



November 22, 2019

Mr. Ken Kalman
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Mr. Paul Davis
Oklahoma Department of Environmental Quality
707 North Robinson
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Mr. Robert Evans
U.S. Nuclear Regulatory Commission
1600 East Lamar Blvd; Suite 400
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Re: Docket No. 70-925; License No. SNM-928
Tabulated Data for Sampling Events Conducted August 2019

Dear Sirs:

Solely as Trustee for the Cimarron Environmental Response Trust (CERT), Environmental Properties Management LLC (EPM) submits herein three files which present the data obtained during groundwater and surface water sampling conducted in August 2019. I apologize for the delay in reporting this data, but there's a legitimate reason. Data review identified some problems; when we contacted the laboratory, they went back through their records and determined that there had been a sample prep issue. Because they had retained the samples, there were able to re-prepare and reanalyze them.

Annual Environmental Monitoring

"2019 Annual Environmental Data.xlsx" reports the results of the annual environmental monitoring required by Section 15 of the Radiation Protection Plan. Section 15 requires analysis for "uranium isotopes". Several years ago, we began analyzing the groundwater and surface water samples from the environmental monitoring locations for both isotopic mass and isotopic activity, and both mass concentration and activity concentration results are reported herein.

Assessment of Technitium-99 (Tc-99) in Groundwater

"2019 Tc-99 Assessment Data.xlsx" reports the results of the Tc-99 groundwater assessment sampling event. For the western remediation areas, this data will be used to calculate the estimated initial and maximum concentration of Tc-99 in influent to the water treatment facility. This data represents the first set of defensible site-wide Tc-99 data and will be the basis for this and subsequent evaluations.

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It was believed that the liquid waste stream that was disposed of in Uranium Pond #1 and Uranium Pond #2 was the source of the Tc-99 in groundwater. Consequently, it should not be present in Burial Area #1 (BA1). However, when “old” data was uploaded to the comprehensive database, the electronic records of historic Tc-99 data presented data quality issues. For example, the detection limit was sometimes reported as 0.0 pCi/L; at other times the detection limit was the same value as the analytical result; still other times it was reported to be 300 pCi/L. The August 2019 sampling event provides conclusive evidence that Tc-99 is *not* present in groundwater in BA1.

This Tc-99 assessment data will also form the basis for a report on the extent and distribution of Tc-99 in groundwater at the Cimarron site. EPM anticipates submitting this report by the end of January 2020.

Oxidation-Reduction of Groundwater in BA1

“2019-Q3 Redox Data.xlsx” reports the data obtained for the continuing assessment of oxidation-reduction conditions that were created as a result of the use of an organic slurry to construct groundwater Extraction Trench GETR-BA1-01 during the 2017 pilot test. Using low-flow sampling methods, measurements for dissolved oxygen (DO) and oxidation-reduction potential (ORP) were obtained prior to collecting samples for laboratory analysis. Measurements recorded and samples collected during low-flow purging are identified by the suffix “LF”.

Some of the locations from which low-flow samples were collected are included in the list of locations for the annual environmental monitoring program. At these locations, groundwater samples were collected using the standard purging technique stipulated in sampling and analysis procedure SAP-104, “Groundwater Sampling” *after* a sample was collected for analysis using the low-flow methodology. This was done to determine if the two purging methods would yield comparable results.

This data will be compiled with previously obtained data, and a report will be prepared that will describe the creation and monitoring of redox conditions in BA1. The report will include assessment of the re-oxidation of groundwater and the re-mobilization of uranium and may propose continued monitoring events or a monitoring program. EPM anticipates that the report will be submitted by the end of February 2020.

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Please feel free to contact me at jlux@envpm.com or at 405-642-5152 if you would like to discuss any of this information. Thanks.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Lux". The signature is written in a cursive, flowing style.

Jeff Lux, P.E.
Trustee Project Manager

Attachment

cc: NRC Public Document Room (electronic copy only)

ATTACHMENT 1
2019 ANNUAL ENVIRONMENTAL MONITORING DATA

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 ANNUAL ENVIRONMENTAL DATA**

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
WAA U>DCGL	T-62	8/26/2019	Fluoride	4.42			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	14.3			MG/L		0.850
			ALPHA	185	15.7		PCI/L		4.81
			BETA	91.6	5.16		PCI/L		3.42
			Uranium-233/234	155	7.81		PCI/L		0.864
			Uranium-235/236	8.65	2.08		PCI/L		0.773
			Uranium-238	51.9	4.53	216	PCI/L		0.675
			Uranium-235	3.14	0.158		UG/L		0.050
			Uranium-238	141	7.06	144	UG/L		0.335
	T-64	8/26/2019	Fluoride	2.63			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	6.83			MG/L		0.170
			ALPHA	176	14.50		PCI/L		4.56
			BETA	52.1	4.15		PCI/L		3.45
			Uranium-233/234	190	7.65		PCI/L		0.642
			Uranium-235/236	13.4	2.27		PCI/L		0.475
			Uranium-238	30.4	3.06	234	PCI/L		0.240
			Uranium-235	4.14	0.210		UG/L		0.100
			Uranium-238	87.9	4.39	92.0	UG/L		0.067
	T-70R	8/26/2019	Fluoride	0.895			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	1.22			MG/L		0.085
			ALPHA	131	13.0		PCI/L	J	4.61
			BETA	22.8	2.99		PCI/L	J	3.19
			Uranium-233/234	128	6.24		PCI/L		0.547
			Uranium-235/236	9.74	1.92		PCI/L		0.292
			Uranium-238	20.2	2.48	158	PCI/L		0.481
			Uranium-235	2.77	0.140		UG/L		0.050
			Uranium-238	52.7	2.63	55	UG/L		0.067
	T-76	8/26/2019	Fluoride	2.43			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	23.2			MG/L		0.850
			ALPHA	149	13.50		PCI/L		3.94
			BETA	76.6	4.90		PCI/L		3.27
			Uranium-233/234	149	6.97		PCI/L		0.582
			Uranium-235/236	8.83	1.91		PCI/L		0.640
			Uranium-238	56.0	4.28	214	PCI/L		0.594
			Uranium-235	3.04	0.153		UG/L		0.050
			Uranium-238	155	7.77	158	UG/L		0.335

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 ANNUAL ENVIRONMENTAL DATA**

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
WAA U>DCGL	T-77	8/26/2019	Fluoride	0.603			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	1.54			MG/L		0.085
			ALPHA	138	13.0		PCI/L		6.87
			BETA	32.6	4.31		PCI/L		5.88
			Uranium-233/234	103	5.21		PCI/L		0.513
			Uranium-235/236	6.13	1.43		PCI/L		0.468
			Uranium-238	18.3	2.20	127	PCI/L		0.480
			Uranium-235	2.25	0.114		UG/L		0.050
			Uranium-238	58.8	2.940	61.1	UG/L		0.067
	T-79	8/26/2019	Fluoride	0.571			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.195			MG/L		0.017
			ALPHA	81.0	7.58		PCI/L		5.04
			BETA	19.4	2.42		PCI/L		3.31
			Uranium-233/234	82.9	4.80		PCI/L		0.627
			Uranium-235/236	4.23	1.22		PCI/L		0.493
			Uranium-238	14.7	2.03	102	PCI/L		0.505
			Uranium-235	1.68	0.086		PCI/L		0.050
			Uranium-238	42.2	2.11	43.9	UG/L		0.067
	T-82	8/26/2019	Fluoride	0.478			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.117			MG/L		0.017
			ALPHA	28.9	6.89		PCI/L		8.10
			BETA	6.66	2.89		PCI/L		4.66
			Uranium-233/234	24.3	2.73		PCI/L		0.608
			Uranium-235/236	1.61	0.816		PCI/L		0.541
			Uranium-238	8.09	1.59	34.0	PCI/L		0.612
			Uranium-235	0.373	0.019		UG/L		0.010
			Uranium-238	20.3	1.02	20.7	UG/L		0.067

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 ANNUAL ENVIRONMENTAL DATA**

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
WU-BA3	1351	8/26/2019	Fluoride	1.03			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	20.3			MG/L		0.850
			ALPHA	880	31.2		PCI/L	J	4.09
			BETA	316	9.52		PCI/L		4.40
			Uranium-233/234	1230	24.2		PCI/L		1.19
			Uranium-235/236	79.7	6.65		PCI/L		1.00
			Uranium-238	360	13.1	1670	PCI/L		1.03
			Uranium-235	24.5	1.24		UG/L		0.500
			Uranium-238	956	47.8	981	UG/L		3.35
	1351DUP	8/26/2019	Fluoride	1.01			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	20.7			MG/L		0.850
			ALPHA	821	31.2		PCI/L	J	4.28
			BETA	338	8.96		PCI/L		3.05
			Uranium-233/234	1230	24.0		PCI/L		1.15
			Uranium-235/236	75.9	6.64		PCI/L		1.22
			Uranium-238	374	13.2	1680	PCI/L		1.02
			Uranium-235	25.7	1.30		UG/L		0.500
			Uranium-238	993	49.7	1019	UG/L		3.35
	1352	8/26/2019	Fluoride	0.394			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	29.6			MG/L		1.70
			ALPHA	109	11.0		PCI/L	J	4.62
			BETA	72.9	4.79		PCI/L		3.13
			Uranium-233/234	85.5	4.92		PCI/L		0.545
			Uranium-235/236	5.87	1.45		PCI/L		0.504
			Uranium-238	96.8	5.24	188	PCI/L		0.516
			Uranium-235	1.17	0.061		UG/L		0.050
			Uranium-238	168	8.39	169	UG/L		0.335
	1356	8/26/2019	Fluoride	0.451			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	15.3			MG/L		0.850
			ALPHA	347	18.6		PCI/L		4.93
			BETA	137	6.15		PCI/L		3.40
			Uranium-233/234	255	9.59		PCI/L		0.633
			Uranium-235/236	17.7	2.83		PCI/L		0.707
			Uranium-238	110	6.29	383	PCI/L		0.657
			Uranium-235	4.93	0.249		UG/L		0.100
			Uranium-238	288	14.4	293	UG/L		0.670

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
1206-North	MWWA-03	8/27/2019	Fluoride	10.2			MG/L		0.165
			Nitrogen, Nitrate/Nitrite	5.80			MG/L		0.170
			ALPHA	722	28.9		PCI/L		4.88
			BETA	120	5.67		PCI/L		2.95
			Uranium-233/234	563	8.89		PCI/L		0.627
			Uranium-235/236	31.8	2.35		PCI/L		0.135
			Uranium-238	98.2	3.72	693	PCI/L		0.490
			Uranium-235	17.7	0.890		UG/L		0.250
			Uranium-238	409	20.4	427	UG/L		1.68
	MWWA-09	8/27/2019	Fluoride	3.82			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	8.09			MG/L		0.170
			ALPHA	118	12.9		PCI/L		4.86
			BETA	68.0	4.57		PCI/L		3.34
			Uranium-233/234	119	4.57		PCI/L		0.495
			Uranium-235/236	7.12	1.25		PCI/L		0.170
			Uranium-238	48.0	2.92	174	PCI/L		0.506
			Uranium-235	2.54	0.128		UG/L		0.050
			Uranium-238	143	7.17	146	UG/L		0.335
Surface Water	1201	8/27/2019	Fluoride	0.206			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	1.2			MG/L		0.170
			ALPHA	4.33	7.45		PCI/L	U	13.0
			BETA	9.36	6.21		PCI/L	U	10.2
			Uranium-233/234	1.64	0.713		PCI/L		0.615
			Uranium-235/236	0.024	0.246		PCI/L	U	0.514
			Uranium-238	1.30	0.633	2.96	PCI/L		0.550
			Uranium-235	0.023	0.00353		UG/L	J	0.010
			Uranium-238	2.97	0.150	2.99	UG/L		0.067
	1202	8/27/2019	Fluoride	0.215			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	1.19			MG/L		0.085
			ALPHA	1.96	9.97		PCI/L	U	17.9
			BETA	2.09	6.61		PCI/L	U	11.3
			Uranium-233/234	1.59	0.679		PCI/L		0.522
			Uranium-235/236	0.371	0.399		PCI/L	U	0.454
			Uranium-238	1.68	0.679	3.64	PCI/L		0.405
			Uranium-235	0.024	0.00355		UG/L	J	0.010
			Uranium-238	2.9	0.147	2.92	UG/L		0.067

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 ANNUAL ENVIRONMENTAL DATA**

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1-A	1314	8/27/2019	Fluoride	0.225			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	1.35			MG/L		0.085
			ALPHA	4.37	3.27		PCI/L	U	4.96
			BETA	0.271	1.82		PCI/L	U	3.20
			Uranium-233/234	1.25	0.642		PCI/L		0.623
			Uranium-235/236	0.150	0.295		PCI/L	U	0.409
			Uranium-238	0.519	0.410	1.92	PCI/L		0.382
			Uranium-235	ND	0.00336		UG/L	U	0.010
			Uranium-238	1.03	0.0562	1.03	UG/L		0.067
	TMW-08	8/28/2019	Fluoride	0.425			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	2.1			MG/L		0.170
			ALPHA	98.0	10.2		PCI/L	J	4.66
			BETA	49.1	3.74		PCI/L		3.08
			Uranium-233/234	114	5.80		PCI/L		0.566
			Uranium-235/236	8.41	1.77		PCI/L		0.526
			Uranium-238	77.5	4.79	200	PCI/L		0.425
			Uranium-235	2.23	0.113		UG/L		0.050
			Uranium-238	183	9.16	185	UG/L		0.335
	TMW-09	8/28/2019	Fluoride	0.352			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	4.25			MG/L		0.170
			ALPHA	1830	46.2		PCI/L		4.89
			BETA	648	12.4		PCI/L		2.96
			Uranium-233/234	1060	20.7		PCI/L		1.36
			Uranium-235/236	63.2	5.62		PCI/L		0.389
			Uranium-238	702	16.8	1825	PCI/L		1.01
			Uranium-235	24.3	1.22		UG/L		0.400
			Uranium-238	2060	103	2084	UG/L		2.68
BA1-B	02W06	8/27/2019	Fluoride	0.571			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.109			MG/L		0.017
			ALPHA	213	11.0		PCI/L		5.94
			BETA	121	4.22		PCI/L		3.16
			Uranium-233/234	190	7.78		PCI/L		0.535
			Uranium-235/236	16.9	2.60		PCI/L		0.675
			Uranium-238	116	6.08	323	PCI/L		0.459
			Uranium-235	4.92	0.248		UG/L		0.100
			Uranium-238	367	18.4	372	UG/L		0.670

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1-B	02W08	8/28/2019	Fluoride	0.763			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	113	10.2		PCI/L		3.70
			BETA	48.2	3.69		PCI/L		3.04
			Uranium-233/234	73.8	5.52		PCI/L		0.711
			Uranium-235/236	4.11	1.47		PCI/L		0.398
			Uranium-238	48.7	4.49	127	PCI/L		0.655
			Uranium-235	1.73	0.088		UG/L		0.050
			Uranium-238	139	6.93	141	UG/L		0.335
	02W17	8/27/2019	Fluoride	0.469			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	14.4	3.68		PCI/L		4.24
			BETA	6.00	2.27		PCI/L		3.60
			Uranium-233/234	5.57	1.43		PCI/L		0.721
			Uranium-235/236	0.284	0.452		PCI/L	U	0.625
			Uranium-238	2.58	0.983	8.43	PCI/L		0.557
			Uranium-235	0.101	0.00603		UG/L		0.010
			Uranium-238	10.7	0.534	10.8	UG/L	J	0.067
	02W32	8/28/2019	Fluoride	0.980			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	136	11.2		PCI/L		4.92
			BETA	52.7	3.86		PCI/L		3.03
			Uranium-233/234	76.9	4.60		PCI/L		0.531
			Uranium-235/236	4.67	1.27		PCI/L		0.264
			Uranium-238	48.7	3.66	130	PCI/L		0.395
			Uranium-235	1.77	0.0898		UG/L		0.050
			Uranium-238	147	7.33	149	UG/L		0.335
	02W35	8/26/2019	Fluoride	0.489			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.098			MG/L		0.017
			ALPHA	8.48	2.98		PCI/L		3.50
			BETA	6.11	2.01		PCI/L		3.15
			Uranium-233/234	4.6	1.27		PCI/L		0.822
			Uranium-235/236	0.518	0.544		PCI/L	U	0.678
			Uranium-238	2.65	0.973	7.77	PCI/L		0.698
			Uranium-235	0.074	0.00497		UG/L		0.010
			Uranium-238	7.65	0.38	7.72	UG/L		0.067

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1-B	02W43	8/26/2019	Fluoride	0.250			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	52.7	5.97		PCI/L		4.46
			BETA	17.1	2.100		PCI/L		2.76
			Uranium-233/234	29.2	3.00		PCI/L		0.612
			Uranium-235/236	2.02	0.909		PCI/L		0.545
			Uranium-238	18.7	2.41	49.9	PCI/L		0.617
			Uranium-235	0.692	0.035		UG/L		0.010
			Uranium-238	53.7	2.68	54.4	UG/L		0.067
	02W44	8/28/2019	Fluoride	0.660			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	145	8.74		PCI/L		5.01
			BETA	59.1	3.20		PCI/L		3.10
			Uranium-233/234	101	5.50		PCI/L		0.752
			Uranium-235/236	6.82	1.62		PCI/L		0.775
			Uranium-238	62.1	4.31	170	PCI/L		0.651
			Uranium-235	2.17	0.11		UG/L		0.050
			Uranium-238	171	8.53	173	UG/L		0.335
	TMW-13	8/28/2019	Fluoride	0.758			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	711	31.4		PCI/L	J	4.98
			BETA	417	10.4		PCI/L		3.11
			Uranium-233/234	743	23.1		PCI/L		1.53
			Uranium-235/236	52.2	6.85		PCI/L		1.42
			Uranium-238	452	18.1	1247	PCI/L		1.52
			Uranium-235	19.3	0.976		UG/L		0.400
			Uranium-238	1470	73.3	1489	UG/L		1.34
BA1 - Alluvium	02W16	8/28/2019	Fluoride	0.461			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	5.05	2.23		PCI/L	J	3.07
			BETA	1.27	2.55		PCI/L	U	4.32
			Uranium-233/234	6.06	1.31		PCI/L		0.555
			Uranium-235/236	0.376	0.430		PCI/L	U	0.537
			Uranium-238	3.61	1.01	10.0	PCI/L		0.341
			Uranium-235	0.088	0.00551		UG/L		0.010
			Uranium-238	8.82	0.442	8.91	UG/L		0.067
BA1- Sandstone A	02W09	8/27/2019	Fluoride	1.06			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	ND			MG/L	U	0.017
			ALPHA	4.43	3.19		PCI/L	U	4.70
			BETA	4.83	2.17		PCI/L		3.30
			Uranium-233/234	5.12	1.39		PCI/L		0.733
			Uranium-235/236	0.635	0.604		PCI/L	U	0.637
			Uranium-238	1.89	0.883	7.65	PCI/L		0.721
			Uranium-235	0.03	0.00366		UG/L	J	0.010
			Uranium-238	3.07	0.155	3.10	UG/L		0.067

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1 - Sandstone A	02W28	8/28/2019	Fluoride	0.912			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.021			MG/L	J	0.017
			ALPHA	43.7	7.56		PCI/L		4.86
			BETA	23.4	2.91		PCI/L		3.14
			Uranium-233/234	41.9	3.42		PCI/L		0.717
			Uranium-235/236	2.58	0.973		PCI/L		0.585
			Uranium-238	24.9	2.64	69.4	PCI/L		0.602
			Uranium-235	0.794	0.043		UG/L		0.050
			Uranium-238	67.6	3.38	68.4	UG/L		0.067
BA1 - Sandstone B	02W27	8/28/2019	Fluoride	0.528			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	2.36			MG/L		0.017
			ALPHA	89.7	10.9		PCI/L		4.67
			BETA	21.7	2.82		PCI/L		2.97
			Uranium-233/234	45.0	3.38		PCI/L		0.497
			Uranium-235/236	2.57	0.921		PCI/L		0.452
			Uranium-238	22.1	2.38	69.7	PCI/L		0.463
			Uranium-235	0.928	0.0493		UG/L		0.050
			Uranium-238	61.9	3.09	62.8	UG/L		0.067
	02W42	8/28/2019	Fluoride	0.535			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	0.280			MG/L		0.085
			ALPHA	458	14.5		PCI/L		3.40
			BETA	172	4.77		PCI/L		3.05
			Uranium-233/234	343	14.0		PCI/L		0.940
			Uranium-235/236	20.5	3.83		PCI/L		1.12
			Uranium-238	183	10.2	547	PCI/L		1.04
			Uranium-235	7.72	0.392		UG/L		0.200
			Uranium-238	514	25.7	522	UG/L		1.34
WA - Sandstone	1354	8/26/2019	Fluoride	0.414			MG/L		0.033
			Nitrogen, Nitrate/Nitrite	29.1			MG/L		1.70
			ALPHA	3.48	3.11		PCI/L	U	4.85
			BETA	8.51	2.15		PCI/L		2.87
			Uranium-233/234	1.54	0.696		PCI/L		0.604
			Uranium-235/236	0.130	0.298		PCI/L	U	0.473
			Uranium-238	1.85	0.733	3.52	PCI/L		0.484
			Uranium-235	0.033	0.004		UG/L	J	0.010
			Uranium-238	3.79	0.191	3.82	UG/L		0.067

Notes: Highlighted cells indicate results above remediation goal:
Red bold font indicates information not provided in laboratory electronic deliverable.

DEQ Criteria	Nitrate in WU-PBA: 52 mg/L Nitrate elsewhere: 22.9 mg/L Fluoride: 4 mg/L Uranium: 30 µg/L
NRC Criteria	Uranium Activity: 180 pCi/L Uranium Concentration: 119 ug/L in WAA U>DCGL, 1206-NORTH, & WU-BA3 Uranium Concentration: 201 ug/L elsewhere

ATTACHMENT 2
Tc-99 GROUNDWATER ASSESSMENT DATA

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 TC-99 ASSESSMENT DATA**

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
WAA U>DCGL	T-62	8/26/2019	ALPHA	185	15.7		PCI/L		4.81
			BETA	91.6	5.16		PCI/L		3.42
			Technetium-99	80.1	30.9		PCI/L		48.7
			Uranium-233/234	155	7.81	216	PCI/L		0.864
			Uranium-235	3.14	0.158	144	UG/L		0.05
			Uranium-235/236	8.65	2.08		PCI/L		0.773
			Uranium-238	141	7.06		UG/L		0.335
			Uranium-238	51.9	4.53		PCI/L		0.675
	T-64	8/26/2019	ALPHA	176	14.5		PCI/L		4.56
			BETA	52.1	4.15		PCI/L		3.45
			Technetium-99	24.4	23		PCI/L	U	38.3
			Uranium-233/234	190	7.65	234	PCI/L		0.642
			Uranium-235	4.14	0.21	92.0	UG/L		0.1
			Uranium-235/236	13.4	2.27		PCI/L		0.475
			Uranium-238	87.9	4.39		UG/L		0.067
			Uranium-238	30.4	3.06		PCI/L		0.24
	T-76	8/26/2019	ALPHA	149	13.5		PCI/L		3.94
			BETA	76.6	4.9		PCI/L		3.27
			Technetium-99	101	27.3		PCI/L		41.3
			Uranium-233/234	149	6.97	214	PCI/L		0.582
			Uranium-235	3.04	0.153	158	UG/L		0.05
			Uranium-235/236	8.83	1.91		PCI/L		0.64
			Uranium-238	155	7.77		UG/L		0.335
			Uranium-238	56	4.28		PCI/L		0.594
	T-79	8/26/2019	ALPHA	81	7.58		PCI/L		5.04
			BETA	19.4	2.42		PCI/L		3.31
			Technetium-99	-1.59	22.1		PCI/L	U, R	38.5
			Uranium-233/234	82.9	4.8	102	PCI/L		0.627
			Uranium-235	1.68	0.0858	43.9	UG/L		0.05
			Uranium-235/236	4.23	1.22		PCI/L		0.493
			Uranium-238	42.2	2.11		UG/L		0.067
			Uranium-238	14.7	2.03		PCI/L		0.505
WAA- WEST	T-97	9/3/2019	ALPHA	30.8	6.81		PCI/L		4.95
			BETA	27	3.23		PCI/L		3.29
			Technetium-99	24.8	24.5		PCI/L	U	41

CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 TC-99 ASSESSMENT DATA

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
WAA-BLUFF	T-54	9/3/2019	ALPHA	2.56	3		PCI/L	U	4.93
			BETA	197	6.71		PCI/L		3.04
			Technetium-99	567	43.8		PCI/L		47.8
	T-55	9/3/2019	ALPHA	-0.217	2.01		PCI/L	U	4.37
			BETA	123	5.58		PCI/L		3.07
			Technetium-99	341	35.2		PCI/L		43
	T-56	9/3/2019	ALPHA	3.63	2.96		PCI/L	U	4.52
			BETA	26.4	3		PCI/L		3.22
			Technetium-99	45.6	26.4		PCI/L		43.1
	T-57	9/3/2019	ALPHA	7.11	3.27		PCI/L		3.82
			BETA	79.5	4.78		PCI/L		4.23
			Technetium-99	185	33.7		PCI/L		47.8
	T-58	9/3/2019	ALPHA	8.9	3.82		PCI/L		4.37
			BETA	144	6.07		PCI/L		3.46
			Technetium-99	368	36.4		PCI/L		43.6
	T-63	9/3/2019	ALPHA	74.8	10.2		PCI/L		4.86
			BETA	160	6.36		PCI/L		3.01
			Technetium-99	272	34.1		PCI/L		44.2
	T-86	9/3/2019	ALPHA	7.36	3.82		PCI/L		4.84
			BETA	27.2	2.97		PCI/L		2.96
			Technetium-99	57.5	26.3		PCI/L		42.1
	T-87	9/3/2019	ALPHA	7.95	3.41		PCI/L		4.83
			BETA	81.3	3.43		PCI/L		3.16
			Technetium-99	175	31		PCI/L		43.7
WAA-EAST	T-59	9/3/2019	ALPHA	47.2	5.78		PCI/L		4.29
			BETA	37.9	3.03		PCI/L		3.69
			Technetium-99	15.2	25.6		PCI/L	U	43.5
	T-60	9/3/2019	ALPHA	33	7.21		PCI/L		8.5
			BETA	35	3.7		PCI/L		4.8
			Technetium-99	46.4	25.7		PCI/L		41.8
	T-90	9/3/2019	ALPHA	21.4	6.52		PCI/L		4.84
			BETA	14.3	2.55		PCI/L		3.1
			Technetium-99	19.5	25.1		PCI/L	U	42.4
WU-1348	1348	9/4/2019	ALPHA	119	11.1		PCI/L		3.85
			BETA	24.8	2.99		PCI/L		3.1
			Technetium-99	-6.01	26.8		PCI/L	U, R	46.9

CIMARRON ENVIRONMENTAL RESPONSE TRUST
2019 TC-99 ASSESSMENT DATA

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
WU-UP1	1312	9/4/2019	ALPHA	24.9	4.68		PCI/L		3.65
			BETA	347	7.21		PCI/L	R	3.69
			Technetium-99	662	40.8		PCI/L		40
	1313	9/4/2019	ALPHA	55.5	7.8		PCI/L		4.29
			BETA	192	6.76		PCI/L		2.88
			Technetium-99	251	32.4		PCI/L		42.4
	1313DUP	9/4/2019	ALPHA	42.4	5.56		PCI/L		3.71
			BETA	164	6.06		PCI/L		2.88
			Technetium-99	299	32.1		PCI/L		39.5
	1395	9/4/2019	ALPHA	1.3	2.27		PCI/L	U	4.04
			BETA	1.53	1.85		PCI/L	U	3.12
			Technetium-99	-16.5	25.1		PCI/L	U, R	44.7
	1396	9/4/2019	ALPHA	2.33	2.11		PCI/L	U	3.4
			BETA	2.58	1.77		PCI/L	U	2.86
			Technetium-99	-9.17	25.8		PCI/L	U, R	45.4
WU-UP2	1336A	9/4/2019	ALPHA	16	3		PCI/L		3.07
			BETA	407	5.59		PCI/L		2.13
			Technetium-99	982	48.1		PCI/L		40.7
	1336ADUP	9/4/2019	ALPHA	19.1	3.57		PCI/L		3.87
			BETA	409	5.71		PCI/L		2.24
			Technetium-99	963	48.5		PCI/L		41.7
	1337	9/4/2019	ALPHA	2.51	1.17		PCI/L		1.66
			BETA	5.6	1.27		PCI/L		1.91
			Technetium-99	-13.4	22.8		PCI/L	U, R	40.6
	1346	9/5/2019	ALPHA	0.853	1.85		PCI/L	U	3.13
			BETA	809	8.27		PCI/L		3.13
			Technetium-99	1650	59.4		PCI/L		40.9
	1346DUP	9/5/2019	ALPHA	1.58	2.18		PCI/L	U	3.39
			BETA	739	7.54		PCI/L		1.65
			Technetium-99	1600	58.3		PCI/L		40.5
	1347	9/4/2019	ALPHA	11.2	3.03		PCI/L		3.65
			BETA	6.32	1.42		PCI/L		2.14
			Technetium-99	4.98	24.7		PCI/L	U	42.7
	1387	9/4/2019	ALPHA	12.8	2.26		PCI/L		2.7
			BETA	19.8	1.84		PCI/L		2.37
			Technetium-99	23.5	25.5		PCI/L	U	42.9
	1389	9/4/2019	ALPHA	1.57	1.34		PCI/L	U	2.18
			BETA	20.7	1.63		PCI/L		1.9
			Technetium-99	35.4	24.6		PCI/L	U	40.4
	1401	9/5/2019	ALPHA	31.3	6.24		PCI/L		5.83
			BETA	313	8.25		PCI/L		6.49
			Technetium-99	705	44.5		PCI/L		43.6
	1402	9/5/2019	ALPHA	21.8	3.27		PCI/L		3.3
			BETA	460	6.21		PCI/L		2.61
			Technetium-99	941	49.8		PCI/L		44.1

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
WU-BA3	1351	8/26/2019	ALPHA	880	31.2		PCI/L	J	4.09
			BETA	316	9.52		PCI/L		4.4
			Technetium-99	28.2	23.5		PCI/L	U	39.1
			Uranium-233/234	1230	24.2	1,670	PCI/L		1.19
			Uranium-235	24.5	1.24	981	UG/L		0.5
			Uranium-235/236	79.7	6.85		PCI/L		1
			Uranium-238	956	47.8		UG/L		3.35
			Uranium-238	360	13.1		PCI/L		1.03
	1351DUP	8/26/2019	ALPHA	821	31.2		PCI/L	J	4.28
			BETA	338	8.96		PCI/L		3.05
			Technetium-99	13.2	23		PCI/L	U	39.2
			Uranium-233/234	1230	24	1,680	PCI/L		1.15
			Uranium-235	25.7	1.3	1,019	UG/L		0.5
			Uranium-235/236	75.9	6.65		PCI/L		1.22
			Uranium-238	993	49.7		UG/L		3.35
			Uranium-238	374	13.2		PCI/L		1.02
	1352	8/26/2019	ALPHA	109	11		PCI/L	J	4.62
			BETA	72.9	4.79		PCI/L		3.13
			Technetium-99	12.3	22.2		PCI/L	U	37.7
			Uranium-233/234	85.5	4.92	188	PCI/L		0.545
			Uranium-235	1.17	0.061	169	UG/L		0.05
			Uranium-235/236	5.87	1.45		PCI/L		0.504
			Uranium-238	168	8.39		UG/L		0.335
			Uranium-238	96.8	5.24		PCI/L		0.516
	1356	8/26/2019	ALPHA	347	18.6		PCI/L		4.93
			BETA	137	6.15		PCI/L		3.4
			Technetium-99	51.4	24.1		PCI/L		38.7
			Uranium-233/234	255	9.59	383	PCI/L		0.633
			Uranium-235	4.93	0.249	293	UG/L		0.1
			Uranium-235/236	17.7	2.83		PCI/L		0.707
			Uranium-238	288	14.4		UG/L		0.67
			Uranium-238	110	6.29		PCI/L		0.657
WU-PBA	1319B-1	9/4/2019	ALPHA	35	6.95		PCI/L		4.88
			BETA	15.9	2.63		PCI/L		3.16
			Technetium-99	5.26	25.2		PCI/L	U	43.5
	1319B-2	9/4/2019	ALPHA	0.392	2.28		PCI/L	U	4.3
			BETA	2.24	1.75		PCI/L	U	2.86
			Technetium-99	-9.58	22.9		PCI/L	U, R	40.5

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
1206-NORTH	MWWA-03	8/27/2019	ALPHA	722	28.9		PCI/L		4.88
			BETA	120	5.67		PCI/L		2.95
			Technetium-99	11.4	22.8		PCI/L	U	38.9
			Uranium-233/234	563	8.89	693	PCI/L		0.627
			Uranium-235	17.7	0.89	427	UG/L		0.25
			Uranium-235/236	31.8	2.35		PCI/L		0.135
			Uranium-238	409	20.4		UG/L		1.68
			Uranium-238	98.2	3.72		PCI/L		0.49
	MWWA-09	8/27/2019	ALPHA	118	12.9		PCI/L		4.86
			BETA	68	4.57		PCI/L		3.34
			Technetium-99	46	24.7		PCI/L		40
			Uranium-233/234	119	4.57	174	PCI/L		0.495
			Uranium-235	2.54	0.128	146	UG/L		0.05
			Uranium-235/236	7.12	1.25		PCI/L		0.17
			Uranium-238	143	7.17		UG/L		0.335
			Uranium-238	48	2.92		PCI/L		0.506
SURFACE WATER	1201 (Upstream)	8/27/2019	ALPHA	4.33	7.45		PCI/L	U	13
			BETA	9.36	6.21		PCI/L	U	10.2
			Technetium-99	-1.8	22.5		PCI/L	U, R	39.2
			Uranium-233/234	1.64	0.713	2.96	PCI/L		0.615
			Uranium-235	0.0234	0.00353	2.99	UG/L	J	0.01
			Uranium-235/236	0.0236	0.246		PCI/L	U	0.514
			Uranium-238	2.97	0.15		UG/L		0.067
			Uranium-238	1.3	0.633		PCI/L		0.55
	1202 (Downstream)	8/27/2019	ALPHA	1.96	9.97		PCI/L	U	17.9
			BETA	2.09	6.61		PCI/L	U	11.3
			Technetium-99	2.27	27.3		PCI/L	U	47.3
			Uranium-233/234	1.59	0.679	3.64	PCI/L		0.522
			Uranium-235	0.0244	0.00355	2.92	UG/L	J	0.01
			Uranium-235/236	0.371	0.399		PCI/L	U	0.454
			Uranium-238	2.9	0.147		UG/L		0.067
			Uranium-238	1.68	0.679		PCI/L		0.405
BA1-A	1314	8/27/2019	ALPHA	4.37	3.27		PCI/L	U	4.96
			BETA	0.271	1.82		PCI/L	U	3.2
			Technetium-99	-5.81	21.5		PCI/L	U, R	37.7
			Uranium-233/234	1.25	0.642	1.92	PCI/L		0.623
			Uranium-235	ND	0.00336	1.03	UG/L	U	0.01
			Uranium-235/236	0.15	0.295		PCI/L	U	0.409
			Uranium-238	1.03	0.0562		UG/L		0.067
			Uranium-238	0.519	0.41		PCI/L		0.382
	1315R	9/5/2019	ALPHA	493	12.5		PCI/L		2.67
			BETA	237	4.59		PCI/L		2.41
			Technetium-99	23	24.4		PCI/L	U	40.9

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Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
BA1-A	TMW-08	8/28/2019	ALPHA	98	10.2		PCI/L	J	4.66
			BETA	49.1	3.74		PCI/L		3.08
			Technetium-99	-4	22.4		PCI/L	U, R	39.1
			Uranium-233/234	114	5.8	200	PCI/L		0.566
			Uranium-235	2.23	0.113	185	UG/L		0.05
			Uranium-235/236	8.41	1.77		PCI/L		0.526
			Uranium-238	183	9.16		UG/L		0.335
			Uranium-238	77.5	4.79		PCI/L		0.425
	TMW-09	8/28/2019	ALPHA	1830	46.2		PCI/L		4.89
			BETA	648	12.4		PCI/L		2.96
			Technetium-99	12.5	22.2		PCI/L	U	37.7
			Uranium-233/234	1060	20.7	1,825	PCI/L		1.36
			Uranium-235	24.3	1.22	2,084	UG/L		0.4
			Uranium-235/236	63.2	5.62		PCI/L		0.389
			Uranium-238	2060	103		UG/L		2.68
			Uranium-238	702	16.8		PCI/L		1.01
	TMW-09DUP	8/28/2019	ALPHA	1470	35.4		PCI/L		4.64
			BETA	691	12.7		PCI/L		3.04
			Technetium-99	-8.09	23.5		PCI/L	U, R	41.3
			Uranium-233/234	1040	18.6	1,775	PCI/L		1.59
			Uranium-235	24.8	1.25	2,125	UG/L		0.4
			Uranium-235/236	56.3	4.84		PCI/L		1.18
			Uranium-238	2100	105		UG/L		2.68
			Uranium-238	679	15		PCI/L		1.24
BA1-B	02W06	8/27/2019	ALPHA	213	11		PCI/L		5.94
			BETA	121	4.22		PCI/L		3.16
			Technetium-99	-5.14	21.2		PCI/L	U, R	37.2
			Uranium-233/234	190	7.78	323	PCI/L		0.535
			Uranium-235	4.92	0.248	372	UG/L		0.1
			Uranium-235/236	16.9	2.6		PCI/L		0.675
			Uranium-238	367	18.4		UG/L		0.67
			Uranium-238	116	6.08		PCI/L		0.459

CIMARRON ENVIRONMENTAL RESPONSE TRUST

2019 TC-99 ASSESSMENT DATA

Area	Sample No	Coll Date	Parameter	Lab Result	Uncertainty	Total Activity or Concentration	Units	Lab or Data Review Qual	MDL
BA1-B	02W08	8/28/2019	ALPHA	113	10.2		PCI/L		3.7
			BETA	48.2	3.69		PCI/L		3.04
			Technetium-99	6.17	21.7		PCI/L	U	37.3
			Uranium-233/234	73.8	5.52	127	PCI/L		0.711
			Uranium-235	1.73	0.088	141	UG/L		0.05
			Uranium-235/236	4.11	1.47		PCI/L		0.398
			Uranium-238	139	6.93		UG/L		0.335
			Uranium-238	48.7	4.49		UG/L		0.655
	02W19	9/5/2019	ALPHA	268	10.5		PCI/L		3.86
			BETA	114	3.35		PCI/L		2.52
			Technetium-99	11.2	22.8		PCI/L	U	38.9
	02W44	8/28/2019	ALPHA	145	8.74		PCI/L		5.01
			BETA	59.1	3.2		PCI/L		3.1
			Technetium-99	-3.96	23.6		PCI/L	U, R	41.2
			Uranium-233/234	101	5.5	170	PCI/L		0.752
			Uranium-235	2.17	0.11	173	UG/L		0.05
			Uranium-235/236	6.82	1.62		PCI/L		0.775
			Uranium-238	171	8.53		UG/L		0.335
			Uranium-238	62.1	4.31		PCI/L		0.651
	1363	9/5/2019	ALPHA	14.4	3.36		PCI/L		4.33
			BETA	14.3	2.01		PCI/L		2.87
			Technetium-99	4	23.8		PCI/L	U	41.2
	TMW-13	8/28/2019	ALPHA	711	31.4		PCI/L	J	4.98
			BETA	417	10.4		PCI/L		3.11
			Technetium-99	-4.22	21.2		PCI/L	U, R	37.2
			Uranium-233/234	743	23.1	1,247	PCI/L		1.53
			Uranium-235	19.3	0.976	1,489	UG/L		0.4
			Uranium-235/236	52.2	6.85		PCI/L		1.42
			Uranium-238	1470	73.3		UG/L		1.34
			Uranium-238	452	18.1		PCI/L		1.52
	TMW-24	9/5/2019	ALPHA	43.1	8.03		PCI/L		9.5
			BETA	12.3	3.99		PCI/L		6.33
			Technetium-99	-17.2	22		PCI/L	U, R	39.4

Notes: Tc-99 exceeds 900 pCi/L (MCL)

Red bold font indicates information not provided in laboratory electronic deliverable.

ATTACHMENT 3
OXIDATION-REDUCTION ASSESSMENT DATA

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
3RD QUARTER 2019 REDOX DATA**

Area	Sample No	Sample Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1-A	02W02LF	08/29/19	Dissolved Oxygen	0.14			MG/L		
	02W02LF	08/29/19	ORP	-56.6			MV		
	02W02LF	08/29/19	Uranium-235	22.6	1.14		UG/L		0.5
	02W02LF	08/29/19	Uranium-238	1810	90.4	1832.60	UG/L		3.35
	02W28	08/28/19	Dissolved Oxygen	0.25			MG/L		
	02W28	08/28/19	ORP	80.4			MV		
	02W28	08/28/19	Uranium-235	0.794	0.043		UG/L		0.05
	02W28	08/28/19	Uranium-238	67.6	3.38	68.39	UG/L		0.067
	02W28LF	08/28/19	Uranium-235	0.649	0.0326		UG/L		0.01
	02W28LF	08/28/19	Uranium-238	52.5	2.62	53.15	UG/L		0.067
	1404LF	08/29/19	Dissolved Oxygen	0.1			MG/L		
	1404LF	08/29/19	ORP	-140.6			MV		
	1404LF	08/29/19	Uranium-235	0.587	0.0296		UG/L		0.01
	1404LF	08/29/19	Uranium-238	48.6	2.43	49.19	UG/L		0.067
	1405LF	08/29/19	Dissolved Oxygen	0.22			MG/L		
	1405LF	08/29/19	ORP	15.6			MV		
	1405LF	08/29/19	Uranium-235	3.26	0.164		UG/L		0.05
	1405LF	08/29/19	Uranium-238	265	13.3	268.26	UG/L		0.335
	TMW-07LF	08/29/19	Dissolved Oxygen	0.16			MG/L		
	TMW-07LF	08/29/19	ORP	-119			MV		
	TMW-07LF	08/29/19	Uranium-235	0.204	0.0107		UG/L		0.01
	TMW-07LF	08/29/19	Uranium-238	17.3	0.866	17.50	UG/L		0.067
	TMW-09LF	08/28/19	Dissolved Oxygen	0.11			MG/L		
	TMW-09LF	08/28/19	ORP	34.5			MV		
	TMW-09LF	08/28/19	Uranium-235	22.7	1.14		UG/L		0.4
	TMW-09LF	08/28/19	Uranium-238	1940	96.8	1962.70	UG/L		2.68
	TMW-09DUPLF	08/28/19	Uranium-235	21.7	1.09		UG/L		0.4
	TMW-09DUPLF	08/28/19	Uranium-238	1900	95	1921.70	UG/L		2.68
	TMW-09	08/28/19	Uranium-235	24.3	1.22		UG/L		0.4
	TMW-09	08/28/19	Uranium-238	2060	103	2084.30	UG/L		2.68
	TMW-09DUP	08/28/19	Uranium-235	24.8	1.25		UG/L		0.4
	TMW-09DUP	08/28/19	Uranium-238	2100	105	2124.80	UG/L		2.68
	TR-08LF	08/29/19	Dissolved Oxygen	0.05			MG/L		
	TR-08LF	08/29/19	ORP	-114.2			MV		
	TR-08LF	08/29/19	Uranium-235	11.6	0.583		UG/L		0.2
	TR-08LF	08/29/19	Uranium-238	1040	52.1	1051.60	UG/L		1.34
	TR-09DUPLF	08/29/19	Dissolved Oxygen	0.11			MG/L		
	TR-09DUPLF	08/29/19	ORP	64.7			MV		
	TR-09DUPLF	08/29/19	Uranium-235	14	0.705		UG/L		0.25
	TR-09DUPLF	08/29/19	Uranium-238	1310	65.5	1324.00	UG/L		1.34
	TR-09LF	08/29/19	Uranium-235	14.4	0.723		UG/L		0.25
	TR-09LF	08/29/19	Uranium-238	1320	66.1	1334.40	UG/L		1.34
	TR-10LF	08/29/19	Dissolved Oxygen	0.16			MG/L		
	TR-10LF	08/29/19	ORP	54			MV		
	TR-10LF	08/29/19	Uranium-235	6.9	0.349		UG/L		0.15
	TR-10LF	08/29/19	Uranium-238	596	29.8	602.90	UG/L		0.67

**CIMARRON ENVIRONMENTAL RESPONSE TRUST
3RD QUARTER 2019 REDOX DATA**

Area	Sample No	Sample Date	Parameter	Lab Result	Uncertainty	Total Uranium	Units	Lab or Data Review Qual	MDL
BA1-B	02W07LF	08/29/19	Dissolved Oxygen	0.06			MG/L		
	02W07LF	08/29/19	ORP	-107.5			MV		
	02W07LF	08/29/19	Uranium-235	12.5	0.631		UG/L		0.2
	02W07LF	08/29/19	Uranium-238	960	48	972.50	UG/L		1.34
	02W08LF	08/28/19	Dissolved Oxygen	0.05			MG/L		
	02W08LF	08/28/19	ORP	69.6			MV		
	02W08LF	08/28/19	Uranium-235	0.0369	0.00381		UG/L	J	0.01
	02W08LF	08/28/19	Uranium-238	4.56	0.229	4.60	UG/L		0.067
	02W08	08/28/19	Uranium-235	1.73	0.088		UG/L		0.05
	02W08	08/28/19	Uranium-238	139	6.93	140.73	UG/L		0.335
	02W32LF	08/28/19	Dissolved Oxygen	0.03			MG/L		
	02W32LF	08/28/19	ORP	-88.4			MV		
	02W32LF	08/28/19	Uranium-235	1.77	0.0902		UG/L		0.05
	02W32LF	08/28/19	Uranium-238	146	7.3	147.77	UG/L		0.335
	02W32DUPLF	08/28/19	Uranium-235	1.71	0.0869		UG/L		0.05
	02W32DUPLF	08/28/19	Uranium-238	140	7.02	141.71	UG/L		0.335
	02W32	08/28/19	Uranium-235	1.85	0.0939		UG/L		0.05
	02W32	08/28/19	Uranium-238	153	7.65	154.85	UG/L		0.335
	02W32DUP	08/28/19	Uranium-235	1.86	0.0946		UG/L		0.05
	02W32DUP	08/28/19	Uranium-238	150	7.51	151.86	UG/L		0.335
	02W44LF	08/28/19	Dissolved Oxygen	0.16			MG/L		
	02W44LF	08/28/19	ORP	-71.2			MV		
	02W44LF	08/28/19	Uranium-235	0.772	0.042		UG/L		0.05
	02W44LF	08/28/19	Uranium-238	60.8	3.04	61.57	UG/L		0.067
	02W44	08/28/19	Uranium-235	2.17	0.11		UG/L		0.05
	02W44	08/28/19	Uranium-238	171	8.53	173.17	UG/L		0.335
	TMW-13LF	08/28/19	Dissolved Oxygen	0.03			MG/L		
	TMW-13LF	08/28/19	ORP	-114.6			MV		
	TMW-13LF	08/28/19	Uranium-235	33.5	1.68		UG/L		0.5
	TMW-13LF	08/28/19	Uranium-238	2530	127	2563.50	UG/L		3.35
	TMW-13	08/28/19	Uranium-235	19.3	0.976		UG/L		0.4
	TMW-13	08/28/19	Uranium-238	1470	73.3	1489.30	UG/L		1.34

Notes: Highlighted cells indicate results above remediation goal:

Red bold font indicates information not provided in laboratory electronic deliverable.

Bold green font indicates field parameters.

DEQ Criteria	Nitrate in WU-PBA: 52 mg/L Nitrate elsewhere: 22.9 mg/L Fluoride: 4 mg/L Uranium: 30 µg/L
NRC Criteria	Uranium Activity: 180 pCi/L Uranium Concentration: 119 ug/L in WAA U>DCGL, 1206-NORTH, & WU-BA3 Uranium Concentration: 201 ug/L elsewhere