– NA	–	Under RWP
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN:

ENVIRONMENTAL INSPECTION

DATE: 9-30-14 TIME START: 1342

INSPECTOR: Mark Chuckley Jr. TIME END: 1510

TAILINGS AREA:	OKAY		PROBLEM	COMMENTS
1. Fences			✓	See below
2. Air Monitors	–	NA	–	Under RWP
3. Radiation Warning Signs	✓			
4. Locked Gates	✓			

ACTION TAKEN: Flooding during recent heavy rainfall has damaged part of southend perimeter fenceline at bottom of pipeline arroya in Sec. 2 tailings area. Repairal will be done after the rainy season and continual surveliance will be on going to keep out livestock or unauthorized entry.

ENVIRONMENTAL INSPECTION

DATE: 10-23-14 TIME START: 1245

INSPECTOR: Mark Chisholm Jr. TIME END: 1430

TAILINGS AREA:	OKAY		PROBLEM	COMMENTS
1. Fences	✓			
2. Air Monitors	—	NA	—	Under RWP
3. Radiation Warning Signs	✓			
4. Locked Gates			✓	See below

ACTION TAKEN: Inspection is done today due to contract worker reporting that main gate was open/unlocked at 0930.

Findings: 1) No sign of force or unauthorized entry.

2) Other items checked OK (i.e. intact material and equipment in restricted and unrestricted areas, other locked gates and no livestock.

3) Reminded workers to fully engage chain lock and last worker exiting the area will ensure all gates are locked.

ENVIRONMENTAL INSPECTION

DATE: 11-21-14 TIME START: 1025

INSPECTOR: Mike Chudley Jr. TIME END: 1130

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		See below
2. Air Monitors	- NA	-	Under RWP
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN: Repairal is still pending on south end perimeter fenceline at bottom of pipeline arroya in Sec. 2 tailings area and surveillance is still on going.

ENVIRONMENTAL INSPECTION

DATE: 12-22-14 TIME START: 0910

INSPECTOR: Mel Chadbley Jr. TIME END: 1005

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	– NA	–	Under RWP
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN:

GROUND WATER – GW SERIES

QUARTERLY LIQUID SAMPLES

Date/Qr.	Location	Type	Radionuclide	Concentration Mg/l	Concentration µci/ml	Error Est. µci/ml	LLD µci/ml
7/8/2014	GW-3	Ground	U-Nat (dissolved) or total		2.17E-07		2.00E-10
3rd-Qr.		Water Well					
			Th-230 (dissolved) or total		1.00E-11	3.00E-11	2.00E-10
			Ra-226 (dissolved) or total		2.40E-10	1.20E-10	2.00E-10
			Pb-210 (dissolved) or total		-3.00E-10	7.00E-10	1.00E-09
			Po-210 (dissolved) or total				1.00E-09

UNC Field Data:
PH (STD. Units) = 6.63
Cond. (µ MHOS) = 5,230
Water Depth (Ft.) = 55.49
Temp. (°C) = 19.5

COMMENTS:

QUARTERLY LIQUID SAMPLES

Date/Qr.	Location	Type	Radionuclide	Concentration Mg/l	Concentration µci/ml	Error Est. µci/ml	LLD µci/ml
10/7/2014	GW-3	Ground	U-Nat (dissolved) or total		2.51E-07		2.00E-10
4th-Qr.		Water Well					
			Th-230 (dissolved) or total		3.00E-11	8.00E-11	2.00E-10
			Ra-226 (dissolved) or total		1.80E-10	1.40E-10	2.00E-10
			Pb-210 (dissolved) or total		9.00E-12	7.00E-10	1.00E-09
			Po-210 (dissolved) or total				1.00E-09

UNC Field Data:
PH (STD. Units) = 6.76
Cond. (µ MHOS) = 5,150
Water Depth (Ft.) = 55.58
Temp. (°C) = 15.8

COMMENTS: _____

PERIMETER AIR PARTICULATE RESULTS

AIR SAMPLES

Sample Date	Location	Type and Air Volume	Radionuclide and Class	Concentration (uci/ml)	Error Est. (uci/ml)	LLD (uci/ml)	Eff. Conc. Limit (uci/ml)	Eff. Conc. of Limit (%)
11/5/13 to	Site D	See below	U-Nat (year)	5.3E-16		$1.0E^{-16}$	9.0E-14	
12/11/13	Upwind -	"	Th-230 (year)	2.4E-15		$1.0E^{-16}$	3.0E-14	
"	Background	"	Ra-226 (week)	2.4E-15		$1.0E^{-16}$	9.0E-13	
"	"	Grab	Gross Alpha	5.3E-15			6.6E-14 (Not Reg. Limit)	
10/29/13 to	12/13/13	DRNF	Rn-222 (Minus Daughters)	2.1E-09	1.6E-10			

COMMENT: U-Nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ fraction of 0.1 for U-Nat, 0.45 for Ra-226, 0.45 for Th-230 of gross alpha activity and mean values for PDS-RWP monitoring period.

AIR SAMPLES

Sample Date	Location	Type and Air Volume	Radionuclide and Class	Concentration (uci/ml)	Error Est. (uci/ml)	LLD (uci/ml)	Eff. Conc. Limit (uci/ml)	Eff. Conc. of Limit (%)
11/5/13 to	Site F	See below	U-Nat (year)	3.9E-16		$1.0E^{-16}$	9.0E-14	-0.2
12/11/13	Downwind -	"	Th-230 (year)	1.7E-15		$1.0E^{-16}$	3.0E-14	-2.3
"	N. Perimeter	"	Ra-226 (week)	1.7E-15		$1.0E^{-16}$	9.0E-13	-0.1
"	"	Grab	Gross Alpha	3.9E-15			6.6E-14	-2.1
11/4/13 to	12/13/13	DRNF	Rn-222 (Minus Daughters)	8.0E-10	9.0E-11		1.0E-08	-13.0

COMMENT: U-Nat, Ra-226 and Th-230 activity calculated from measured gross alpha activity @ fraction of 0.1 for U-Nat, 0.45 for Ra-226, 0.45 for Th-230 of gross alpha activity and mean values for PDS-RWP monitoring period.

Eff. Conc. of Limit (%) is calculated minus Site D - Background result.