

November 4, 2019

Ryan Schierman  
Program Manager  
Uranium Recovery Program  
Wyoming Department of Environmental Quality  
200 West 17<sup>th</sup> Street, Lower Level  
Cheyenne, WY 82002

**RE: Source Material License WYSUA-56; Western Nuclear, Inc., Split Rock Uranium Mill Tailings Facility;  
Surface Water and Groundwater Monitoring Report for Second Half of 2019**

Dear Mr. Schierman:

The combined surface water and groundwater sampling results for the second half of 2019 for the Split Rock Uranium mill tailings facility are enclosed. This monitoring was performed as required by license conditions 24 and 74.

Figure 1 shows the location of the monitor wells and the surface water sample locations. The analytical results for all monitoring wells and surface water locations for the second half of 2019 are presented in Table 1. In addition, the results of the point of compliance wells, WN-5 and WN-21, along with the Protection Standards and ACLs specific to them per license conditions 74B and 74C are included in Table 1-A. Graphs are included in the enclosure, which show the temporal changes in water quality for key constituents. Laboratory data reports for each well and surface water location are also included.

The surface water and groundwater quality data are consistent with historical values and all groundwater parameters meet the required limits at the POC wells in the license. Selenium (Se) values in well WN-42A are in excess of the current ACL for Se in the Northwest Valley; an application to modify the Se ACL has been submitted to your agency.

If you have any questions, please contact me at your convenience.

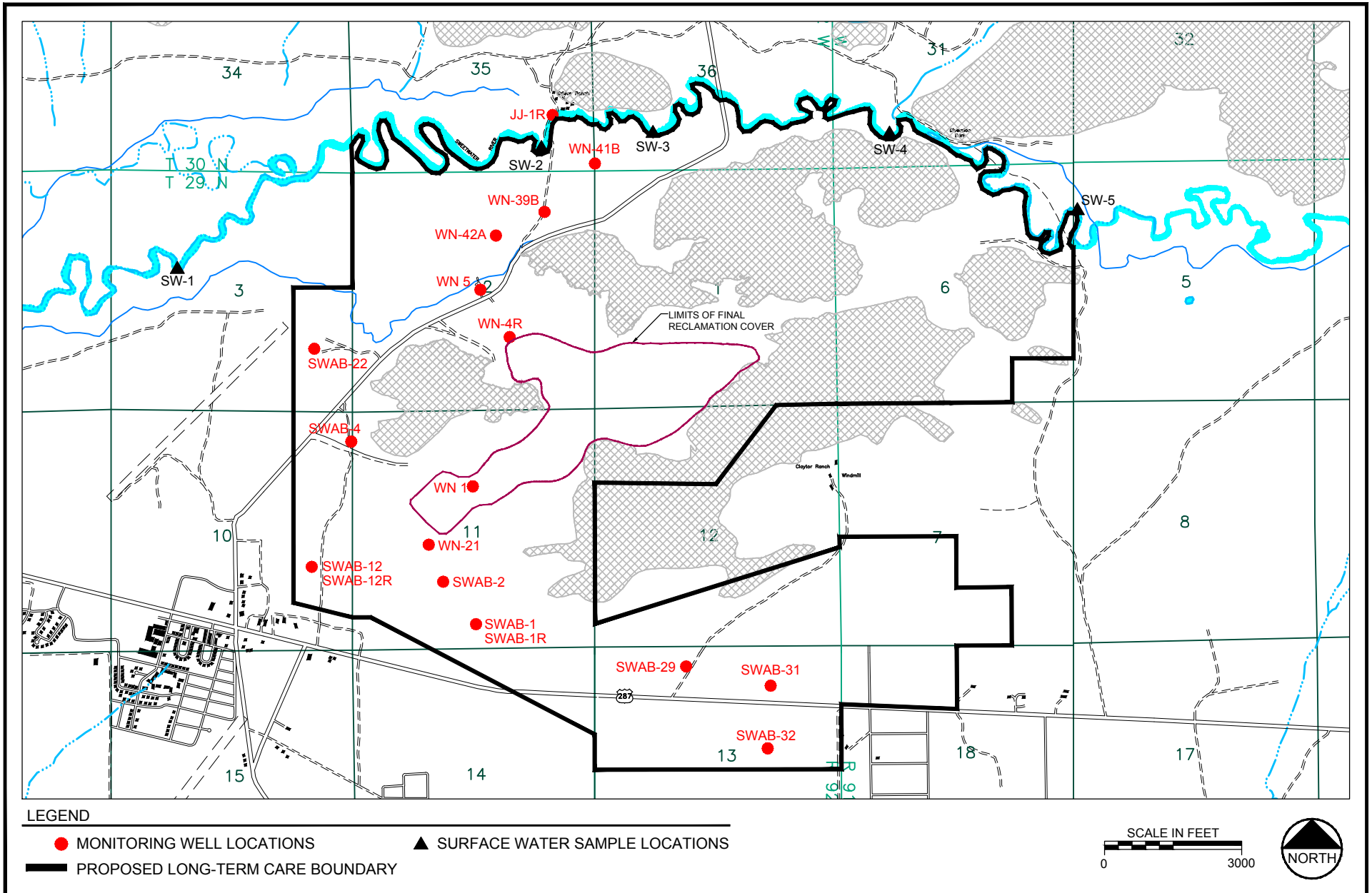
Sincerely,



Louis Miller  
Consulting Engineer

Enclosure

cc. Tashina Jasso, DOE  
Steve Hall, Navarro  
Anne Thomas, WNI



WORTHINGTON  
MILLER  
ENVIRONMENTAL, LLC.

FIGURE 1  
SURFACE WATER AND GROUND WATER MONITORING LOCATIONS

Date:	SEPTEMBER 2019
Project:	Jeffrey City
File:	SW-GW-MON-2019

**Table 1. WNI Split Rock Mill - Groundwater and Surface Water Quality**  
**Second Half 2019 (Sampled: 8/26/19 - 8/28/19)**

Parameter <sup>(1)</sup>	JJ-1R	SWAB-1R	SWAB-2	SWAB-4	SWAB-12R	SWAB-22	SWAB-29	SWAB-31	SWAB-32	WN-1	WN-4R	WN-5	WN-21
Aluminum (mg/L)	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	2.5	<0.03	<0.03
Ammonia, Free as N <sup>(2)</sup> (mg/L)	<0.00029	<0.00030	0.0159	<0.00047	<0.00102	0.0020	<0.00030	<0.00041	<0.00249	0.5435	0.1803	<0.00019	0.0133
Antimony (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic (mg/L)	0.012	0.007	0.008	0.014	0.003	0.006	0.01	0.004	0.007	0.002	0.008	0.002	0.004
Beryllium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Cadmium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.003	0.017	<0.001	<0.001
Chloride (mg/L)	15	29	21	33	15	17	7	10	12	22	102	109	16
Conductivity Field (mS/cm)	661	3030	2640	1326	472	469	432	399	483	3830	5890	3500	580
Fluoride (mg/L)	0.4	0.2	0.8	0.3	0.2	0.3	0.2	0.3	0.3	2	8	0.1	0.2
Lead (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese (mg/L)	0.2	0.007	0.476	0.012	0.003	0.069	0.349	0.049	0.006	23.6	82	0.534	0.147
Molybdenum (mg/L)	0.002	<0.001	0.002	0.002	0.002	0.005	<0.001	0.003	0.001	<0.001	0.006	0.072	0.002
Nickel (mg/L)	<0.005	0.008	0.014	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	0.078	0.384	0.01	<0.005
Nitrate + Nitrite as N (mg/L)	<0.01	127	144	23	0.31	0.15	0.03	0.62	1.29	30.5	175	42.4	2.43
pH Field (std units)	7.06	7.08	6.77	7.28	7.62	7.43	7.08	7.22	8.02	6.76	6.21	6.88	7.60
pH Lab (std units)	7.26	7.32	7.04	7.41	7.68	7.49	7.33	7.37	8.04	6.84	6.35	7.00	7.67
Radium-226 (pCi/L)	<0.2	0.3	0.3	0.6	<0.2	<0.2	<0.2	<0.2	<0.2	0.6	0.2	<0.2	<0.2
Radium-228 (pCi/L)	1.9	<1.6	2.4	<1.9	1.9	<2.1	<2.2	<2	<2	2.8	<1.5	1.7	<1.7
Selenium (mg/L)	<0.001	<0.001	0.002	0.009	0.004	0.001	<0.001	0.008	0.009	0.024	0.063	0.017	0.002
Sulfate (mg/L)	48	1180	947	448	61	46	38	27	46	2360	2790	1810	85
TDS (mg/L)	433	2780	2530	1030	317	313	306	249	304	3240	4560	3630	383
Temperature Field (C)	17.1	13.7	21.1	18.9	14.4	14.5	14.1	16.6	14.2	14.2	11.9	11.3	15.1
Thallium (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0122	0.0011	<0.0005	<0.0005
Thorium-230 (pCi/L)	<0.1	<0.2	<0.2	0.2	<0.1	<0.1	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (mg/L)	0.0123	2.12	0.929	0.861	0.0345	0.0316	0.0251	0.0278	0.127	1.48	0.0986	1.59	0.0714
Water Elevation (ft)	NA	6293.9	6292.7	6290.4	6297.3	6288.6	6277.1	6290.8	6271.7	6294.8	6285.9	6280.8	6295.1

Notes:

- (1) All metals are dissolved analyte concentrations.
- (2) Free ammonia concentration calculated from the laboratory reported total ammonia concentration and field measured pH, consistent with the method used to determine the ACL for ammonia.
- (3) Well SWAB-1R installed as replacement for SWAB-1. Water Elevation taken at SWAB-1.
- (4) Well SWAB-12R installed as replacement for SWAB-12. Water Elevation taken at SWAB-12.

**Table 1. WNI Split Rock Mill - Groundwater and Surface Water Quality**  
**Second Half 2019 (Sampled: 8/26/19 - 8/28/19)**

Parameter <sup>(1)</sup>	WN-39B	WN-41B	WN-42A	SW-1	SW-2	SW-3	SW-4	SW-5
Aluminum (mg/L)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.05	<0.03
Ammonia, Free as N <sup>(2)</sup> (mg/L)	<0.00153	<0.00310	<0.00015	<0.00392	<0.00401	<0.00464	<0.00474	<0.00740
Antimony (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic (mg/L)	0.002	0.01	0.005	0.005	0.006	0.006	0.006	0.006
Beryllium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloride (mg/L)	17	420	71	13	15	16	15	15
Conductivity Field (mS/cm)	715	2440	4130	400	409	413	406	393
Fluoride (mg/L)	0.2	1.3	0.2	0.3	0.3	0.3	0.3	0.3
Lead (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese (mg/L)	<0.001	<0.001	1.43	0.03	0.018	0.017	0.034	0.004
Molybdenum (mg/L)	<0.001	0.004	0.003	0.002	0.002	0.002	0.002	0.002
Nickel (mg/L)	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate + Nitrite as N (mg/L)	9.45	0.14	0.13	<0.01	<0.01	0.02	<0.01	<0.01
pH Field (std units)	7.80	8.12	6.79	8.23	8.24	8.31	8.32	8.54
pH Lab (std units)	7.84	8.10	7.00	8.07	8.16	8.17	8.21	8.37
Radium-226 (pCi/L)	<0.2	<0.2	<0.3	0.2	<0.2	<0.2	<0.2	<0.2
Radium-228 (pCi/L)	1.9	<1.6	<2.1	<2	<1.6	<1.7	<2.1	<2.1
Selenium (mg/L)	0.005	<0.001	0.07	<0.001	<0.001	<0.001	<0.001	<0.001
Sulfate (mg/L)	135	405	1960	41	43	47	46	45
TDS (mg/L)	484	1450	4500	244	253	258	255	252
Temperature Field (C)	11.2	10.7	12.1	16.0	16.3	16.6	18.2	19.2
Thallium (mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Thorium-230 (pCi/L)	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (mg/L)	0.141	0.0093	0.801	0.004	0.0054	0.0088	0.0087	0.0081
Water Elevation (ft)	6272.5	6271.0	6275.3	NA	NA	NA	NA	NA

Notes:

- (1) All metals are dissolved analyte concentrations.
- (2) Free ammonia concentration calculated from the laboratory reported total ammonia concentration and field measured pH, consistent with the method used to determine the ACL for ammonia.
- (3) Well SWAB-1R installed as replacement for SWAB-1. Water Elevation taken at SWAB-1.
- (4) Well SWAB-12R installed as replacement for SWAB-12. Water Elevation taken at SWAB-12.

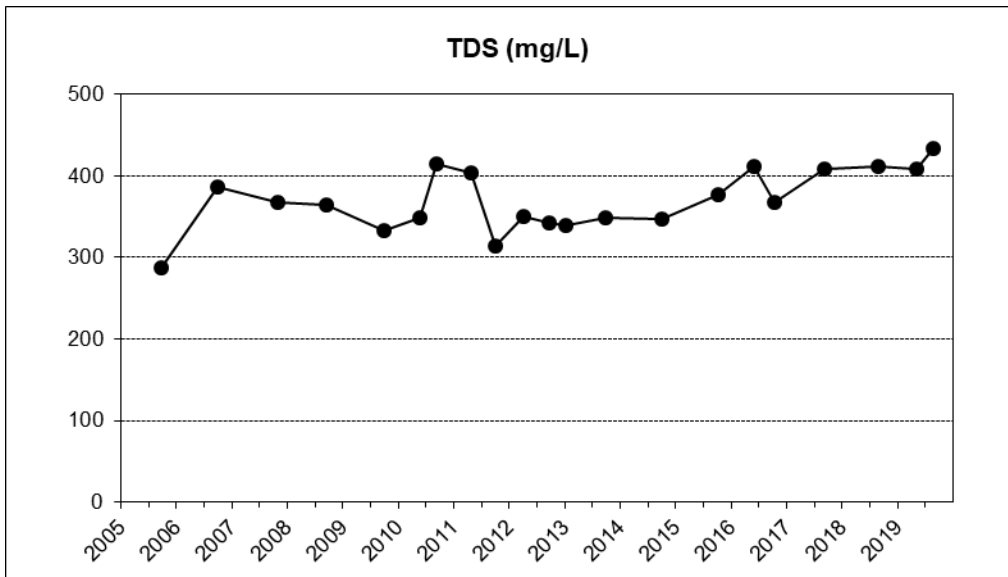
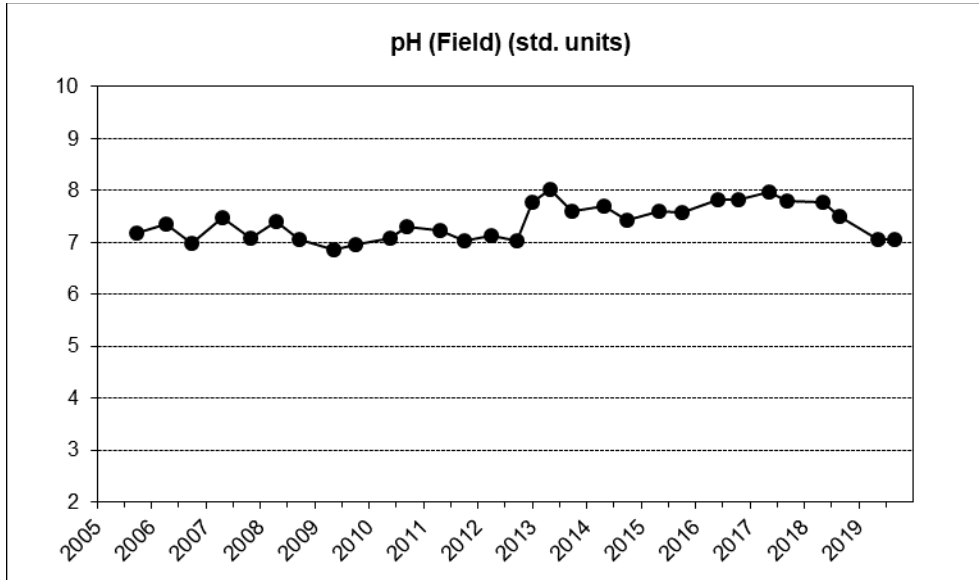
**Table 1-A. WNI Split Rock Mill - Point of Compliance Well Water Quality  
Second Half 2019 - Sampled 8/28/19**

Well	pH-Field (std units)	Cond -Field (µS/cm)	Temp - Field (C)	Water Elevation (ft)	Aluminum (mg/L)	Ammonia, free as N (mg/L) <sup>(1)</sup>	Antimony (mg/L)	Arsenic (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Lead (mg/L)
<b>Protection Std/ACL (WN-5)</b>					37	0.50	0.006	0.05	0.01	0.01		4	0.05
<b>WN-5</b>	6.88	3500	11.3	6280.8	<0.03	<0.00019	<0.001	0.002	<0.001	<0.001	109	0.1	<0.001
<b>Protection Std/ACL (WN-21)</b>					37	0.69	0.006	0.05	0.01	0.01		4	0.05
<b>WN-21</b>	7.60	580	15.1	6295.05	<0.03	0.0133	<0.001	0.004	<0.001	<0.001	16	0.2	<0.001

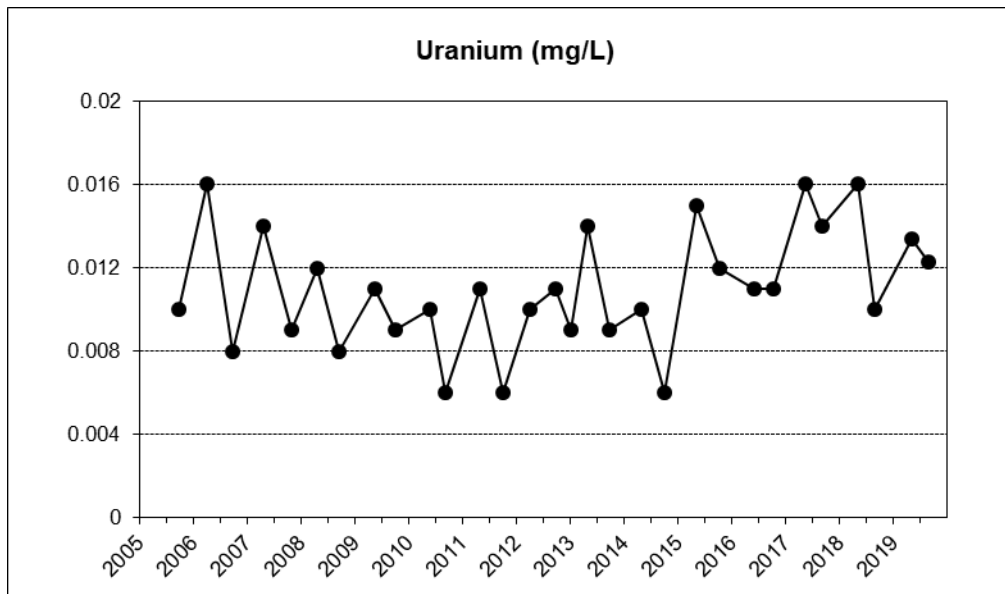
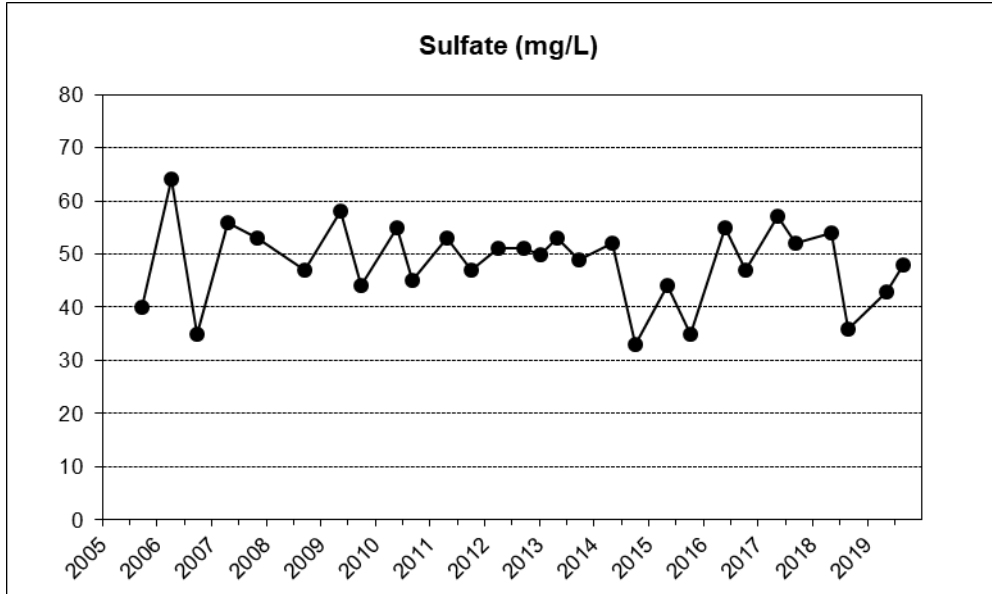
Well	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Nitrate + Nitrite as N (mg/L)	Radium-226 (pCi/L)	Radium-228 (pCi/L)	Selenium (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Thallium (mg/L)	Thorium- 230 (pCi/L)	Uranium (mg/L)
<b>Protection Std/ACL (WN-5)</b>	225	0.66	0.05	317	7.2		0.05			0.002	0.95	4.8
<b>WN-5</b>	0.534	0.072	0.01	42.4	<0.2	1.7	0.017	1810	3630	<0.0005	<0.2	1.59
<b>Protection Std/ACL (WN-21)</b>	35	0.22	0.05	500.0	19.9		0.05			0.002	0.95	3.4
<b>WN-21</b>	0.147	0.002	<0.005	2.43	<0.2	<1.7	0.002	85	383	<0.0005	<0.2	0.0714

(1) Free ammonia concentration calculated from the laboratory reported total ammonia concentration and field measured pH, consistent with the method used to determine the ACL for ammonia. For comparison, the ammonia ACL is expressed as NH<sub>3</sub> -N, converted from NH<sub>3</sub> values stated in licence conditions 74B and 74C.

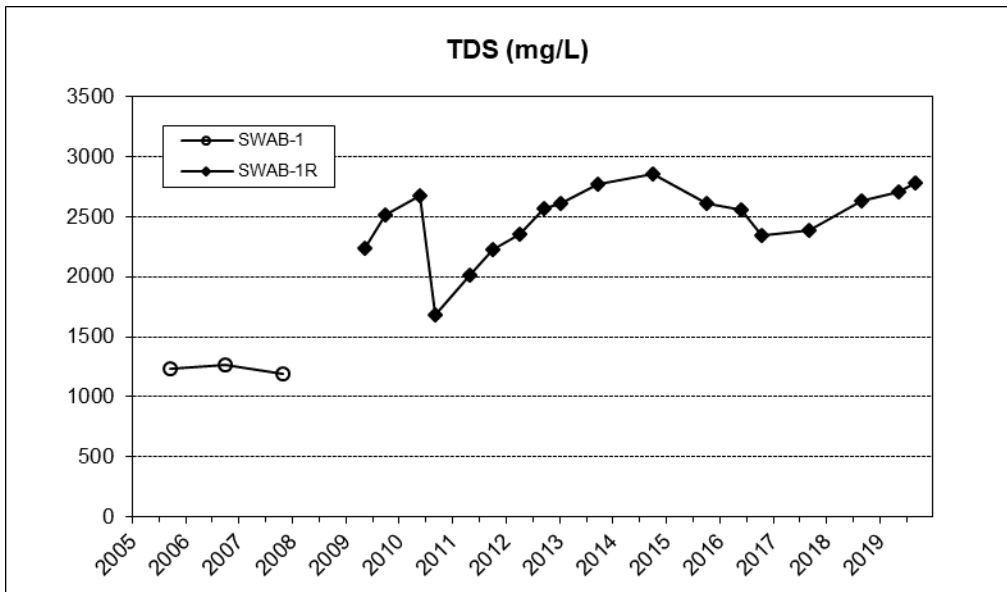
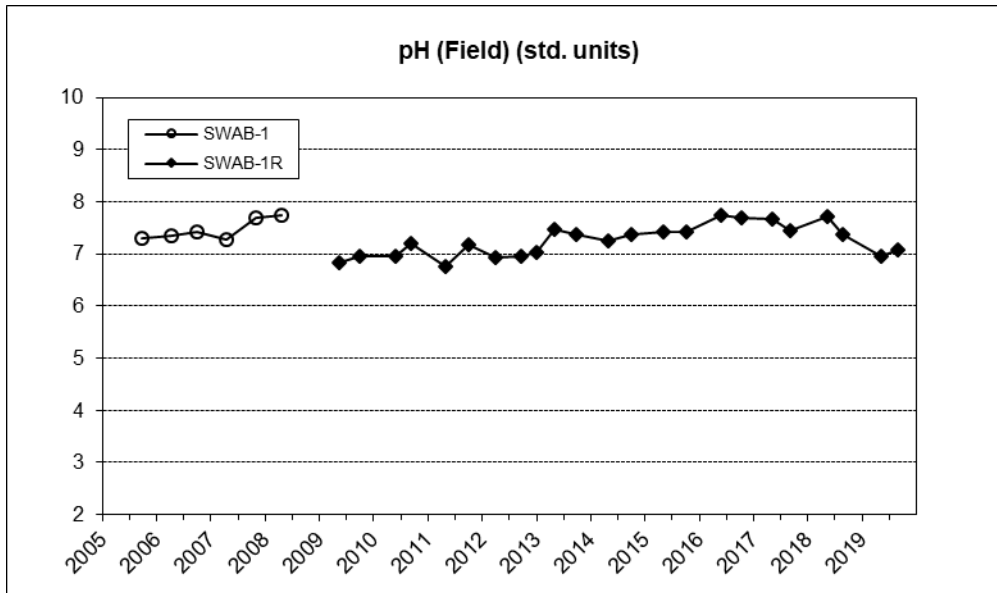
JJ-1R



JJ-1R

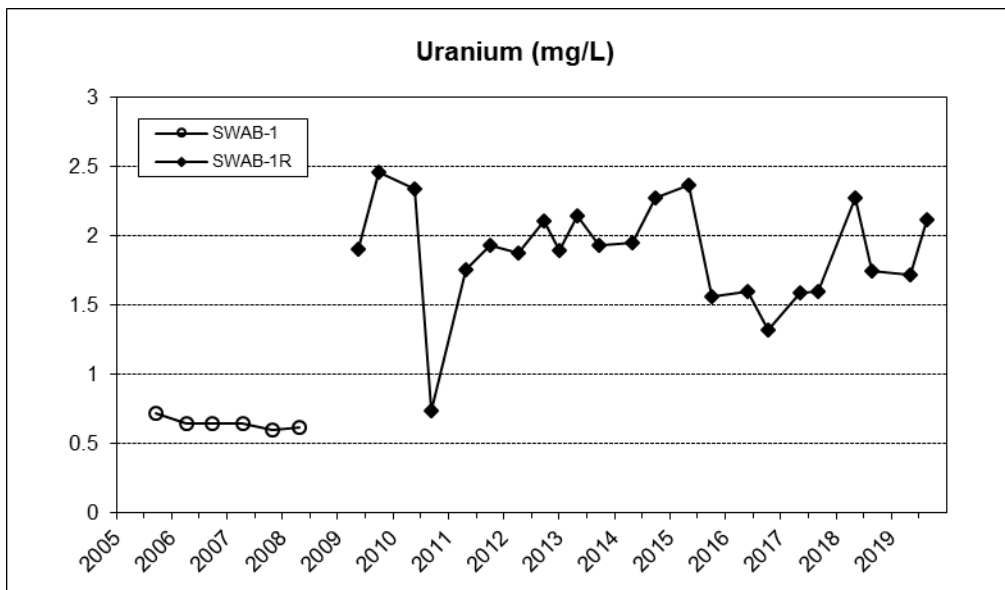
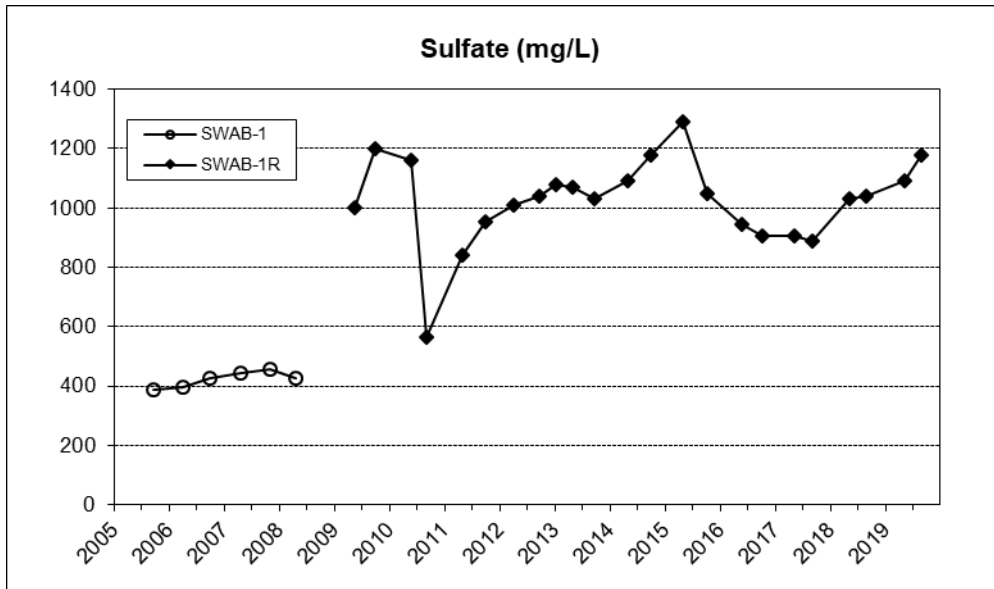


### SWAB-1 and 1R

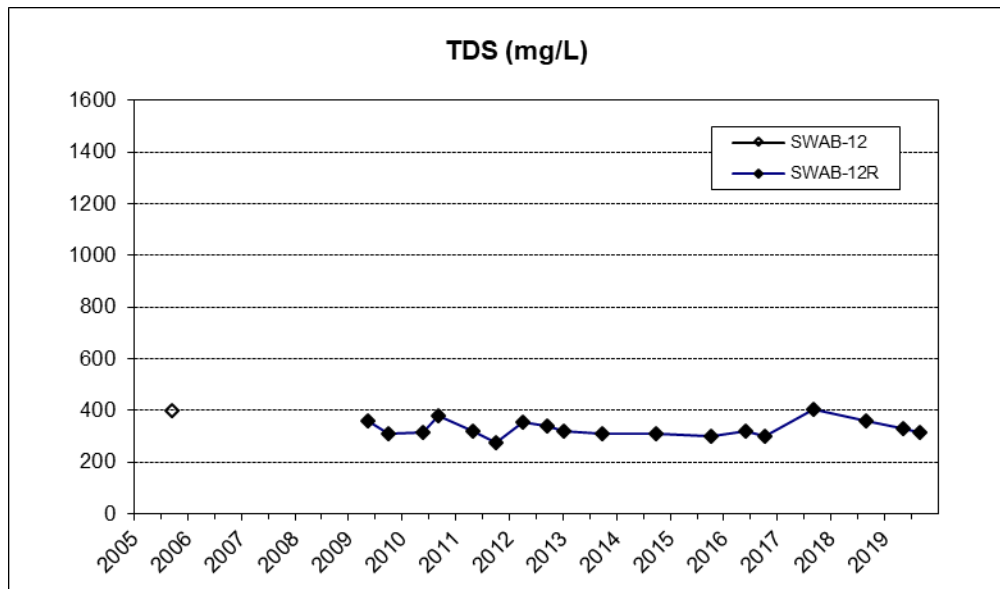
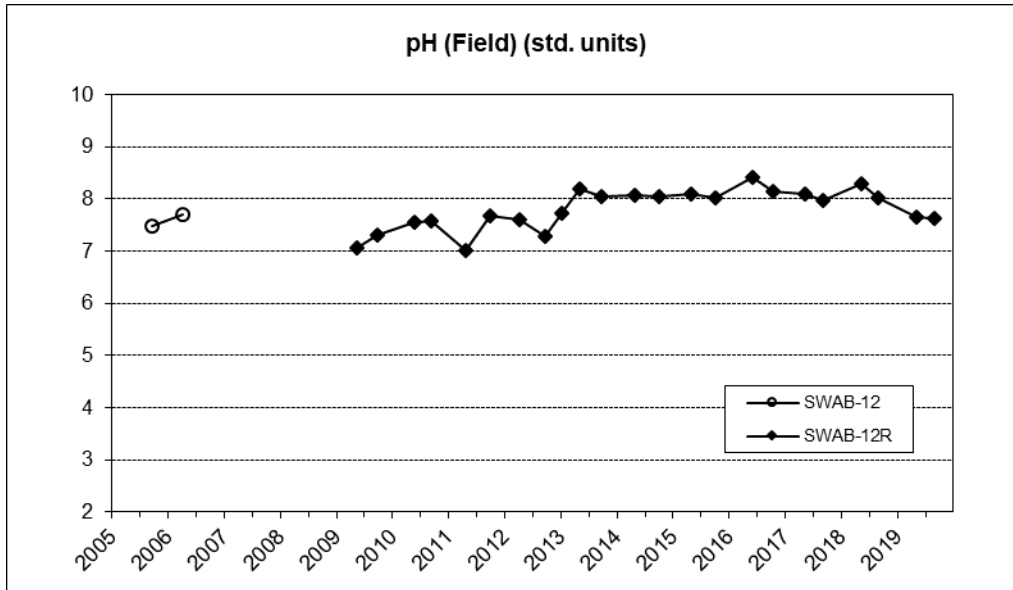




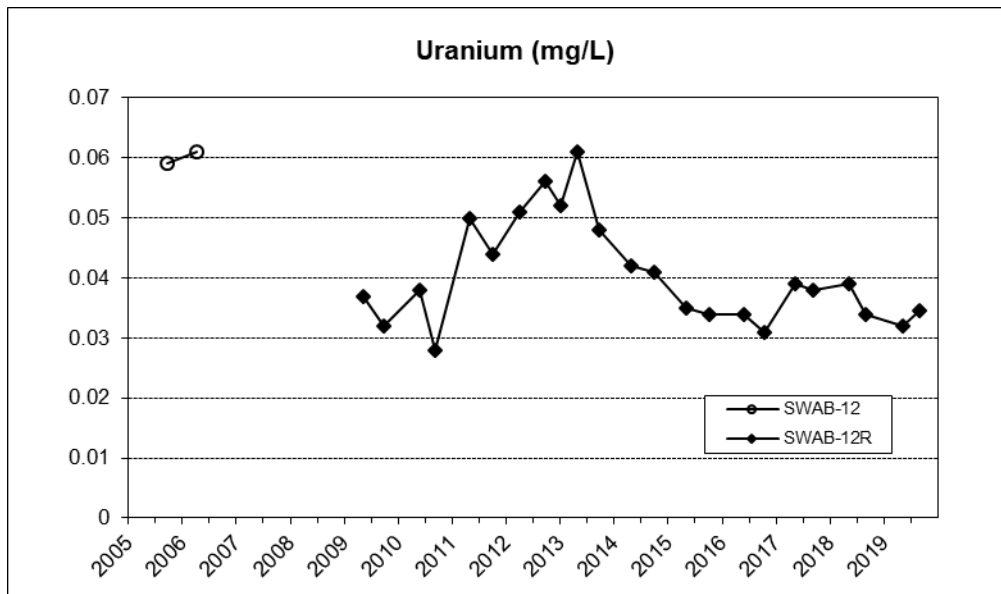
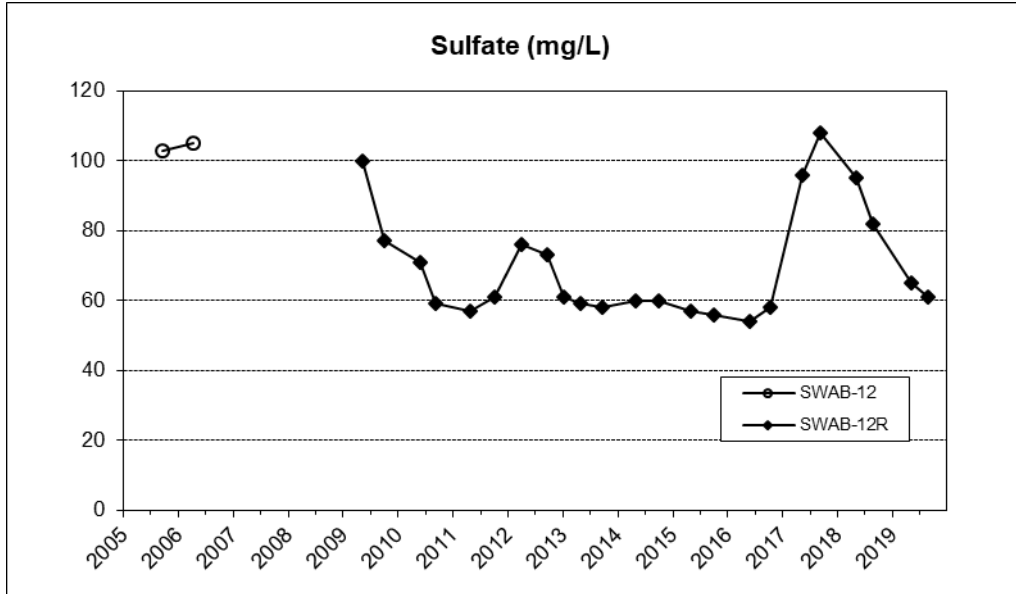
### SWAB-1 and 1R



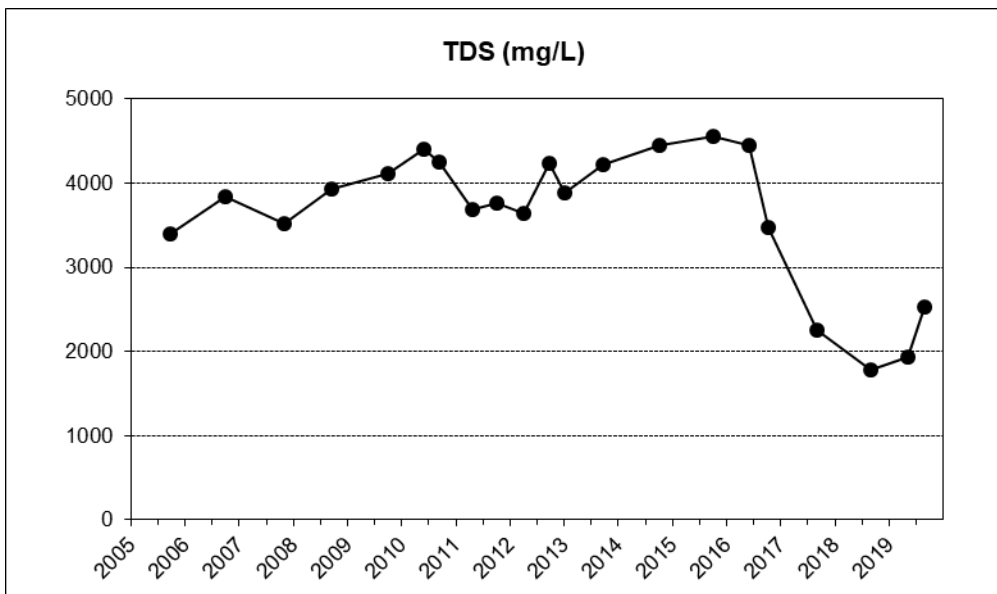
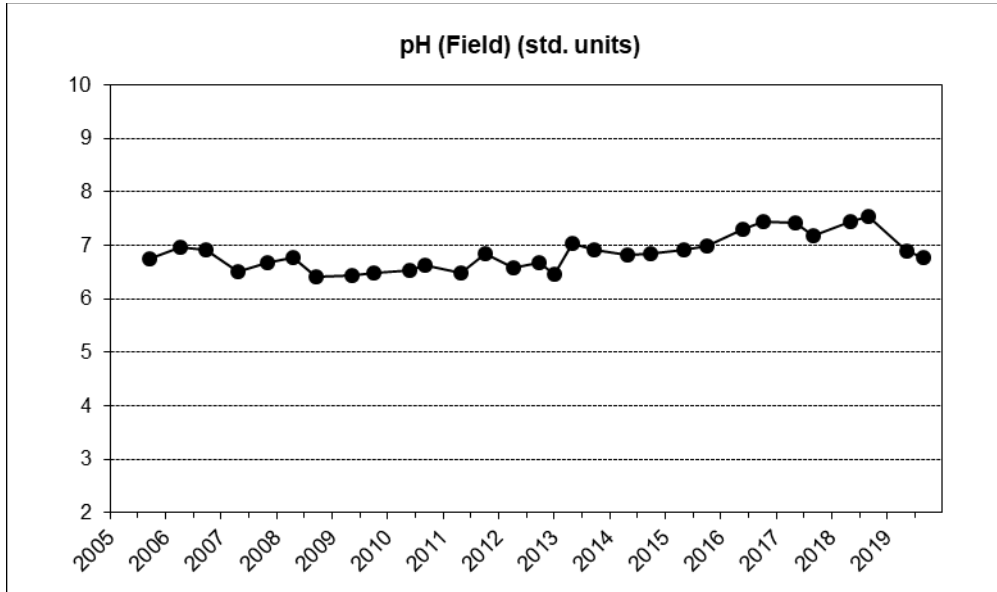
### SWAB-12 and 12R



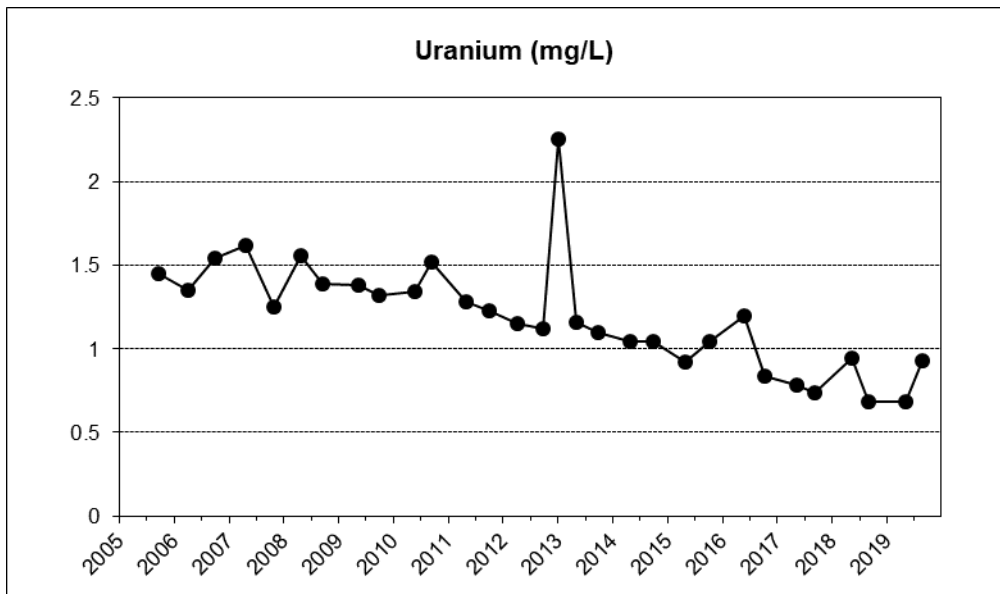
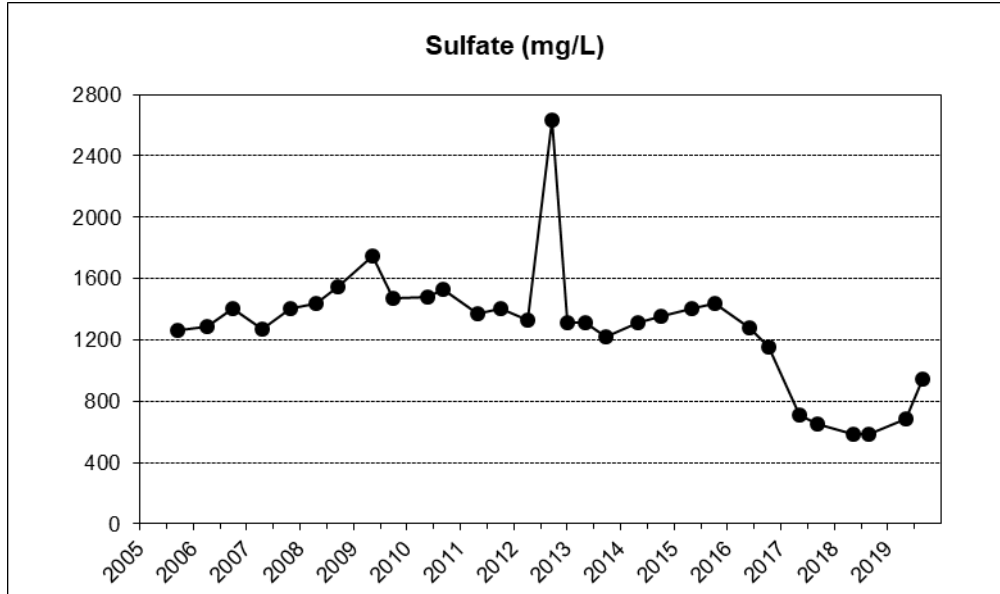
### SWAB-12 and 12R



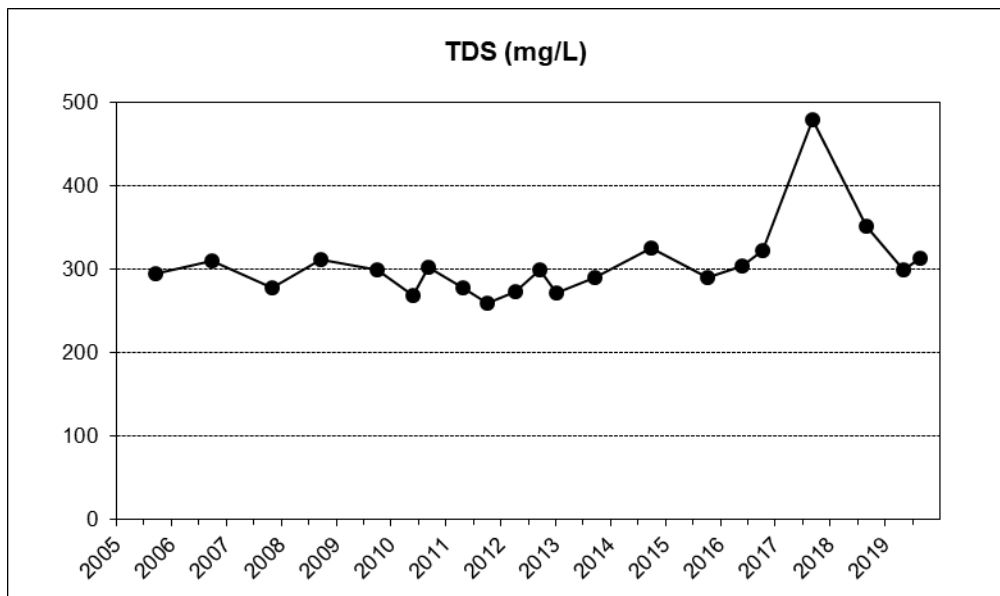
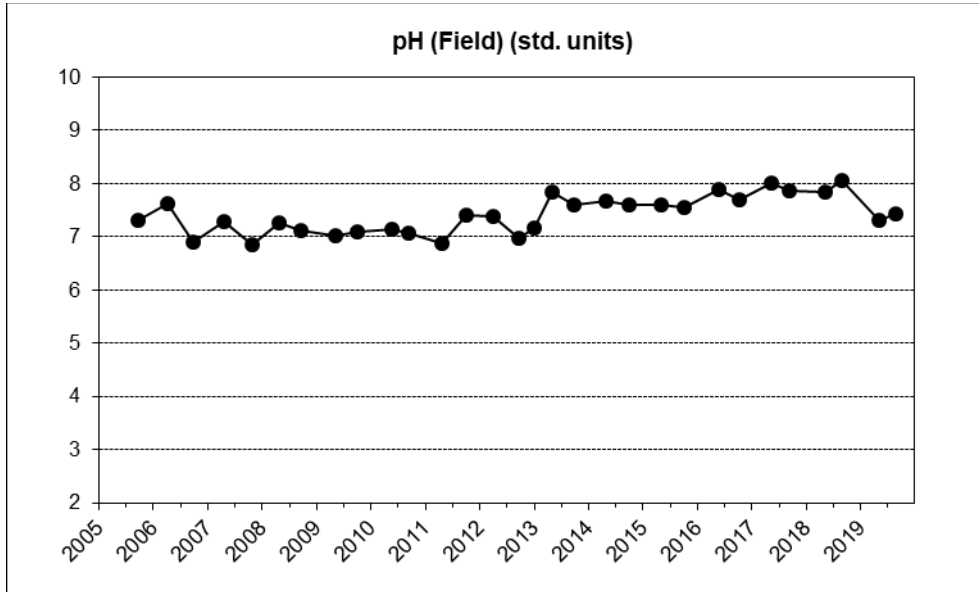
### SWAB-2



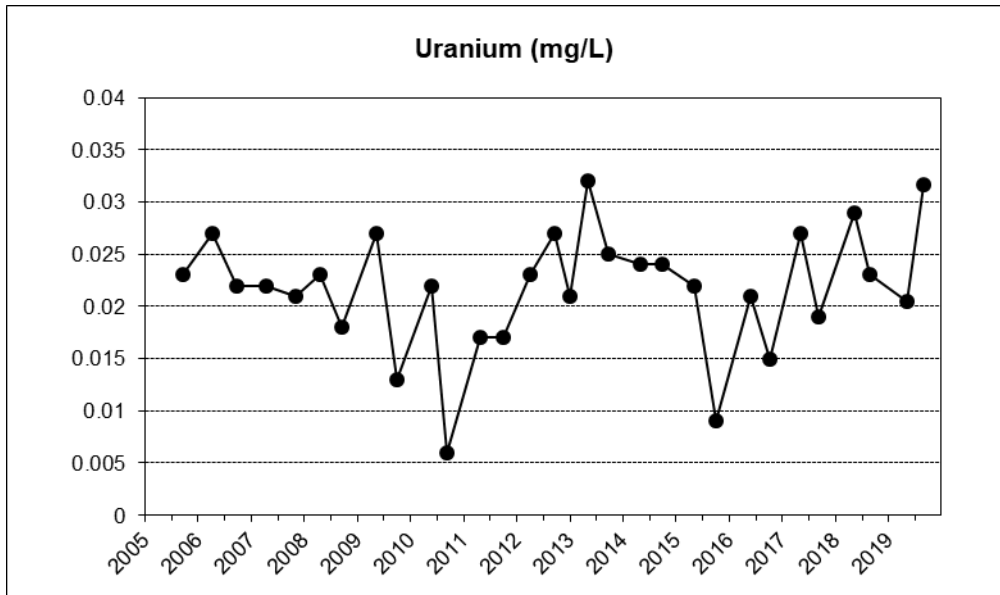
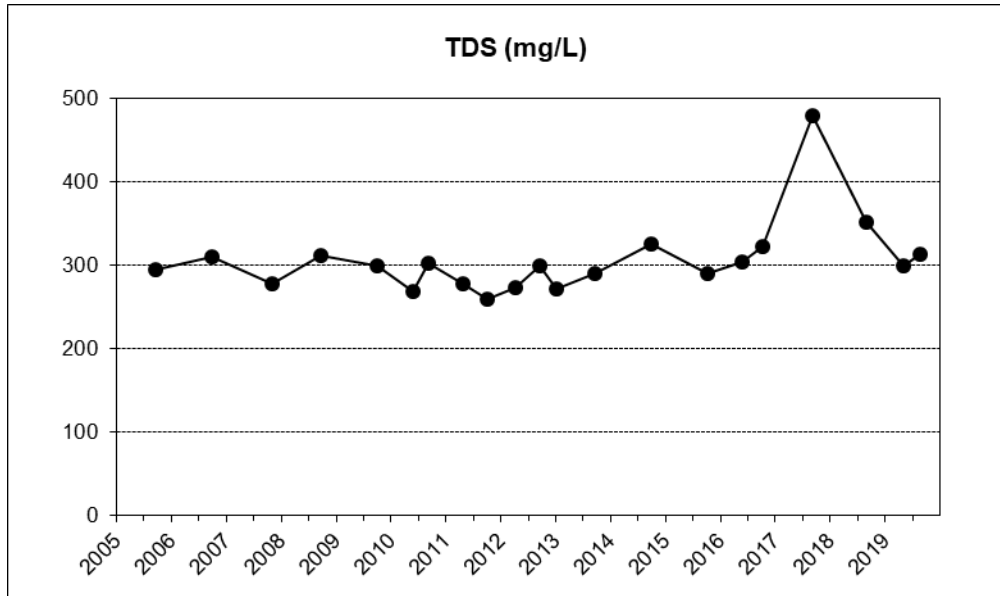
### SWAB-2



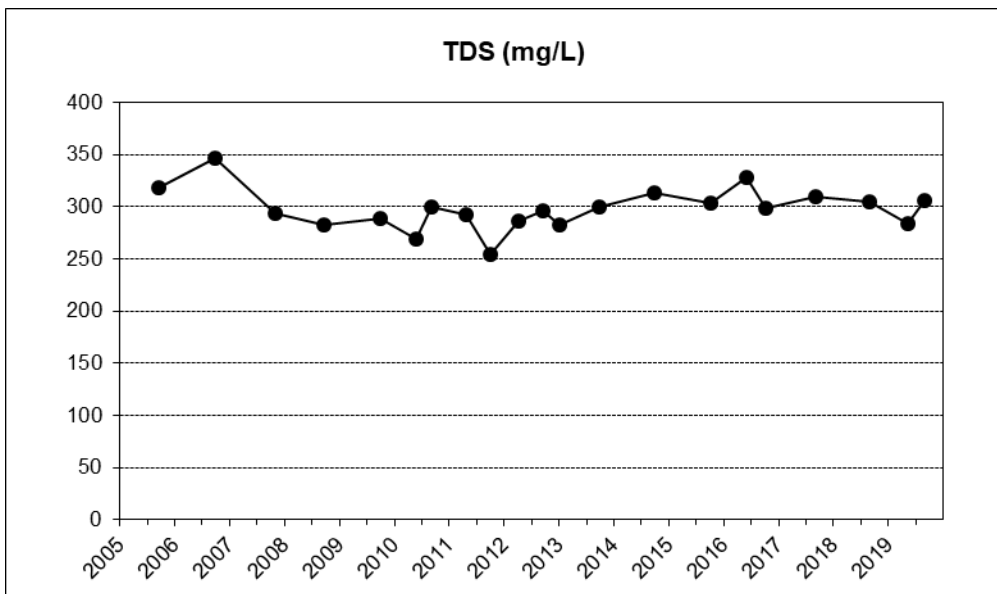
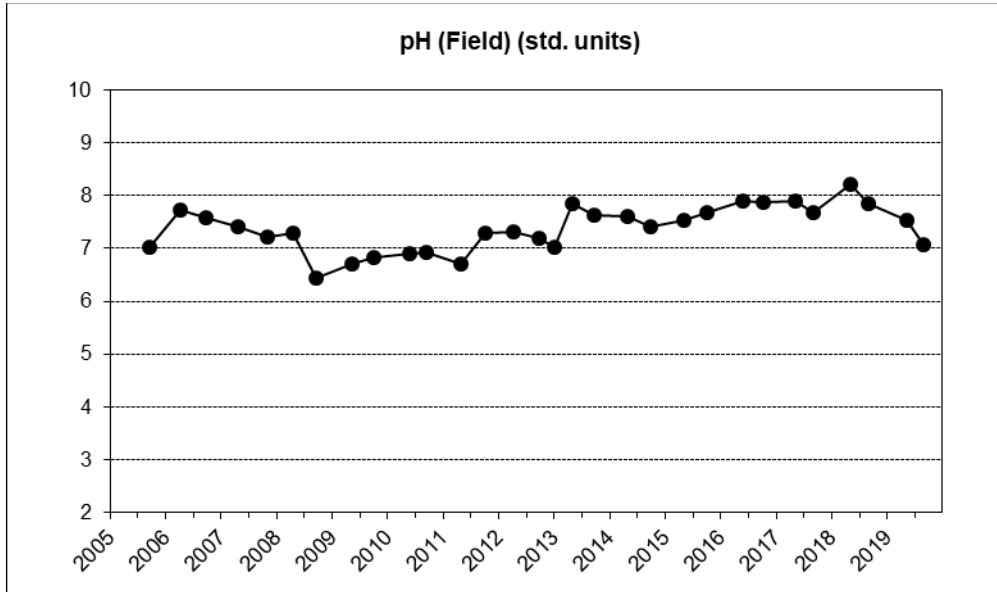
### SWAB-22



SWAB-22

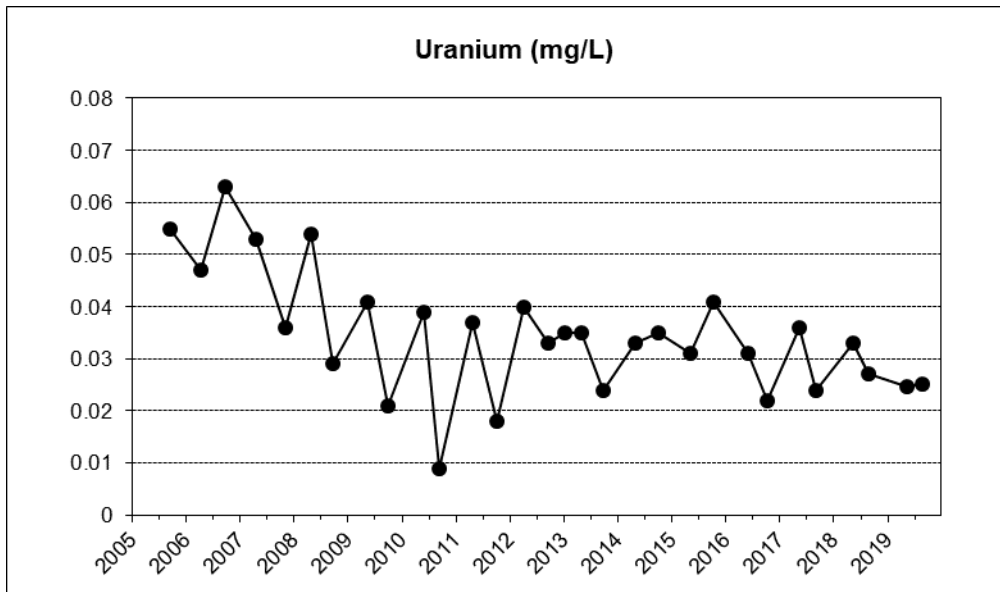
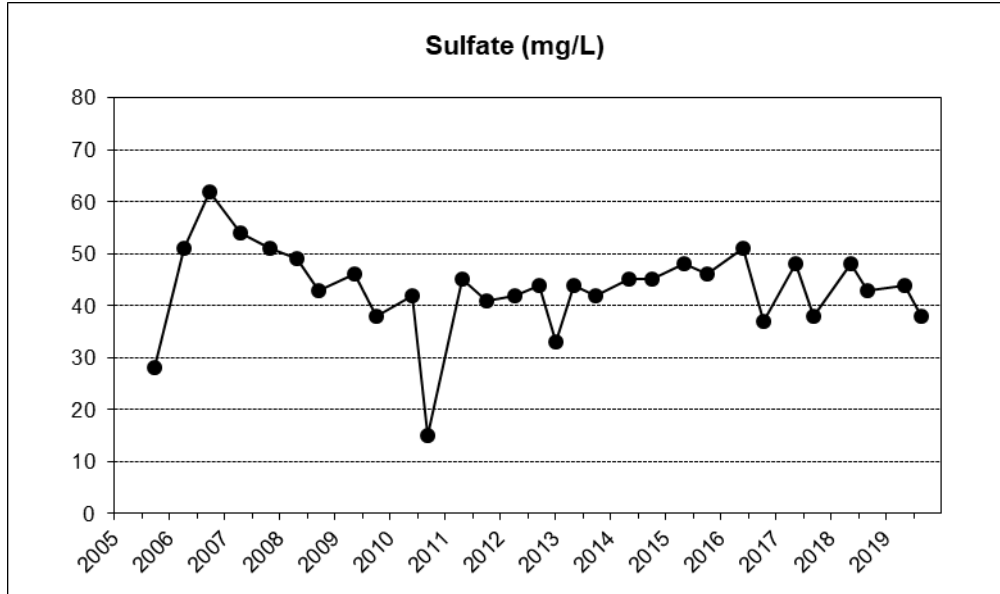


SWAB-29

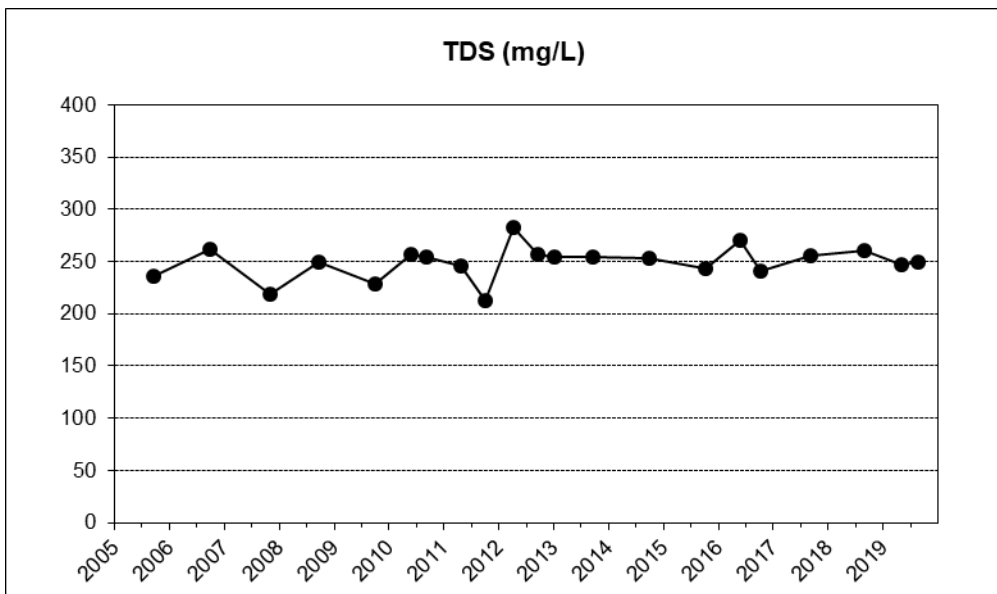
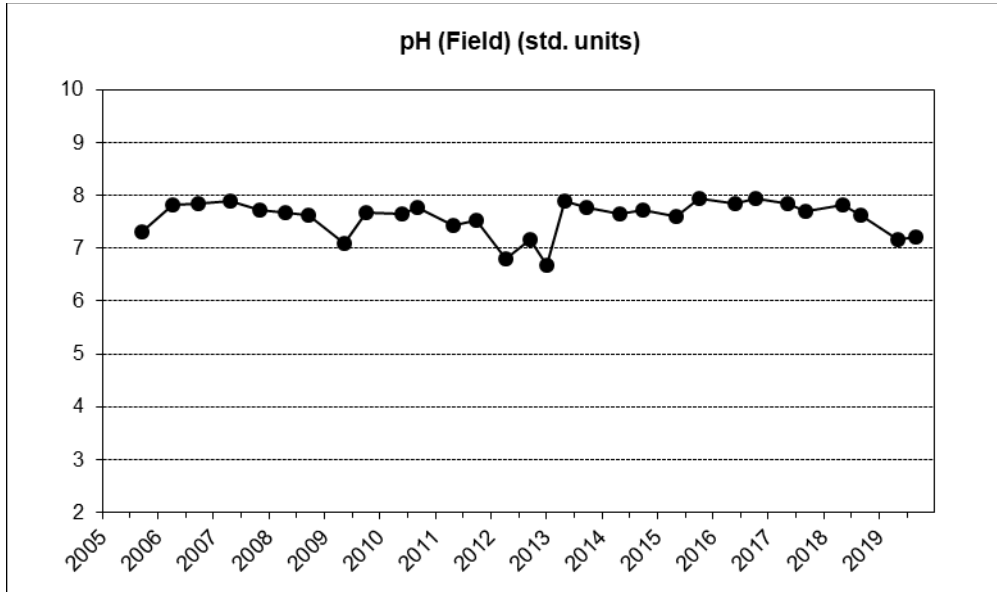




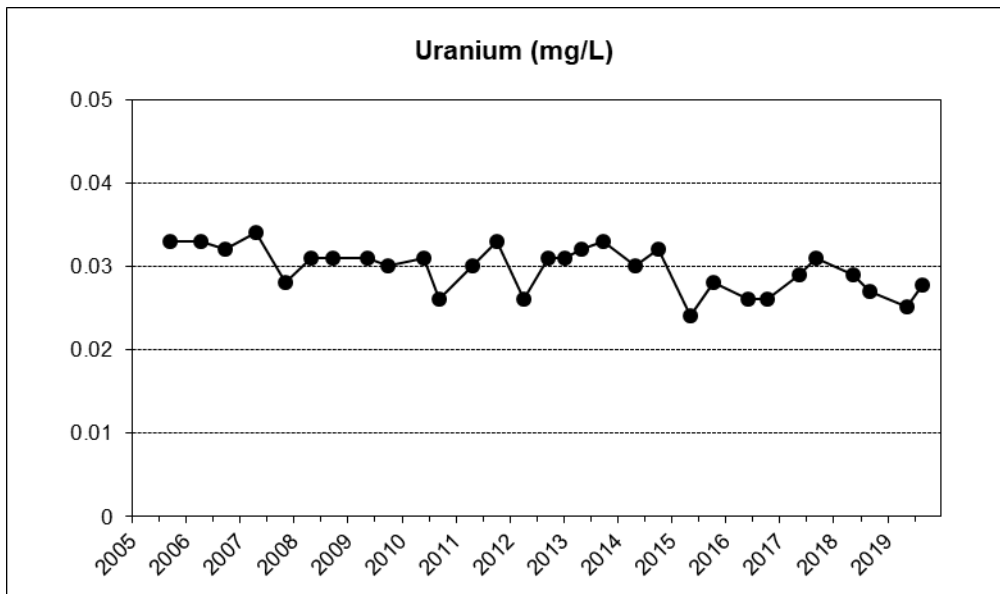
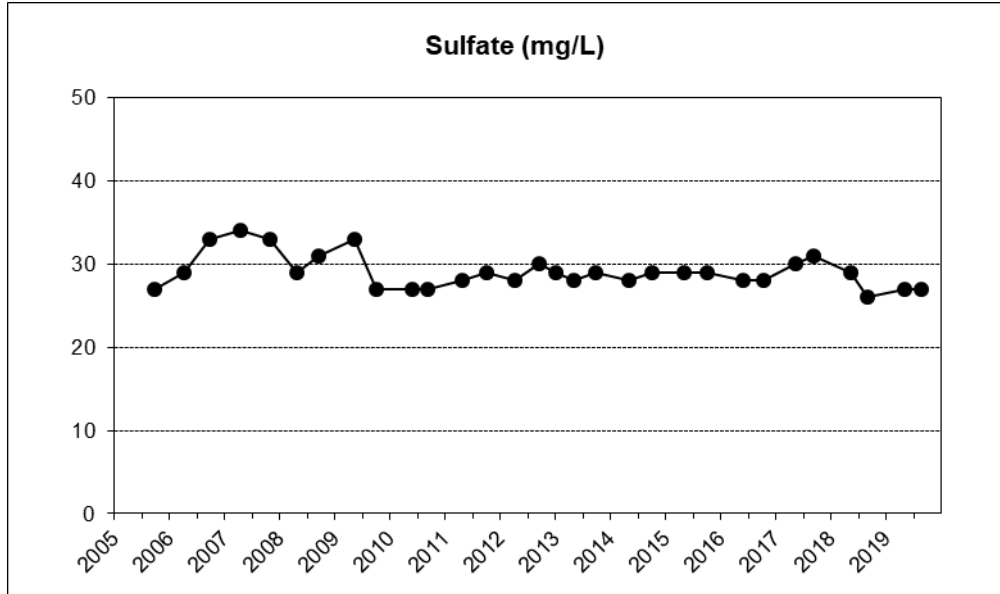
SWAB-29



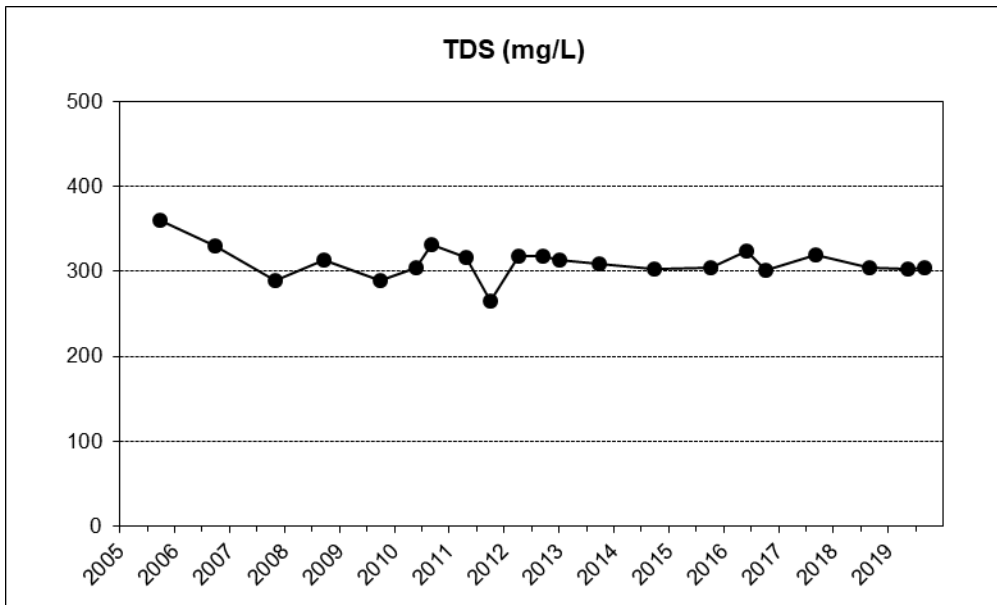
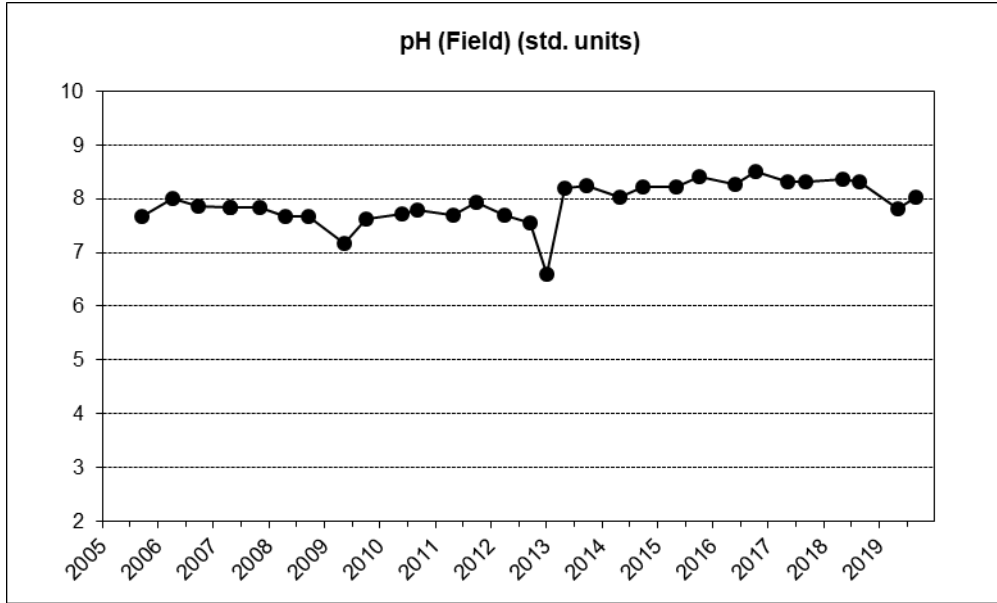
### SWAB-31



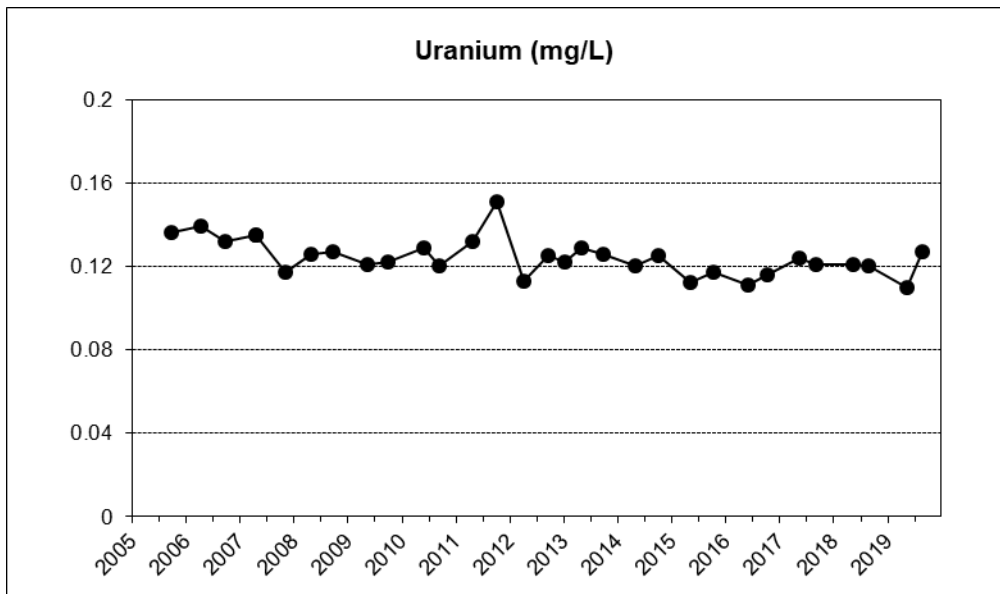
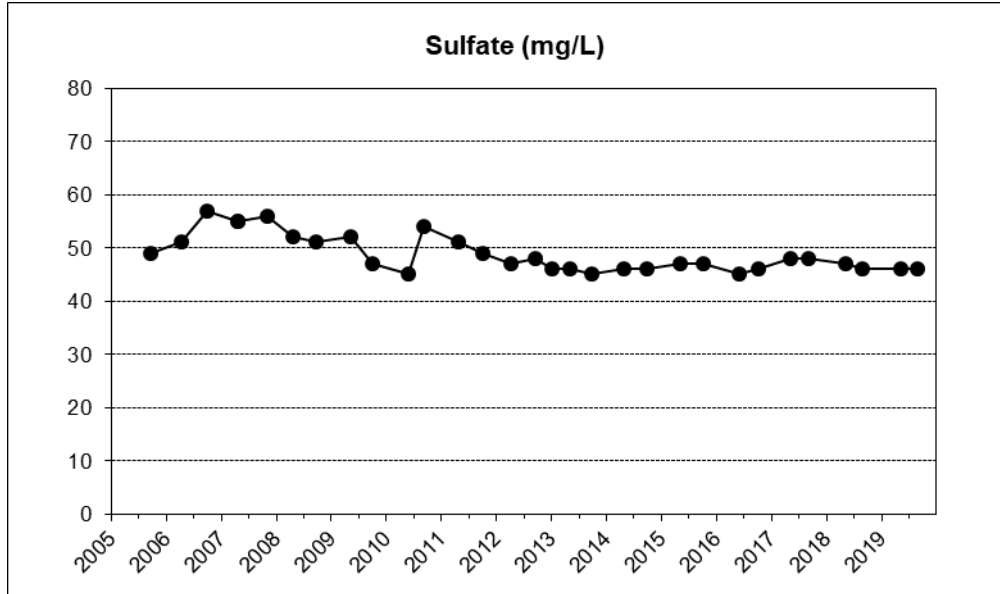
SWAB-31



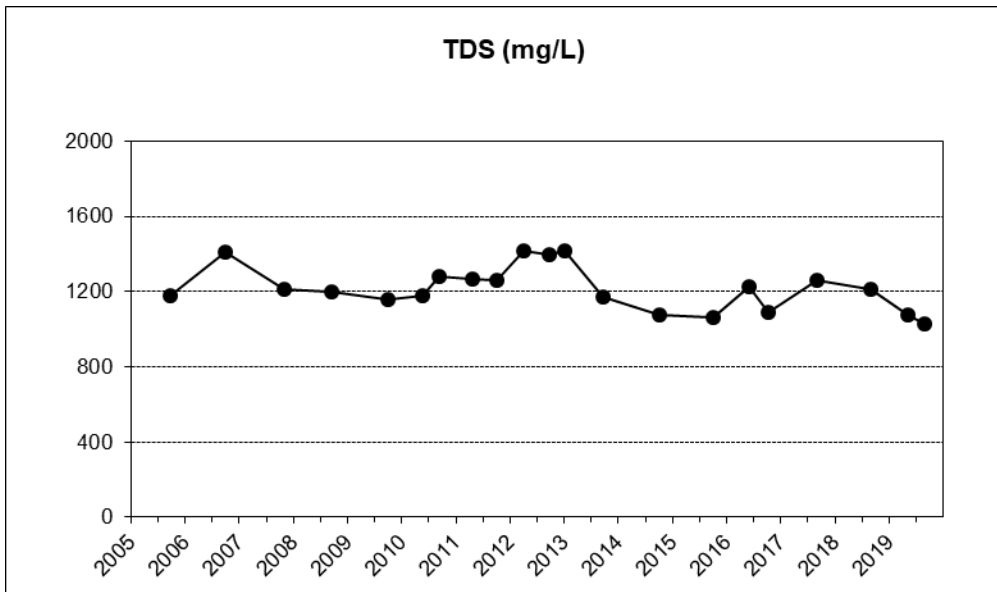
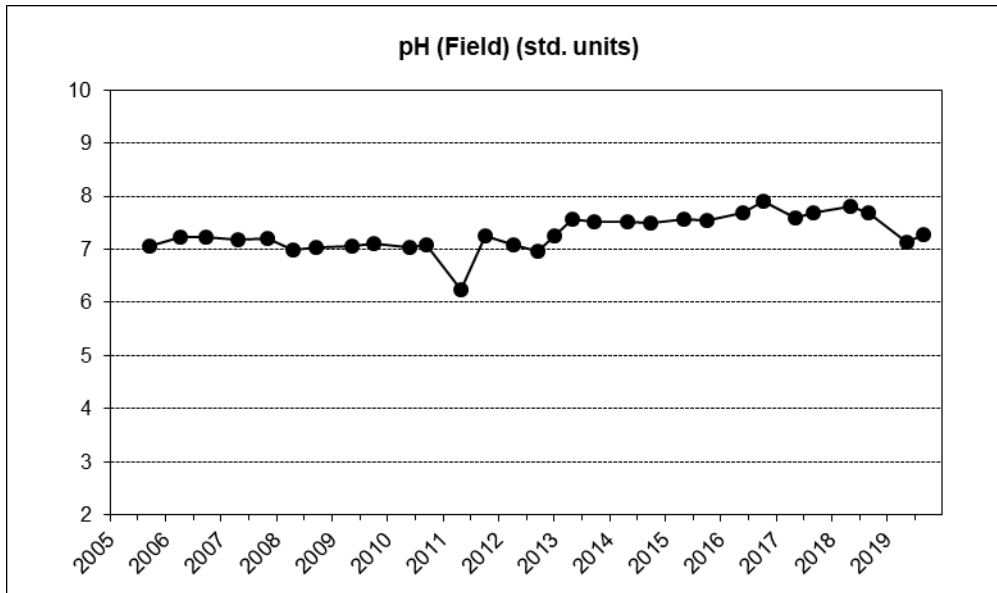
SWAB-32



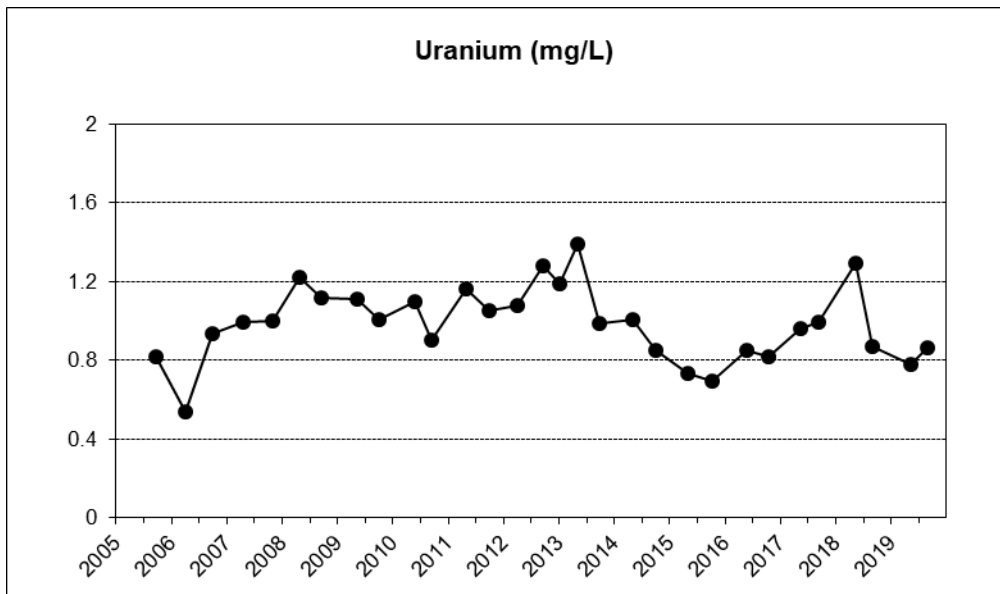
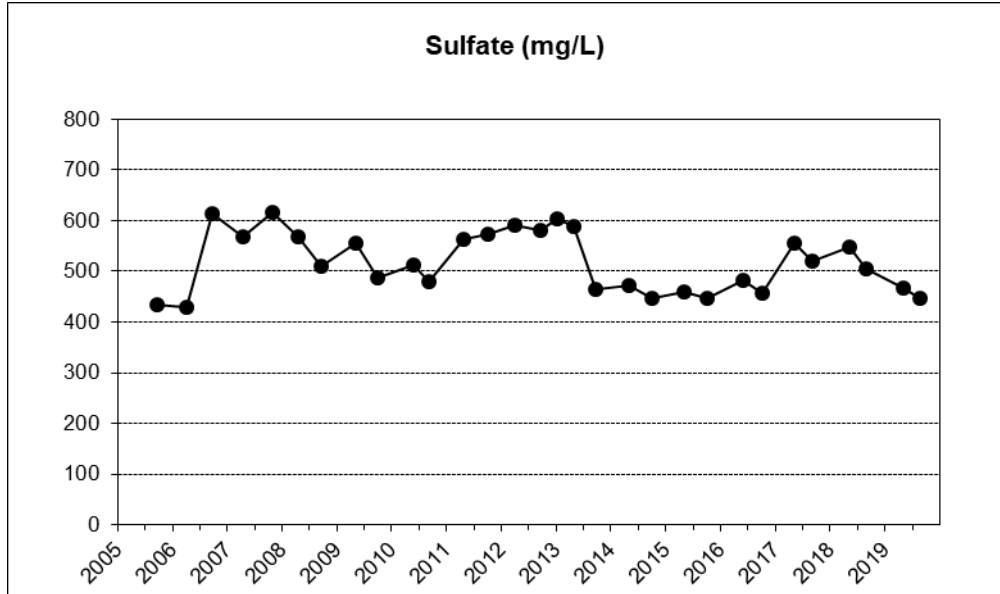
SWAB-32



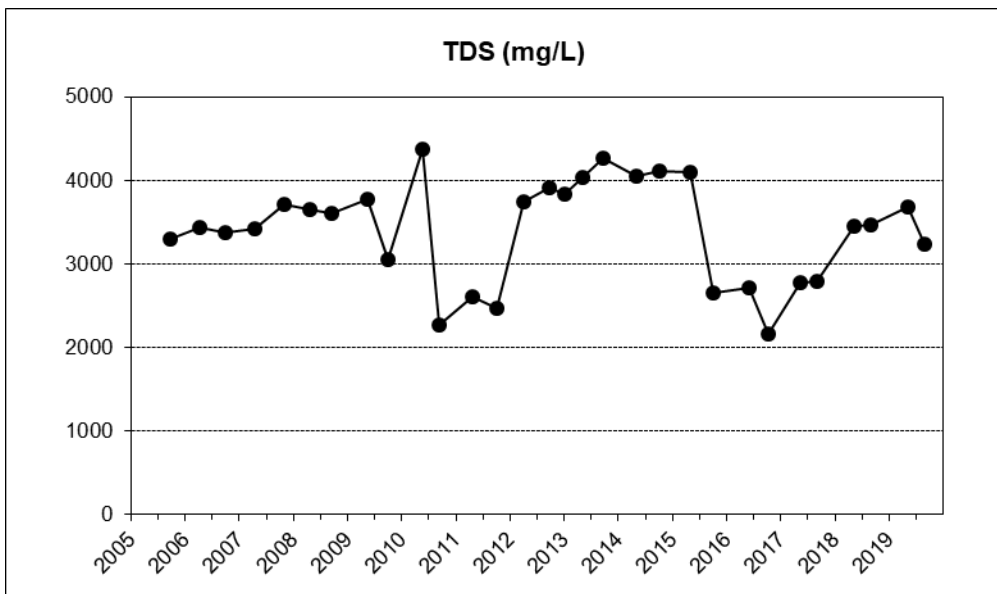
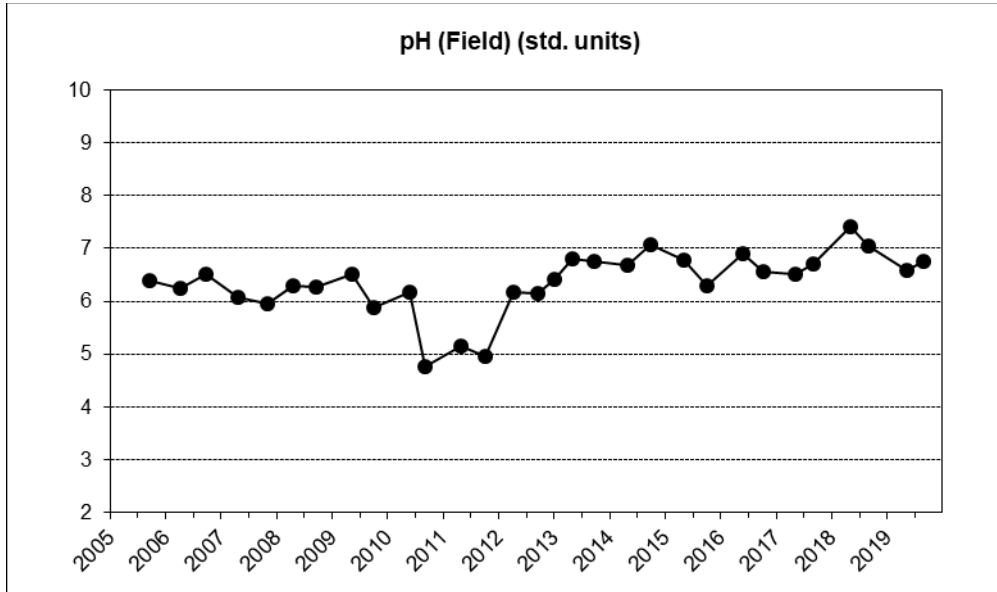
SWAB-4



### SWAB-4

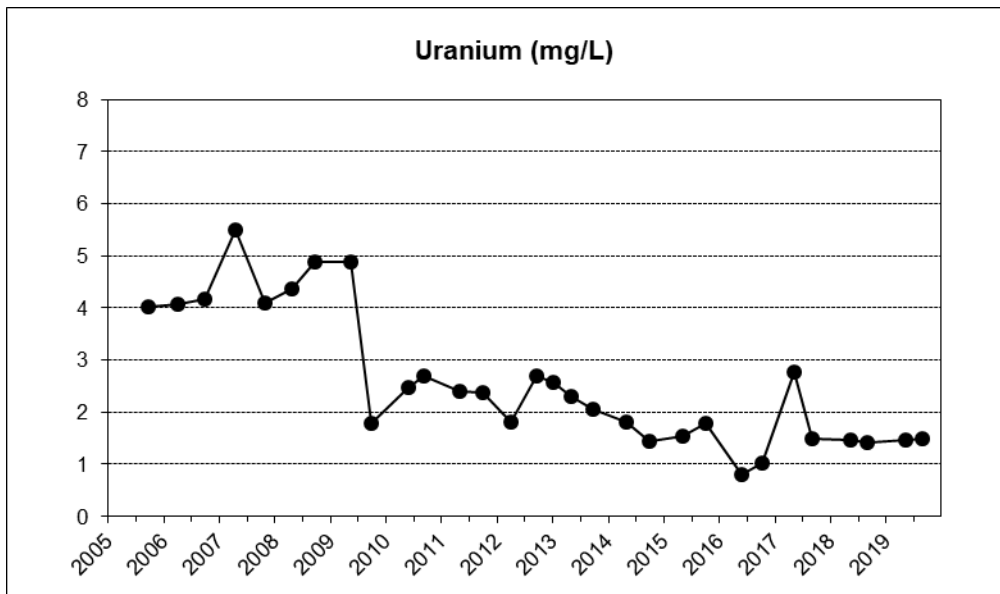
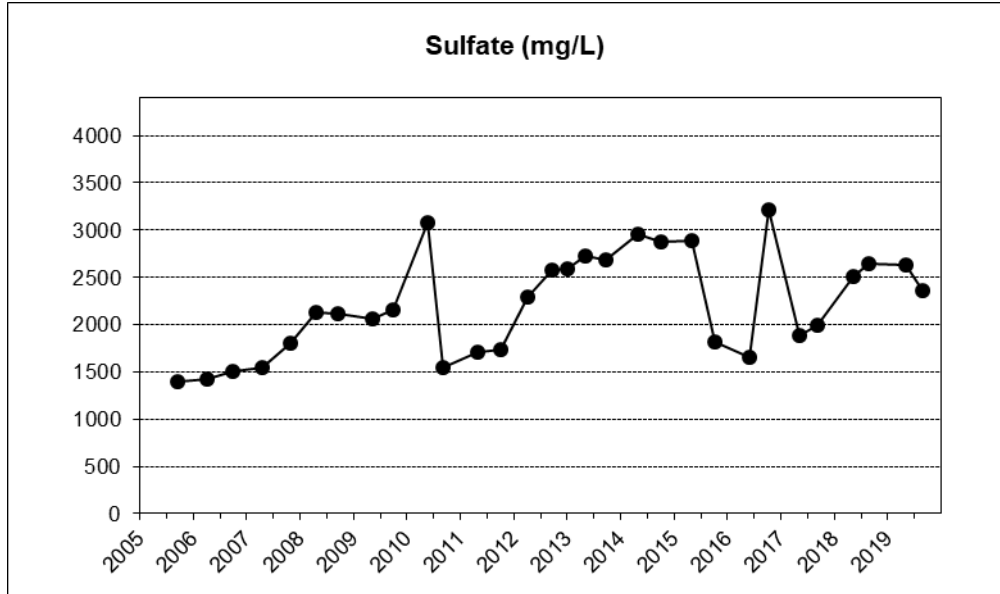


WN-1

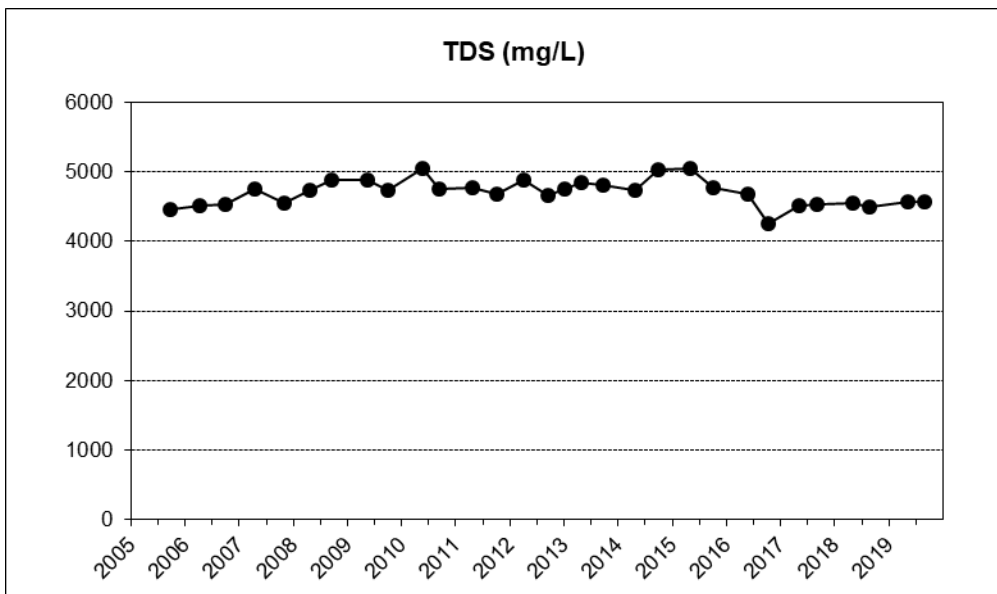
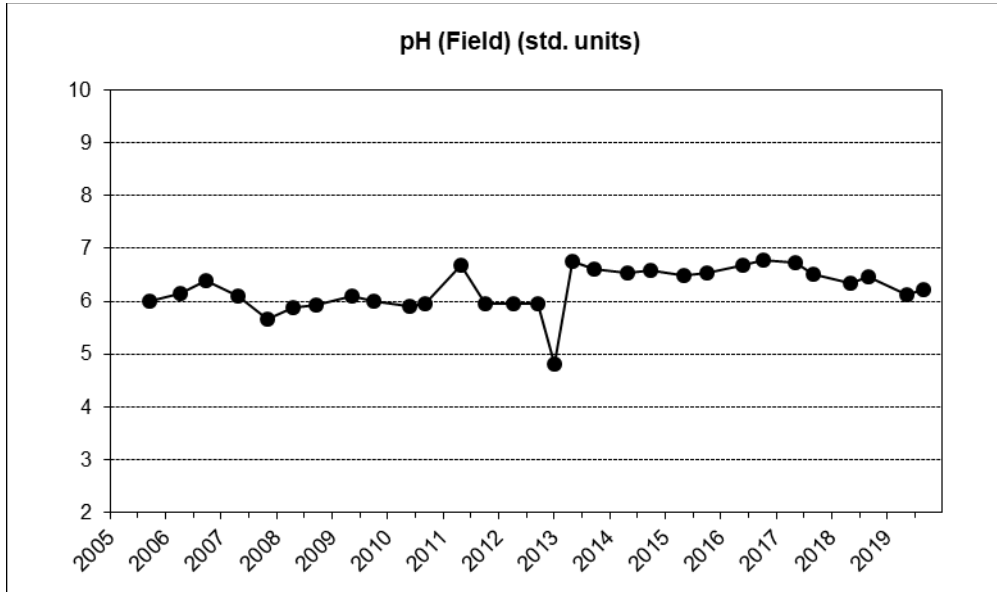




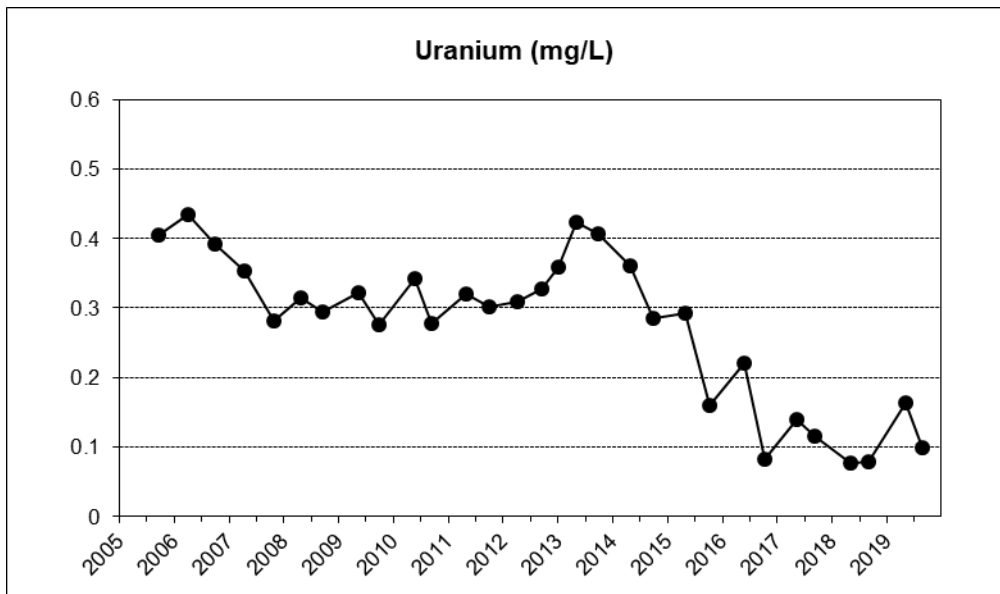
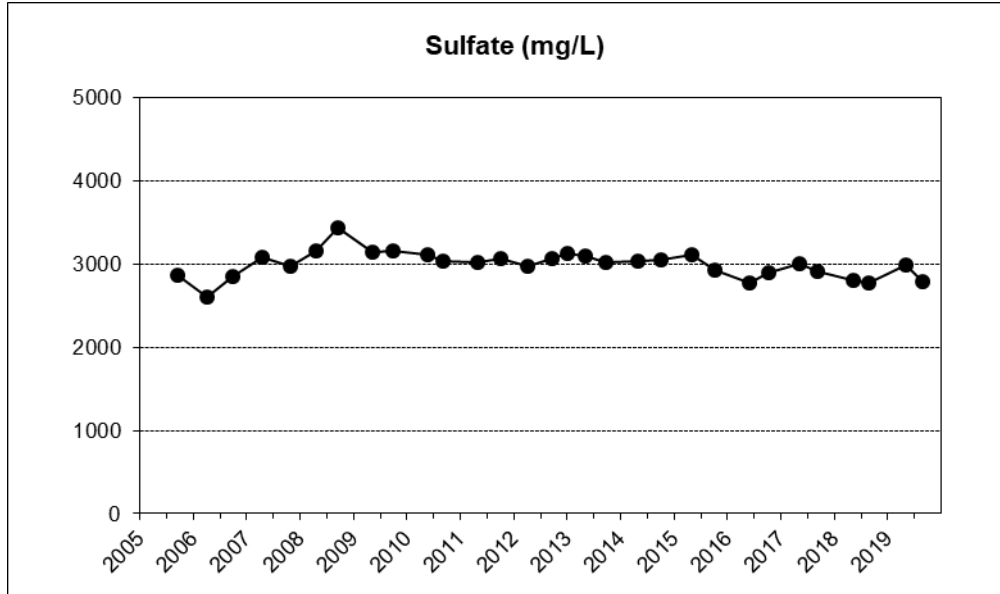
WN-1



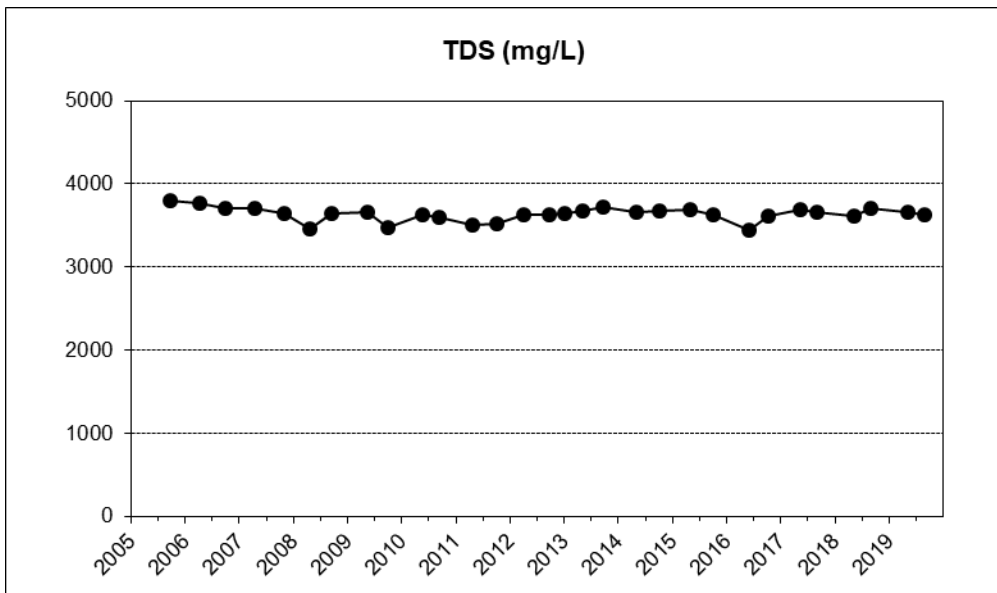
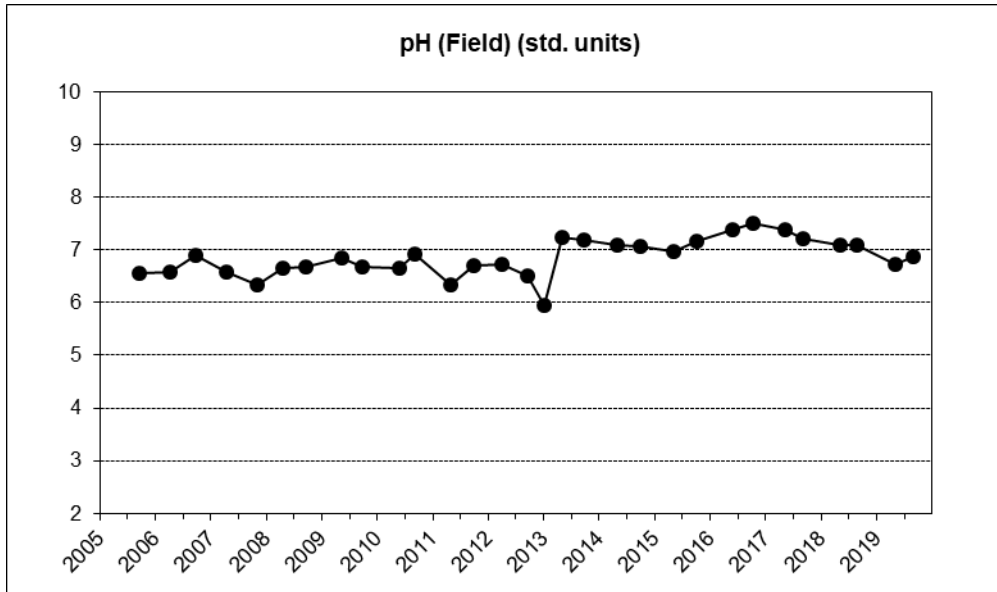
WN-4R



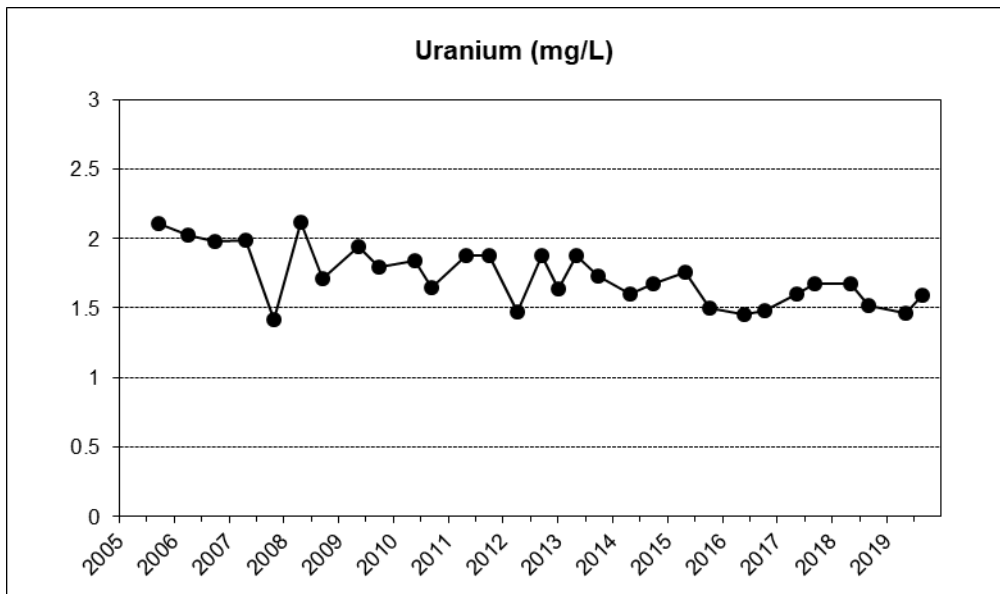
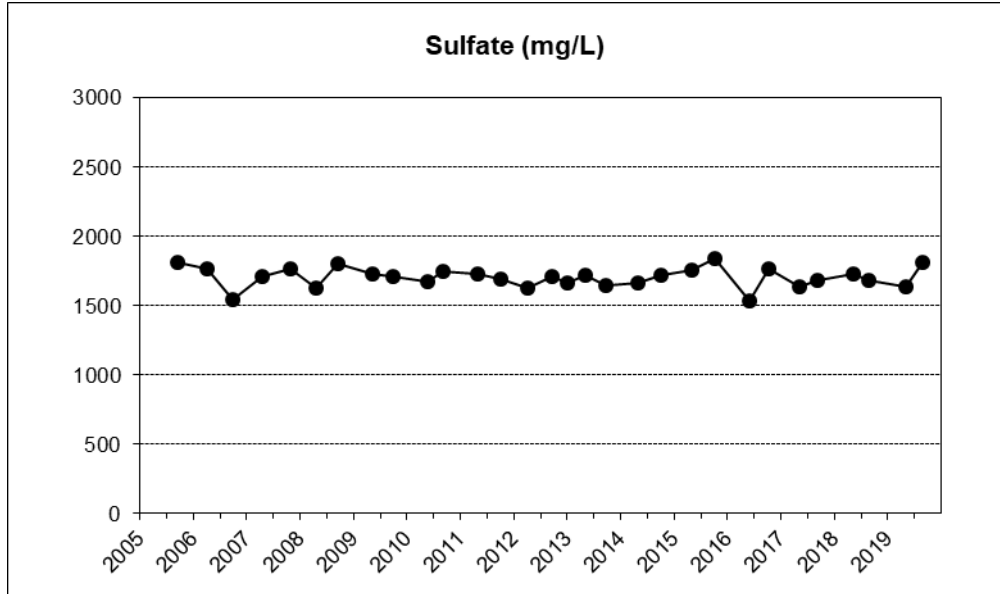
WN-4R



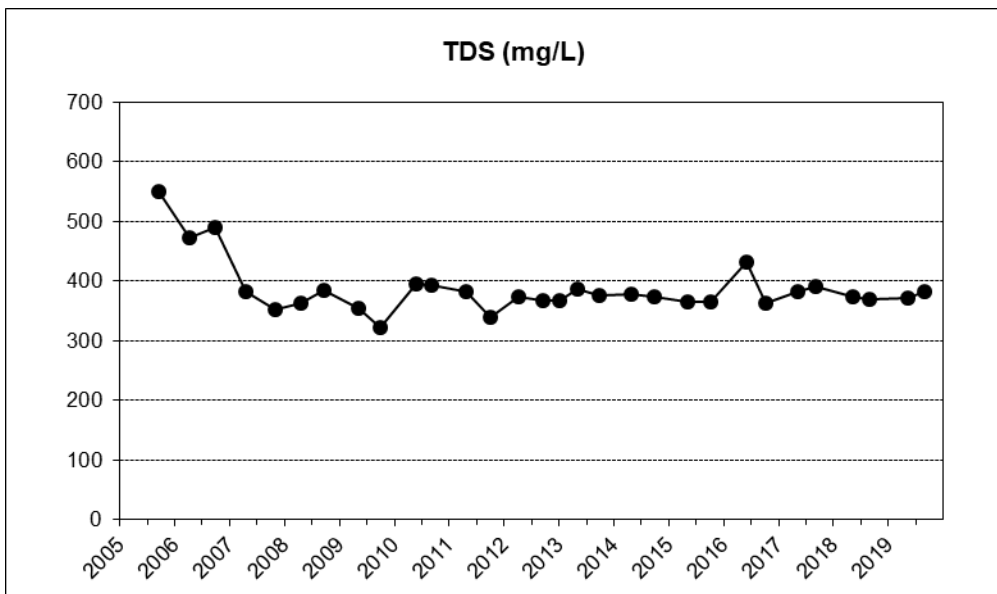
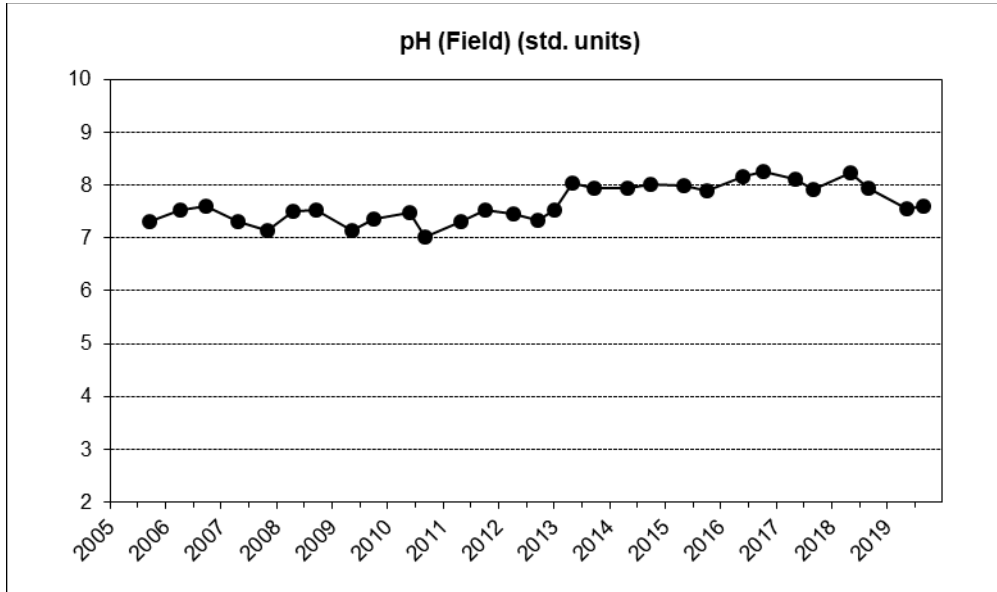
WN-5



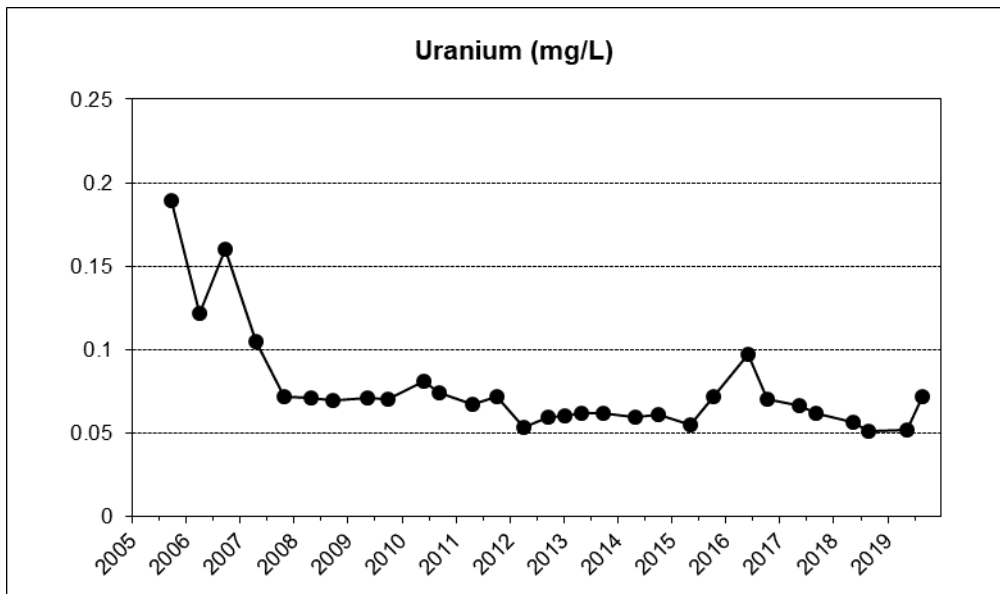
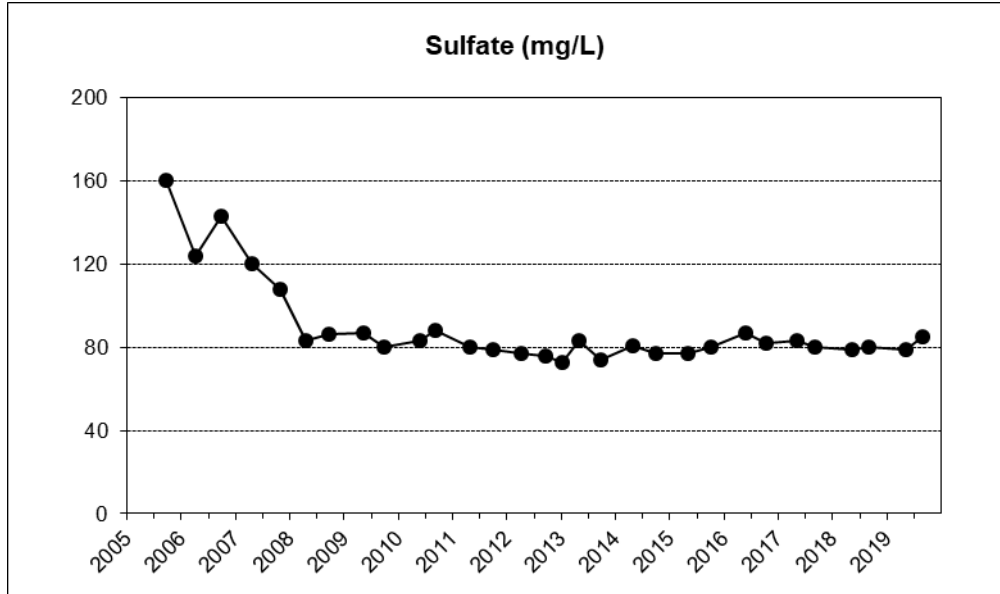
WN-5



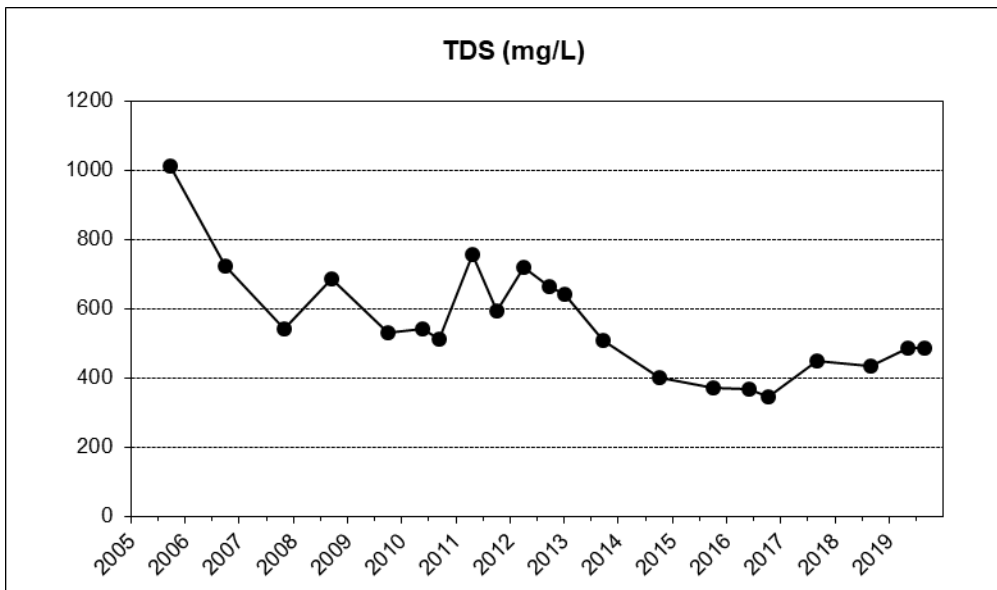
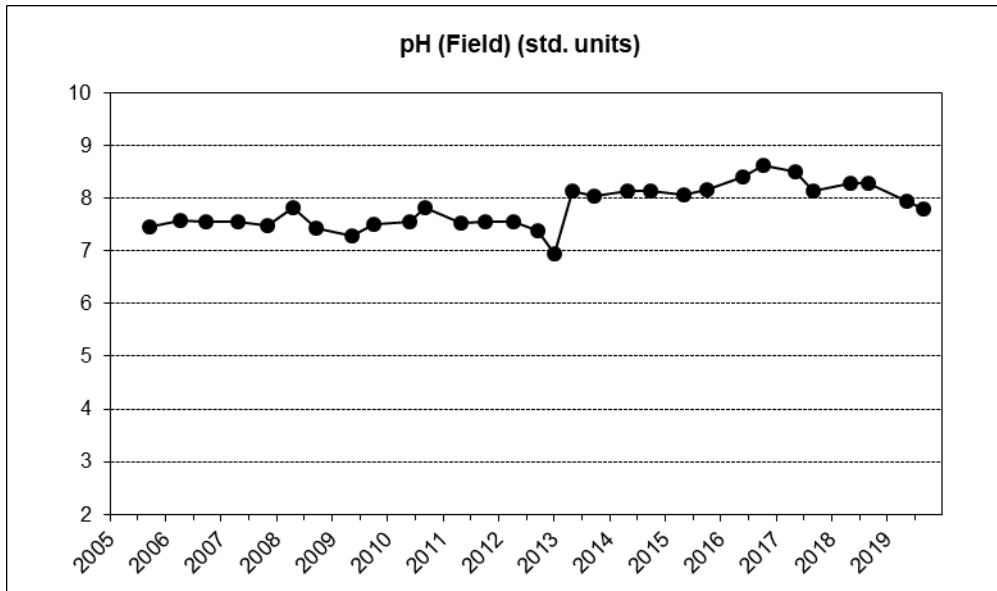
WN-21



WN-21

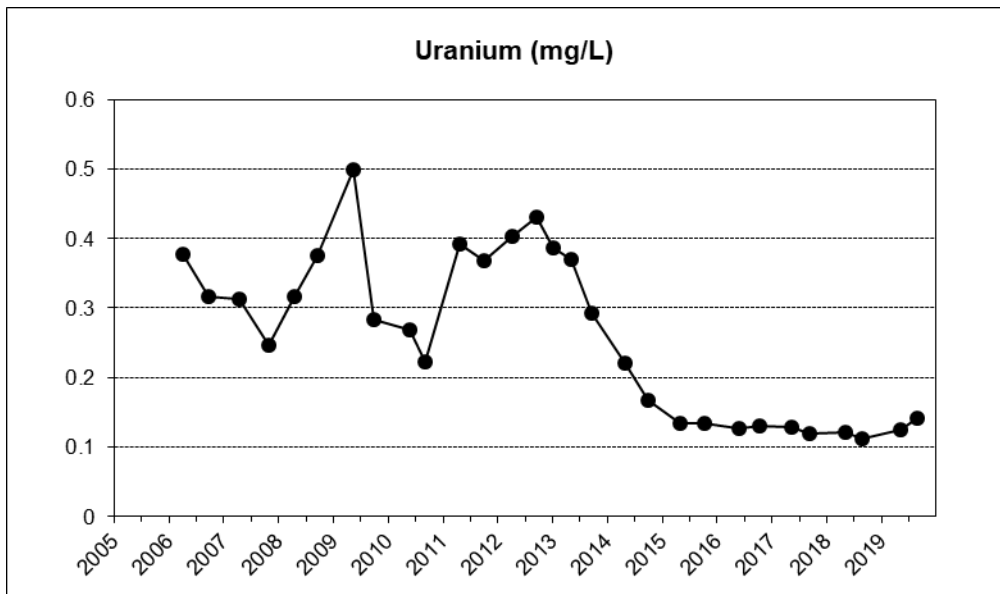
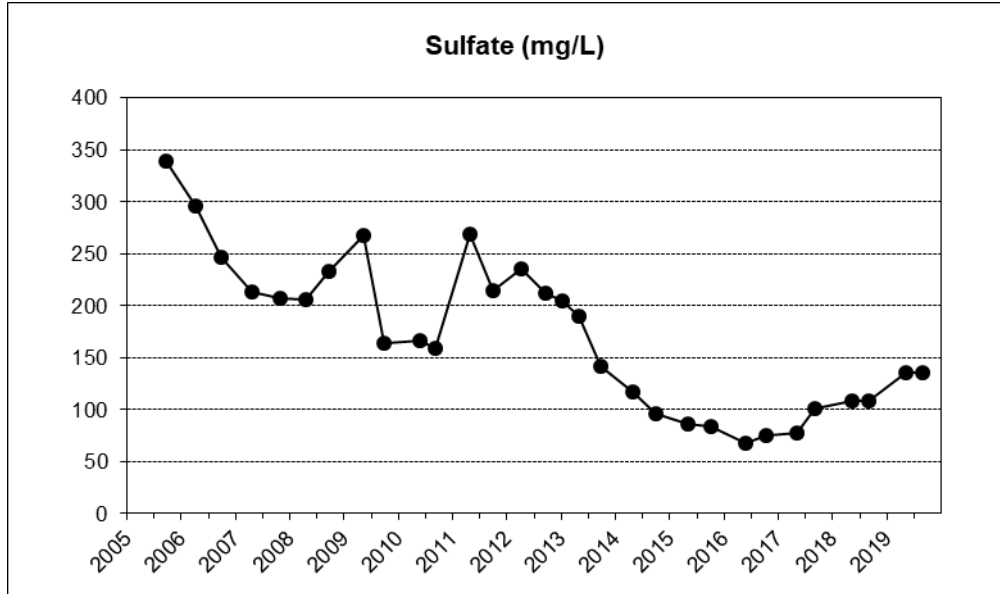


WN-39B

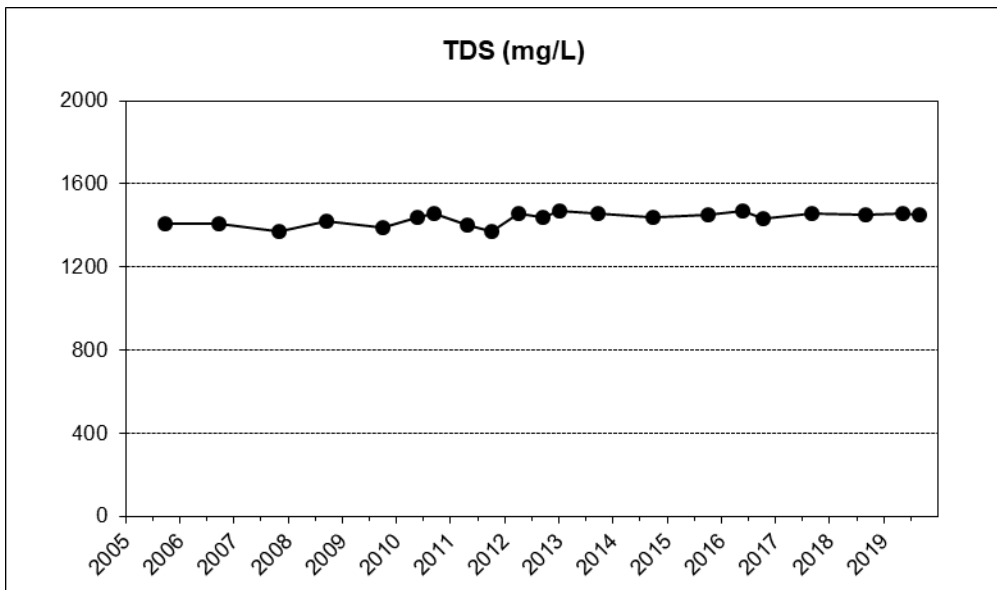
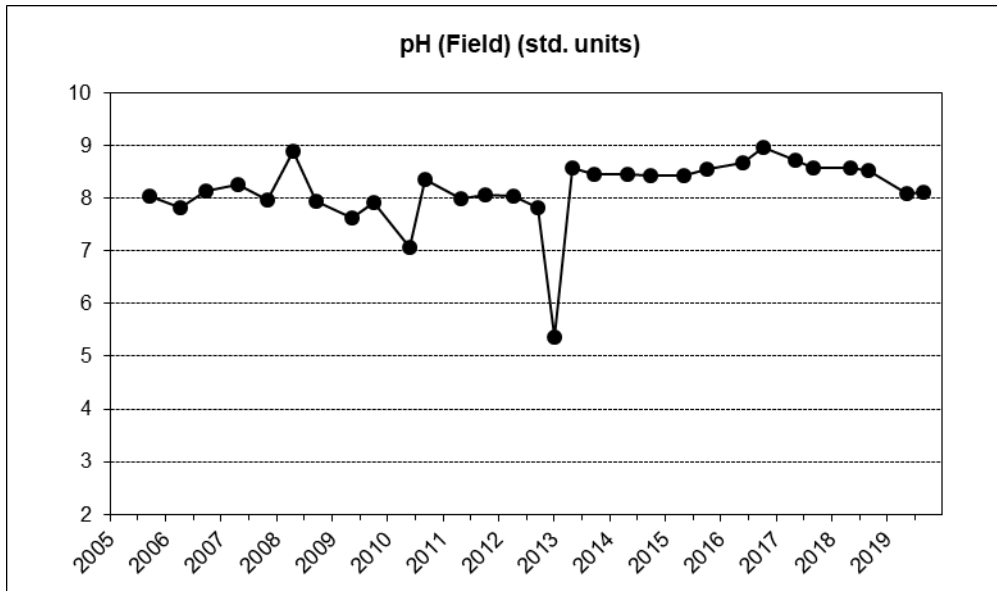




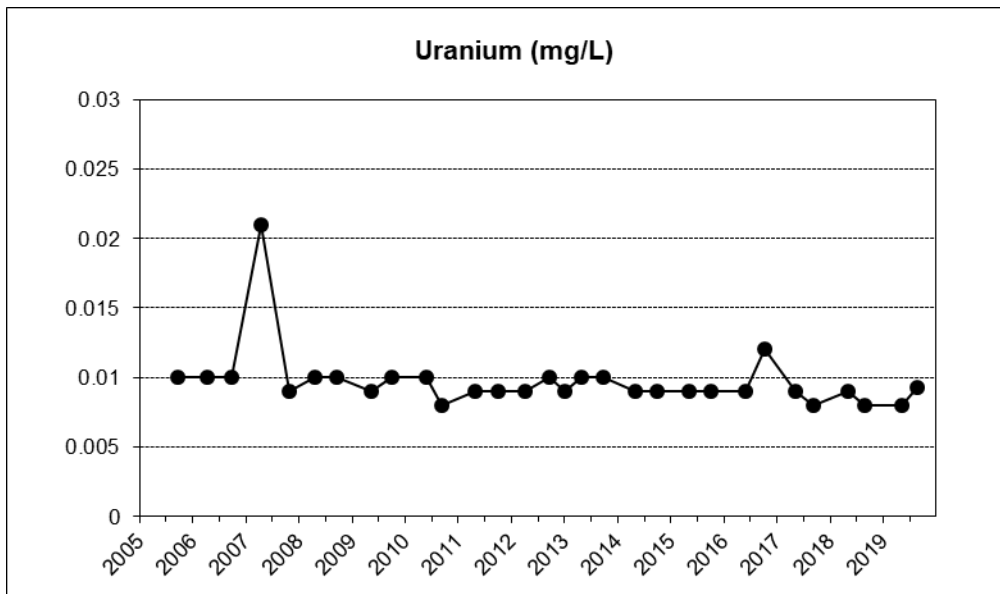
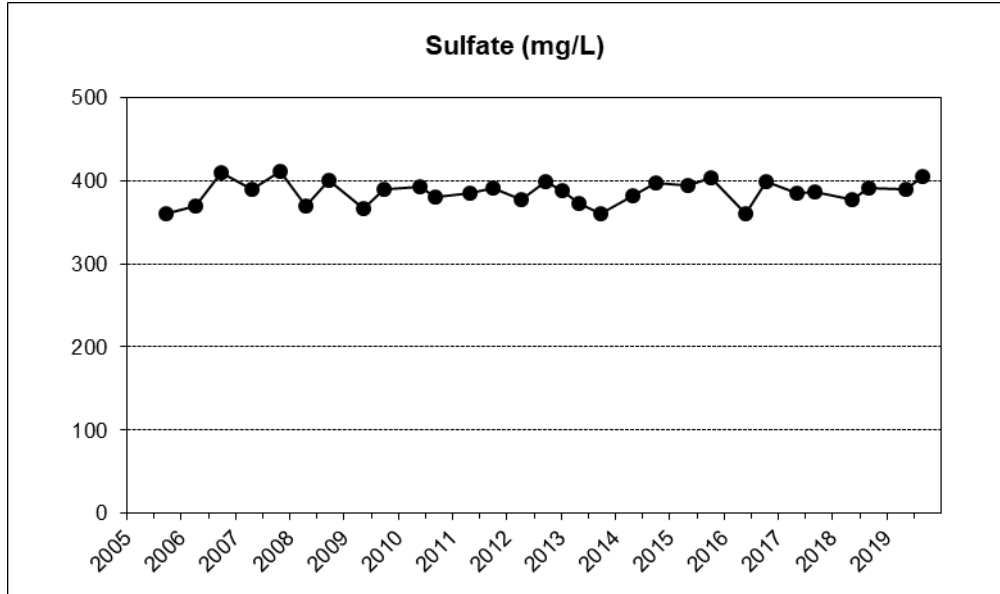
WN-39B



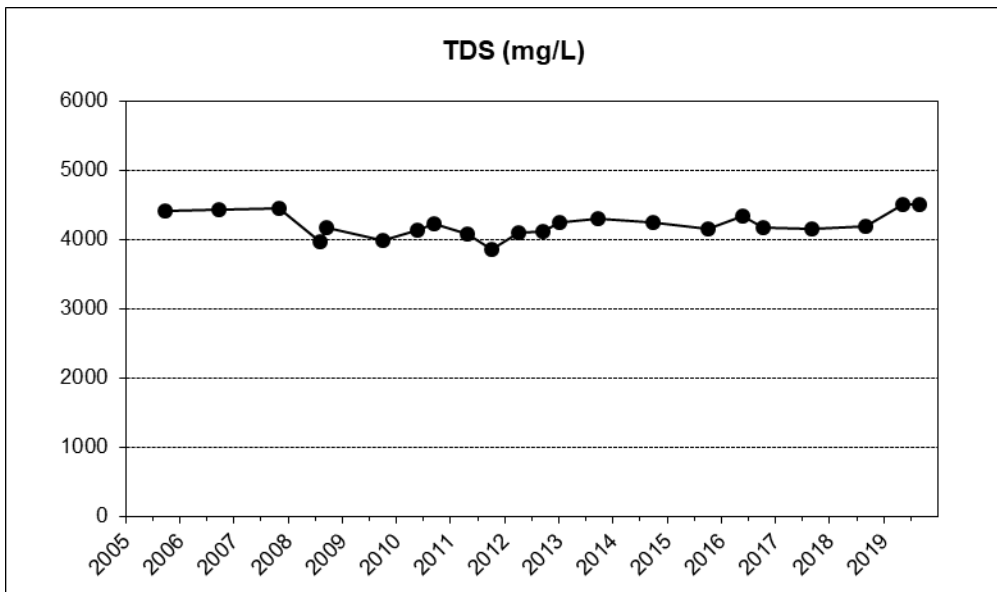
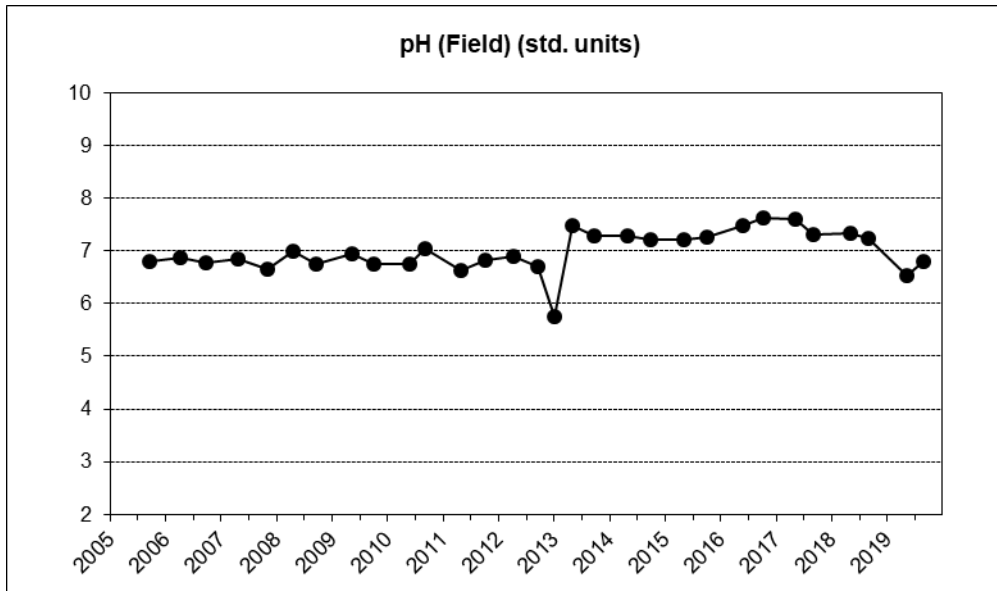
WN-41B



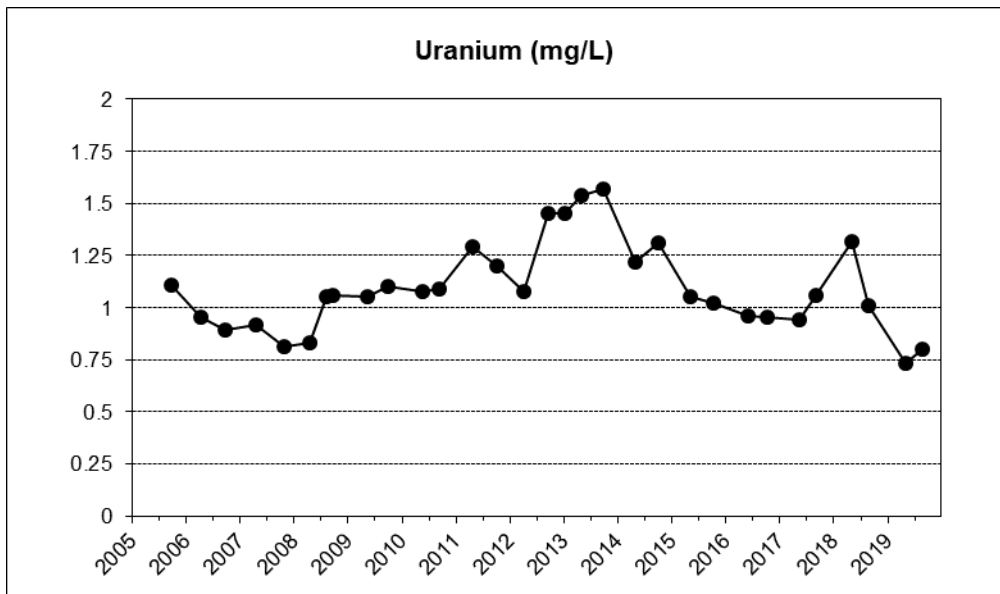
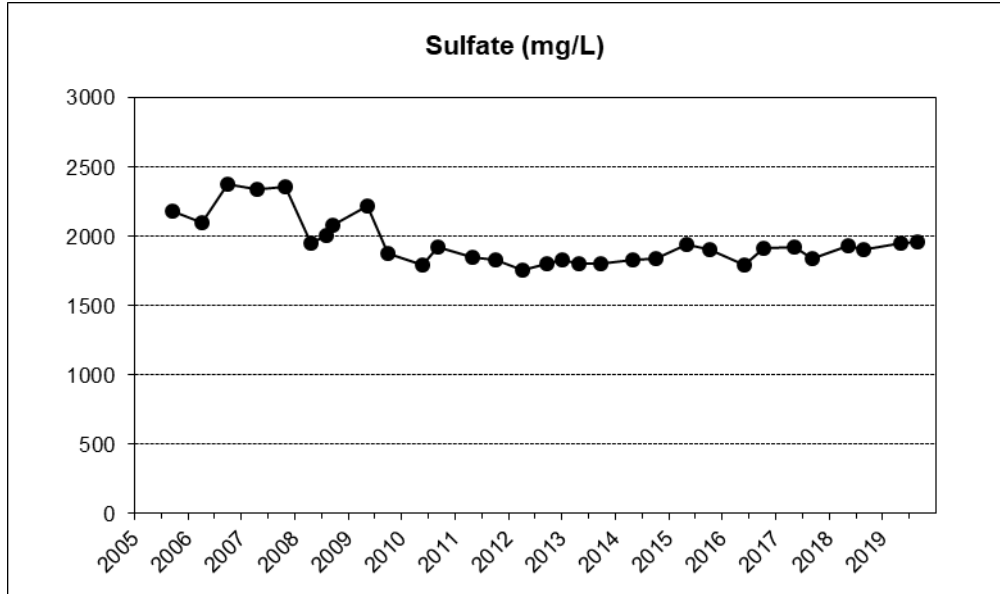
WN-41B



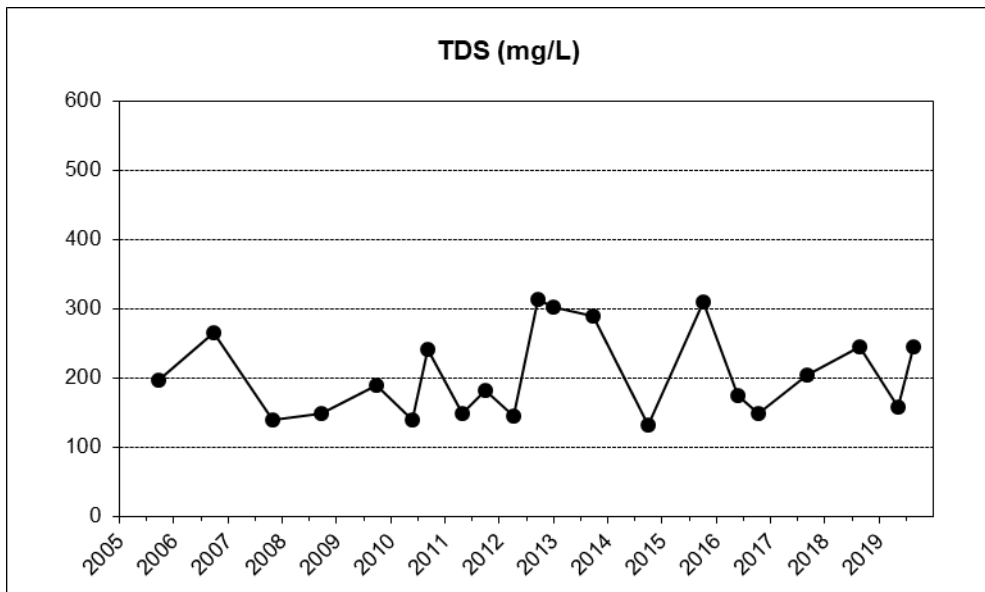
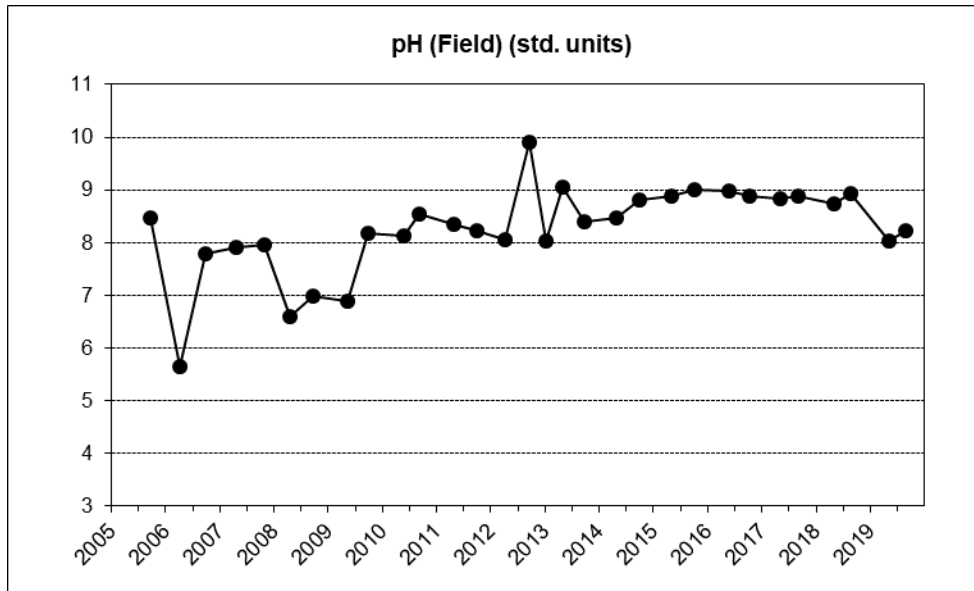
WN-42A



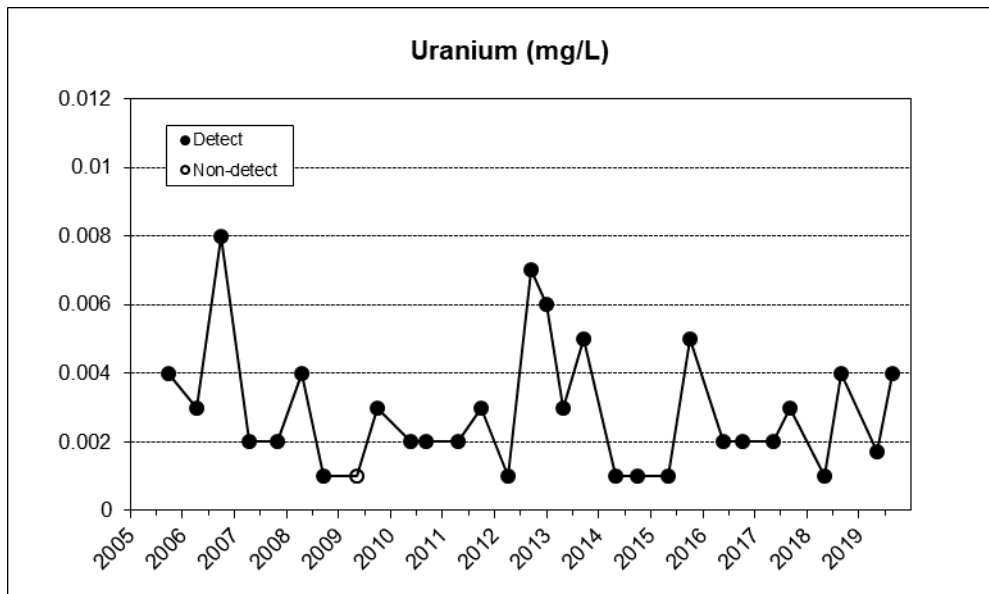
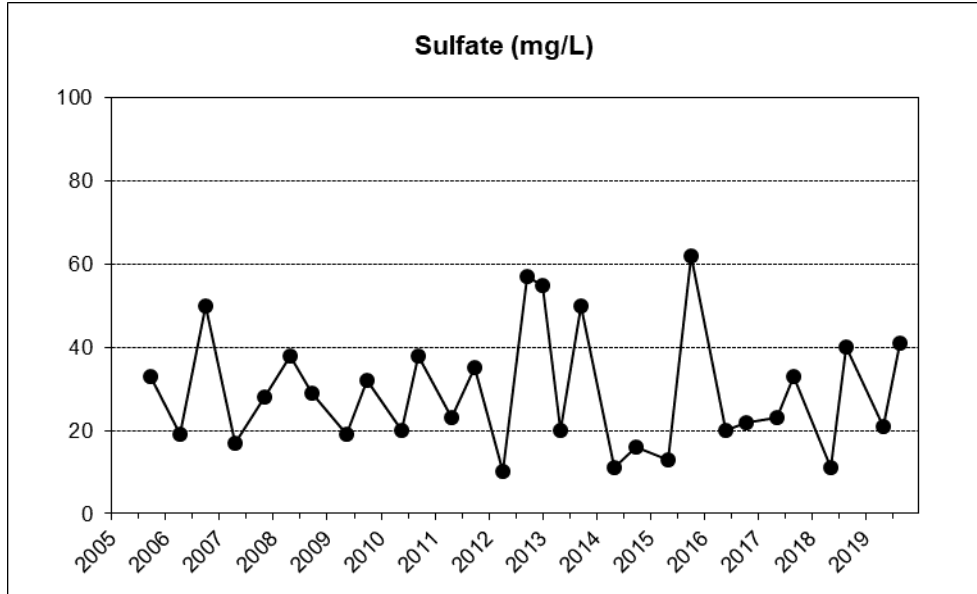
WN-42A



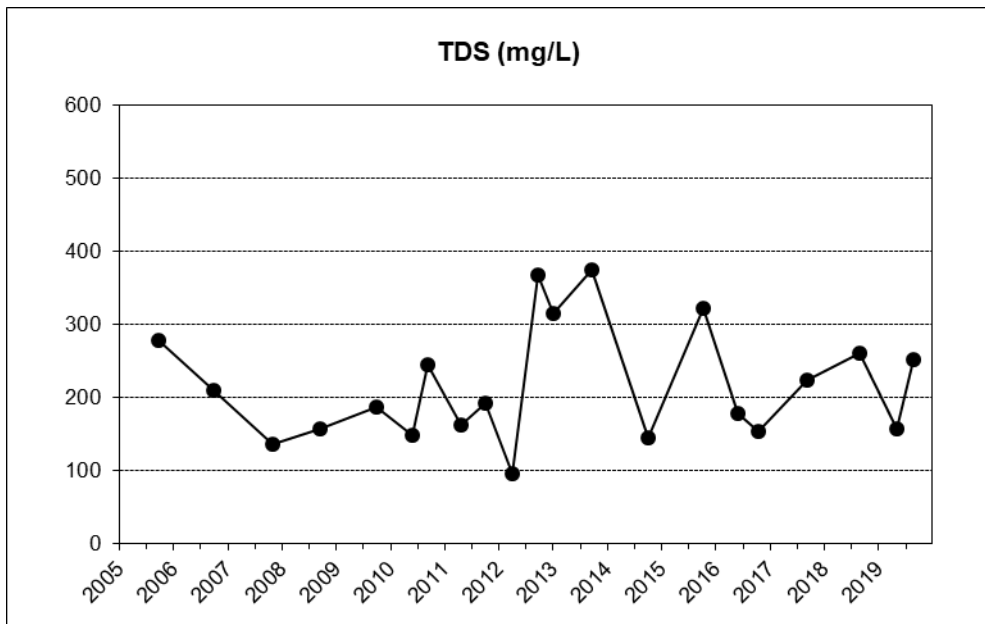
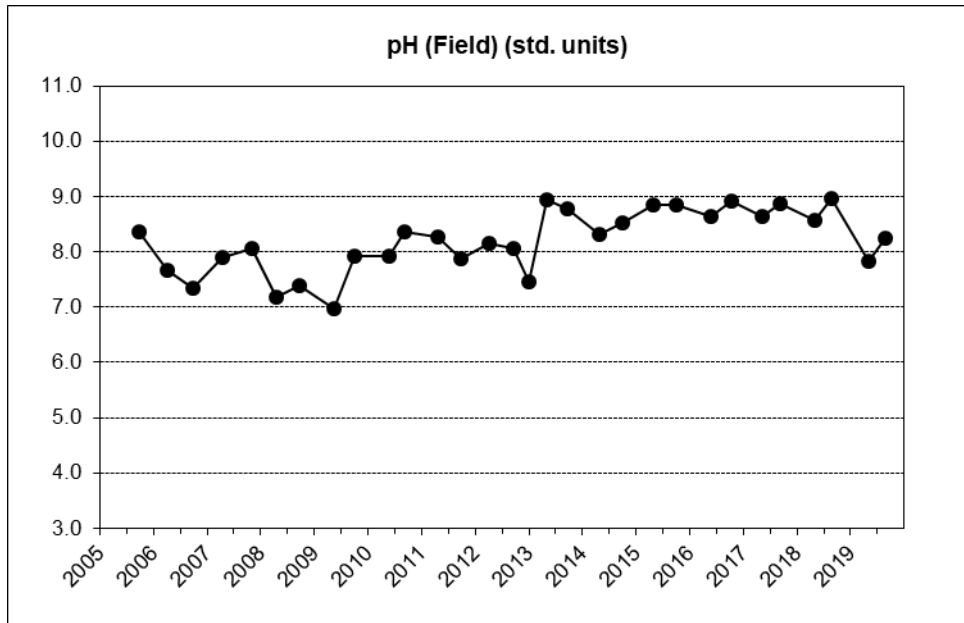
SW-1



SW-1

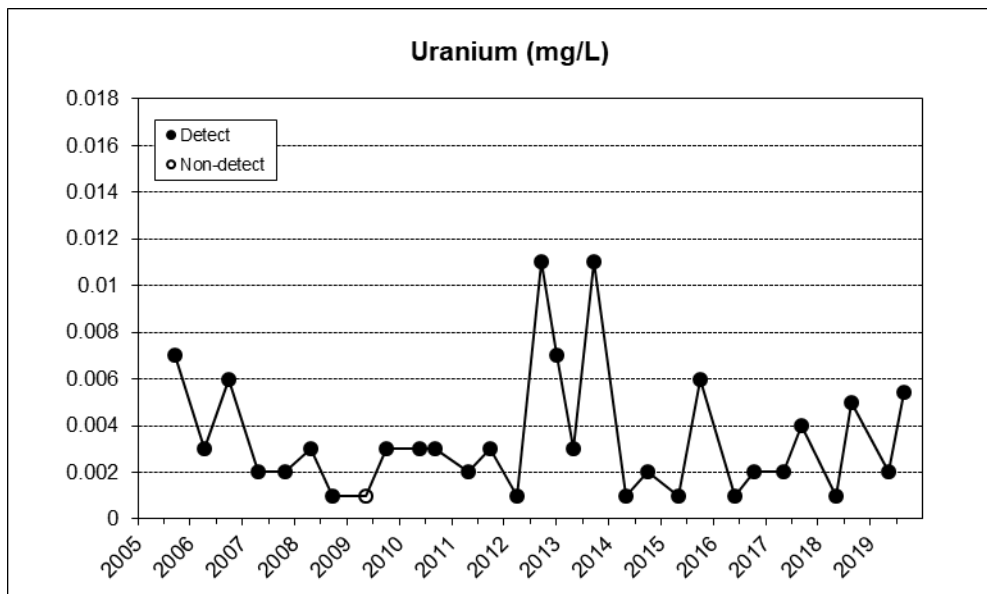
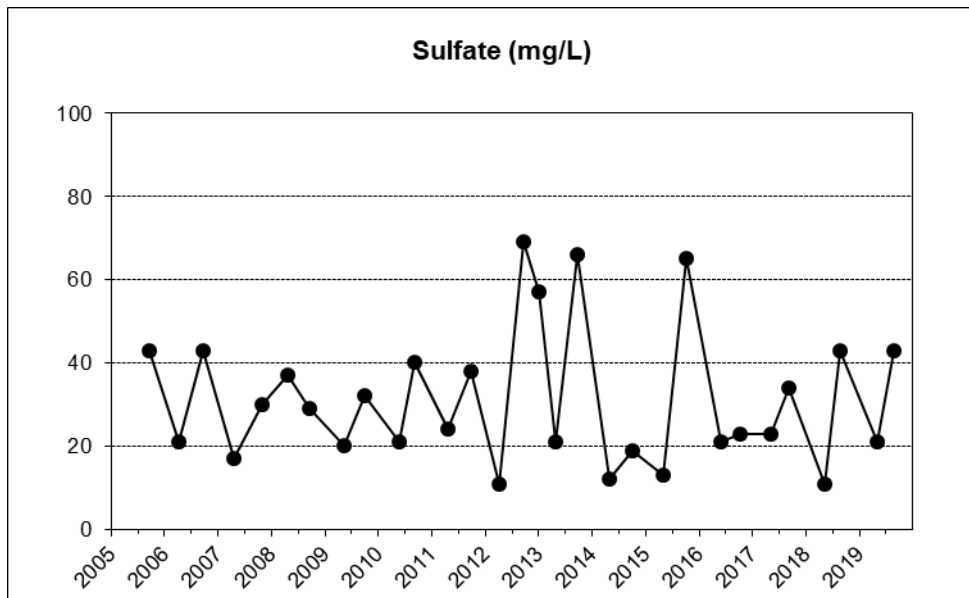


SW-2

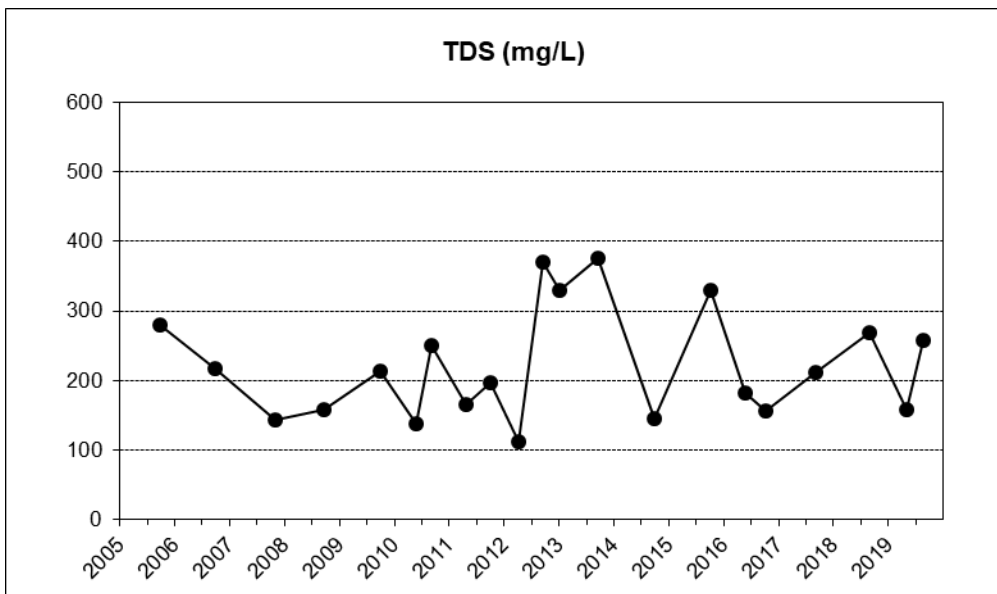
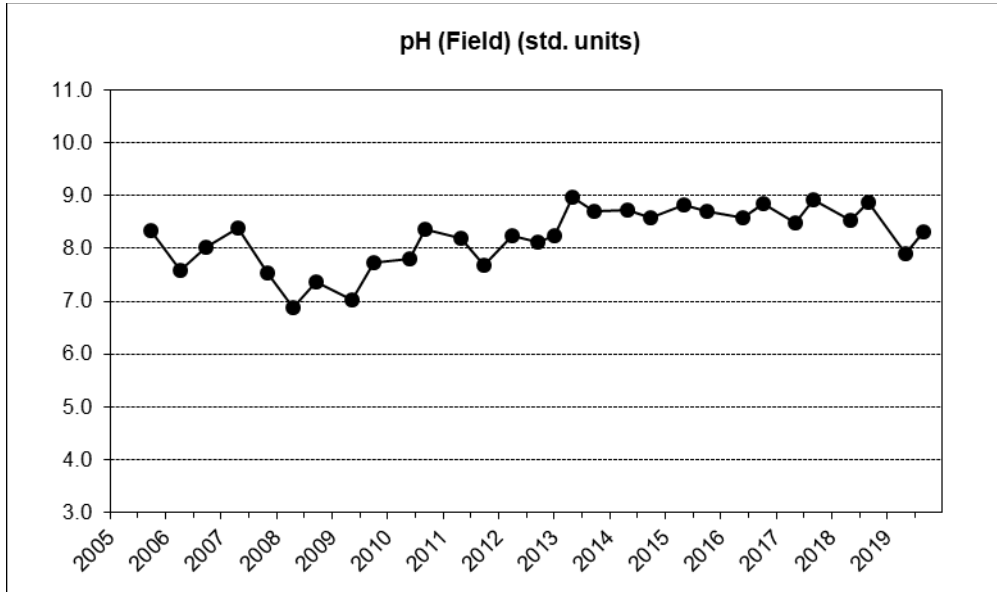




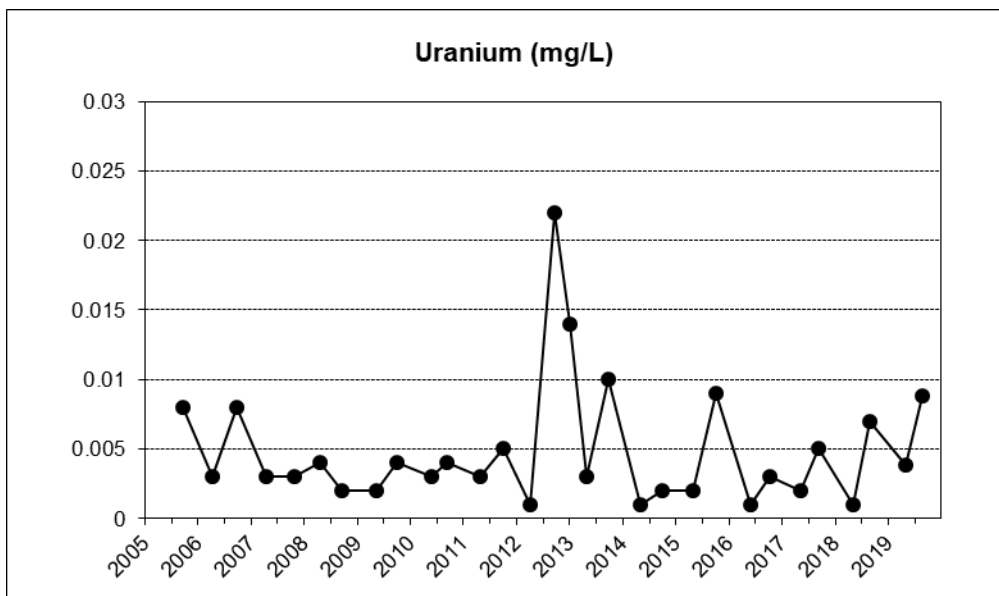
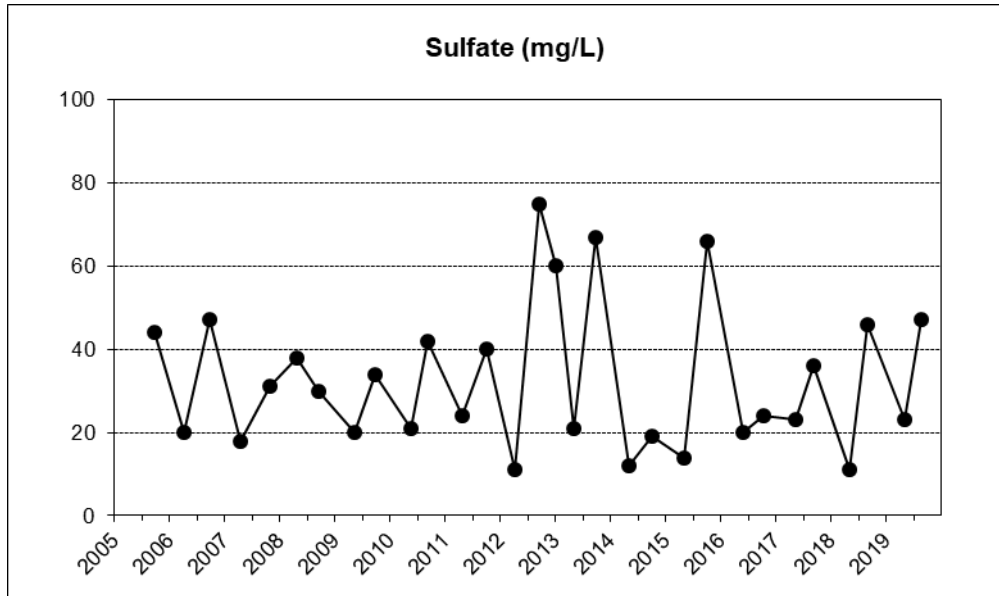
SW-2



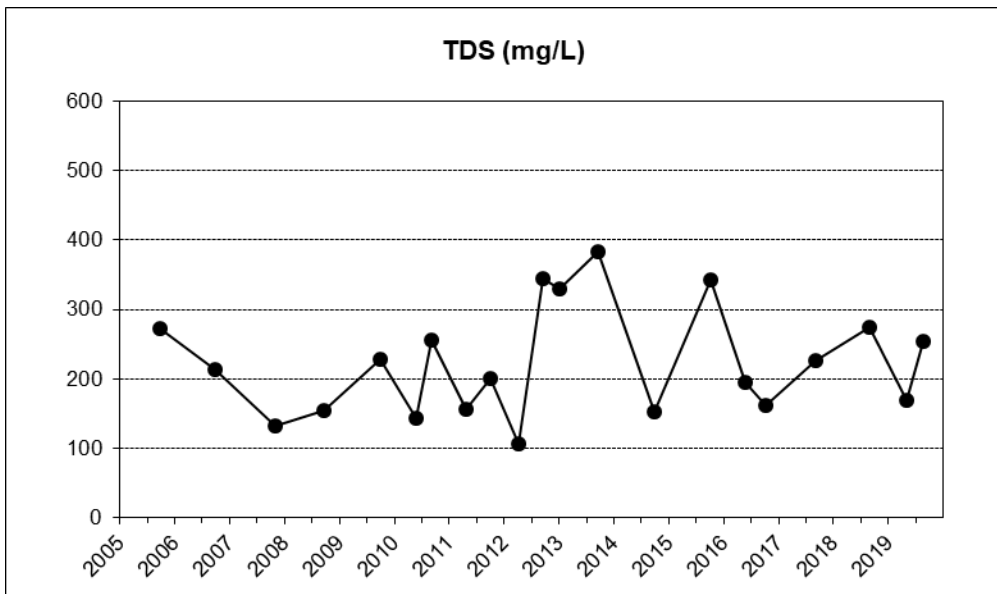
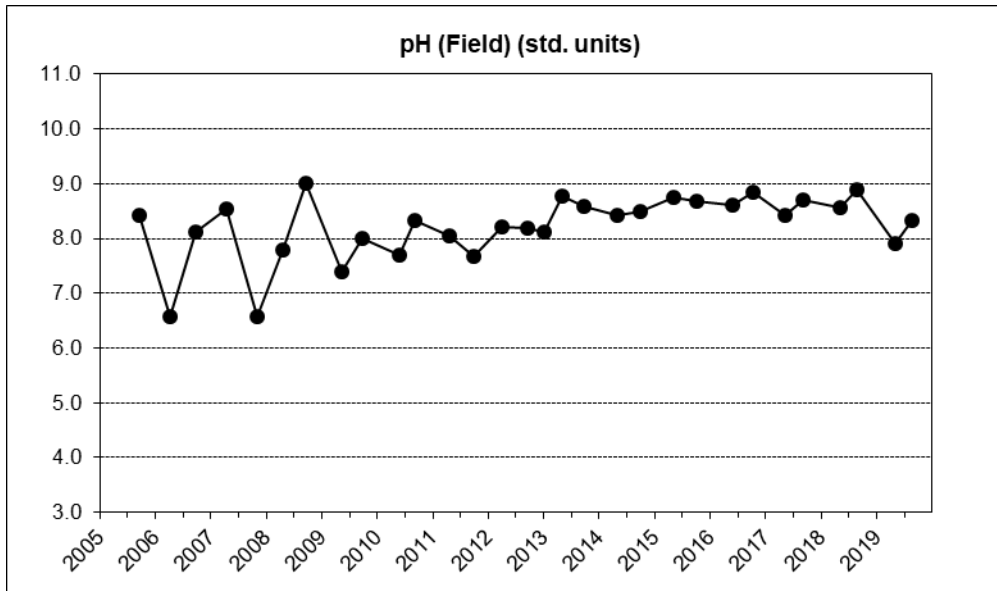
SW-3



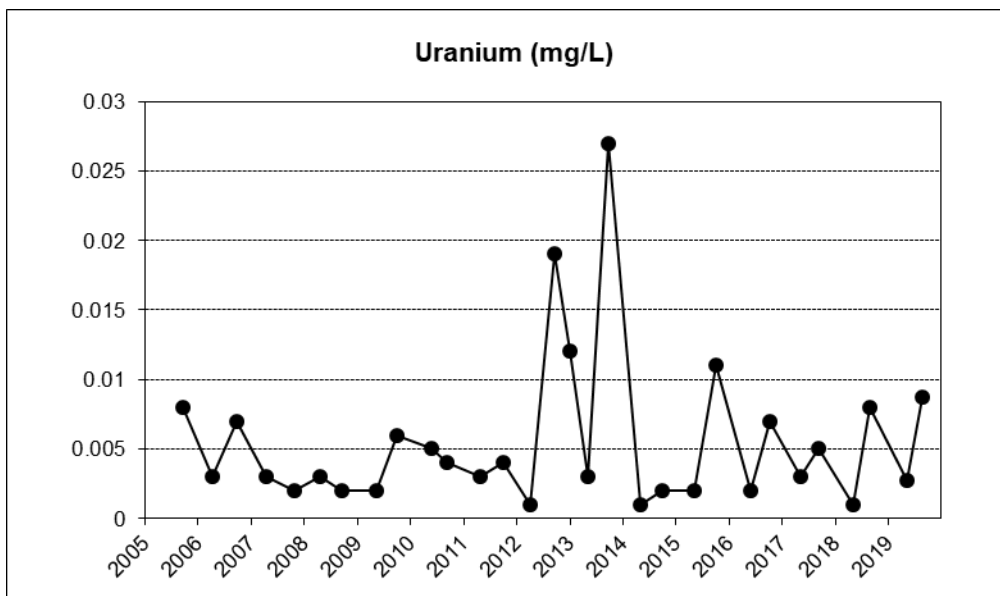
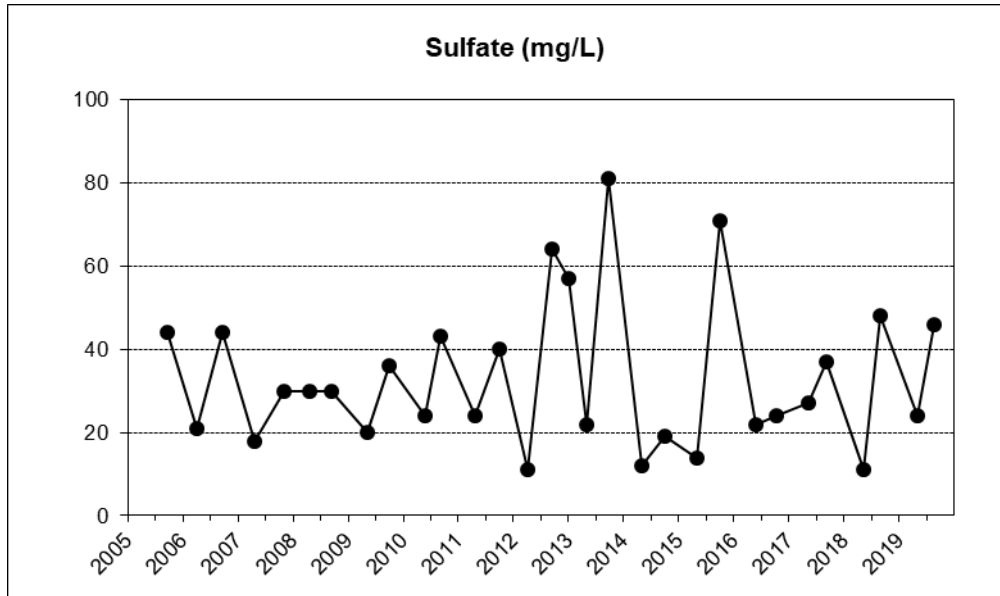
SW-3



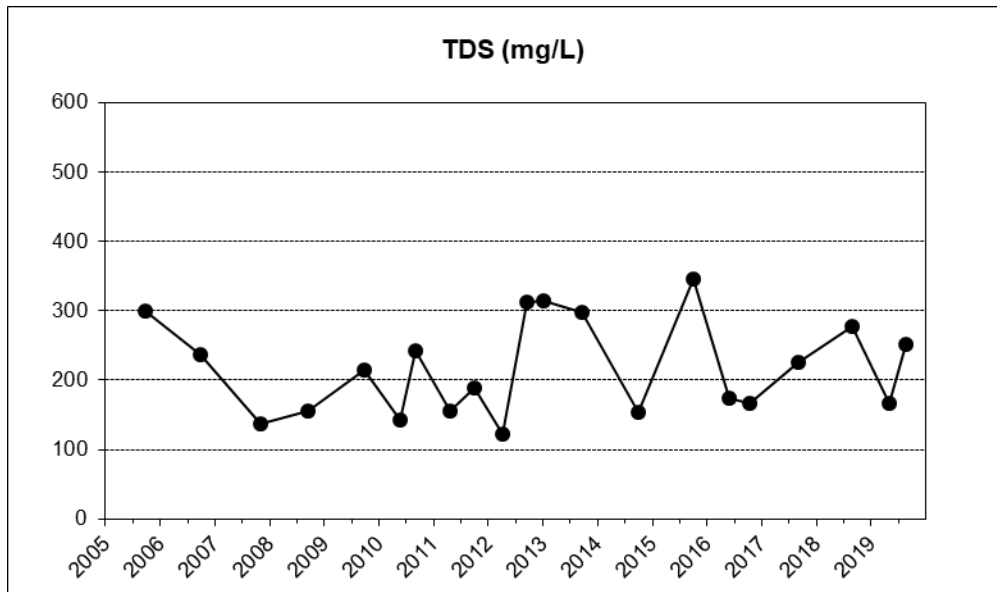
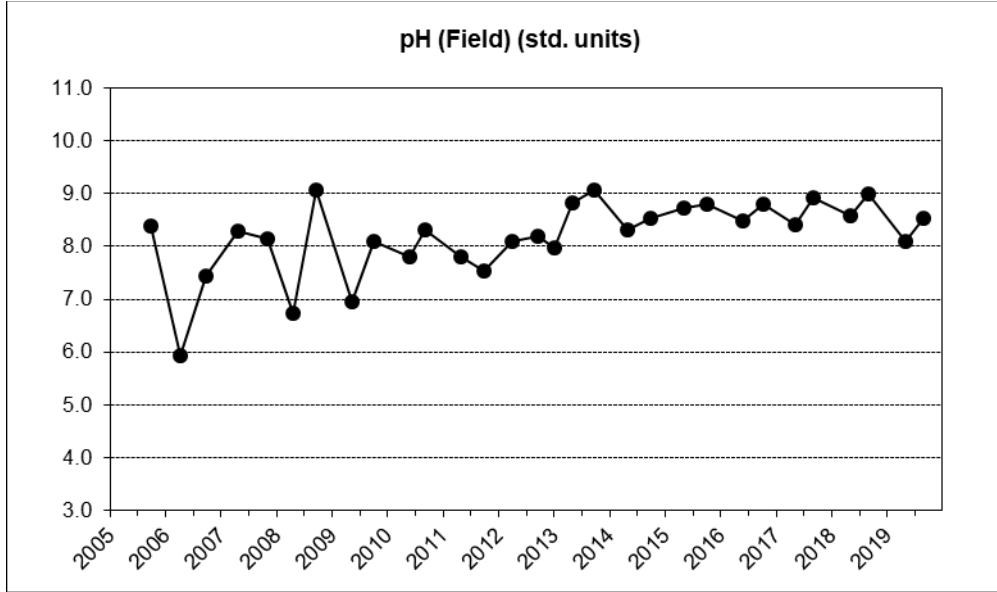
SW-4



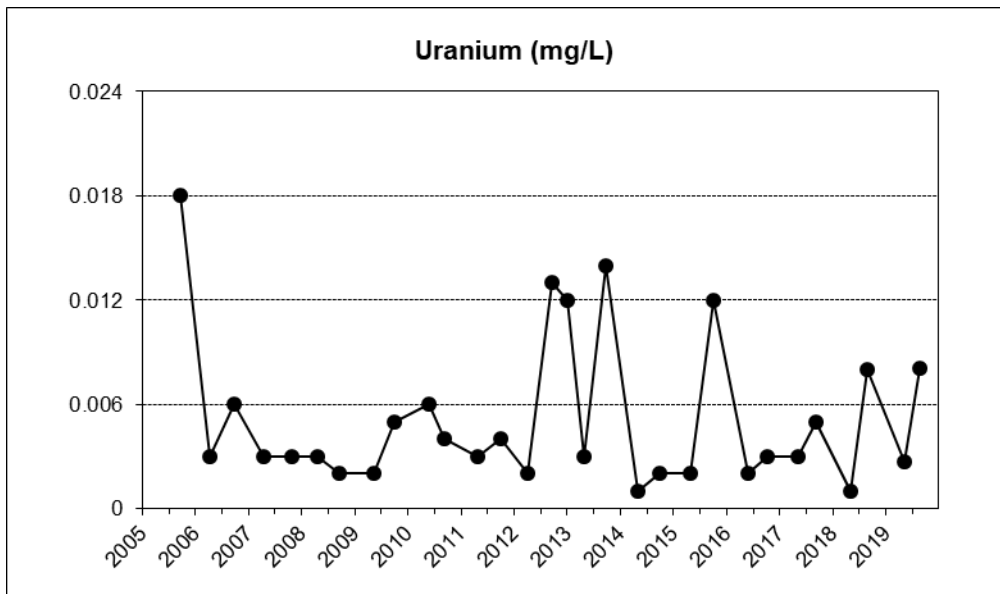
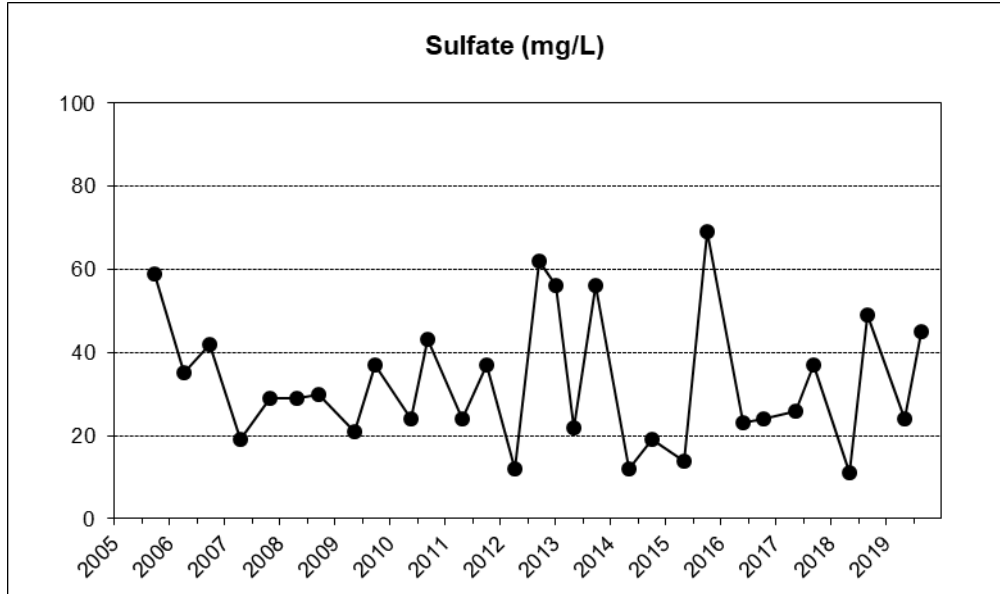
SW-4



SW-5



SW-5





## ANALYTICAL SUMMARY REPORT

September 28, 2019

Western Nuclear Inc  
Split Rock Mill  
Jeffrey City, WY 82310

Work Order: C19081336 Quote ID: C5411

Project Name: Split Rock Mill GWPP

Energy Laboratories, Inc. Casper WY received the following 25 samples for Western Nuclear Inc on 8/29/2019 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C19081336-001	WN-1	08/28/19 11:42	08/29/19	Aqueous	Metals by ICP/ICPMS, Dissolved Client Provided Field Parameters Anions by Ion Chromatography pH Check for H2SO4 Preserved Inorganics Metals pH check by the Laboratory FIRST Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH pH Check for Nitric Radiochem FIRST Radium 226, Dissolved Radium 228, Dissolved Thorium, Isotopic, Dissolved Solids, Total Dissolved
C19081336-002	WN-4R	08/28/19 08:49	08/29/19	Aqueous	Same As Above
C19081336-003	WN-5	08/28/19 08:31	08/29/19	Aqueous	Same As Above
C19081336-004	WN-21	08/28/19 13:30	08/29/19	Aqueous	Same As Above
C19081336-005	WN-39B	08/27/19 11:05	08/29/19	Aqueous	Same As Above
C19081336-006	WN-41B	08/27/19 13:46	08/29/19	Aqueous	Same As Above
C19081336-007	WN-42A	08/27/19 11:24	08/29/19	Aqueous	Same As Above
C19081336-008	JJ-1R	08/27/19 13:15	08/29/19	Aqueous	Same As Above
C19081336-009	SWAB-1R	08/28/19 14:19	08/29/19	Aqueous	Same As Above
C19081336-010	SWAB-2	08/28/19 13:46	08/29/19	Aqueous	Same As Above
C19081336-011	SWAB-4	08/28/19 10:47	08/29/19	Aqueous	Same As Above
C19081336-012	SWAB-12R	08/28/19 11:09	08/29/19	Aqueous	Same As Above
C19081336-013	SWAB-22	08/28/19 09:20	08/29/19	Aqueous	Same As Above
C19081336-014	SWAB-29	08/28/19 10:35	08/29/19	Aqueous	Same As Above
C19081336-015	SWAB-31	08/28/19 14:52	08/29/19	Aqueous	Same As Above
C19081336-016	SWAB-32	08/28/19 09:50	08/29/19	Aqueous	Same As Above
C19081336-017	SWR-UG	08/26/19 08:55	08/29/19	Aqueous	Same As Above
C19081336-018	SWR-A	08/26/19 09:21	08/29/19	Aqueous	Same As Above
C19081336-019	SWR-B	08/26/19 09:41	08/29/19	Aqueous	Same As Above





## ANALYTICAL SUMMARY REPORT

C19081336-020	SWR-C	08/26/19 10:16	08/29/19	Aqueous	Same As Above
C19081336-021	SWR-DG	08/26/19 10:53	08/29/19	Aqueous	Same As Above
C19081336-022	Field Blank	08/28/19 16:00	08/29/19	Aqueous	Same As Above
C19081336-023	WN-1R	08/28/19 11:42	08/29/19	Aqueous	Same As Above
C19081336-024	WN-5R	08/28/19 08:31	08/29/19	Aqueous	Same As Above
C19081336-025	WN-5S	08/28/19 08:31	08/29/19	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-001  
**Client Sample ID:** WN-1

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 11:42  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	22	mg/L	D	2		E300.0	09/05/19 08:48 / ljl
Fluoride	2	mg/L	D	1		E300.0	09/05/19 08:48 / ljl
Sulfate	2360	mg/L	D	8		E300.0	09/05/19 08:48 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	6.84	s.u.	H	0.01		A4500-H B	08/30/19 12:49 / kjp
pH Measurement Temp	16	°C				A4500-H B	08/30/19 12:49 / kjp
Solids, Total Dissolved TDS @ 180 C	3240	mg/L	D	40		A2540 C	08/30/19 14:07 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	30.5	mg/L	D	0.2		E353.2	09/03/19 16:42 / dmb
Nitrogen, Ammonia as N	189	mg/L	D	10		E350.1	09/03/19 13:54 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	0.04	mg/L		0.03		E200.8	09/06/19 16:01 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 00:30 / meh
Arsenic	0.002	mg/L		0.001		E200.8	09/05/19 00:30 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/09/19 17:48 / meh
Cadmium	0.003	mg/L		0.001		E200.8	09/05/19 00:30 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 00:30 / meh
Manganese	23.6	mg/L		0.001		E200.8	09/05/19 00:30 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/06/19 16:01 / meh
Nickel	0.078	mg/L		0.005		E200.8	09/05/19 00:30 / meh
Selenium	0.024	mg/L	D	0.002		E200.8	09/05/19 00:30 / meh
Thallium	0.0122	mg/L		0.0005		E200.8	09/05/19 00:30 / meh
Uranium	1.48	mg/L	D	0.002		E200.8	09/05/19 00:30 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.6	pCi/L				E903.0	09/24/19 12:56 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 12:56 / ajl
Radium 226 MDC	0.1	pCi/L				E903.0	09/24/19 12:56 / ajl
Radium 228	2.8	pCi/L				RA-05	09/19/19 10:49 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 10:49 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	09/19/19 10:49 / plj
Thorium 230	-0.01	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.06	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.76	s.u.				FIELD	08/28/19 11:42 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-002  
**Client Sample ID:** WN-4R

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 08:49  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	102	mg/L	D	2		E300.0	09/05/19 09:07 / ljl
Fluoride	8	mg/L	D	1		E300.0	09/05/19 09:07 / ljl
Sulfate	2790	mg/L	D	8		E300.0	09/05/19 09:07 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	6.35	s.u.	H	0.01		A4500-H B	08/30/19 12:52 / kjp
pH Measurement Temp	16	°C				A4500-H B	08/30/19 12:52 / kjp
Solids, Total Dissolved TDS @ 180 C	4560	mg/L	D	100		A2540 C	08/30/19 14:07 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	175	mg/L	D	0.5		E353.2	09/03/19 16:46 / dmb
Nitrogen, Ammonia as N	222	mg/L	D	10		E350.1	09/03/19 11:53 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	2.50	mg/L		0.03		E200.8	09/05/19 00:34 / meh
Antimony	ND	mg/L		0.001		E200.8	09/06/19 16:17 / meh
Arsenic	0.008	mg/L		0.001		E200.8	09/05/19 00:34 / meh
Beryllium	0.002	mg/L		0.001		E200.8	09/09/19 17:51 / meh
Cadmium	0.017	mg/L		0.001		E200.8	09/05/19 00:34 / meh
Lead	ND	mg/L		0.001		E200.8	09/06/19 16:17 / meh
Manganese	82.0	mg/L	D	0.002		E200.8	09/05/19 00:34 / meh
Molybdenum	0.006	mg/L		0.001		E200.8	09/06/19 16:17 / meh
Nickel	0.384	mg/L		0.005		E200.8	09/06/19 16:17 / meh
Selenium	0.063	mg/L	D	0.005		E200.8	09/05/19 00:34 / meh
Thallium	0.0011	mg/L		0.0005		E200.8	09/06/19 16:17 / meh
Uranium	0.0986	mg/L	D	0.0008		E200.8	09/06/19 16:17 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	1.0	pCi/L	U			RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.5	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	-0.005	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.21	s.u.				FIELD	08/28/19 08:49 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-003  
**Client Sample ID:** WN-5

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 08:31  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	109	mg/L		1		E300.0	09/06/19 15:43 / ljl
Fluoride	0.1	mg/L		0.1		E300.0	09/06/19 15:43 / ljl
Sulfate	1810	mg/L	D	4		E300.0	09/05/19 09:26 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.00	s.u.	H	0.01		A4500-H B	08/30/19 12:55 / kjp
pH Measurement Temp	16	°C				A4500-H B	08/30/19 12:55 / kjp
Solids, Total Dissolved TDS @ 180 C	3630	mg/L	D	20		A2540 C	08/30/19 14:07 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	42.4	mg/L	D	0.5		E353.2	09/03/19 16:50 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:03 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 00:38 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Arsenic	0.002	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Manganese	0.534	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Molybdenum	0.072	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Nickel	0.010	mg/L		0.005		E200.8	09/05/19 00:38 / meh
Selenium	0.017	mg/L		0.001		E200.8	09/05/19 00:38 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 00:38 / meh
Uranium	1.59	mg/L		0.0003		E200.8	09/05/19 00:38 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.05	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	1.7	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.1	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.1	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.88	s.u.				FIELD	08/28/19 08:31 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-004  
**Client Sample ID:** WN-21

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 13:30  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	16	mg/L		1		E300.0	09/05/19 09:45 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/05/19 09:45 / ljl
Sulfate	85	mg/L		1		E300.0	09/05/19 09:45 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.67	s.u.	H	0.01		A4500-H B	08/30/19 12:58 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 12:58 / kjp
Solids, Total Dissolved TDS @ 180 C	383	mg/L		10		A2540 C	08/30/19 14:08 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	2.43	mg/L		0.01		E353.2	09/03/19 16:51 / dmb
Nitrogen, Ammonia as N	0.68	mg/L		0.05		E350.1	09/03/19 12:07 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 00:42 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Arsenic	0.004	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Manganese	0.147	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 00:42 / meh
Selenium	0.002	mg/L		0.001		E200.8	09/05/19 00:42 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 00:42 / meh
Uranium	0.0714	mg/L		0.0003		E200.8	09/05/19 00:42 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	1.4	pCi/L	U			RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.01	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.60	s.u.				FIELD	08/28/19 13:30 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-005  
**Client Sample ID:** WN-39B

**Report Date:** 09/28/19  
**Collection Date:** 08/27/19 11:05  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	17	mg/L		1		E300.0	09/05/19 10:43 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/05/19 10:43 / ljl
Sulfate	135	mg/L		1		E300.0	09/05/19 10:43 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.84	s.u.	H	0.01		A4500-H B	08/30/19 13:11 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:11 / kjp
Solids, Total Dissolved TDS @ 180 C	484	mg/L		10		A2540 C	08/30/19 14:08 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	9.45	mg/L	D	0.05		E353.2	09/03/19 16:52 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:08 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 00:46 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Arsenic	0.002	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Manganese	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 00:46 / meh
Selenium	0.005	mg/L		0.001		E200.8	09/05/19 00:46 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 00:46 / meh
Uranium	0.141	mg/L		0.0003		E200.8	09/05/19 00:46 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	1.9	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.05	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.3	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.80	s.u.				FIELD	08/27/19 11:05 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-006  
**Client Sample ID:** WN-41B

**Report Date:** 09/28/19  
**Collection Date:** 08/27/19 13:46  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	420	mg/L		1		E300.0	09/05/19 11:40 / ljl
Fluoride	1.3	mg/L	D	0.2		E300.0	09/05/19 11:40 / ljl
Sulfate	405	mg/L	D	2		E300.0	09/05/19 11:40 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.10	s.u.	H	0.01		A4500-H B	08/30/19 13:17 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:17 / kjp
Solids, Total Dissolved TDS @ 180 C	1450	mg/L	D	20		A2540 C	08/30/19 14:08 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.14	mg/L		0.01		E353.2	09/03/19 16:53 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:09 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:02 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Arsenic	0.010	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Manganese	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Molybdenum	0.004	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:02 / meh
Selenium	ND	mg/L		0.001		E200.8	09/05/19 01:02 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:02 / meh
Uranium	0.0093	mg/L		0.0003		E200.8	09/05/19 01:02 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	0.2	pCi/L	U			RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.04	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.1	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.12	s.u.				FIELD	08/27/19 13:46 / ***

**Report Definitions:**

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





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-007  
**Client Sample ID:** WN-42A

**Report Date:** 09/28/19  
**Collection Date:** 08/27/19 11:24  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	71	mg/L		1		E300.0	09/06/19 16:03 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/06/19 16:03 / ljl
Sulfate	1960	mg/L	D	8		E300.0	09/05/19 11:59 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.00	s.u.	H	0.01		A4500-H B	08/30/19 13:19 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:19 / kjp
Solids, Total Dissolved TDS @ 180 C	4500	mg/L	D	40		A2540 C	08/30/19 14:08 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.13	mg/L		0.01		E353.2	09/03/19 16:54 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:10 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:06 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Arsenic	0.005	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Manganese	1.43	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Molybdenum	0.003	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Nickel	0.011	mg/L		0.005		E200.8	09/05/19 01:06 / meh
Selenium	0.070	mg/L		0.001		E200.8	09/05/19 01:06 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:06 / meh
Uranium	0.801	mg/L		0.0003		E200.8	09/05/19 01:06 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.03	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.3	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	0.5	pCi/L	U			RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1.3	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	2.1	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	-0.02	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.07	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.79	s.u.				FIELD	08/27/19 11:24 / ***

**Report Definitions:**

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





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-008  
**Client Sample ID:** JJ-1R

**Report Date:** 09/28/19  
**Collection Date:** 08/27/19 13:15  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	15	mg/L		1		E300.0	09/05/19 12:19 / ljl
Fluoride	0.4	mg/L		0.1		E300.0	09/05/19 12:19 / ljl
Sulfate	48	mg/L		1		E300.0	09/05/19 12:19 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.26	s.u.	H	0.01		A4500-H B	08/30/19 13:22 / kjp
pH Measurement Temp	17	°C				A4500-H B	08/30/19 13:22 / kjp
Solids, Total Dissolved TDS @ 180 C	433	mg/L		10		A2540 C	08/30/19 14:09 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 16:56 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:11 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:10 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Arsenic	0.012	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Manganese	0.200	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:10 / meh
Selenium	ND	mg/L		0.001		E200.8	09/05/19 01:10 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:10 / meh
Uranium	0.0123	mg/L		0.0003		E200.8	09/05/19 01:10 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.2	pCi/L	U			E903.0	09/24/19 13:00 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:00 / ajl
Radium 228	1.9	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.8	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.02	pCi/L	U			E908.0	09/13/19 16:39 / nsr
Thorium 230 precision (±)	0.07	pCi/L				E908.0	09/13/19 16:39 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/13/19 16:39 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.06	s.u.				FIELD	08/27/19 13:15 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-009  
**Client Sample ID:** SWAB-1R

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 14:19  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	29	mg/L		1		E300.0	09/06/19 16:22 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/06/19 16:22 / ljl
Sulfate	1180	mg/L	D	4		E300.0	09/05/19 12:38 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.32	s.u.	H	0.01		A4500-H B	08/30/19 13:25 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:25 / kjp
Solids, Total Dissolved TDS @ 180 C	2780	mg/L	D	20		A2540 C	08/30/19 14:09 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	127	mg/L	D	1		E353.2	09/03/19 16:57 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:13 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:29 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Arsenic	0.007	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Manganese	0.007	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Nickel	0.008	mg/L		0.005		E200.8	09/05/19 01:29 / meh
Selenium	ND	mg/L		0.001		E200.8	09/05/19 01:29 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:29 / meh
Uranium	2.12	mg/L		0.0003		E200.8	09/05/19 01:29 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.3	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 228	0.1	pCi/L	U			RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.07	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.08	s.u.				FIELD	08/28/19 14:19 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-010  
**Client Sample ID:** SWAB-2

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 13:46  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	21	mg/L		1		E300.0	09/05/19 12:57 / ljl
Fluoride	0.8	mg/L	D	0.5		E300.0	09/05/19 12:57 / ljl
Sulfate	947	mg/L	D	4		E300.0	09/05/19 12:57 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.04	s.u.	H	0.01		A4500-H B	08/30/19 13:29 / kjp
pH Measurement Temp	17	°C				A4500-H B	08/30/19 13:29 / kjp
Solids, Total Dissolved TDS @ 180 C	2530	mg/L	D	20		A2540 C	09/03/19 17:45 / kjp
- H - Original analysis was done within hold time. Data is from recheck analysis.							
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	144	mg/L	D	1		E353.2	09/03/19 16:58 / dmb
Nitrogen, Ammonia as N	5.4	mg/L	D	0.5		E350.1	09/03/19 13:56 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	0.04	mg/L		0.03		E200.8	09/05/19 01:33 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Arsenic	0.008	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Manganese	0.476	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Nickel	0.014	mg/L		0.005		E200.8	09/05/19 01:33 / meh
Selenium	0.002	mg/L		0.001		E200.8	09/05/19 01:33 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:33 / meh
Uranium	0.929	mg/L		0.0003		E200.8	09/05/19 01:33 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.3	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 228	2.4	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 12:46 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 12:46 / plj
Thorium 230	0.02	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.08	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.77	s.u.				FIELD	08/28/19 13:46 / ***

**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:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-011  
**Client Sample ID:** SWAB-4

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 10:47  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	33	mg/L		1		E300.0	09/05/19 13:16 / ljl
Fluoride	0.3	mg/L	D	0.2		E300.0	09/05/19 13:16 / ljl
Sulfate	448	mg/L	D	2		E300.0	09/05/19 13:16 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.41	s.u.	H	0.01		A4500-H B	08/30/19 13:32 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:32 / kjp
Solids, Total Dissolved TDS @ 180 C	1030	mg/L		10		A2540 C	08/30/19 14:12 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	23.0	mg/L	D	0.2		E353.2	09/03/19 16:59 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:15 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:37 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Arsenic	0.014	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Manganese	0.012	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:37 / meh
Selenium	0.009	mg/L		0.001		E200.8	09/05/19 01:37 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:37 / meh
Uranium	0.861	mg/L		0.0003		E200.8	09/05/19 01:37 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.6	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:35 / ajl
Radium 228	1.7	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.28	s.u.				FIELD	08/28/19 10:47 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-012  
**Client Sample ID:** SWAB-12R

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 11:09  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	15	mg/L		1		E300.0	09/05/19 13:35 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/05/19 13:35 / ljl
Sulfate	61	mg/L		1		E300.0	09/05/19 13:35 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.68	s.u.	H	0.01		A4500-H B	08/30/19 13:35 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:35 / kjp
Solids, Total Dissolved TDS @ 180 C	317	mg/L		10		A2540 C	08/30/19 14:13 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.31	mg/L		0.01		E353.2	09/03/19 17:03 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:19 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:41 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Arsenic	0.003	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Manganese	0.003	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:41 / meh
Selenium	0.004	mg/L		0.001		E200.8	09/05/19 01:41 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:41 / meh
Uranium	0.0345	mg/L		0.0003		E200.8	09/05/19 01:41 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	1.9	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.003	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.06	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.62	s.u.				FIELD	08/28/19 11:09 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-013  
**Client Sample ID:** SWAB-22

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 09:20  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	17	mg/L		1		E300.0	09/05/19 13:54 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 13:54 / ljl
Sulfate	46	mg/L		1		E300.0	09/05/19 13:54 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.49	s.u.	H	0.01		A4500-H B	08/30/19 13:38 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:38 / kjp
Solids, Total Dissolved TDS @ 180 C	313	mg/L		10		A2540 C	08/30/19 14:13 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.15	mg/L		0.01		E353.2	09/10/19 10:49 / dmb
Nitrogen, Ammonia as N	0.15	mg/L		0.05		E350.1	09/03/19 12:22 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:45 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Arsenic	0.006	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Manganese	0.069	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Molybdenum	0.005	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Nickel	0.006	mg/L		0.005		E200.8	09/05/19 01:45 / meh
Selenium	0.001	mg/L		0.001		E200.8	09/05/19 01:45 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:45 / meh
Uranium	0.0316	mg/L		0.0003		E200.8	09/05/19 01:45 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.2	pCi/L	U			E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	0.1	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	2.1	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.01	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.05	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.43	s.u.				FIELD	08/28/19 09:20 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-014  
**Client Sample ID:** SWAB-29

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 10:35  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	7	mg/L		1		E300.0	09/05/19 14:14 / ljl
Fluoride	0.2	mg/L		0.1		E300.0	09/05/19 14:14 / ljl
Sulfate	38	mg/L		1		E300.0	09/05/19 14:14 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.33	s.u.	H	0.01		A4500-H B	08/30/19 13:40 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:40 / kjp
Solids, Total Dissolved TDS @ 180 C	306	mg/L		10		A2540 C	08/30/19 14:13 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.03	mg/L		0.01		E353.2	09/10/19 10:50 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:23 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:49 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Arsenic	0.010	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Manganese	0.349	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:49 / meh
Selenium	ND	mg/L		0.001		E200.8	09/05/19 01:49 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:49 / meh
Uranium	0.0251	mg/L		0.0003		E200.8	09/05/19 01:49 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	-1	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	2.2	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.02	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.08	s.u.				FIELD	08/28/19 10:35 / ***

**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.  
 H - Analysis performed past recommended holding time.





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-015  
**Client Sample ID:** SWAB-31

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 14:52  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	10	mg/L		1		E300.0	09/05/19 15:11 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 15:11 / ljl
Sulfate	27	mg/L		1		E300.0	09/05/19 15:11 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	7.37	s.u.	H	0.01		A4500-H B	08/30/19 13:43 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:43 / kjp
Solids, Total Dissolved TDS @ 180 C	249	mg/L		10		A2540 C	08/30/19 14:14 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.62	mg/L		0.01		E353.2	09/10/19 10:51 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:24 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 01:53 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Arsenic	0.004	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Manganese	0.049	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Molybdenum	0.003	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 01:53 / meh
Selenium	0.008	mg/L		0.001		E200.8	09/05/19 01:53 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 01:53 / meh
Uranium	0.0278	mg/L		0.0003		E200.8	09/05/19 01:53 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.2	pCi/L	U			E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	0.9	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.03	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.07	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	7.22	s.u.				FIELD	08/28/19 14:52 / ***

**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.  
 H - Analysis performed past recommended holding time.





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-016  
**Client Sample ID:** SWAB-32

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 09:50  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	12	mg/L		1		E300.0	09/05/19 16:09 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 16:09 / ljl
Sulfate	46	mg/L		1		E300.0	09/05/19 16:09 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.04	s.u.	H	0.01		A4500-H B	08/30/19 13:49 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:49 / kjp
Solids, Total Dissolved TDS @ 180 C	304	mg/L		10		A2540 C	08/30/19 14:14 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	1.29	mg/L		0.01		E353.2	09/03/19 17:10 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:26 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:08 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Arsenic	0.007	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Cadmium	0.002	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Manganese	0.006	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Molybdenum	0.001	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:08 / meh
Selenium	0.009	mg/L		0.001		E200.8	09/05/19 02:08 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 02:08 / meh
Uranium	0.127	mg/L		0.0003		E200.8	09/05/19 02:08 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	-0.1	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	0.02	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.02	s.u.				FIELD	08/28/19 09:50 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-017  
**Client Sample ID:** SWR-UG

**Report Date:** 09/28/19  
**Collection Date:** 08/26/19 08:55  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	13	mg/L		1		E300.0	09/05/19 16:28 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 16:28 / ljl
Sulfate	41	mg/L		1		E300.0	09/05/19 16:28 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.07	s.u.	H	0.01		A4500-H B	08/30/19 13:52 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:52 / kjp
Solids, Total Dissolved TDS @ 180 C	244	mg/L	D	10		A2540 C	08/30/19 14:14 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 17:11 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:27 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:28 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Arsenic	0.005	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Manganese	0.030	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:28 / meh
Selenium	ND	mg/L		0.001		E200.8	09/05/19 02:28 / meh
Thallium	ND	mg/L		0.0005		E200.8	09/05/19 02:28 / meh
Uranium	0.0040	mg/L		0.0003		E200.8	09/05/19 02:28 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 14:36 / ajl
Radium 228	-1	pCi/L	U			RA-05	09/19/19 14:20 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 14:20 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 14:20 / plj
Thorium 230	-0.06	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.23	s.u.				FIELD	08/26/19 08:55 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-018  
**Client Sample ID:** SWR-A

**Report Date:** 09/28/19  
**Collection Date:** 08/26/19 09:21  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	15	mg/L		1		E300.0	09/05/19 16:47 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 16:47 / ljl
Sulfate	43	mg/L		1		E300.0	09/05/19 16:47 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.16	s.u.	H	0.01		A4500-H B	08/30/19 13:55 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:55 / kjp
Solids, Total Dissolved TDS @ 180 C	253	mg/L		10		A2540 C	08/30/19 14:15 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 17:12 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:28 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:32 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:32 / meh
Arsenic	0.006	mg/L		0.001		E200.8	08/30/19 21:35 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:32 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:32 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:32 / meh
Manganese	0.018	mg/L		0.001		E200.8	08/30/19 21:35 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 02:32 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:32 / meh
Selenium	ND	mg/L		0.001		E200.8	08/30/19 21:35 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 21:35 / meh
Uranium	0.0054	mg/L		0.0003		E200.8	09/05/19 02:32 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.06	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	-0.02	pCi/L	U			RA-05	09/19/19 15:17 / plj
Radium 228 precision (±)	1	pCi/L				RA-05	09/19/19 15:17 / plj
Radium 228 MDC	1.6	pCi/L				RA-05	09/19/19 15:17 / plj
Thorium 230	-0.003	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.24	s.u.				FIELD	08/26/19 09:21 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-019  
**Client Sample ID:** SWR-B

**Report Date:** 09/28/19  
**Collection Date:** 08/26/19 09:41  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	16	mg/L		1		E300.0	09/05/19 17:06 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 17:06 / ljl
Sulfate	47	mg/L		1		E300.0	09/05/19 17:06 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.17	s.u.	H	0.01		A4500-H B	08/30/19 13:58 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 13:58 / kjp
Solids, Total Dissolved TDS @ 180 C	258	mg/L		10		A2540 C	08/30/19 14:15 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	0.02	mg/L		0.01		E353.2	09/03/19 17:13 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:29 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:36 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:36 / meh
Arsenic	0.006	mg/L		0.001		E200.8	08/30/19 21:51 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:36 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:36 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:36 / meh
Manganese	0.017	mg/L		0.001		E200.8	08/30/19 21:51 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 02:36 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:36 / meh
Selenium	ND	mg/L		0.001		E200.8	08/30/19 21:51 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 21:51 / meh
Uranium	0.0088	mg/L		0.0003		E200.8	09/05/19 02:36 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.08	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	0.2	pCi/L	U			RA-05	09/19/19 15:17 / plj
Radium 228 precision (±)	1.0	pCi/L				RA-05	09/19/19 15:17 / plj
Radium 228 MDC	1.7	pCi/L				RA-05	09/19/19 15:17 / plj
Thorium 230	-0.01	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.06	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.31	s.u.				FIELD	08/26/19 09:41 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-020  
**Client Sample ID:** SWR-C

**Report Date:** 09/28/19  
**Collection Date:** 08/26/19 10:16  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	15	mg/L		1		E300.0	09/05/19 17:25 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 17:25 / ljl
Sulfate	46	mg/L		1		E300.0	09/05/19 17:25 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.21	s.u.	H	0.01		A4500-H B	08/30/19 14:01 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 14:01 / kjp
Solids, Total Dissolved TDS @ 180 C	255	mg/L		10		A2540 C	08/30/19 14:16 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 17:15 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:30 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	0.05	mg/L		0.03		E200.8	09/06/19 16:21 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:40 / meh
Arsenic	0.006	mg/L		0.001		E200.8	08/30/19 21:54 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/09/19 17:55 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:40 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:40 / meh
Manganese	0.034	mg/L		0.001		E200.8	08/30/19 21:54 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 02:40 / meh
Nickel	ND	mg/L		0.005		E200.8	09/11/19 10:31 / meh
Selenium	ND	mg/L		0.001		E200.8	08/30/19 21:54 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 21:54 / meh
Uranium	0.0087	mg/L		0.0003		E200.8	09/05/19 02:40 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	-0.8	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	2.1	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	-0.01	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.07	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.32	s.u.				FIELD	08/26/19 10:16 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-021  
**Client Sample ID:** SWR-DG

**Report Date:** 09/28/19  
**Collection Date:** 08/26/19 10:53  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	15	mg/L		1		E300.0	09/05/19 17:45 / ljl
Fluoride	0.3	mg/L		0.1		E300.0	09/05/19 17:45 / ljl
Sulfate	45	mg/L		1		E300.0	09/05/19 17:45 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	8.37	s.u.	H	0.01		A4500-H B	08/30/19 14:04 / kjp
pH Measurement Temp	19	°C				A4500-H B	08/30/19 14:04 / kjp
Solids, Total Dissolved TDS @ 180 C	252	mg/L		10		A2540 C	08/30/19 14:17 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 17:16 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:32 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:43 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:43 / meh
Arsenic	0.006	mg/L		0.001		E200.8	08/30/19 21:58 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:43 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:43 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:43 / meh
Manganese	0.004	mg/L		0.001		E200.8	08/30/19 21:58 / meh
Molybdenum	0.002	mg/L		0.001		E200.8	09/05/19 02:43 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:43 / meh
Selenium	ND	mg/L		0.001		E200.8	08/30/19 21:58 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 21:58 / meh
Uranium	0.0081	mg/L		0.0003		E200.8	09/05/19 02:43 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	1.8	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	2.1	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	-0.02	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.09	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.54	s.u.				FIELD	08/26/19 10:53 / ***

**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.  
 H - Analysis performed past recommended holding time.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-022  
**Client Sample ID:** Field Blank

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 16:00  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	ND	mg/L		1		E300.0	09/05/19 18:04 / ljl
Fluoride	ND	mg/L		0.1		E300.0	09/05/19 18:04 / ljl
Sulfate	ND	mg/L		1		E300.0	09/05/19 18:04 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	5.56	s.u.	H	0.01		A4500-H B	08/30/19 14:07 / kjp
pH Measurement Temp	18	°C				A4500-H B	08/30/19 14:07 / kjp
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	08/30/19 14:17 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.01		E353.2	09/03/19 17:20 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:35 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:47 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:47 / meh
Arsenic	ND	mg/L		0.001		E200.8	08/30/19 22:18 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:47 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:47 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:47 / meh
Manganese	ND	mg/L		0.001		E200.8	08/30/19 22:18 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/05/19 02:47 / meh
Nickel	ND	mg/L		0.005		E200.8	09/05/19 02:47 / meh
Selenium	ND	mg/L		0.001		E200.8	08/30/19 22:18 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 22:18 / meh
Uranium	ND	mg/L		0.0003		E200.8	09/05/19 02:47 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	0.2	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	0.02	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.06	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	8.39	s.u.				FIELD	08/28/19 16:00 / ***

**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.  
 H - Analysis performed past recommended holding time.





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-023  
**Client Sample ID:** WN-1R

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 11:42  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	28	mg/L	D	2		E300.0	09/05/19 18:23 / ljl
Fluoride	2	mg/L	D	1		E300.0	09/05/19 18:23 / ljl
Sulfate	2350	mg/L	D	8		E300.0	09/05/19 18:23 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	6.82	s.u.	H	0.01		A4500-H B	08/30/19 14:10 / kjp
pH Measurement Temp	19	°C				A4500-H B	08/30/19 14:10 / kjp
Solids, Total Dissolved TDS @ 180 C	3240	mg/L	D	30		A2540 C	08/30/19 14:18 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	26.0	mg/L	D	0.2		E353.2	09/10/19 10:52 / dmb
Nitrogen, Ammonia as N	197	mg/L	D	10		E350.1	09/03/19 13:57 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	0.04	mg/L		0.03		E200.8	09/06/19 16:25 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:51 / meh
Arsenic	0.002	mg/L		0.001		E200.8	08/30/19 22:22 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/09/19 17:59 / meh
Cadmium	0.002	mg/L		0.001		E200.8	09/05/19 02:51 / meh
Lead	ND	mg/L		0.001		E200.8	09/11/19 10:35 / meh
Manganese	23.8	mg/L		0.001		E200.8	09/05/19 02:51 / meh
Molybdenum	ND	mg/L		0.001		E200.8	09/05/19 02:51 / meh
Nickel	0.074	mg/L		0.005		E200.8	09/05/19 02:51 / meh
Selenium	0.028	mg/L		0.001		E200.8	08/30/19 22:22 / meh
Thallium	0.0113	mg/L		0.0005		E200.8	08/30/19 22:22 / meh
Uranium	1.54	mg/L	D	0.002		E200.8	09/05/19 02:51 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.7	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	-0.5	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	1.9	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	-0.009	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.26	s.u.				FIELD	08/28/19 11:42 / ***

**Report Definitions:**

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





### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-024  
**Client Sample ID:** WN-5R

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 08:31  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	109	mg/L		1		E300.0	09/06/19 16:41 / ljl
Fluoride	0.1	mg/L		0.1		E300.0	09/06/19 16:41 / ljl
Sulfate	1810	mg/L	D	4		E300.0	09/05/19 18:42 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	6.96	s.u.	H	0.01		A4500-H B	08/30/19 14:13 / kjp
pH Measurement Temp	19	°C				A4500-H B	08/30/19 14:13 / kjp
Solids, Total Dissolved TDS @ 180 C	3610	mg/L	D	40		A2540 C	08/30/19 14:19 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	42.8	mg/L	D	0.2		E353.2	09/10/19 10:54 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 13:58 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	ND	mg/L		0.03		E200.8	09/05/19 02:55 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:55 / meh
Arsenic	0.002	mg/L		0.001		E200.8	08/30/19 22:26 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:55 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:55 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:55 / meh
Manganese	0.573	mg/L		0.001		E200.8	08/30/19 22:26 / meh
Molybdenum	0.073	mg/L		0.001		E200.8	09/05/19 02:55 / meh
Nickel	0.012	mg/L		0.005		E200.8	09/05/19 02:55 / meh
Selenium	0.019	mg/L		0.001		E200.8	08/30/19 22:26 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 22:26 / meh
Uranium	1.62	mg/L	D	0.0008		E200.8	09/05/19 02:55 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.1	pCi/L	U			E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.1	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	-0.2	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.1	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	0.01	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.07	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.2	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.88	s.u.				FIELD	08/28/19 08:31 / ***

**Report Definitions:**

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



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc  
**Project:** Split Rock Mill GWPP  
**Lab ID:** C19081336-025  
**Client Sample ID:** WN-5S

**Report Date:** 09/28/19  
**Collection Date:** 08/28/19 08:31  
**Date Received:** 08/29/19  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	108	mg/L		1		E300.0	09/06/19 17:00 / ljl
Fluoride	0.1	mg/L		0.1		E300.0	09/06/19 17:00 / ljl
Sulfate	1740	mg/L	D	4		E300.0	09/05/19 19:40 / ljl
<b>PHYSICAL PROPERTIES</b>							
pH	6.93	s.u.	H	0.01		A4500-H B	08/30/19 14:25 / kjp
pH Measurement Temp	19	°C				A4500-H B	08/30/19 14:25 / kjp
Solids, Total Dissolved TDS @ 180 C	3630	mg/L	D	40		A2540 C	08/30/19 14:19 / kjp
<b>NUTRIENTS</b>							
Nitrogen, Nitrate+Nitrite as N	44.5	mg/L	D	0.2		E353.2	09/10/19 10:55 / dmb
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/03/19 12:41 / dmb
<b>METALS, DISSOLVED</b>							
Aluminum	0.03	mg/L		0.03		E200.8	09/05/19 02:59 / meh
Antimony	ND	mg/L		0.001		E200.8	09/05/19 02:59 / meh
Arsenic	0.002	mg/L		0.001		E200.8	08/30/19 22:30 / meh
Beryllium	ND	mg/L		0.001		E200.8	09/05/19 02:59 / meh
Cadmium	ND	mg/L		0.001		E200.8	09/05/19 02:59 / meh
Lead	ND	mg/L		0.001		E200.8	09/05/19 02:59 / meh
Manganese	0.568	mg/L		0.001		E200.8	08/30/19 22:30 / meh
Molybdenum	0.074	mg/L		0.001		E200.8	09/05/19 02:59 / meh
Nickel	0.013	mg/L		0.005		E200.8	09/05/19 02:59 / meh
Selenium	0.019	mg/L		0.001		E200.8	08/30/19 22:30 / meh
Thallium	ND	mg/L		0.0005		E200.8	08/30/19 22:30 / meh
Uranium	1.68	mg/L	D	0.0008		E200.8	09/05/19 02:59 / meh
<b>RADIONUCLIDES, DISSOLVED</b>							
Radium 226	0.3	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 precision (±)	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 226 MDC	0.2	pCi/L				E903.0	09/24/19 13:04 / ajl
Radium 228	-0.4	pCi/L	U			RA-05	09/19/19 16:53 / plj
Radium 228 precision (±)	1.2	pCi/L				RA-05	09/19/19 16:53 / plj
Radium 228 MDC	2.0	pCi/L				RA-05	09/19/19 16:53 / plj
Thorium 230	0.008	pCi/L	U			E908.0	09/15/19 17:57 / nsr
Thorium 230 precision (±)	0.06	pCi/L				E908.0	09/15/19 17:57 / nsr
Thorium 230 MDC	0.1	pCi/L				E908.0	09/15/19 17:57 / nsr
<b>CLIENT PROVIDED FIELD PARAMETERS</b>							
Field pH	6.88	s.u.				FIELD	08/28/19 08:31 / ***

**Report Definitions:**

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



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b> <span style="float: right;">Batch: TDS190830A</span>										
<b>Lab ID: MB-49_190830A</b>		Method Blank								
Solids, Total Dissolved TDS @ 180 C		2	mg/L							Run: ORG_BAL3_C_190830B 08/30/19 14:06
<b>Lab ID: LCS-50_190830A</b>		Laboratory Control Sample								Run: ORG_BAL3_C_190830B 08/30/19 14:06
Solids, Total Dissolved TDS @ 180 C		1010	mg/L	10	101	90	110			
<b>Lab ID: C19081336-001A DUP</b>		Sample Duplicate								Run: ORG_BAL3_C_190830B 08/30/19 14:07
Solids, Total Dissolved TDS @ 180 C		3240	mg/L	40				0.1	5	
<b>Lab ID: C19081336-011A DUP</b>		Sample Duplicate								Run: ORG_BAL3_C_190830B 08/30/19 14:12
Solids, Total Dissolved TDS @ 180 C		1030	mg/L	10				0.1	5	
<b>Lab ID: MB-73_190830A</b>		Method Blank								Run: ORG_BAL3_C_190830B 08/30/19 14:16
Solids, Total Dissolved TDS @ 180 C		ND	mg/L							
<b>Lab ID: LCS-74_190830A</b>		Laboratory Control Sample								Run: ORG_BAL3_C_190830B 08/30/19 14:16
Solids, Total Dissolved TDS @ 180 C		1000	mg/L	10	100	90	110			
<b>Lab ID: C19081336-021A DUP</b>		Sample Duplicate								Run: ORG_BAL3_C_190830B 08/30/19 14:17
Solids, Total Dissolved TDS @ 180 C		253	mg/L	10				0.5	5	
<b>Method: A2540 C</b> <span style="float: right;">Batch: TDS190903B</span>										
<b>Lab ID: MB-1_190903B</b>		Method Blank								
Solids, Total Dissolved TDS @ 180 C		ND	mg/L							Run: ORG_BAL3_C_190903B 09/03/19 17:40
<b>Lab ID: LCS-2_190903B</b>		Laboratory Control Sample								Run: ORG_BAL3_C_190903B 09/03/19 17:40
Solids, Total Dissolved TDS @ 180 C		1000	mg/L	10	100	90	110			
<b>Lab ID: C19081311-001A DUP</b>		Sample Duplicate								Run: ORG_BAL3_C_190903B 09/03/19 17:41
Solids, Total Dissolved TDS @ 180 C		45000	mg/L	500				0.8	5	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc

**Work Order:** C19081336

**Report Date:** 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-H B</b>								Analytical Run: PHSC_101-C_190830A		
<b>Lab ID: 6.86</b>	2 Initial Calibration Verification Standard								08/30/19 09:55	
pH		6.87	s.u.	0.010	100	98	102			
pH Measurement Temp		19.5	°C			0	0			
<b>Method: A4500-H B</b>								Batch: R250433		
<b>Lab ID: C19081336-005ADUP</b>	2 Sample Duplicate						Run: PHSC_101-C_190830A		08/30/19 13:14	
pH		7.85	s.u.	0.010				0.1	1.5	
pH Measurement Temp		18.3	°C							
<b>Lab ID: C19081336-015ADUP</b>	2 Sample Duplicate						Run: PHSC_101-C_190830A		08/30/19 13:46	
pH		7.37	s.u.	0.010				0.0	1.5	
pH Measurement Temp		18.5	°C							
<b>Lab ID: C19081336-025ADUP</b>	2 Sample Duplicate						Run: PHSC_101-C_190830A		08/30/19 14:28	
pH		6.93	s.u.	0.010				0.0	1.5	
pH Measurement Temp		18.6	°C							

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E300.0</b>										
Analytical Run: IC3-C_190904A										
<b>Lab ID: ICV</b>	3	Initial Calibration Verification Standard								09/04/19 20:00
Chloride		9.96	mg/L	1.0	100	90	110			
Fluoride		5.01	mg/L	0.10	100	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
<b>Method: E300.0</b>										
Batch: R250661										
<b>Lab ID: ICB</b>	3	Method Blank								09/04/19 20:19
Run: IC3-C_190904A										
Chloride		ND	mg/L	0.05						
Fluoride		ND	mg/L	0.02						
Sulfate		0.2	mg/L	0.1						
<b>Lab ID: LFB</b>	3	Laboratory Fortified Blank								09/04/19 20:38
Run: IC3-C_190904A										
Chloride		10.1	mg/L	1.0	101	90	110			
Fluoride		5.06	mg/L	0.10	101	90	110			
Sulfate		40.7	mg/L	1.0	102	90	110			
<b>Lab ID: C19081336-005AMS</b>	3	Sample Matrix Spike								09/05/19 11:02
Run: IC3-C_190904A										
Chloride		37.9	mg/L	1.0	103	80	120			
Fluoride		10.5	mg/L	0.10	103	80	120			
Sulfate		217	mg/L	1.0	102	80	120			
<b>Lab ID: C19081336-005AMSD</b>	3	Sample Matrix Spike Duplicate								09/05/19 11:21
Run: IC3-C_190904A										
Chloride		37.9	mg/L	1.0	103	80	120	0.1	20	
Fluoride		10.6	mg/L	0.10	103	80	120	0.4	20	
Sulfate		217	mg/L	1.0	103	80	120	0.0	20	
<b>Lab ID: C19081336-015AMS</b>	3	Sample Matrix Spike								09/05/19 15:30
Run: IC3-C_190904A										
Chloride		20.7	mg/L	1.0	104	80	120			
Fluoride		5.49	mg/L	0.10	104	80	120			
Sulfate		69.6	mg/L	1.0	106	80	120			
<b>Lab ID: C19081336-015AMSD</b>	3	Sample Matrix Spike Duplicate								09/05/19 15:49
Run: IC3-C_190904A										
Chloride		21.0	mg/L	1.0	107	80	120	1.5	20	
Fluoride		5.62	mg/L	0.10	107	80	120	2.4	20	
Sulfate		70.9	mg/L	1.0	109	80	120	2.0	20	
<b>Lab ID: C19081336-025AMS</b>	3	Sample Matrix Spike								09/05/19 19:59
Run: IC3-C_190904A										
Chloride		208	mg/L	1.0	102	80	120			
Fluoride		49.5	mg/L	0.52	98	80	120			
Sulfate		2200	mg/L	4.2		80	120			A
<b>Lab ID: C19081336-025AMSD</b>	3	Sample Matrix Spike Duplicate								09/05/19 20:18
Run: IC3-C_190904A										
Chloride		205	mg/L	1.0	99	80	120	1.5	20	
Fluoride		49.8	mg/L	0.52	99	80	120	0.6	20	
Sulfate		2140	mg/L	4.2		80	120	2.4	20	A

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E300.0										Analytical Run: IC3-C_190906A
<b>Lab ID:</b> ICV	2	Initial Calibration Verification Standard								09/06/19 13:29
Chloride		9.90	mg/L	1.0	99	90	110			
Fluoride		4.99	mg/L	0.10	100	90	110			
<b>Method:</b> E300.0										Batch: R250711
<b>Lab ID:</b> ICB	2	Method Blank								09/06/19 13:48
Chloride		ND	mg/L	0.05						Run: IC3-C_190906A
Fluoride		ND	mg/L	0.02						
<b>Lab ID:</b> LFB	2	Laboratory Fortified Blank								09/06/19 14:08
Chloride		9.99	mg/L	1.0	100	90	110			Run: IC3-C_190906A
Fluoride		5.00	mg/L	0.10	100	90	110			
<b>Lab ID:</b> C19081311-017AMS	2	Sample Matrix Spike								09/06/19 15:05
Chloride		1260	mg/L	10	100	80	120			Run: IC3-C_190906A
Fluoride		496	mg/L	5.2	99	80	120			
<b>Lab ID:</b> C19081311-017AMSD	2	Sample Matrix Spike Duplicate								09/06/19 15:24
Chloride		1270	mg/L	10	101	80	120	0.8	20	Run: IC3-C_190906A
Fluoride		500	mg/L	5.2	100	80	120	0.8	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E350.1</b> Analytical Run: FIA201-C_190903A										
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard 09/03/19 11:18									
Nitrogen, Ammonia as N		1.01	mg/L	0.050	101	90	110			
<b>Method: E350.1</b> Batch: R250504										
<b>Lab ID: MBLK</b>	Method Blank Run: FIA201-C_190903A 09/03/19 11:16									
Nitrogen, Ammonia as N		ND	mg/L	0.03						
<b>Lab ID: LFB</b>	Laboratory Fortified Blank Run: FIA201-C_190903A 09/03/19 11:19									
Nitrogen, Ammonia as N		0.949	mg/L	0.050	96	90	110			
<b>Lab ID: C19081336-003CMS</b>	Sample Matrix Spike Run: FIA201-C_190903A 09/03/19 12:04									
Nitrogen, Ammonia as N		0.813	mg/L	0.050	81	90	110			S
<b>Lab ID: C19081336-003CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903A 09/03/19 12:05									
Nitrogen, Ammonia as N		0.781	mg/L	0.050	78	90	110	4.1	10	S
<b>Lab ID: C19081336-012CMS</b>	Sample Matrix Spike Run: FIA201-C_190903A 09/03/19 12:20									
Nitrogen, Ammonia as N		0.854	mg/L	0.050	85	90	110			S
<b>Lab ID: C19081336-012CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903A 09/03/19 12:21									
Nitrogen, Ammonia as N		0.907	mg/L	0.050	91	90	110	6.0	10	
<b>Lab ID: C19081336-022CMS</b>	Sample Matrix Spike Run: FIA201-C_190903A 09/03/19 12:36									
Nitrogen, Ammonia as N		0.974	mg/L	0.050	97	90	110			
<b>Lab ID: C19081336-022CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903A 09/03/19 12:38									
Nitrogen, Ammonia as N		0.975	mg/L	0.050	97	90	110	0.1	10	
<b>Method: E350.1</b> Analytical Run: FIA201-C_190903B										
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard 09/03/19 13:42									
Nitrogen, Ammonia as N		1.02	mg/L	0.050	102	90	110			
<b>Method: E350.1</b> Batch: R250505										
<b>Lab ID: MBLK</b>	Method Blank Run: FIA201-C_190903B 09/03/19 13:41									
Nitrogen, Ammonia as N		ND	mg/L	0.03						
<b>Lab ID: C19081379-005CMS</b>	Sample Matrix Spike Run: FIA201-C_190903B 09/03/19 13:46									
Nitrogen, Ammonia as N		0.922	mg/L	0.050	83	90	110			S
<b>Lab ID: C19081379-005CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903B 09/03/19 13:47									
Nitrogen, Ammonia as N		0.901	mg/L	0.050	81	90	110	2.3	10	S
<b>Lab ID: LFB</b>	Laboratory Fortified Blank Run: FIA201-C_190903B 09/03/19 13:50									
Nitrogen, Ammonia as N		0.935	mg/L	0.050	94	90	110			

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/11/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b> Analytical Run: FIA201-C_190903C										
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard 09/03/19 15:53									
Nitrogen, Nitrate+Nitrite as N		1.00	mg/L	0.010	100	90	110			
<b>Method: E353.2</b> Batch: R250533										
<b>Lab ID: MBLK</b>	Method Blank Run: FIA201-C_190903C 09/03/19 15:55									
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.010						
<b>Lab ID: LFB</b>	Laboratory Fortified Blank Run: FIA201-C_190903C 09/03/19 15:56									
Nitrogen, Nitrate+Nitrite as N		0.990	mg/L	0.010	100	90	110			
<b>Lab ID: C19081336-002CMS</b>	Sample Matrix Spike Run: FIA201-C_190903C 09/03/19 16:47									
Nitrogen, Nitrate+Nitrite as N		223	mg/L	0.50	95	90	110			
<b>Lab ID: C19081336-002CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903C 09/03/19 16:48									
Nitrogen, Nitrate+Nitrite as N		220	mg/L	0.50	90	90	110	1.1	10	
<b>Lab ID: C19081336-012CMS</b>	Sample Matrix Spike Run: FIA201-C_190903C 09/03/19 17:04									
Nitrogen, Nitrate+Nitrite as N		1.33	mg/L	0.010	102	90	110			
<b>Lab ID: C19081336-012CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903C 09/03/19 17:05									
Nitrogen, Nitrate+Nitrite as N		1.35	mg/L	0.010	104	90	110	1.5	10	
<b>Lab ID: C19081336-022CMS</b>	Sample Matrix Spike Run: FIA201-C_190903C 09/03/19 17:21									
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.010	101	90	110			
<b>Lab ID: C19081336-022CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190903C 09/03/19 17:22									
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.010	101	90	110	0.0	10	
<b>Method: E353.2</b> Analytical Run: FIA201-C_190910A										
<b>Lab ID: ICV</b>	Initial Calibration Verification Standard 09/10/19 10:40									
Nitrogen, Nitrate+Nitrite as N		1.00	mg/L	0.010	100	90	110			
<b>Method: E353.2</b> Batch: R250772										
<b>Lab ID: MBLK</b>	Method Blank Run: FIA201-C_190910A 09/10/19 10:42									
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.010						
<b>Lab ID: LFB</b>	Laboratory Fortified Blank Run: FIA201-C_190910A 09/10/19 10:43									
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.010	102	90	110			
<b>Lab ID: C19081200-004CMS</b>	Sample Matrix Spike Run: FIA201-C_190910A 09/10/19 10:47									
Nitrogen, Nitrate+Nitrite as N		26.4	mg/L	0.10	100	90	110			
<b>Lab ID: C19081200-004CMSD</b>	Sample Matrix Spike Duplicate Run: FIA201-C_190910A 09/10/19 10:48									
Nitrogen, Nitrate+Nitrite as N		26.0	mg/L	0.10	96	90	110	1.5	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.





## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/12/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>		Analytical Run: ICPMS5-C_190830A								
<b>Lab ID: QCS</b>	4	Initial Calibration Verification Standard							08/30/19 21:04	
Arsenic		0.0509	mg/L	0.0010	102	90	110			
Manganese		0.250	mg/L	0.0010	100	90	110			
Selenium		0.0516	mg/L	0.0010	103	90	110			
Thallium		0.0501	mg/L	0.00050	100	90	110			
<b>Method: E200.8</b>		Batch: R250491								
<b>Lab ID: LRB</b>	4	Method Blank							Run: ICPMS5-C_190830A 08/30/19 16:48	
Arsenic		ND	mg/L	7E-05						
Manganese		ND	mg/L	0.0001						
Selenium		ND	mg/L	0.0002						
Thallium		ND	mg/L	4E-05						
<b>Lab ID: LFB</b>	4	Laboratory Fortified Blank							Run: ICPMS5-C_190830A 08/30/19 16:52	
Arsenic		0.0473	mg/L	0.0010	95	85	115			
Manganese		0.0479	mg/L	0.0010	96	85	115			
Selenium		0.0426	mg/L	0.0010	85	85	115			
Thallium		0.0469	mg/L	0.00050	94	85	115			
<b>Lab ID: C19081336-018BMS</b>	4	Sample Matrix Spike							Run: ICPMS5-C_190830A 08/30/19 21:39	
Arsenic		0.111	mg/L	0.0010	105	70	130			
Manganese		0.122	mg/L	0.0010	104	70	130			
Selenium		0.102	mg/L	0.0010	102	70	130			
Thallium		0.103	mg/L	0.00050	103	70	130			
<b>Lab ID: C19081336-018BMSD</b>	4	Sample Matrix Spike Duplicate							Run: ICPMS5-C_190830A 08/30/19 21:43	
Arsenic		0.111	mg/L	0.0010	106	70	130	0.3	20	
Manganese		0.122	mg/L	0.0010	104	70	130	0.2	20	
Selenium		0.106	mg/L	0.0010	106	70	130	3.8	20	
Thallium		0.104	mg/L	0.00050	104	70	130	1.4	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/12/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.8</b>											
Batch: R250615											
<b>Lab ID: LRB</b>	12	Method Blank		Run: ICPMS5-C_190904A				09/04/19 22:57			
Aluminum		ND	mg/L	0.001							
Antimony		ND	mg/L	0.0001							
Arsenic		ND	mg/L	7E-05							
Beryllium		ND	mg/L	0.0002							
Cadmium		ND	mg/L	2E-05							
Lead		ND	mg/L	7E-05							
Manganese		ND	mg/L	0.0001							
Molybdenum		ND	mg/L	2E-05							
Nickel		ND	mg/L	0.0003							
Selenium		ND	mg/L	0.0002							
Thallium		ND	mg/L	4E-05							
Uranium		ND	mg/L	0.0002							
<b>Lab ID: LFB</b>	12	Laboratory Fortified Blank		Run: ICPMS5-C_190904A				09/04/19 23:00			
Aluminum		0.0514	mg/L	0.030	103	85	115				
Antimony		0.0466	mg/L	0.0010	93	85	115				
Arsenic		0.0491	mg/L	0.0010	98	85	115				
Beryllium		0.0534	mg/L	0.0010	107	85	115				
Cadmium		0.0492	mg/L	0.0010	98	85	115				
Lead		0.0551	mg/L	0.0010	110	85	115				
Manganese		0.0504	mg/L	0.0010	101	85	115				
Molybdenum		0.0499	mg/L	0.0010	100	85	115				
Nickel		0.0500	mg/L	0.0050	100	85	115				
Selenium		0.0492	mg/L	0.0010	98	85	115				
Thallium		0.0553	mg/L	0.00050	111	85	115				
Uranium		0.0556	mg/L	0.00030	111	85	115				
<b>Lab ID: C19081336-005BMS</b>	12	Sample Matrix Spike		Run: ICPMS5-C_190904A				09/05/19 00:50			
Aluminum		0.0494	mg/L	0.030	95	70	130				
Antimony		0.0461	mg/L	0.0010	92	70	130				
Arsenic		0.0546	mg/L	0.0010	105	70	130				
Beryllium		0.0458	mg/L	0.0010	92	70	130				
Cadmium		0.0494	mg/L	0.0010	99	70	130				
Lead		0.0557	mg/L	0.0010	111	70	130				
Manganese		0.0506	mg/L	0.0010	100	70	130				
Molybdenum		0.0508	mg/L	0.0010	100	70	130				
Nickel		0.0501	mg/L	0.0050	98	70	130				
Selenium		0.0582	mg/L	0.0010	106	70	130				
Thallium		0.0554	mg/L	0.00050	111	70	130				
Uranium		0.206	mg/L	0.00030	129	70	130				
<b>Lab ID: C19081336-005BMSD</b>	12	Sample Matrix Spike Duplicate		Run: ICPMS5-C_190904A				09/05/19 00:54			
Aluminum		0.0499	mg/L	0.030	96	70	130	1.1	20		
Antimony		0.0456	mg/L	0.0010	91	70	130	1.1	20		
Arsenic		0.0545	mg/L	0.0010	105	70	130	0.2	20		
Beryllium		0.0459	mg/L	0.0010	92	70	130	0.2	20		

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Western Nuclear Inc

**Work Order:** C19081336

**Report Date:** 09/12/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E200.8 <span style="float: right;">Batch: R250615</span>										
<b>Lab ID:</b> C19081336-005BMSD 12 Sample Matrix Spike Duplicate <span style="float: right;">Run: ICPMS5-C_190904A 09/05/19 00:54</span>										
Cadmium		0.0490	mg/L	0.0010	98	70	130	0.8	20	
Lead		0.0560	mg/L	0.0010	112	70	130	0.5	20	
Manganese		0.0503	mg/L	0.0010	100	70	130	0.7	20	
Molybdenum		0.0510	mg/L	0.0010	100	70	130	0.4	20	
Nickel		0.0499	mg/L	0.0050	97	70	130	0.4	20	
Selenium		0.0576	mg/L	0.0010	105	70	130	0.9	20	
Thallium		0.0550	mg/L	0.00050	110	70	130	0.7	20	
Uranium		0.205	mg/L	0.00030	128	70	130	0.3	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/12/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.8</b>		Analytical Run: ICPMS5-C_190906A									
<b>Lab ID: QCS</b>	7	Initial Calibration Verification Standard							09/06/19 10:42		
Aluminum		0.253	mg/L	0.030	101	90	110				
Antimony		0.0485	mg/L	0.0010	97	90	110				
Lead		0.0490	mg/L	0.0010	98	90	110				
Molybdenum		0.0483	mg/L	0.0010	97	90	110				
Nickel		0.0505	mg/L	0.0050	101	90	110				
Thallium		0.0507	mg/L	0.00050	101	90	110				
Uranium		0.0189	mg/L	0.00030	94	90	110				
<b>Method: E200.8</b>		Batch: R250675									
<b>Lab ID: LRB</b>	7	Method Blank							Run: ICPMS5-C_190906A 09/06/19 11:05		
Aluminum		ND	mg/L	0.001							
Antimony		ND	mg/L	0.0001							
Lead		ND	mg/L	7E-05							
Molybdenum		ND	mg/L	2E-05							
Nickel		0.0009	mg/L	0.0003							
Thallium		ND	mg/L	4E-05							
Uranium		ND	mg/L	0.0002							
<b>Lab ID: LFB</b>	7	Laboratory Fortified Blank							Run: ICPMS5-C_190906A 09/06/19 11:09		
Aluminum		0.0495	mg/L	0.030	99	85	115				
Antimony		0.0466	mg/L	0.0010	93	85	115				
Lead		0.0493	mg/L	0.0010	99	85	115				
Molybdenum		0.0495	mg/L	0.0010	99	85	115				
Nickel		0.0498	mg/L	0.0050	100	85	115				
Thallium		0.0512	mg/L	0.00050	102	85	115				
Uranium		0.0493	mg/L	0.00030	99	85	115				
<b>Lab ID: C19081336-001BMS</b>	7	Sample Matrix Spike							Run: ICPMS5-C_190906A 09/06/19 16:05		
Aluminum		0.271	mg/L	0.030	93	70	130				
Antimony		0.221	mg/L	0.0010	88	70	130				
Lead		0.242	mg/L	0.0010	97	70	130				
Molybdenum		0.240	mg/L	0.0010	96	70	130				
Nickel		0.295	mg/L	0.0050	89	70	130				
Thallium		0.259	mg/L	0.00050	99	70	130				
Uranium		1.58	mg/L	0.00079		70	130			A	
<b>Lab ID: C19081336-001BMSD</b>	7	Sample Matrix Spike Duplicate							Run: ICPMS5-C_190906A 09/06/19 16:09		
Aluminum		0.257	mg/L	0.030	88	70	130	5.2	20		
Antimony		0.216	mg/L	0.0010	86	70	130	2.3	20		
Lead		0.229	mg/L	0.0010	92	70	130	5.4	20		
Molybdenum		0.228	mg/L	0.0010	91	70	130	5.3	20		
Nickel		0.283	mg/L	0.0050	84	70	130	4.1	20		
Thallium		0.263	mg/L	0.00050	101	70	130	1.7	20		
Uranium		1.49	mg/L	0.00079		70	130	5.9	20	A	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/12/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b> Analytical Run: ICPMS5-C_190909A										
<b>Lab ID: QCS</b>	Initial Calibration Verification Standard 09/09/19 14:32									
Beryllium		0.0248	mg/L	0.0010	99	90	110			
<b>Method: E200.8</b> Batch: R250741										
<b>Lab ID: LRB</b>	Method Blank Run: ICPMS5-C_190909A 09/09/19 14:55									
Beryllium		ND	mg/L	0.0002						
<b>Lab ID: LFB</b>	Laboratory Fortified Blank Run: ICPMS5-C_190909A 09/09/19 14:59									
Beryllium		0.0501	mg/L	0.0010	100	85	115			
<b>Lab ID: C19081336-023BMS</b>	Sample Matrix Spike Run: ICPMS5-C_190909A 09/09/19 18:03									
Beryllium		0.217	mg/L	0.0010	87	70	130			
<b>Lab ID: C19081336-023BMSD</b>	Sample Matrix Spike Duplicate Run: ICPMS5-C_190909A 09/09/19 18:07									
Beryllium		0.216	mg/L	0.0010	87	70	130	0.5	20	
<b>Method: E200.8</b> Analytical Run: ICPMS5-C_190910B										
<b>Lab ID: QCS</b>	2 Initial Calibration Verification Standard 09/11/19 09:08									
Lead		0.0510	mg/L	0.0010	102	90	110			
Nickel		0.0506	mg/L	0.0050	101	90	110			
<b>Method: E200.8</b> Batch: R250794										
<b>Lab ID: LRB</b>	2 Method Blank Run: ICPMS5-C_190910B 09/10/19 17:34									
Lead		ND	mg/L	7E-05						
Nickel		ND	mg/L	0.0003						
<b>Lab ID: LFB</b>	2 Laboratory Fortified Blank Run: ICPMS5-C_190910B 09/10/19 17:38									
Lead		0.0491	mg/L	0.0010	98	85	115			
Nickel		0.0490	mg/L	0.0050	98	85	115			
<b>Lab ID: C19081403-002BMS</b>	2 Sample Matrix Spike Run: ICPMS5-C_190910B 09/11/19 02:46									
Lead		0.0492	mg/L	0.0010	98	70	130			
Nickel		0.0486	mg/L	0.0050	95	70	130			
<b>Lab ID: C19081403-002BMSD</b>	2 Sample Matrix Spike Duplicate Run: ICPMS5-C_190910B 09/11/19 02:51									
Lead		0.0489	mg/L	0.0010	98	70	130	0.5	20	
Nickel		0.0478	mg/L	0.0050	94	70	130	1.5	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/27/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E903.0</b> <span style="float: right;">Batch: RA226-9422</span>										
<b>Lab ID: LCS-RA226-9422</b>		Laboratory Control Sample								
Radium 226		10	pCi/L	104		80	120			
										Run: G5000W_190912C 09/24/19 13:00
<b>Lab ID: MB-RA226-9422</b>	3	Method Blank								
Radium 226		0.03	pCi/L							09/24/19 13:00
Radium 226 precision (±)		0.1	pCi/L							U
Radium 226 MDC		0.2	pCi/L							
<b>Lab ID: LCS-RA226-9422DUP</b>		Laboratory Control Sample Duplicate								
Radium 226		9.6	pCi/L	96		80	120	7.5	20	09/24/19 13:00
<b>Method: E903.0</b> <span style="float: right;">Batch: RA226-9423</span>										
<b>Lab ID: LCS-RA226-9423</b>		Laboratory Control Sample								
Radium 226		9.1	pCi/L	91		80	120			09/24/19 13:04
										Run: G542M_190912D
<b>Lab ID: MB-RA226-9423</b>	3	Method Blank								
Radium 226		-0.008	pCi/L							09/24/19 13:04
Radium 226 precision (±)		0.1	pCi/L							U
Radium 226 MDC		0.2	pCi/L							
<b>Lab ID: LCS-RA226-9423DUP</b>		Laboratory Control Sample Duplicate								
Radium 226		10	pCi/L	100		80	120	10	20	09/24/19 13:04
<b>Method: E903.0</b> <span style="float: right;">Batch: RA226-9420</span>										
<b>Lab ID: LCS-RA226-9420</b>		Laboratory Control Sample								
Radium 226		8.1	pCi/L	81		80	120			09/24/19 11:20
										Run: G542M-2_190913A
<b>Lab ID: MB-RA226-9420</b>	3	Method Blank								
Radium 226		0.08	pCi/L							09/24/19 11:20
Radium 226 precision (±)		0.09	pCi/L							U
Radium 226 MDC		0.2	pCi/L							
<b>Lab ID: LCS-RA226-9420DUP</b>		Laboratory Control Sample Duplicate								
Radium 226		8.7	pCi/L	87		80	120	6.6	20	09/24/19 11:20

**Qualifiers:**

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



# QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/27/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E908.0</b> <span style="float: right;">Batch: RA-TH-ISO-2925</span>										
<b>Lab ID: LCS-RA-TH-ISO-2925</b>	Laboratory Control Sample					Run: EGG-ORTEC_2_190830D		09/13/19 16:39		
Thorium 230	10	pCi/L		91		80	120			
<b>Lab ID: MB-RA-TH-ISO-2925</b>	3	Method Blank				Run: EGG-ORTEC_2_190830D		09/13/19 16:39		
Thorium 230		0.008	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.1	pCi/L							
<b>Lab ID: LCS-RA-TH-ISO-DUP</b>	Laboratory Control Sample Duplicate					Run: EGG-ORTEC_2_190830D		09/13/19 16:39		
Thorium 230	9.3	pCi/L		84		80	120	9.1	20	
<b>Method: E908.0</b> <span style="float: right;">Batch: RA-TH-ISO-2926</span>										
<b>Lab ID: LCS-RA-TH-ISO-2926</b>	Laboratory Control Sample					Run: EGG-ORTEC_2_190830E		09/15/19 17:57		
Thorium 230	11	pCi/L		100		80	120			
<b>Lab ID: LCS-RA-TH-ISO-DUP</b>	Laboratory Control Sample Duplicate					Run: EGG-ORTEC_2_190830E		09/15/19 17:57		
Thorium 230	11	pCi/L		100		80	120	0.1	20	
<b>Lab ID: MB-RA-TH-ISO-2926</b>	3	Method Blank				Run: EGG-ORTEC_2_190830E		09/15/19 17:57		
Thorium 230		0.01	pCi/L							U
Thorium 230 precision (±)		0.05	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Western Nuclear Inc

Work Order: C19081336

Report Date: 09/27/19

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: RA-05</b> <span style="float: right;">Batch: RA228-6097</span>										
<b>Lab ID: LCS-228-RA226-9422</b>		Laboratory Control Sample								
Radium 228		7.8	pCi/L	89		80	120			
										Run: TENNELEC-3_190912D 09/19/19 12:46
<b>Lab ID: MB-RA226-9422</b>	3	Method Blank								
Radium 228		0.8	pCi/L							U
Radium 228 precision (±)		1.0	pCi/L							
Radium 228 MDC		2	pCi/L							
<b>Lab ID: LCS-228-RA226-DUP</b>		Laboratory Control Sample Duplicate								
Radium 228		7.0	pCi/L	80		80	120	11	20	09/19/19 12:46
<b>Method: RA-05</b> <span style="float: right;">Batch: RA228-6098</span>										
<b>Lab ID: LCS-228-RA226-9423</b>		Laboratory Control Sample								
Radium 228		7.5	pCi/L	86		80	120			
										Run: TENNELEC-3_190912E 09/19/19 15:17
<b>Lab ID: MB-RA226-9423</b>	3	Method Blank								
Radium 228		0.2	pCi/L							U
Radium 228 precision (±)		1.0	pCi/L							
Radium 228 MDC		2	pCi/L							
<b>Lab ID: LCS-228-RA226-DUP</b>		Laboratory Control Sample Duplicate								
Radium 228		8.2	pCi/L	94		80	120	9.3	20	09/19/19 15:17
<b>Method: RA-05</b> <span style="float: right;">Batch: RA228-6096</span>										
<b>Lab ID: LCS-228-RA226-9420</b>		Laboratory Control Sample								
Radium 228		9.2	pCi/L	106		80	120			
										Run: TENNELEC-3_190913A 09/19/19 09:07
<b>Lab ID: MB-RA226-9420</b>	3	Method Blank								
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.9	pCi/L							
Radium 228 MDC		1	pCi/L							
<b>Lab ID: LCS-228-RA226-DUP</b>		Laboratory Control Sample Duplicate								
Radium 228		8.2	pCi/L	95		80	120	11	20	09/19/19 09:07

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration





# Work Order Receipt Checklist

Western Nuclear Inc

C19081336

Login completed by: Casie C. Peppersack

Date Received: 8/29/2019

Reviewed by: Kasey Vidick

Received by: CCP

Reviewed Date: 8/30/2019

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	7.4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

## Standard Reporting Procedures:

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

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

## Contact and Corrective Action Comments:

Multiple coolers were hand delivered, additional temperatures are: 16.7-no ice, 17.0-no ice, 17.0-no ice, 19.3-no ice, 17.4-no ice, 18.4-no ice, 14.8-no ice and 8.9-ice. 8/29/19 CP



Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com

Page 1 of 3

### Account Information (Billing Information)

Company/Name: Weston Nuclear, Inc.  
 Contact: Brad K. Delward  
 Phone: 307-349-1217  
 Mailing Address: P.O. Box 630  
822310  
 City, State, Zip: Rocky Mountain, WY  
 Email: brad.k.delward@weston-nuclear.com  
 Receive Invoice:  Hard Copy  Email  
 Purchase Order:  Hard Copy  Email  
 Quote:  Bottle Order

### Report Information (if different than Account Information)

Company/Name: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Receive Report:  Hard Copy  Email  
 Special Report/Formats:  LEVEL IV  NEUAC  EDD/EDT (contact laboratory)  Other \_\_\_\_\_

### Comments

TURNS -  
 16.7  
 17.0  
 17.0  
 19.3  
 17.4  
 18.4  
 14.8 (free)  
 8.9 (ice)  
 7.4 (ice)

### Project Information

Project Name, PWSID, Permit, etc: Split Rock Mill GUPP  
 Sampler: B.K. Delward  
 Sampler Phone: 307-349-1217  
 Sample Origin State: WY  
 EPA/State Compliance: Yes  
 URBANIUM MINING CLIENTS MUST indicate sample type:  
 NOT Source or Byproduct Material  
 Source/Processed Ore (Ground or Refined) \*\*CALL BEFORE SENDING  
 11e/2) Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

### Matrix Codes

A - Air  
 W - Water  
 S - Solids  
 V - Vegetation  
 B - Bioassay  
 O - Other  
 DW - Drinking Water

### Analysis Requested

Field pH

All turnaround times are standard unless marked as RUSH.  
 Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers (See Codes Above)	Matrix (See Codes Above)	Analysis Requested	Comments
	Date	Time				
1 WY-1	8/28/19	1142	04	W		See Attached
2 WY-4R		0849				
3 WY-5		0831				
4 WY-21		1330				
5 WY-39B	8/27/19	0805				
6 WY-41B		1346				
7 WY-42A		1124				
8 WY-1R		1315				
9 WY-1R	8/28/19	1419				
10 SWAB-2	11	1346				

Custody Record MUST be signed: Arnold S Raymond  
 Relinquished by (print): \_\_\_\_\_ Date/Time: 8-28-19 10:42  
 Relinquished by (print): \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Received by (print): \_\_\_\_\_ Date/Time: 8/29/19 14:43  
 Signature: \_\_\_\_\_

Shipped By: Hand Cooler ID(s): ELI Custody Seals: Y NC B Inject: Y DN  
 Receipt Temp: AR AR AR AR AR AR AR AR AR AR  
 Temp Blank: Y N On Ice: Y N  
 Payment Type: CC Cash Check Amount: \$ \_\_\_\_\_  
 Receipt Number (cash/check only): \_\_\_\_\_

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



Trust our People. Trust our Data.

www.energylab.com

# Chain of Custody & Analytical Request Record

Page 2 of 3

## Account Information (Billing information)

Company Name: Western Nuclear, Inc  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Mailing Address: See pg 1 of 3.  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Receive Invoice:  Hard Copy  Email  Receive Report  Hard Copy  Email  
 Purchase Order: \_\_\_\_\_ Quote: \_\_\_\_\_ Bottle Order: \_\_\_\_\_

## Report Information (if different than Account Information)

Company Name: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Receive Report:  Hard Copy  Email  
 Special Report/Formats:  LEVEL IV  NELAC  EDD/EDT (contact laboratory)  Other \_\_\_\_\_

## Comments

\_\_\_\_\_

## Project Information

Project Name, PWSID, Permit, etc: \_\_\_\_\_  
 Sampler Name: See pg 1 of 3  
 Sample Origin State: \_\_\_\_\_ EPA/State Compliance:  Yes  No  
 URBANIUM MINING CLIENTS MUST indicate sample type.  
 NOT Source or Byproduct Material  
 Source/Processed Ore (Ground or Refined) \*\*CALL BEFORE SENDING  
 11e (2) Byproduct Material (Can ONLY be Submitted to ELU Casper Location)

## Matrix Codes

- A - Air
- W - Water
- S - Soils/Solids
- V - Vegetation
- B - Bioassay
- O - Other
- DW - Drinking Water

## Analysis Requested

Field pH

All turnaround times are standard unless marked as RUSH. Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Received by Laboratory (print)		Date/Time	Signature
	Date	Time			Received by	Amount		
1 SWAB-4	8/28/19	1047	1	W			7:28	See Attached
2 SWAB-12R		1109	1	W			7:22	
3 SWAB-22		0920	1	W			7:43	
4 SWAB-29		1035	1	W			7:08	
5 SWAB-31		1452	1	W			7:22	
6 SWAB-32	8-28-19	1445	1	W			8:02	
7 SWAB-49	8-26-19	0855	1	W			8:23	
8 SWR-4		0921	1	W			8:24	
9 SWR-33		0944	1	W			8:31	
10 SWR-2		1016	1	W			8:32	

Customer Record MUST be signed: ARNOLD C. RAYMOND  
 Date/Time: 8-29-19 10:42  
 Signature: \_\_\_\_\_  
 Received by Laboratory (print): DAVE PROSSER  
 Date/Time: 8/29/19 10:43  
 Signature: \_\_\_\_\_  
 Payment Type:  Cash  Check  
 Amount: \$ \_\_\_\_\_  
 Receipt Number (cash/check only): \_\_\_\_\_

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



Trust our People, Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com

### Account Information (Billing Information)

Company Name: Western Nuclear, Inc.  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Mailing Address: 500 PG 1053  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_

Receive Invoice  Hard Copy  Email  Receive Report  Hard Copy  Email   
 Purchase Order: \_\_\_\_\_ Quote: \_\_\_\_\_ Bottle Order: \_\_\_\_\_

### Report Information (if different than Account Information)

Company Name: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Email: \_\_\_\_\_

Receive Report  Hard Copy  Email   
 Special Report/Formats:  LEVEL IV  NIELAC  EDD/EDT (contact laboratory)  Other \_\_\_\_\_

### Comments

\_\_\_\_\_

### Project Information

Project Name, PWSID, Permit, etc.: \_\_\_\_\_  
 Sampler Name: Saepe Sampler Phone: \_\_\_\_\_  
 Sample Origin State: \_\_\_\_\_ EPA/State Compliance  Yes  No  
 URBANIUM MINING CLIENTS MUST indicate sample type.  
 NOT Source or Byproduct Material  
 Source/Processed Ore (Ground or Refined) \*\*CALL BEFORE SENDING  
 11e (2) Byproduct Material (Can ONL Y be Submitted to ELL Casper Location)

### Matrix Codes

- A - Air
- W - Water
- S - Soils
- V - Vegetation
- B - Bioassay
- O - Other
- DW - Drinking Water

### Analysis Requested

\_\_\_\_\_

All turnaround times are standard unless marked as RUSH.  
 Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers (See Codes Above)	Matrix	Analysis Requested	Amount	Signature
	Date	Time					
1 SWR-DG	8-26-19	1053	1	W		8.57	
2 Field Blank	8-26-19	1600	1	W	Field PH	8.37	
3 WIL-1B	8-27-19	1142	1	W		6.76	
4 WIL-5JR	8-27-19	0831	1	W		6.88	
5 WIL-5JR	8-27-19	0831	1	W		6.88	
6						6.88	
7							
8							
9							
10							

Custody Record MUST be signed by \_\_\_\_\_ Relinquished by (print) \_\_\_\_\_ Date/Time: 8-29-19 10:12 Signature: \_\_\_\_\_

Shipped By: HOWD Cooler (ID's): ELI Custody Seals: Y N C B Jacket: Y N Receipt Temp: 83 1 °C Temp Blank: Y N On Ice: Y N

Received by Laboratory (print): MASIE LEPOORSACK Date/Time: 8/29/19 10:43 Signature: \_\_\_\_\_

Payment Type: CC Cash Check Amount: \$ \_\_\_\_\_ Receipt Number (cash/check only): \_\_\_\_\_

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

**Spl. + Rock Mtl**  
**Jeffrey City Wyoming**  
**Western Nuclear, Inc**  
 Table 1  
**Ground-Water Sampling Program**

C19081336

Monitoring Wells	Sampling Frequency	Parameters
1, 4R, 5, and 21	Semi-Annual 2L - FILT + HNO <sub>3</sub> 100 ml - FILT + H <sub>2</sub> SO <sub>4</sub> 250 ml - FILT Record Field pH on COC	Al, Sb, As, Be, Cd, chloride, fluoride, Mn, Mo, Ni, ammonia, pH, nitrate, Pb, Ra-226 and -228, Se, sulfate, Th-230, Tl, TDS, uranium, water levels
WN-39B, -41B, -42A, JJ-1R, SWAB-1, -2, -4, -12, -22, -29, -31, -32	Semi-Annual 50 ml - FILT + HNO <sub>3</sub> 100 ml - FILT	uranium, sulfate, water levels
	Annual SAME AS ABOVE	Al, Sb, As, Be, Cd, chloride, fluoride, Mn, Mo, Ni, ammonia, pH, nitrate, Pb, Ra-226 and -228, Se, sulfate, Th-230, Tl, TDS, uranium, water levels

**Surface Water Monitoring**

On May 24, 2004, WNI requested that the NRC approve a new surface water sampling program to consist of 5 sampling points, each of which would be sampled for uranium and sulfate annually. On November 10, 2004, and January 18, 2005, the NRC provided comments regarding this surface water monitoring plan, suggesting that all locations be sampled semi-annually for the full list of parameters. On March 2, 2005, WNI submitted a revised sampling plan specifying that each surface water location be sampled semi-annually for uranium and sulfate.

On May 17, 2005, WNI and NRC staff discussed the discrepancy in the monitoring plan and came to a final agreement. The latest revision to the sampling plan will mimic the ground-water monitoring plan. All surface locations will be sampled semi-annually for uranium and sulfate and annually for the full suite of parameters. Table 2 contains a summary of the surface water monitoring plan.

Table 2  
**Surface Water Monitoring Program**

Surface Water Locations	Sampling Frequency	Parameters
S-A, -B, -C, Upgradient, Downgradient	Semi-Annual SAME AS ABOVE	uranium, sulfate
	Annual SAME AS ABOVE	Al, Sb, As, Be, Cd, chloride, fluoride, Mn, Mo, Ni, ammonia, pH, nitrate, Pb, Ra-226 and -228, Se, sulfate, Th-230, Tl, TDS, uranium, water levels