DOE/ORO/2298

ENVIRONMENTAL MONITORING ON THE OAK RIDGE RESERVATION: 2008 RESULTS

Compiled by
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East Tennessee Technology Park

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Oak Ridge National Laboratory

ORR Surveillance

Y-12 National Security Complex

Table 1.1. 2008 NPDES Permit Number TN 0002950
ETTP Storm Drain Discharge Points

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 05A				
Flow, GPD	12/12	12200	800	3400		
Total Suspended Solids	3/4	3.4	<2.0	<1.7		
pH, Standard Units	12/12	7.3	6.9	7.1	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	1.7	<3.3		
		Discharge Point SD 100				
Flow, GPD	52/52	3540800	394000	861500		
Total Suspended Solids	1/4	<2.0	0.8	<1.7		
pH, Standard Units	52/52	7.8	6.9	7.3	6.0 - 9.0	0
Oil & Grease	4/4	5.7	1.7	<2.9		
Total Residual Chlorine	1/4	0.0075	<0.005	<0.0056	0.14	0
		Discharge Point SD 124				
Flow, GPD	4/4	436800	134000	303900		
pH, Standard Units	4/4	7.8	7.0	7.4	6.0 - 9.0	0
		Discharge Point SD 142				
Flow, GPD	4/4	117500	41700	85000		
pH, Standard Units	4 /4	7.6	7.3	7.5	4.0 - 9.0	0
		Discharge Point SD 150				
Flow, GPD	4/4	432100	156700	314300		
pH, Standard Units	4/4	7.2	7.0	7.1	4.0 - 9.0	0
		Discharge Point SD 154				
Flow, GPD	10/12	185400	35900	94000		
pH, Standard Units	10/12	7.6	6.9	7.2	4.0 - 9.0	0
Oil & Grease	4 /4	79.3	1.2	21.8		
Total Suspended Solids	3 /4	26.6	2.9	11.6		
		Discharge Point SD 158				
Flow, GPD	6/12	51400	19100	32800		
pH, Standard Units	6/12	7.3	6.6	7.0	4.0 - 9.0	0
Oil & Grease	2/4	2.7	2.2	2.4		
Total Suspended Solids	4 /4	1.2	1.1	1.2		
		Discharge Point SD 170				
Flow, GPD	12/12	1197700	147900	460300		
Total Suspended Solids	4/4	60.9	0.7	16.4		
pH, Standard Units	12/12	7.8	7.2	7.4	6.0 - 9.0	0
Oil & Grease	4/4	3.3	1.6	2.1		
		Discharge Point SD 180				
Flow, GPD	12/12	1103700	152500	444400		
Total Suspended	4/4	27.5	2.3	9.0		
pH, Standard Units	12/12	8.3	7.3	7.6	6.0 - 9.0	0
Oil & Grease	3/4	<5.0	2.0	<3.2		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values Exceeding Reference
		Max	Min	Avg		
Discharge Point SD 190						
Flow, GPD	12/12	1511600	298100	710500		
Total Suspended Solids	4/4	120	0.6	4.8		
pH, Standard Units	12/12	7.6	6.9	7.2	6.0 - 9.0	0
Oil & Grease	4/4	4.4	2.0	3.1		
Discharge Point SD 195						
Flow, GPD	7/12	60100	300	23700		
pH, Standard Units	7/12	7.4	6.9	7.1	4.0 - 9.0	0
Oil & Grease	3/4	<5.14	1.7	<3.4		
Total Suspended Solids	4/4	50	7.9	<34.6		
Discharge Point SD 198						
Flow, GPD	2/2	198800	193800	196300		
pH, Standard Units	2/2	7.4	7.2	7.3	4.0 - 9.0	0
Discharge Point SD 210						
Flow, GPD	8/12	85900	228900	468800		
pH, Standard Units	8/12	7.6	7.0	7.3	4.0 - 9.0	0
Total Suspended Solids	4/4	62.5	32.4	38.7		
Oil & Grease	4/4	4.4	1.6	2.3		
Discharge Point SD 230						
Flow, GPD	12/12	960300	174400	439100		
pH, Standard Units	12/12	8.2	7.4	7.8	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	2.3	<3.3		
Total Suspended Solids	3/4	<2.0	0.6	<1.7		
Discharge Point SD 250						
Flow, GPD	3/4	158200	104400	123800		
pH, Standard Units	3/4	7.5	6.8	7.1	4.0 – 9.0	0
Discharge Point SD 280						
Flow, GPD	9/12	48400	4500	18700		
pH, Standard Units	9/12	7.6	7.2	7.4	4.0 – 9.0	0
Oil & Grease	3/4	5.3	2.1	<3.6		
Total Suspended Solids	4/4	29.3	7.8	17.2		
Discharge Point SD 294						
Flow, GPD	5/12	77100	13200	41700		
pH, Standard Units	5/12	7.5	6.5	7.1	4.0 - 9.0	0
Total Suspended Solids	3/4	68.1	2.4	25.5		
Oil & Grease	3/4	5.8	2.3	3.5		
Discharge Point SD 334						
Flow, GPD	2/2	12300	11600	12000		
pH, Standard Units	2/2	7.4	6.8	7.1	4.0 – 9.0	0

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values Exceeding Reference
		Max	Min	Avg		
		Discharge Point SD 340				
Flow, GPD	11/12	430300	82300	205200		
pH, Standard Units	11/12	7.6	6.8	7.2	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	1.5	<2.9		
Total Suspended Solids	4/4	20.2	0.7	6.3		
		Discharge Point SD 350				
Flow, GPD	9/12	26100	4700	12100		
pH, Standard Units	9/12	7.5	6.8	7.2	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	2.0	<3.3		
Total Suspended Solids	4/4	36.2	7.5	19.8		
		Discharge Point SD 360				
Flow, GPD	4/12	24000	0	5000		
pH, Standard Units	4/12	7.4	6.8	7.1	4.0 – 9.0	0
Oil & Grease	2/4	4.9	3.8	4.6		
Total Suspended Solids	2/4	6.5	5.8	6.2		
		Discharge Point SD 380				
Flow, GPD	4/4	831900	335100	650000		
pH, Standard Units	4/4	7.5	6.8	7.2	4.0 - 9.0	0
		Discharge Point SD 382				
Flow, GPD	11/12	97100	17300	44800		
pH, Standard Units	11/12	7.7	7.0	7.3	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	1.6	<3.2		
Total Suspended Solids	1/4	2.7	<2.0	<2.2		
		Discharge Point SD 390				
Flow, GPD	5/12	289000	95200	184200		
pH, Standard Units	5/12	7.4	6.5	7.1	4.0 - 9.0	0
Total Suspended Solids	3/4	19.2	3.4	9.7		
Oil & Grease	3/4	4.4	1.9	3.0		
		Discharge Point SD 410				
Flow, GPD	2/2	27400	26500	27000		
pH, Standard Units	2/2	7.3	6.9	7.1	4.0 - 9.0	0
		Discharge Point SD 430				
Flow, GPD	12/12	776500	133000	347100		
pH, Standard Units	12/12	7.9	7.0	7.4	4.0 - 9.0	0
Oil & Grease	3/4	<5.0	2.7	<3.3		
Total Suspended Solids	3/4	3.5	<2.0	<2.1		
		Discharge Point SD 490				
Flow, GPD	12/12	3279000	570500	1423000		
pH, Standard Units	12/12	7.8	7.1	7.3	4.0 - 9.0	0
Total Suspended Solids	4/4	1.9	0.6	1.0		
Oil & Grease	2/4	<5.0	3.0	<4.1		
		Discharge Point SD 510				
Flow, GPD	4/4	616400	218100	445200		
pH, Standard Units	4/4	6.9	6.5	6.8	4.0 - 9.0	0

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values Exceeding Reference
		Max	Min	Avg		
Discharge Point SD 532						
Flow, GPD	2/2	14300	13800	14100		
pH, Standard Units	2/2	7.3	7.2	7.3	4.0 – 9.0	0
Discharge Point SD 570						
Flow, GPD	3/4	94400	62300	73900		
pH, Standard Units	3/4	7.2	6.7	7.0	4.0 – 9.0	0
Discharge Point SD 660						
Flow, GPD	2/2	3000	2600	2800		
pH, Standard Units	2/2	7.6	7.3	7.5	4.0 - 9.0	0
Discharge Point SD 690						
Flow, GPD	3/4	1502300	1146300	1275100		
pH, Standard Units	3/4	7.3	5.2	6.5	4.0 - 9.0	0
Discharge Point SD 710						
Flow, GPD	12/12	1722000	297400	771500		
Total Suspended Solids	2/4	2.6	<2.0	<1.9		
pH, Standard Units	12/12	8.0	7.0	7.4	4.0 - 9.0	0
Oil & Grease	4/4	3.4	1.4	2.1		
Discharge Point SD 724						
Flow, GPD	5/12	746900	84800	310100		
pH, Standard Units	5/12	7.9	7.2	7.5	4.0 – 9.0	0
Total Suspended Solids	3/4	59.1	8.8	28.7		
Oil & Grease	2/4	<5.0	1.8	<3.5		
Discharge Point SD 890						
Flow, GPD	3/4	221300	52700	141600		
pH, Standard Units	3/4	7.4	6.9	7.2	4.0 - 9.0	0
Discharge Point SD 900						
Flow, GPD	2/2	41500	39500	40500		
pH, Standard Units	2/2	6.9	6.9	6.9	4.0 - 9.0	0
Discharge Point SD 992						
Flow, GPD	7/12	668200	3600	204900		
Total Suspended Solids	3/4	144	18.7	79.8		
pH, Standard Units	7/12	6.9	6.2	6.5	4.0 - 9.0	0
Oil & Grease	3/4	2.2	2.0	2.1		
Discharge Point SD 996						
Flow, GPD	2/2	85600	81800	83700		
pH, Standard Units	2/2	7.1	7.0	7.1	4.0 – 9.0	0

[a]Units are mg/L unless otherwise noted
[b]NPDES permit limit

Table 1.2. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				K-716				
U-234	2	7.9e-01	6.3e-01	6.3e-01	7.1e-01	6.0e+02	1.4e-01	1.4e-03
U-235	2	3.8e-01	<3.0e-01	3.0e-01	3.4e-01	6.0e+02	5.6e-02	5.6e-04
U-238	2	7.0e-01	5.0e-01	6.0e-01	6.0e-01	6.0e+02	8.0e-02	8.0e-04
Apha activity	2	3.7e+00	<1.3e+00	2.5e+00	2.5e+00	*b*	*b*	*b*
Beta activity (pCi/L)	2	6.8e+00	<3.7e+00	5.3e+00	5.3e+00	*b*	*b*	*b*
All listed Isotopes								3.0e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.3. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
K-901-A (settling basin for surface water runoff)								
U-234	2	1.6e+-00	1.3e+00	1.5e+00	1.5e+00	5.0e+02	2.9e-01	2.9e-03
U-235	2	5.3e-01	<2.2e-01	3.8e-01	<3.8e-01	6.0e+02	6.3e-02	6.3e-04
U-238	2	1.3e+00	6.3e-01	9.8e-01	9.8e-01	6.0e+02	1.6e-01	1.6e-03
Alpha activity	2	3.2e+00	<7.4e-01	2.0e+00	<2.0e+00	*b*	*b*	*b*
Beta activity	2	4.6e+00	<4.0e+00	4.3e+00	<4.3e+00	*b*	*b*	*b*
All listed isotopes								5.2e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.4. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
K-1007-B (settling basin for surface water runoff)								
U-234	2	1.4e+00	1.1e+00	1.3e+00	1.3e+00	5.0e+02	2.5e-01	2.5e-03
U-235	2	4.6e-01	<7.0e-03	2.3e-01	<2.3e-01	6.0e+02	3.9e-02	3.9e-04
U-238	2	6.3e-01	3.6e-01	5.0e-01	<5.0e-01	6.0e+02	8.3e-02	8.3e-04
Alpha activity	2	2.4e+00	<6.3e-01	1.5e+00	<1.5e+00	*b*	*b*	*b*
Beta activity	2	6.6e+00	5.6e+00	6.1e+00	6.1e+00	*b*	*b*	*b*
All listed isotopes								3.7e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.5. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
K-1407-J (treated effluents from Central Neutralization Facility and K-1435 Waste Water Treatment System)								
Am-241	12	1.1e-01	-1.0e-02	3.5e-02	3.9e-02	3.0e+01	1.3e-01	1.3e-03
C-14	12	2.0e+01	-4.2e+00	4.0e+00	6.3e-0	7.0e+04	9.0e-06	9.0e-08
Co-60	12	8.4e+02	-1.9e+00	8.5e-02	1.1e+00	5.0e+03	2.2e-02	2.2e-04
Cs-137	12	2.6e+01	3.2e-01	6.6e+00	7.6e+00	3.0e+03	2.5e-01	2.5e-03
H-3	12	4.7e+04	1.9e+02	3.0e+03	9.6e+03	2.0e+-6	4.8e-01	4.8e-03
Np-237	12	3.8e-01	-1.0e-02	7.0e-02	1.3e-01	3.0e+01	4.4e-01	4.4e-03
Pu-238	12	1.8e-01	-4.0e-02	5.0e-02	4.8e-02	4.0e+01	1.2e-01	1.2e-03
Pu-239	12	1.7e-01	-6.0e-02	-1.5e-02	1.7e-02	3.0e+01	5.6e-02	5.6e-04
Tc-99	12	3.3e+03	6.2e+00	5.6e+02	9.0e+02	1.0e+05	9.0e-01	9.0e-03
Th-230	12	1.0e+00	3.0e-02	2.e3-01	3.3e-01	3.0e+02	1.1e-01	1.1e-03
Th-234	5	2.2e+02	5.5e+01	1.4e+02	1.5e+02	1.0e+04	1.5e+00	1.5e-02
U-234	12	1.5e+02	6.2e+00	5.8e+01	6.8e+01	5.0e+02	1.4e+01	1.4e-01
U-235	12	1.1e+01	1.6e+00	4.3e+00	5.0e+00	6.0e+02	8.3e-01	8.3e-03
U-236	12	5.1e+00	2.6e-01	1.2e+00	1.6e+00	5.0e+02	3.2e-01	3.2e-03
U-238	12	2.5e+02	5.5e+01	1.2e+02	1.4e+01	6.0e+02	2.3e+01	2.3e-01
Alpha activity	12	2.9e+02	6.8e+01	1.6e+01	1.6e+02	*b*	*b*	*b*
Beta activity	12	5.8e+02	4.1e+01	2.2e+02	2.2e+02	*b*	*b*	*b*
All listed Isotopes								4.2e-01

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.

[b] Not applicable

Table 1.6. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				K-1700 (Mitchell Branch)				
Tc-99	4	5.6e+01	8.5e+00	3.0e+01	3.1e+01	1.0e+05	3.1e-02	3.1e-04
U-234	4	1.4e+01	9.3e+00	1.2e+01	1.2e+01	5.0e+02	2.3e+00	2.3e-02
U-235	4	1.1e+00	<2.3e-01	8.6e-01	<7.6e-01	6.0e+02	1.3e-01	1.3e-03
U-238	4	7.8e+00	5.0e+00	6.0e+00	6.2e+00	6.0e+02	1.0e+00	1.0e-02
Alpha activity	4	1.7e+01	1.1e+01	1.4e+01	1.4e+01	*b*	*b*	*b*
Beta activity	4	3.9e+01	1.1e+01	2.3e+01	2.4e+01	*b*	*b*	*b*
All listed Isotopes								3.4e-02

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.7. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				K-1710				
U-234	2	1.1e+00	7.9e-01	9.4e-01	9.4e-01	5.0e+02	1.9e-01	1.9e-03
U-238	2	5.0e-01	4.3e-01	4.7e-01	4.7e-01	6.0e+02	7.8e-02	7.8e-04
All listed Isotopes								2.9e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.8. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				MIK 1.4				
U-234	4	5.0e-01	1.5e-01	1.9e-01	2.6e-01	5.0e+02	5.2e-02	5.2e-04
U-235	4	3.6e-01	<2.1e-01	<2.9e-01	<2.9e-01	6.0e+02	2.3e-02	2.3e-04
All listed Isotopes								1.1e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.9. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				CRK 16				
Eu-152	1	3.6e+01	3.6e+01	3.6e+01	3.6e+01	2.0e+04	9.0e-02	9.0e-04
H-3	2	4.1e+02	<2.4e+01	2.2e+02	<2.2e+02	2.0e+02	1.1e-02	1.1e-04
Sr-90	2	1.2e+00	<2.5e-01	7.4e-01	<7.4e-01	1.0e+03	7.4e-02	7.4e-04
U-234	2	4.4e-01	<2.3e-01	3.3e-01	3.3e-01	5.0e+02	6.7e-02	6.7e-04
Beta activity	2	5.2e+00	5.0e+00	5.1e+00	5.1e+00	*b*	*b*	*b*
All listed Isotopes								3.2e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.10. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				CRK 23				
Bi-214	1	2.1e+01	2.1e+01	2.1e+01	2.1e+01	6.5e+05	3.6e-03	3.6e-05
H-3	2	3.7e+02	<1.6e+02	<2.7e+02	<2.7e+02	2.0e+06	1.3e-02	1.3e-04
Sr-90	2	8.4e-01	<9.8e-02	4.7e-01	<4.7e-01	1.0e+03	4.7e-02	4.7e-04
U-234	2	6.3e-01	3.9e-01	5.1e-01	5.1e-01	5.0e+02	1.0e-01	1.0e-03
U-235	2	2.0e-01	<1.9e-02	<1.1e-01	<1.1e-01	6.0e+02	1.8e-02	1.8e-04
U-238	2	3.7e-01	<2.7e-01	<3.2e-01	<3.2e-01	6.0e+02	5.3e-02	5.3e-04
Beta activity	1	5.7e+00	<2.3e+00	<4.0e+00	<4.0e+00	*b*	*b*	*b*
All listed Isotopes								2.6e-03

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.11. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				MIK 0.45				
U-234	1	7.4e+00	7.4e+00	7.4e+00	7.4e+00	5.0e+02	1.5e+00	1.5e-02
U-235	1	8.3e-01	8.3e-01	8.3e-01	8.3e-01	6.0e+02	1.4e-01	1.4e-03
U-238	1	4.2e+00	4.2e+00	4,2e+00	4.2e+00	6.0e+02	7.0e-01	7.0e-03
Alpha activity	1	7.2e+00	7.2e+00	7.2e+00	7.2e+00	*b*	*b*	*b*
Beta activity	1	8.9e+00	8.9e+00	8.9e+00	8.9e+00	*b*	*b*	*b*
All listed Isotopes								2.3e-02

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.12. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				MIK 0.59				
U-234	1	9.1e+00	9.1e+00	9.1e+00	9.1e+00	5.0e+02	1.8e+00	1.8e-02
U-235	1	3.9e-01	3.9e-01	3.9e-01	3.9e-01	6.0e+02	6.5e-02	6.5e-04
U-238	1	4.2e+00	4.2e+00	4.2e+00	4.2e+00	6.0e+02	7.0e-01	7.0e-03
Alpha activity	1	1.5e+01	1.5e+01	1.5e+01	1.5e+01	*b*	*b*	*b*
Beta activity	1	1.1e+01	1.1e+01	1.1e+01	1.1e+01	*b*	*b*	*b*
All listed Isotopes								2.6e-02

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.13. Radionuclide concentrations at ETTP discharges and surface water monitoring locations

Radionuclide	No. of samples	Activity (pCi/L)				DCG	Percent of DCG	Sum of the Fractions of the DCGs
		Max	Min	Median[a]	Average[a]			
				MIK 0.71				
Tc-99	4	1.4e+02	1.4e+01	8.6e+01	8.0e+01	1.0e+05	8.0e-02	8.0e-04
U-234	4	2.0e+01	6.4e+00	1.3e+01	1.3e+01	5.0e+02	2.7e+00	2.7e-02
U-235	4	2.3e+00	4.1e-01	1.1e+00	1.2e+00	6.0e+02	2.0e-01	2.0e-03
U-238	4	8.5e+00	2.6e+00	5.6e+00	5.6e+00	6.0e+02	9.3e-01	9.3e-03
Alpha activity	4	2.5e+01	5.9e+00	1..4e+01	1.4e+01	*b*	*b*	*b*
Beta activity	4	8.2e+01	1.6e+01	4.9e+01	4.9e+01	*b*	*b*	*b*
All listed Isotopes								4.0e-02

[a] This calculated value includes sampling results that are at or below the detection limits and/or below background activities.
[b] Not applicable

Table 1.14. 2008 ETTP parameters detected at CRK-16

Parameter	Number detected/ Number of Samples	Detected results			Reference Value[a]	Number of values exceeding Reference
		Max	Min	Avg		
Aluminum (µg/L)	2/2	110	110	110		
Calcium (µg/L)	2/2	42000	34000	38000		
Dissolved oxygen (mg/L)	2/2	12	9.5	11	5.0 min	0
Iron (µg/L)	2/2	110	97	104		
Lithium	1/2	5.1	<5.1	<5.1		
Magnesium (µg/L)	2/2	12000	10000	11000		
Manganese (µg/L)	2/2	43	34	39		
pH (standard units)	2/2	8.3	7.6	7.7	6.5-8.5	0
Potassium (µg/L)	2/2	2400	2300	2400		
Sodium (µg/L)	2/2	9500	7700	8600		
Temperature (C°)	2/2	32	17	25		
Zinc (µg/L)	2/2	17	5.4	11	120	0

[a] All reference values are Tennessee Water Quality Criteria for fish and aquatic life.

Table 1.15. 2008 ETTP parameters detected at CRK-23

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values Exceeding Reference
		Max	Min	Avg		
Aluminum (µg/L)	2/2	130	110	120		
Calcium (µg/L)	2/2	40000	38000	39000		
Dissolved oxygen (mg/L)	2/2	9.6	6.6	8.1	5.0 min	0
Iron (µg/L)	1/2	120	<120	<120		
Lithium	1/2	5.1	<4.5	<4.8	4.8	
Magnesium (µg/L)	2/2	12000	12000	12000		
Manganese (µg/L)	2/2	45	41	43		
pH (standard units)	2/2	8.2	7.4	7.8	6.5-8.5	0
Potassium (µg/L)	2/2	2400	2300	2400		
Sodium (µg/L)	2/2	9200	8600	8900		
Temperature (C°)	2/2	26	11	19		
Zinc (µg/L)	1/2	13	2.2	7.6	120	0

[a]All reference values are Tennessee Water Quality Criteria for fish and aquatic life.

Table 1.16. 2008 ETTP parameters detected at K-716

Parameter	Number detected/ Number of Samples	Detected results			Reference Value[a]	Number of values Exceeding Reference
		Max	Min	Avg		
Dissolved Oxygen (mg/L)	2/2	11	11	11	5.0 min	0
pH (standard units)	2/2	8.9	8.2	8.6	6.5 - 8.5	1
Temperature (C°)	2/2	32	17	25		

[a] All reference values are Tennessee Water Quality Criteria for fish and aquatic life.

Table 1.17. 2008 ETTP parameters detected at K-901-A

Parameter	Number detected/ number of Samples	Detected Results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
Aluminum (µg/L)	2/2	200	140	170		
Calcium (µg/L)	2/2	49000	41000	45000		
Dissolved Oxygen (mg/L)	2/2	9.8	4.7	7.3	5.0 min	1
Iron (µg/L)	1/2	610	390	500		
Magnesium (µg/L)	2/2	14000	13000	14000		
Manganese (µg/L)	2/2	101	57	79		
pH (standard units)	2/2	7.5	7.3	7.4	6.5-8.5	0
Potassium (µg/L)	2/2	1900	1800	1900		
Sodium (µg/L)	2/2	1500	1200	1400		
Temperature (C°)	2/2	29	15	22		
Zinc (µg/L)	2/2	17	11	14	120	0

[a] All reference values are Tennessee Water Quality Criteria for fish and aquatic life.

Table 1.18. 2008 ETTP parameters detected at K-1007-B

Parameter	Number detected/ number of samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
Aluminum (µg/L)	2/2	240	190	200		
Calcium (µg/L)	2/2	39000	21000	30000		
Dissolved Oxygen (mg/L)	2/2	11	10	11	5.0 min	0
Iron (µg/L)	2/2	370	170	270		
Magnesium (µg/L)	2/2	13000	11000	12000		
Manganese (µg/L)	2/2	90	71	81		
pH (standard units)	2/2	9.3	8.1	8.7	6.5 - 8.5	1
Potassium (µg/L)	2/2	2700	2300	2500		
Sodium (µg/L)	2/2	6400	4600	5500		
Temperature (C°)	2/2	31	16	24		
Zinc (µg/L)	2/2	23	8.6	16	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.19. 2008 ETTP parameters detected at K-1700

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,1-Dichloroethane (µg/L)	4/4	1.7	1.0	1.5		
1,2 Dichloroethane (µg/L)	1/4	<10	<1	<4.4	370	0
1,1 Dichloroethene (µg/L)	3/4	<25	0.74	<6.9	7100	0
1,1,2-Trichloro-1,2,2-Trifluoroethane (µg/L)	1/2	<5	.93	<3.0		
1,1,1 Trichloroethane	1/2	<5.0	0.22	<2.6		
Aluminum	4/4	430	23	148		
Barium (µg/L)	4/4	69	49	60		
Beryllium	2/4	0.19	<0.04	<0.12		
Boron	4/4	80	26	61		
Cadmium	2/4	<0.16	<0.1	<0.13	2.0	0
Calcium (µg/L)	4/4	92000	55000	77000		
Carbon tetrachloride (µg/L)	4/4	5.8	1.7	3.9	16	0
Chloroform (µg/L)	4/4	3.5	0.81	2.7	4700	0
Chloromethane	1/4	<10	0.92	<4.0		
Chromium (µg/L)	4/4	15	2.1	7.6		
cis-1,2 Dichloroethene (µg/L)	4/4	78	25	59		
Cobalt	1/4	<0.27	<0.16	<0.22		
Copper	4/4	4.0	0.84	2.4		
Dissolved Oxygen (mg/L)	4/4	16	5.2	8.5	5.0 min	0
Iron (µg/L)	4/4	520	94	295		
Lead	3/4	2.4	<0.53	<1.1		
Lithium (µg/L)	4/4	8.1	3.8	7.0		
Magnesium (µg/L)	4/4	15000	11000	13000		
Manganese (µg/L)	4/4	360	140	260		
Methylene chloride	1/4	<5.0	<1.0	<3.4	5900	0
Nickel (µg/L)	4/4	13	5	9.1	470	0
Potassium (µg/L)	4/4	5400	2200	4400		
Selenium	1/4	<1.5	<0.74	<1.1	20	0
Sodium (µg/L)	4/4	19000	6000	11000		
Temperature (C°)	4/4	21.3	9.1	1.5		
Tetrachloroethene (µg/L)	2/4	<10	0.94	<4.0	33	0
Trans-1,2 dichloroethene	2/4	<10	0.31	<3.8		
Trichloroethene (µg/L)	4/4	73	28	59	300	0
Vanadium	4/4	0.94	0.19	0.56		
Vinyl Chloride (µg/L)	4/4	5.8	2.3	4.0	24	0
pH (standard units)	4/4	7.2	7.0	7.1	6.5 - 8.5	0
Zinc (µg/L)	4/4	14	2.7	8.0	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.20. 2008 ETTP parameters detected at K-1710

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values Exceeding Reference
		Max	Min	Avg		
Dissolved Oxygen (mg/L)	2/2	15	6.8	22	5.0 min	0
pH (standard units)	2/2	7.6	7.5	7.6	6.5 - 8.5	0
Temperature (C°)	2/2	29	13	21		

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.21. 2008 ETTP parameters detected at MIK 0.45

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,1-Dichloroethane (µg/L)	1/1	5.6	5.6	5.6		
1,1 Dichloroethene (µg/L)	1/1	36	36	36	7100	0
1,2-Dichloro-1,1,2 trifluoroet	1/1	0.75	0.75	0.75		
cis-1,2 Dichlorethene (ug/L)	1/1	93	93	93		
1,1,2-Trichloro-1,2,2,Trifluoroethane (µg/L)	1/1	1.9	1.9	1.9		
Acetone	1/1	35	35	35		
Aluminum (µg/L)	1/1	24	24	24		
Arsenic	1/1	1.6	1.6	1.6	340	0
Barium	1/1	69	69	69		
Beryllium	1/1	0.11	0.11	0.11		
Boron	1/1	110	110	110		
Cadmium	1/1	0.28	0.28	0.28	2.0	0
Calcium (µg/L)	1/1	83000	83000	83000		
Chromium (µg/L)	1/1	1.2	1.2	1.2		
Cobalt	1/1	0.29	0.29	0.29		
Copper	1/1	1.2	1.2	1.2	13	0
Dissolved Oxygen (mg/L)	1/1	13	13	13	5.0 min.	0
Iron (µg/L)	1/1	200	200	200		
Lithium (µg/L)	1/1	12	12	12		
Magnesium (µg/L)	1/1	15000	15000	15000		
Manganese (µg/L)	1/1	130	130	130		
Methylene chloride	1/1	3	3	3	5900	0
Nickel (µg/L)	1/1	8	8	8	470	0
pH (standard units)	1/1	7.3	7.3	7.3	6.5 - 8.5	0
Potassium (µg/L)	1/1	6000	6000	6000		
Sodium (µg/L)	1/1	17000	17000	17000		
Temperature (C°)	1/1	11	11	11		
Tetrachloroethene (µg/L)	1/1	1.6	1.6	1.6	33	0
Trichloroethene (µg/L)	1/1	49	49	49	300	0
Vanadium	1/1	0.56	0.56	0.56		
Zinc (µg/L)	1/1	11	11	11	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.22. 2008 ETTP parameters detected at MIK 0.59

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,1-Dichloroethane (µg/L)	1/1	2.6	2.6	2.6		
1,1 Dichloroethene (µg/L)	1/1	1.7	1.7	1.7	7100	0
1,2-Dichloro-1,1,2 trifluoroet	1/1	0.45	0.45	0.45		
cis-1,2 Dichlorethene (ug/L)	1/1	50	50	50		
1,1,2-Trichloro-1,2,2,Trifluoroethane (µg/L)	1/1	1.3	1.3	1.3		
Acetone	1/1	35	35	35		
Aluminum (µg/L)	1/1	23	23	23		
Arsenic	1/1	1.7	1.7	1.7	340	0
Barium	1/1	54	54	54		
Beryllium	1/1	0.13	0.13	0.13		
Boron	1/1	37	37	37		
Cadmium	1/1	0.26	0.26	0.26	2.0	0
Calcium (µg/L)	1/1	78000	78000	78000		
Chromium (µg/L)	1/1	1.7	1.7	1.7		
Copper	1/1	1.1	1.1	1.1	13	0
Dissolved Oxygen (mg/L)	1/1	14	14	14	5.0 min.	0
Iron (µg/L)	1/1	91	91	91		
Lithium (µg/L)	1/1	5.9	5.9	5.9		
Magnesium (µg/L)	1/1	15000	15000	15000		
Manganese (µg/L)	1/1	110	110	110		
Methylene chloride	1/1	3	3	3	5900	0
Nickel (µg/L)	1/1	4	4	4	470	0
pH (standard units)	1/1	7.7	7.7	7.7	6.5 - 8.5	0
Potassium (µg/L)	1/1	3800	3800	3800		
Sodium (µg/L)	1/1	15000	15000	15000		
Temperature (C°)	1/1	11	11	11		
Trichloroethene (µg/L)	1/1	13	13	13	300	0
Vanadium	1/1	0.45	0.45	0.45		
Vinyl chloride	1/1	5	5	5	24	0
Zinc (µg/L)	1/1	2.5	2.5	2.5	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.23. 2008 ETTP parameters detected at MIK 0.71

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,1-Dichloroethane (µg/L)	4/4	0.5	0.19	0.35		
1,2 Dichloroethane (µg/L)	2/4	<2	<1	<1.6	370	0
1,1 Dichloroethene (µg/L)	2/4	<5	0.18	<1.6	7100	0
cis-1,2 Dichlorethene (ug/L)	4/4	10	3.5	7.4		
2-Ethyl-1-hexanol	1/1	6.4	6.4	6.4		
1,1,1-Trichloroethane	1/4	<2	0.2	<1.1		
1,1,2-Trichloro-1,2,2,Trifluoroethane (µg/L)	2/2	0.74	0.34	0.54		
Aluminum (µg/L)	4/4	810	87	440		
Arsenic	1/4	<1.8	<0.88	<1.4	340	0
Barium	4/4	75	39	62		
Beryllium	2/4	0.19	<0.04	<0.13		
Boron	4/4	51	16	35		
Cadmium	1/4	0.29	<0.1	<0.15	2.0	0
Calcium (µg/L)	4/4	100000	42000	78000		
Chloroethane	2/4	<2	0.6	<1.1		
Chloromethane	2/4	<2	0.44	<1.0		
Chromium (µg/L)	4/4	54	2.5	33		
Cobalt	2/4	0.99	<0.19	<0.55		
Copper	4/4	3.9	0.72	2.8	13	0
Dissolved Oxygen (mg/L)	4/4	13	6.7	9.5	5.0 min.	0
Iron (µg/L)	4/4	1000	160	570		
Lead	4/4	1.7	1	1.2	65	0
Lithium (µg/L)	4/4	9	2.7	6.4		
Magnesium (µg/L)	4/4	15000	9900	13000		
Manganese (µg/L)	4/4	340	55	230		
Nickel (µg/L)	4/4	13	3.3	9.0	470	0
pH (standard units)	4/4	7.4	7.2	7.3	6.5 - 8.5	0
Potassium (µg/L)	4/4	4500	1500	3400		
Sodium (µg/L)	4/4	17000	4600	12000		
Temperature (C°)	4/4	231	9.2	16		
Tetrachloroethene (µg/L)	4/4	5.4	0.51	2.7	33	0
Trichloroethene (µg/L)	4/4	16	0.5	6.5	810	0
Vanadium	4/4	1.9	0.33	1.1		
Vinyl chloride	3/4	<1	0.21	<0.56	24	0
Zinc (µg/L)	4/4	28	5.4	13	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.24. 2008 ETTP parameters detected at MIK 1.4

Parameter	Number detected/ number of Samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,2-Dichloroethane (µg/L)	2/4	<2	<1	<1.4		
2-Ethyl-1-hexanol	1/1	4.4	4.4	4.4		
Aluminum (µg/L)	4/4	190	37	130		
Barium	4/4	60	38	53		
Beryllium	2/4	<0.11	<0.04	<0.09		
Boron	4/4	9.9	5.1	7.0		
Cadmium	1/4	0.23	<0.1	<0.14	2.0	0
Calcium (µg/L)	4/4	24000	11000	21000		
Chloroethane	2/4	<2	0.36	<1.0		
Chloromethane	2/4	<2	0.29	<0.98		
Chromium (µg/L)	4/4	0.52	0.42	0.47		
Dissolved Oxygen (mg/L)	4/4	14	7.2	9.9	5.0 min.	0
Iron (µg/L)	4/4	410	6.3	230		
Lead	2/4	1	<0.49	<0.72	65	0
Lithium (µg/L)	4/4	1.6	1.5	1.5		
Magnesium (µg/L)	4/4	15000	5900	12000		
Manganese (µg/L)	4/4	110	16	64		
Nickel (µg/L)	4/4	1.5	0.96	1.2	470	0
pH (standard units)	4/4	7.6	7.2	7.4	6.5 - 8.5	0
Potassium (µg/L)	4/4	13000	620	950		
Selenium	1/4	1.5	<0.74	<1.1	20	0
Sodium (µg/L)	4/4	990	630	790		
Temperature (C°)	4/4	23	9.5	16		
Vanadium	3/4	0.49	<0.25	<0.38		
Zinc (µg/L)	4/4	9.5	1.3	5.4	120	0

[a] All reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 2.1. Constituents Detected in Exit Pathway groundwater at ORNL, 2008 (a)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Well 857 - WOC Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.02	0.02	n/a
Dissolved Oxygen	8.9	5.2	n/a
pH	4.2	4.8	n/a
RedOx	250	230	n/a
Temperature	14	17	30.5[1]
Turbidity	0.0	0.0	1[2]
Metals (mg/L)			
Aluminum	E1.5	0.24	(0.05, 0.2)[3]
Barium	0.017	0.016	2[1]
Beryllium	0.00013	<0.0001	0.004[1]
Boron	0.0069	0.011	n/a
Calcium	0.34	0.38	n/a
Chromium	0.008	0.0029	0.1[1]
Cobalt	0.00079	0.00029	n/a
Copper	0.0013	0.00036	1.3[2]
Iron	1.2	0.2	0.3[3]
Lead	0.0045	0.0016	0.005[1]
Magnesium	1.2	0.86	n/a
Manganese	0.05	0.011	0.05[3]
Molybdenum	0.00017	<0.0001	n/a
Nickel	0.0043	0.0024	0.1[1]
Phosphorous	0.022	<0.02	n/a
Potassium	0.69	0.37	n/a
Silicon	6.9	5.2	n/a
Sodium	0.72	0.66	n/a
Strontium	0.003	0.0033	n/a
Sulfur	0.033	0.062	n/a
Thallium	0.00038	<0.0003	0.002[1]

Thorium	0.00056	<0.0002	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Titanium	0.013	0.0031	n/a
Uranium	0.0005	<0.00005	n/a
Zinc	0.0083	0.0035	5[3]
Zirconium	0.0047	<0.0005	n/a
Radionuclides (pCi/L) (f)			
Beta activity	U-0.59	12*	50[2]
Tritium	660*	580*	20,000[2]
Well 858 - WOC Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.22	0.23	n/a
Dissolved Oxygen	3.6	1.1	n/a
pH	7.9	8.2	n/a
RedOx	110	180	n/a
Temperature	14	16	30.5[1]
Turbidity	8.0	2.0	1[2]
Metals (mg/L)			
Aluminum	E0.029	0.012	(0.05, 0.2)[3]
Barium	0.097	0.13	2[1]
Boron	0.0077	0.011	n/a
Calcium	29	31	n/a
Cobalt	0.00017	<0.0001	n/a
Copper	0.00073	0.00046	1.3[2]
Iron	0.43	0.066	0.3[3]
Lead	0.00074	0.038	0.005[1]
Lithium	0.0051	0.0058	n/a
Magnesium	6.9	5.8	n/a
Manganese	0.0038	0.001	0.05[3]
Molybdenum	0.00061	0.00025	n/a
Nickel	0.0017	<0.0005	0.1[1]
Phosphorous	0.022	0.022	n/a
Potassium	1.0	0.92	n/a

Silicon	9.1	7.5	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Sodium	4.2	4.7	n/a
Strontium	0.079	0.094	n/a
Sulfur	4.9	4.3	n/a
Titanium	0.0029	<0.002	n/a
Uranium	0.00013	0.00008	n/a
Zinc	0.0035	<0.0026	5[3]
Radionuclides (pCi/L) (f)			
Beta activity	U2.4*	12*	50[2]
Semi-volatile organics (ug/L)			
Bis(2-ethylhexyl)phthalate	U10	J4.5	n/a
Well 1190 - WOC Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.8	0.83	n/a
Dissolved Oxygen	2.0	0.45	n/a
pH	6.9	7.1	n/a
RedOx	-200	-200	n/a
Temperature	16	19	30.5[1]
Turbidity	2.0	5.0	1[2]
Metals (mg/L)			
Aluminum	<0.005	0.0077	(0.05, 0.2)[3]
Antimony	<0.0005	0.00083	0.006[1]
Barium	0.72	0.84	2[1]
Boron	0.035	0.034	n/a
Cadmium	<0.00011	0.00014	0.005[1]
Calcium	140	140	n/a
Cobalt	0.00017	0.00026	n/a
Copper	0.00078	0.00061	1.3[2]
Iron	0.21	0.36	0.3[3]
Lead	<0.0005	0.0036	0.005[1]
Lithium	0.021	0.024	n/a

Magnesium	20	E17	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Manganese	0.074	0.078	0.05[3
Molybdenum	0.0003	<0.0001	n/a
Nickel	0.0025	0.0021	0.1[1]
Potassium	1.7	2.0	n/a
Silicon	8.7	8.8	n/a
Silver	<0.0002	0.00074	0.1[3]
Sodium	12	12	n/a
Strontium	0.43	0.52	n/a
Sulfur	0.4	0.24	n/a
Thallium	0.00045	<0.0003	0.002[1]
Thorium	0.0003	<0.0002	n/a
Uranium	0.00034	0.00034	n/a
Zinc	0.0033	0.0047	5[3]
Zirconium	0.0014	<0.0005	n/a
Radionuclides (pCi/L) (f)			
Beta activity	U3.7*	11*	50[2]
Tritium	22,000*	25,000*	20,000[2]
Semi-volatile organics (ug/L)			
Bis(2-ethylhexyl)phthalate	J4.1	J4.7	n/a
Diethyl phthalate	J2.6	U10	n/a
Well 1191 - WOC Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.5	0.53	n/a
Dissolved Oxygen	0.7	1.2	n/a
pH	6.7	7.1	n/a
RedOx	-150	-160	n/a
Temperature	16	18	30.5[1]
Turbidity	3.0	3.0	1[2]
Metals (mg/L)			
Aluminum	<0.005	0.0096	(0.05, 0.2)[3]

Arsenic	<0.0015	0.0024	0.01[1]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Barium	0.24	0.24	2[1]
Boron	0.019	0.019	n/a
Calcium	57	59	n/a
Cobalt	0.00053	0.00051	n/a
Copper	0.0009	0.00057	1.3[2]
Iron	10	10	0.3[3]
Magnesium	15	E12	n/a
Manganese	0.39	0.37	0.05[3]
Molybdenum	0.00064	0.00048	n/a
Nickel	0.0034	0.0024	0.1[1]
Phosphorous	0.043	0.046	n/a
Potassium	3.1	3.5	n/a
Silicon	3.2	3.3	n/a
Sodium	15	13	n/a
Strontium	0.13	0.13	n/a
Sulfur	0.13	0.28	n/a
Uranium	0.00017	0.00013	n/a
Zinc	0.0037	0.0084	5[3]
Zirconium	0.00082	0.00055	n/a
Radionuclides (pCi/L) (f)			
Beta activity	290*	300*	50[2]
Strontium-89/90	150*	150*	40[4]
Tritium	50,000*	45,000*	20,000[2]
Semi-volatile organics (ug/L)			
Bis(2-ethylhexyl)phthalate	22	32	n/a
Well 1239 - WOC Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.86	0.88	n/a
Dissolved Oxygen	1.7	2.9	n/a
pH	9.4	9.5	n/a
RedOx	94	140	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Temperature	14	14	30.5[1]
Turbidity	1.0	5.0	1[2]
Metals (mg/L)			
Aluminum	0.12	0.21	(0.05, 0.2)[3]
Arsenic	0.0034	<0.0015	0.01[1]
Barium	0.055	0.053	2[1]
Boron	0.72	0.71	n/a
Calcium	0.79	0.95	n/a
Chromium	<0.001	0.003	0.1[1]
Cobalt	0.00012	<0.0001	n/a
Copper	0.0023	0.003	1.3[2]
Iron	0.092	0.24	0.3[3]
Lithium	0.038	0.033	n/a
Magnesium	0.21	0.22	n/a
Manganese	0.0019	0.0026	0.05[3]
Molybdenum	0.0017	0.0019	n/a
Nickel	0.0016	0.0013	0.1[1]
Phosphorous	0.064	0.06	n/a
Potassium	1.6	1.5	n/a
Silicon	5.0	5.4	n/a
Sodium	E200	200	n/a
Strontium	0.05	0.052	n/a
Sulfur	11	12	n/a
Thallium	<0.0003	0.00033	0.002[1]
Thorium	0.00031	0.00038	n/a
Titanium	0.006	0.0039	n/a
Uranium	0.0012	0.0012	n/a
Vanadium	<0.003	0.012	n/a
Zinc	0.0027	0.021	5[3]
Zirconium	0.0024	0.0013	n/a
Radionuclides (pCi/L) (f)			
Alpha activity	3.1*	U4.8	15[2]
Beta activity	8.9*	U4.3	50[2]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Semi-volatile organics (ug/L)			
Bis(2-ethylhexyl)phthalate	24	21	n/a
Volatile organics (ug/L)			
Methylene chloride	U5.0	BJ2.8	5[1]
Well 1198 - 7000 Area/Bearden Creek Watershed			
Field measurements			
Conductivity	0.65	0.68	n/a
Dissolved Oxygen	5.4	1.3	n/a
pH	6.6	6.9	n/a
RedOx	130	140	n/a
Temperature	15	17	30.5[1]
Turbidity	2.0	4.0	1[2]
Metals (mg/L)			
Aluminum	0.083	0.16	(0.05, 0.2)[3]
Barium	0.024	0.024	2[1]
Boron	0.012	0.0093	n/a
Calcium	120	130	n/a
Chromium	0.0015	<0.0015	0.1[1]
Cobalt	0.00029	0.00019	n/a
Copper	0.001	0.00088	1.3[2]
Iron	0.92	0.38	0.3[3]
Lithium	<0.002	0.0021	n/a
Magnesium	5.1	E5.0	n/a
Manganese	0.0026	0.0081	0.05[3]
Molybdenum	0.00016	0.00011	n/a
Nickel	0.0035	0.0026	0.1[1]
Potassium	1.1	1.1	n/a
Silicon	4.3	4.5	n/a
Silver	0.0011	0.0011	0.1[3]
Sodium	2.8	2.9	n/a
Strontium	0.17	0.2	n/a
Sulfur	3.6	3.1	n/a
Titanium	<0.002	0.002	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Uranium	0.00032	0.00031	n/a
Zinc	0.0075	0.0043	5[3]
Radionuclides (pCi/L) (f)			
Beta activity	4.6*	U5.9	50[2]
Tritium	650*	860*	20,000[2]
Well 1199 - 7000 Area/Bearden Creek Watershed			
Field measurements			
Conductivity	0.47	0.49	n/a
Dissolved Oxygen	1.6	1.8	n/a
pH	7.9	7.9	n/a
RedOx	-250	-240	n/a
Temperature	15	17	30.5[1]
Turbidity	1.0	1.0	1[2]
Metals (mg/L)			
Aluminum	0.009	0.0087	(0.05, 0.2)[3]
Barium	0.091	0.11	2[1]
Boron	0.25	0.27	n/a
Calcium	31	33	n/a
Cobalt	0.00022	0.00012	n/a
Copper	0.00034	0.00042	1.3[2]
Iron	0.22	0.074	0.3[3]
Lead	<0.0005	0.047	0.005[1]
Lithium	0.0099	0.012	n/a
Magnesium	42	34	n/a
Nickel	0.00061	<0.0005	0.1[1]
Potassium	4.5	4.5	n/a
Silicon	9.2	9.2	n/a
Sodium	6.0	5.9	n/a
Strontium	3.4	3.3	n/a
Sulfur	1.5	1.3	n/a
Thorium	<0.0002	0.00024	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Titanium	0.0024	<0.002	n/a
Zirconium	0.0012	0.00077	n/a
Radionuclides (pCi/L) (f)			
Beta activity	9.0*	33*	50[2]
Tritium	1,800*	1,700*	20,000[2]
Volatile organics (ug/L)			
Acetone	U5.0	5.5	n/a
Chloroform	U1.0	J0.54	80[2]
Methylene chloride	U5.0	J2.3	5[1]
Well 923 - East End Discharge Point			
Field measurements			
Conductivity	0.45	0.45	n/a
Dissolved Oxygen	1.6	1.3	n/a
pH	7.1	7.5	n/a
RedOx	150	-7.0	n/a
Temperature	17	18	30.5[1]
Turbidity	3.0	3.0	1[2]
Metals (mg/L)			
Aluminum	0.024	0.022	(0.05, 0.2)[3]
Arsenic	0.0016	<0.0015	0.01[1]
Barium	0.12	0.11	2[1]
Boron	0.02	0.018	n/a
Calcium	67	67	n/a
Chromium	<0.001	0.0026	0.1[1]
Cobalt	0.00034	0.0002	n/a
Copper	0.002	0.001	1.3[2]
Iron	6.4	2.2	0.3[3]
Lead	0.0013	<0.0005	0.005[1]
Lithium	0.013	0.012	n/a
Magnesium	11	10	n/a
Manganese	0.099	0.041	0.05[3]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Molybdenum	0.00027	0.00015	n/a
Nickel	0.0018	0.0018	0.1[1]
Phosphorous	0.058	0.024	n/a
Potassium	1.9	1.9	n/a
Silicon	10	9.5	n/a
Sodium	E4.0	4.3	n/a
Strontium	0.48	0.49	n/a
Sulfur	17	16	n/a
Thallium	0.00035	0.00039	0.002[1]
Thorium	0.00029	0.00025	n/a
Titanium	0.0026	<0.002	n/a
Zinc	0.0033	<0.0026	5[3]
Zirconium	0.0013	0.00061	n/a
Radionuclides (pCi/L) (f)			
Beta activity	14*	7.4*	50[2]
Semi-volatile organics (ug/L)			
Bis(2-ethylhexyl)phthalate	J11	J5.0	n/a
Volatile organics (ug/L)			
Acetone	U5.0	J1.4	n/a
Spring/Surface Water Monitoring Point EE-01 - East End Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.24	0.23	n/a
Dissolved Oxygen	8.9	5.6	n/a
pH	6.9	5.8	n/a
Temperature	11	24	30.5[1]
Turbidity	4.0	2.0	1[2]
Metals (mg/L)			
Aluminum	0.19	0.91	(0.05, 0.2)[3]
Antimony	<0.0005	0.0013	0.006[1]
Barium	0.042	0.062	2[1]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Boron	0.016	0.023	n/a
Cadmium	<0.00011	0.00021	0.005[1]
Calcium	27	33	n/a
Cobalt	0.00021	0.00083	n/a
Copper	0.00061	0.0014	1.3[2]
Iron	0.35	1.6	0.3[3]
Lead	<0.0005	0.00089	0.005[1]
Lithium	<0.002	0.004	n/a
Magnesium	6.1	E11	n/a
Manganese	0.075	0.95	0.05[3]
Molybdenum	0.00023	0.0014	n/a
Nickel	0.00077	0.0012	0.1[1]
Phosphorous	<0.02	0.046	n/a
Potassium	1.3	2.3	n/a
Silicon	E3.5	2.7	n/a
Sodium	3.6	7.7	n/a
Strontium	0.064	0.13	n/a
Sulfur	E6.1	9.0	n/a
Thallium	0.00041	<0.0003	0.002[1]
Thorium	0.00033	0.00041	n/a
Titanium	0.003	0.012	n/a
Uranium	0.00007	0.00031	n/a
Zinc	<0.0026	0.015	5[3]
Zirconium	0.0013	0.001	n/a
Radionuclides (pCi/L) (f)			
Beta activity	U0.48	12*	50[2]
Volatile organics (ug/L)			
2-Butanone	J1.5	U5.0	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Spring/Surface Water Monitoring Point EE-02 - East End Discharge Area Exit Pathway (e)			
Field measurements			
Conductivity	0.48		n/a
Dissolved Oxygen	2.3		n/a
pH	6.4		n/a
Temperature	16		30.5[1]
Turbidity	86		1[2]
Metals (mg/L)			
Aluminum	0.24		(0.05, 0.2)[3]
Antimony	0.00052		0.006[1]
Barium	0.036		2[1]
Boron	0.01		n/a
Cadmium	0.00011		0.005[1]
Calcium	48		n/a
Chromium	0.0015		0.1[1]
Cobalt	0.0009		n/a
Copper	0.0015		1.3[2]
Iron	0.68		0.3[3]
Lead	0.0007		0.005[1]
Magnesium	30		n/a
Manganese	0.32		0.05[3]
Molybdenum	0.00019		n/a
Nickel	0.0017		0.1[1]
Phosphorous	0.072		n/a
Potassium	0.72		n/a
Silicon	3.8		n/a
Sodium	0.54		n/a
Strontium	0.025		n/a
Sulfur	1.3		n/a
Thallium	0.00039		0.002[1]
Thorium	0.00038		n/a
Titanium	0.0043		n/a
Uranium	0.00034		n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Zinc	0.032		5[3]
Zirconium	0.00097		n/a
Well 531 - Northwestern Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.84	0.83	n/a
Dissolved Oxygen	0.4	0.2	n/a
pH	8.6	8.6	n/a
RedOx	-250	-350	n/a
Temperature	17	19	30.5[1]
Turbidity	1.0	0.0	1[2]
Metals (mg/L)			
Aluminum	E0.17	0.054	(0.05, 0.2)[3]
Barium	0.046	0.059	2[1]
Boron	0.82	0.68	n/a
Calcium	3.8	5.4	n/a
Chromium	<0.001	0.0027	0.1[1]
Copper	0.00087	0.0012	1.3[2]
Iron	0.17	0.087	0.3[3]
Lithium	0.1	0.1	n/a
Magnesium	1.2	2.4	n/a
Manganese	0.0046	0.0061	0.05[3]
Molybdenum	0.00014	0.00029	n/a
Nickel	0.0021	0.00057	0.1[1]
Phosphorous	0.025	0.048	n/a
Potassium	1.9	2.2	n/a
Silicon	E6.2	5.9	n/a
Sodium	190	1.3	n/a
Strontium	0.22	0.37	n/a
Sulfur	2.1	1.1	n/a
Thorium	0.00022	<0.0002	n/a
Titanium	0.0023	<0.002	n/a
Vanadium	<0.003	0.0092	n/a

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Zinc	0.0046	0.012	5[3]
Zirconium	0.0017	0.0011	n/a
Radionuclides (pCi/L) (f)			
Beta activity	54*	12*	50[2]
Volatile organics (ug/L)			
Acetone	U5.0	J1.4	n/a
Well 535 - Northwestern Discharge Area Exit Pathway(e)			
Field measurements			
Conductivity	0.7		n/a
Dissolved Oxygen	1.5		n/a
pH	6.8		n/a
RedOx	140		n/a
Temperature	17		30.5[1]
Turbidity	2.0		1[2]
Metals (mg/L)			
Aluminum	E1.9		(0.05, 0.2)[3]
Arsenic	0.003		0.01[1]
Barium	0.095		2[1]
Beryllium	0.00012		0.004[1]
Boron	0.021		n/a
Cadmium	0.00016		0.005[1]
Calcium	130		n/a
Chromium	0.003		0.1[1]
Cobalt	0.0027		n/a
Copper	0.0054		1.3[2]
Iron	4.9		0.3[3]
Lead	0.017		0.005[1]
Lithium	0.0047		n/a
Magnesium	11		n/a
Manganese	2.0		0.05[3]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Molybdenum	0.00045		n/a
Nickel	0.0055		0.1[1]
Phosphorous	0.089		n/a
Potassium	1.6		n/a
Silicon	E12		n/a
Sodium	5.2		n/a
Strontium	0.33		n/a
Sulfur	0.34		n/a
Thallium	0.00045		0.002[1]
Thorium	0.00072		n/a
Titanium	0.023		n/a
Uranium	0.00018		n/a
Zinc	0.098		5[3]
Zirconium	0.0021		n/a
Radionuclides (pCi/L) (f)			
Beta activity	150*		50[2]
Tritium	480*		20,000[2]
Semi-volatile organics (ug/L)			
Benzoic acid	J12		n/a
Diethyl phthalate	J3.6		n/a
Spring/Surface Water Monitoring Point S-01 - Southern Discharge Area Exit Pathway(e)			
Field measurements			
Conductivity	0.32		n/a
Dissolved Oxygen	11		n/a
pH	7.1		n/a
Temperature	12		30.5[1]
Turbidity	10		1[2]
Metals (mg/L)			
Aluminum	0.11		(0.05, 0.2)[3]
Barium	0.026		2[1]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Boron	0.004		n/a
Calcium	33		n/a
Cobalt	0.00021		n/a
Copper	0.00043		1.3[2]
Iron	0.28		0.3[3]
Magnesium	18		n/a
Manganese	0.0066		0.05[3]
Nickel	0.00078		0.1[1]
Potassium	0.83		n/a
Silicon	E3.4		n/a
Sodium	0.6		n/a
Strontium	0.022		n/a
Sulfur	E0.8		n/a
Titanium	0.0022		n/a
Uranium	0.00012		n/a
Zinc	0.0026		5[3]
Spring/Surface Water Monitoring Point S-02 - Southern Discharge Area Exit Pathway			
Field measurements			
Conductivity	0.25	0.24	n/a
Dissolved Oxygen	10	8.1	n/a
pH	6.8	5.6	n/a
Temperature	12	19	30.5[1]
Turbidity	3.0	79	1[2]
Metals (mg/L)			
Aluminum	4.1	3.1	(0.05, 0.2)[3]
Antimony	<0.0005	0.0009	0.006[1]
Arsenic	<0.0015	0.0018	0.01[1]
Barium	0.087	0.057	2[1]
Beryllium	0.00026	0.00019	0.004[1]
Boron	0.0087	0.017	n/a
Cadmium	0.00034	0.00023	0.005[1]
Calcium	22	32	n/a
Chromium	0.0043	0.0021	0.1[1]

Table 2.1. (continued)

Parameter	Wet Season (b)	Dry Season (b)	Reference value [ref](c)
Cobalt	0.006	0.003	n/a
Copper	0.0055	0.0041	1.3[2]
Iron	3.6	2.9	0.3[3]
Lead	0.016	0.0077	0.005[1]
Lithium	0.0041	0.0036	n/a
Magnesium	13	E18	n/a
Manganese	0.79	0.33	0.05[3]
Molybdenum	0.00043	0.00051	n/a
Nickel	0.0059	0.0039	0.1[1]
Phosphorous	0.049	0.065	n/a
Potassium	0.88	1.2	n/a
Silicon	E7.4	8.0	n/a
Sodium	0.49	0.57	n/a
Strontium	0.014	0.024	n/a
Sulfur	E0.41	0.8	n/a
Thorium	0.00099	0.00078	n/a
Titanium	0.039	0.036	n/a
Uranium	0.00043	0.00051	n/a
Vanadium	0.0054	0.0073	n/a
Zinc	0.032	0.023	5[3]
Zirconium	0.0024	0.0021	n/a

(a) Only parameters that are detected are listed in the table. The sampling and analysis plan contains a complete list of analyses performed.

(b) Prefix "J" indicates the value was estimated at or below the analytical detection limit by the laboratory; "BJ" indicates that the analyte was detected in the associated lab blank and that the value was estimated at or below the anlytical detection limit by the laboratory; "U" indicates that the analyte was not detected; "<" indicates that the compound was not detected at the reported value; and "E" indicates that the percent difference between the parent sample and its serial dilution's concentration exceeds 10%.

(c) If a reference limit exists, the source is coded as:

1 Rules of Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Chapter 1200-4-3, General Water Quality Criteria, Domestic Water Supply, as amended.

2 40 CFR Part 141--National Primary Drinking Water Regulations, Subparts B and G, as amended.

3 40 CFR Part 143--National Secondary Drinking Water Regulations, as amended.

4 DOE Order 5400.5, Chapter III, Derived Concentration Guides for Air and Water.

(d) Individual radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected at or above MDA.

(e) Dry season sampling not performed because the location was dry at the time of sampling.

Table 2.2. Constituents detected in SNS groundwater, 2008 (a)

Parameter	N det/ N total	Min	Max	Avg	Standard error(b)
Spring S-1 - Discharge point east-southeast of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.19	0.42	0.29	0.024
Dissolved Oxygen (ppm)	12/12	4.9	9.6	7.0	0.38
pH (Std Unit)	12/12	5.9	6.8	n/a	n/a
Temperature (deg C)	12/12	10	21	15	1.2
Turbidity (NTU)	12/12	0.0	42	12	3.2
Radionuclides (pCi/L) (c)					
Beta activity	1/1	2.5*	2.5*	n/a	n/a
Spring S-2 - Discharge point south of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.31	0.6	0.45	0.027
Dissolved Oxygen (ppm)	12/12	0.5	7.8	4.0	0.77
pH (Std Unit)	12/12	5.1	7.3	n/a	n/a
Temperature (deg C)	12/12	8.9	17	14	0.88
Turbidity (NTU)	12/12	0.0	37	5.6	3.0
Radionuclides (pCi/L) (c)					
Alpha activity	1/12	4.6*	4.6*	n/a	n/a
Beta activity	1/12	5.9*	5.9*	n/a	n/a
Carbon-14	1/12	-7.8	9.1*	~-1.2	1.4
Tritium	1/12	-95	180*	~37	24
Spring S-3 - Discharge point south of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.29	0.56	0.38	0.021
Dissolved Oxygen (ppm)	12/12	3.8	8.6	5.8	0.37
pH (Std Unit)	12/12	5.3	7.1	n/a	n/a
Temperature (deg C)	12/12	13	16	15	0.27
Turbidity (NTU)	12/12	0.0	47	7.9	3.8
Radionuclides (pCi/L) (c)					

Table 2.2. (continued)

Parameter	N det/ N total	Min	Max	Avg	Standard error(b)
Beta activity	1/1	2.0*	2.0*	n/a	n/a
Bismuth-214	1/1	9.3*	9.3*	n/a	n/a
Spring S-4 - Discharge point west-southwest of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.1	0.46	0.28	0.035
Dissolved Oxygen (ppm)	12/12	5.9	12	7.9	0.54
pH (Std Unit)	12/12	5.6	7.3	n/a	n/a
Temperature (deg C)	12/12	8.5	20	14	1.3
Turbidity (NTU)	12/12	0.0	15	2.0	1.3
Spring S-5 - Discharge point north-northeast of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.42	0.78	0.62	0.035
Dissolved Oxygen (ppm)	12/12	2.6	8.0	4.8	0.51
pH (Std Unit)	12/12	5.4	7.4	n/a	n/a
Temperature (deg C)	12/12	12	15	14	0.33
Turbidity (NTU)	12/12	0.0	17	5.1	1.6
Radionuclides (pCi/L) (c)					
Alpha activity	1/1	14*	14*	n/a	n/a
Beta activity	1/1	17*	17*	n/a	n/a
Spring SP-1 - Discharge point south of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.26	0.4	0.33	0.012
Dissolved Oxygen (ppm)	12/12	2.9	11	8.2	0.6
pH (Std Unit)	12/12	5.2	7.1	n/a	n/a
Temperature (deg C)	12/12	8.2	18	14	1.1
Turbidity (NTU)	12/12	0.0	79	14	6.4

Table 2.2. (continued)

Parameter	N det/ N total	Min	Max	Avg	Standard error(b)
Radionuclides (pCi/L) (c)					
Beta activity	1/1	2.3*	2.3*	n/a	n/a
Carbon-14	1/12	-7.6	10*	~-0.21	1.3
Surface Water Point SW-1 - Discharge point east-southeast of SNS site					
Field measurements					
Conductivity (mS/cm)	12/12	0.21	0.48	0.33	0.029
Dissolved Oxygen (ppm)	12/12	0.89	9.3	4.7	0.91
pH (Std Unit)	12/12	5.9	7.3	n/a	n/a
Temperature (deg C)	12/12	7.3	19	14	1.2
Turbidity (NTU)	12/12	1.0	18	5.8	1.4
Radionuclides (pCi/L) (c)					
Alpha activity	1/1	2.7*	2.7*	n/a	n/a
Beta activity	1/1	3.6*	3.6*	n/a	n/a
Carbon-14	1/12	-9.0	10*	~-0.54	1.4

(a) All values were included in the calculations. Only parameters that have detections in one or more samples are listed in the table. The sampling and analysis plan contains a complete list of analyses performed.

(b) Standard error of the mean.

(c) Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected at or above MDA.

Table 2.3. 2008 radionuclide concentrations in surface waters around ORNL

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Avg(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
			White Oak Creek Headwaters				
Alpha activity	0/12	<2.2	<4.1	3.5*	0.2	n/a	n/a
Beta activity	1/12	<4.1	<5.9	5.1*	0.15	n/a	n/a
Carbon-14	0/12	<280	<570	420*	28	70,000	n/a
Cesium-137	0/12	<4.0	<6.6	4.9*	0.21	3,000	n/a
Cobalt-60	0/12	<4.1	<6.6	4.8*	0.2	5,000	n/a
Tritium	0/12	<310	<600	450*	22	2,000,000	n/a

(a) Prefix "<" indicates the value of the radionuclide concentrations was not detected above the minimum detectable amount(MDA).
(b) Average radionuclide concentrations significantly greater than zero are identified by an *.
(c) Standard error of the mean.
(d) Derived concentration guide for ingestion of water from DOE Order 5400.5.
(e) Average concentration as a percentage of the derived concentration guide (DCG), calculated only when a DCG exists and when at least one result is detected at or above MDA.

Table 2.4. 2008 radionuclide concentrations in stormwater at ORNL NPDES permitted locations

Parameter	Result detected above MDA?	Concentration (pCi/L) (a)	DCG(b)	Percent of DCG(c)
		Outfall 081		
Alpha activity	no	7.0*	n/a	n/a
Beta activity	yes	51*	n/a	n/a
Cesium-137	no	5.6*	3,000	0.19
Cobalt-60	no	5.2*	5,000	0.1
Tritium	no	690*	2,000,000	0.035
		Outfall 204		
Alpha activity	yes	9.9*	n/a	n/a
Beta activity	yes	1,100*	n/a	n/a
Cesium-137	yes	58*	3,000	1.9
Cobalt-60	no	4.8*	5,000	0.096
Strontium-89/90	yes	450*	1,000	45
Tritium	no	690*	2,000,000	0.035
		Outfall 207		
Alpha activity	no	9.9*	n/a	n/a
Beta activity	yes	68*	n/a	n/a
Cesium-137	yes	7.4*	3,000	0.25
Cobalt-60	no	6.1*	5,000	0.12
Tritium	no	690*	2,000,000	0.035
		Outfall 218		
Alpha activity	no	7.9*	n/a	n/a
Beta activity	no	11*	n/a	n/a
Cesium-137	no	3.9*	3,000	0.13
Cobalt-60	no	4.3*	5,000	0.086
Tritium	no	690*	2,000,000	0.035

Table 2.4. (continued)

Parameter	Result detected above MDA?	Concentration (pCi/L) (a)	DCG(b)	Percent of DCG(c)
		Outfall 230		
Alpha activity	no	9.0*	n/a	n/a
Beta activity	no	11*	n/a	n/a
Cesium-137	no	5.0*	3,000	0.17
Cobalt-60	no	4.7*	5,000	0.094
Tritium	no	690*	2,000,000	0.035
		Outfall 241		
Alpha activity	yes	18*	n/a	n/a
Beta activity	yes	150*	n/a	n/a
Cesium-137	no	5.6*	3,000	0.19
Cobalt-60	no	6.0*	5,000	0.12
Tritium	no	690*	2,000,000	0.035
		Outfall 265		
Alpha activity	no	7.3*	n/a	n/a
Beta activity	yes	95*	n/a	n/a
Cesium-137	yes	5.1*	3,000	0.17
Cobalt-60	no	5.5*	5,000	0.11
Tritium	no	690*	2,000,000	0.035
		Outfall 302		
Alpha activity	no	22*	n/a	n/a
Beta activity	yes	1,000*	n/a	n/a
Cesium-137	yes	21*	3,000	0.7
Cobalt-60	no	5.0*	5,000	0.1
Tritium	yes	12,000*	2,000,000	0.6
		Outfall 304		
Alpha activity	yes	8.0*	n/a	n/a

Table 2.4. (continued)

Parameter	Result detected above MDA?	Concentration (pCi/L) (a)	DCG(b)	Percent of DCG(c)
Beta activity	yes	370*	n/a	n/a
Cesium-137	yes	54*	3,000	1.8
Cobalt-60	no	4.8*	5,000	0.096
Tritium	no	690*	2,000,000	0.035
		Outfall 341		
Alpha activity	yes	200*	n/a	n/a
Beta activity	yes	1,400*	n/a	n/a
Cesium-137	no	5.5*	3,000	0.18
Cobalt-60	no	6.0*	5,000	0.12
Strontium-89/90	yes	650*	1,000	65
Tritium	no	690*	2,000,000	0.035
Uranium-233/234	yes	150*	500	30
Uranium-235	yes	8.5*	600	1.4
Uranium-236	yes	8.5*	500	1.7
Uranium-238	yes	8.9*	600	1.5

(a) Individual radionuclide concentrations significantly greater than zero are identified by an *.
(b) Derived concentration guide for ingestion of water from DOE Order 5400.5.
(c) The concentration as a percentage of the derived concentration guide (DCG), calculated only when a DCG exist and when the individual result is detected at or above MDA.

Table 2.5. 2008 radionuclide concentrations at ORNL NPDES permitted locations

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
Sewage Treatment Plant (X01)							
Alpha activity	2/12	3.2	4.1*	3.7*	0.071	n/a	n/a
Beta activity	12/12	140*	560*	300*	32	n/a	n/a
Carbon-14	0/12	280	570	420*	28	70,000	n/a
Cesium-137	8/12	4.4*	12*	6.6*	0.56	3,000	0.22
Cobalt-60	0/12	3.9	7.2	5.1*	0.31	5,000	n/a
Strontium-89/90	12/12	68*	250*	130*	14	1,000	13
Tritium	7/12	420	31,000*	3,600	2,500	2,000,000	0.18
Coal Yard Runoff Treatment Facility (X02)							
Alpha activity	0/12	4.0	52	41*	3.9	n/a	n/a
Beta activity	12/12	360*	930*	630*	46	n/a	n/a
Process Waste Treatment Complex (X12)							
Alpha activity	12/12	8.7*	25*	14*	1.5	n/a	n/a
Beta activity	12/12	94*	500*	310*	35	n/a	n/a
Cesium-137	12/12	36*	460*	270*	40	3,000	9.1
Cobalt-60	0/12	3.1	6.8	5.9*	0.3	5,000	n/a
Strontium-89/90	12/12	23*	54*	38*	2.5	1,000	3.8
Tritium	12/12	240,000*	310,000*	280,000*	6,300	2,000,000	14
Uranium-233/234	12/12	8.4*	27*	14*	1.8	500	2.8
Uranium-235	9/12	0.13*	1.7*	0.45*	0.13	600	0.075
Uranium-236	9/12	0.15*	2.2*	0.5*	0.17	500	0.1
Uranium-238	12/12	0.32*	1.5*	0.85*	0.11	600	0.14
Melton Branch 1 (X13)							
Alpha activity	0/12	2.7	4.2	3.4*	0.13	n/a	n/a
Beta activity	12/12	57*	180*	110*	10	n/a	n/a
Cesium-137	1/12	3.5*	6.7	5.0*	0.25	3,000	0.17
Cobalt-60	0/12	4.2	6.6	5.6*	0.26	5,000	n/a
Strontium-89/90	12/12	24*	71*	43*	4.3	1,000	4.3
Tritium	12/12	7,800*	21,000*	13,000*	1,300	2,000,000	0.66

Table 2.5. (continued)

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
			White Oak Creek (X14)				
Alpha activity	1/12	3.0	4.3	3.6*	0.12	n/a	n/a
Beta activity	12/12	69*	120*	90*	4.4	n/a	n/a
Cesium-137	12/12	5.2*	41*	19*	3.4	3,000	0.63
Cobalt-60	0/12	4.0	4.9	4.4*	0.077	5,000	n/a
Strontium-89/90	12/12	27*	51*	33*	2.0	1,000	3.3
Tritium	12/12	14,000*	48,000*	30,000*	2,900	2,000,000	1.5
			White Oak Dam (X15)				
Alpha activity	3/12	3.4	5.0	4.1*	0.15	n/a	n/a
Beta activity	12/12	100*	160*	130*	4.5	n/a	n/a
Cesium-137	12/12	12*	36*	23*	1.7	3,000	0.76
Cobalt-60	0/12	3.9	6.9	5.0*	0.24	5,000	n/a
Strontium-89/90	12/12	36*	63*	52*	2.5	1,000	5.2
Tritium	12/12	15,000*	34,000*	25,000*	1,600	2,000,000	1.3
			Outfall 001				
Alpha activity	0/1	3.3	3.3	3.3	n/a	n/a	n/a
Beta activity	0/1	5.1	5.1	5.1	n/a	n/a	n/a
			Outfall 081				
Alpha activity	0/1	3.4	3.4	3.4	n/a	n/a	n/a
Beta activity	0/1	5.1	5.1	5.1	n/a	n/a	n/a
			Outfall 085				
Alpha activity	3/4	2.8	8.4*	5.5*	1.2	n/a	n/a
Beta activity	4/4	160*	220*	190*	15	n/a	n/a
Strontium-89/90	4/4	67*	120*	94*	11	1,000	9.4
Uranium-233/234	4/4	1.4*	8.0*	5.2*	1.5	500	1.1
Uranium-235	3/4	0.18*	1.5*	0.61	0.31	600	0.1

Table 2.5. (continued)

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
Uranium-236	4/4	0.19*	1.6*	0.78*	0.31	500	0.16
Uranium-238	4/4	0.14*	1.3*	0.67*	0.26	600	0.11
Outfall 087							
Alpha activity	0/1	4.0	4.0	4.0	n/a	n/a	n/a
Beta activity	1/1	200*	200*	200	n/a	n/a	n/a
Cesium-137	0/1	5.3	5.3	5.3	n/a	3,000	n/a
Cobalt-60	0/1	5.0	5.0	5.0	n/a	5,000	n/a
Outfall 204							
Alpha activity	1/4	3.4*	4.0	3.7*	0.14	n/a	n/a
Beta activity	4/4	40*	130*	89*	20	n/a	n/a
Strontium-89/90	4/4	18*	39*	30*	4.7	1,000	3.0
Outfall 207							
Alpha activity	2/4	3.3	5.7*	4.4*	0.5	n/a	n/a
Beta activity	4/4	27*	39*	32*	2.5	n/a	n/a
Cesium-137	0/4	4.6	7.3	6.2*	0.61	3,000	n/a
Cobalt-60	0/4	4.2	6.4	5.5*	0.47	5,000	n/a
Strontium-89/90	4/4	12*	20*	16*	1.7	1,000	1.6
Outfall 211							
Alpha activity	0/4	2.5	4.1	3.5*	0.35	n/a	n/a
Beta activity	0/4	4.2	6.7	5.2*	0.53	n/a	n/a
Strontium-89/90	1/4	2.8	4.3*	3.3*	0.34	1,000	0.33
Outfall 217							
Alpha activity	0/1	3.5	3.5	3.5	n/a	n/a	n/a
Beta activity	0/1	5.3	5.3	5.3	n/a	n/a	n/a
Outfall 219							
Alpha activity	0/1	3.4	3.4	3.4	n/a	n/a	n/a
Beta activity	0/1	5.2	5.2	5.2	n/a	n/a	n/a

Table 2.5. (continued)

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
			Outfall 234				
Alpha activity	0/1	3.9	3.9	3.9	n/a	n/a	n/a
Beta activity	0/1	5.4	5.4	5.4	n/a	n/a	n/a
			Outfall 241				
Alpha activity	0/1	3.8	3.8	3.8	n/a	n/a	n/a
Beta activity	0/1	5.4	5.4	5.4	n/a	n/a	n/a
			Outfall 265				
Alpha activity	0/1	3.5	3.5	3.5	n/a	n/a	n/a
Beta activity	1/1	19*	19*	19	n/a	n/a	n/a
Cesium-137	1/1	4.8*	4.8*	4.8	n/a	3,000	0.16
Cobalt-60	0/1	5.8	5.8	5.8	n/a	5,000	n/a
			Outfall 281				
Alpha activity	0/4	4.5	27	11	5.3	n/a	n/a
Beta activity	3/4	15*	43	31*	6.1	n/a	n/a
Cesium-137	0/4	4.2	6.5	5.4*	0.52	3,000	n/a
Cobalt-60	0/4	4.4	6.6	5.6*	0.48	5,000	n/a
Tritium	2/4	420	720	630*	69	2,000,000	0.031
			Outfall 282				
Alpha activity	0/4	3.4	4.6	3.9*	0.27	n/a	n/a
Beta activity	4/4	8.3*	12*	9.7*	0.81	n/a	n/a
			Outfall 302				
Alpha activity	6/12	3.5	400*	40	33	n/a	n/a
Americium-241	0/1	0.49	0.49	0.49	n/a	30	n/a
Beta activity	12/12	120*	23,000*	2,900	1,900	n/a	n/a
Cesium-137	12/12	6.8*	140*	61*	13	3,000	2.0
Cobalt-60	0/12	4.2	6.4	5.1*	0.22	5,000	n/a
Curium-243/244	0/1	0.5	0.5	0.5	n/a	50	n/a
Strontium-89/90	12/12	37*	11,000*	1,400	900	1,000	140

Table 2.5. (continued)

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
Tritium	12/12	5,000*	63,000*	32,000*	5,300	2,000,000	1.6
Uranium-233/234	4/4	6.3*	430*	120	110	500	23
Uranium-235	3/4	0.028	14*	3.7	3.4	600	0.62
Uranium-236	4/4	0.23*	14*	3.8	3.4	500	0.76
Uranium-238	3/4	0.35	14*	3.9	3.4	600	0.65
Outfall 304							
Alpha activity	11/12	3.4*	29*	10*	2.2	n/a	n/a
Beta activity	12/12	370*	2,000*	840*	160	n/a	n/a
Cesium-137	12/12	8.8*	300*	90*	23	3,000	3.0
Cobalt-60	0/12	4.6	7.0	5.9*	0.21	5,000	n/a
Strontium-89/90	12/12	160*	1,000*	380*	72	1,000	38
Tritium	6/12	420	28,000*	4,800*	2,400	2,000,000	0.24
Uranium-233/234	2/2	5.8*	14*	9.9	4.1	500	2.0
Uranium-235	2/2	0.24*	1.1*	0.67	0.43	600	0.11
Uranium-236	2/2	0.28*	1.5*	0.89	0.61	500	0.18
Uranium-238	2/2	1.8*	6.2*	4.0	2.2	600	0.67
Outfall 365							
Alpha activity	1/4	2.8*	4.2	3.3*	0.32	n/a	n/a
Beta activity	4/4	14*	39*	28*	5.2	n/a	n/a
Outfall 368							
Alpha activity	0/4	2.2	4.1	3.3*	0.41	n/a	n/a
Beta activity	3/4	4.8	44*	28*	8.3	n/a	n/a
Cesium-137	0/4	3.8	5.5	4.9*	0.37	3,000	n/a
Cobalt-60	0/4	4.5	6.1	5.2*	0.36	5,000	n/a

Table 2.5. (continued)

Parameter	N det/ N total	Concentration (pCi/L) Min(a)	Max(a)	Av(b)	Standard error(c)	DCG(d)	Percent of DCG(e)
Outfall 383 - Down-gradient NPDES outfall south of Building 7900							
Alpha activity	0/1	4.0	4.0	4.0	n/a	n/a	n/a
Beta activity	1/1	5.6*	5.6*	5.6	n/a	n/a	n/a
Tritium	1/1	7,200*	7,200*	7,200	n/a	2,000,000	0.36

(a) Individual radionuclide concentrations significantly greater than zero are identified by an *.
(b) Average radionuclide concentrations significantly greater than zero are identified by an *.
(c) Standard error of the mean.
(d) Derived concentration guide for ingestion of water. From DOE Order 5400.5.
(e) Average concentration as a percentage of the derived concentration guide (DCG), calculated only when a DCG exists and when at least one result is detected at or above MDA.

Table 2.6. 2008 analyses for ORNL reference surface waters

Parameter	N det/ N total	Concentration Min(a)	Max(a)	Avg(b)	Standard error(c)	Ref. Value (d)
			White Oak Creek Headwaters			
Field measurements						
Conductivity (mS/cm)	53/53	0.18	0.39	0.29	0.0071	n/a
Dissolved Oxygen (mg/L)	53/53	6.9	11	8.9	0.14	5
pH (Std Unit)	53/53	7.4	8.1	n/a	0.018	n/a
Temperature (deg C)	53/53	4.8	19	12	0.54	n/a
Turbidity (NTU)	53/53	1.0	210	12	4.0	n/a
Metals (mg/L)						
Antimony	1/12	<0.00081	0.0012	~0.00084	0.00003	n/a
Arsenic	3/12	<0.001	0.0053	~0.0015	0.00036	0.34
Beryllium	0/12	<0.00069	<0.00069	~0.00069	0.0	n/a
Cadmium	0/12	<0.00078	<0.00078	~0.00078	0.0	0.002
Chromium	2/12	<0.001	0.0017	~0.0011	0.000068	n/a
Cobalt	1/12	<0.00081	0.00082	~0.00081	0.00000067	n/a
Copper	7/12	<0.001	0.0023	~0.0013	0.00012	0.01
Iron	12/12	0.029	0.53	0.18	0.05	n/a
Lead	0/12	<0.001	<0.001	~0.001	0.0	0.06
Manganese	12/12	0.0026	0.07	0.019	0.0067	n/a
Mercury (e)	1/4	<0.00015	0.001	~0.00037	0.00022	0.0014
Molybdenum	4/12	<0.00093	0.0013	~0.00097	0.000029	n/a
Nickel	5/12	<0.0014	0.0062	~0.0019	0.0004	0.47
Selenium	0/12	<0.041	<0.041	~0.041	0.0	0.02
Silver	0/12	<0.00062	<0.00062	~0.00062	0.0	0.0032
Strontium	12/12	0.03	0.065	0.048	0.0032	n/a
Thallium	0/12	<0.00083	<0.00083	~0.00083	0.0	n/a
Thorium	1/12	<0.000075	0.00012	~0.000079	0.0000034	n/a

Table 2.6. (continued)

Parameter	N det/ N total	Concentration Min(a)	Max(a)	Avg(b)	Standard error(c)	Ref. Value (d)
Uranium	11/12	<0.000083	0.00038	~0.00022	0.00003	n/a
Zinc	4/12	<0.02	0.038	~0.022	0.0015	0.12

(a) Prefix "<" indicates the value of a parameter was not quantifiable at the analytical detection limit.
(b) A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.
(c) Standard error of the mean.
(d) Tennessee General Water Quality Criteria for Fish and Aquatic Life is used as a reference value for White Oak Creek headwaters.
(e) Sampled quarterly.

Table 2.7. NPDES Permit Number TN0002941, 2008 ORNL outfall monitoring

Parameter	N det/ N total	Concentration Min(a)	Max(a)	Avg(b)	Standard error (c)
Category 1 outfalls					
Field measurements					
Flow (gpm)	7/7	0.1	25	4.9	3.5
pH (Std Unit)	7/7	7.3	7.7	n/a	n/a
Temperature (deg C)	7/7	3.1	42	11	5.3
Category 2 outfalls					
Field measurements					
Flow (gpm)	11/11	0.1	25	5.9	2.5
pH (Std Unit)	11/11	7.4	7.9	n/a	n/a
Temperature (deg C)	11/11	4.1	17	9.6	0.92
Category 3 outfalls					
Field measurements					
Flow (gpm)	39/39	0.1	35	11	1.6
pH (Std Unit)	39/39	7.0	8.2	n/a	n/a
Temperature (deg C)	39/39	6.4	31	18	0.79
Category 4 outfalls					
Field measurements					
Flow (gpm)	192/192	0.1	350	55	5.4
pH (Std Unit)	192/192	7.1	8.1	n/a	n/a
Temperature (deg C)	192/192	5.4	35	17	0.38
Cooling Tower Blowdown outfalls					
Field measurements					
Flow (gpm)	3/3	5.0	15	8.7	3.2
pH (Std Unit)	3/3	8.0	8.2	n/a	n/a
Temperature (deg C)	3/3	23	24	24	0.25
Total Residual Oxidant (mg/L)	0/3	<0.05	<0.05	~0.05	0.0
Physical					
Suspended Solids (mg/L)	2/3	<2.0	18	~12	4.9

Table 2.7. (continued)

Parameter	N det/ N total	Concentration Min(a)	Max(a)	Avg(b)	Standard error (c)
Cooling Tower Blowdown/Cooling Water outfalls					
Field measurements					
Flow (gpm)	29/29	0.25	200	73	9.8
pH (Std Unit)	29/29	7.0	8.1	n/a	n/a
Temperature (deg C)	29/29	10	27	21	1.1
Total Residual Oxidant (mg/L)	0/29	<0.05	<0.05	~0.05	0.0
Groundwater/Pumpwater outfalls					
Field measurements					
Flow (gpm)	3/3	0.1	0.1	0.1	0.0
pH (Std Unit)	3/3	7.6	7.9	n/a	n/a
Temperature (deg C)	3/3	14	17	15	1.1
Steam Condensate outfalls					
Field measurements					
Flow (gpm)	10/10	0.1	0.25	0.16	0.023
pH (Std Unit)	10/10	7.2	8.1	n/a	n/a
Temperature (deg C)	10/10	9.2	43	35	3.2

(a) Prefix "<" indicates the value for a parameter was not quantifiable at the analytical detection limit.
(b) A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.
(c) Standard error of the mean.

Table 2.8. NPDES Permit Number TN0002941, 2008 ORNL Instream Chlorine monitoring

Parameter	N det/ N total	Concentration Min(a)	Max(a)	Avg(b)	Standard error(c)
		First Creek			
Field measurements					
pH (Std Unit)	48/48	7.1	8.1	n/a	0.028
Temperature (deg C)	48/48	8.4	20	15	0.52
Total Residual Oxidant (mg/L)	0/48	<0.05	<0.05	~0.05	0.0
		Fifth Creek			
Field measurements					
pH (Std Unit)	72/72	7.2	8.1	n/a	0.022
Temperature (deg C)	72/72	11	21	15	0.35
Total Residual Oxidant (mg/L)	0/72	<0.05	<0.05	~0.05	0.0
		Melton Branch			
Field measurements					
pH (Std Unit)	10/10	7.6	8.0	n/a	0.04
Temperature (deg C)	10/10	10	22	16	1.5
Total Residual Oxidant (mg/L)	0/10	<0.05	<0.05	~0.05	0.0
		White Oak Creek			
Field measurements					
pH (Std Unit)	144/144	7.1	8.2	n/a	0.016
Temperature (deg C)	144/144	7.4	23	16	0.35
Total Residual Oxidant (mg/L)	0/144	<0.05	<0.05	~0.05	0.0

(a) Prefix "<" indicates the value for a parameter was not quantifiable at the analytical detection limit.
(b) A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.
(c) Standard error of the mean.

Table 2.9. Surface water analyses (2008) at ORNL Environmental Monitoring Plan surface water locations (a)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
First Creek just upstream of Northwest Tributary (1STCK 0.1)						
Field measurements						
Dissolved Oxygen	2/2	9.0	10	9.7	0.7	n/a
pH	2/2	6.6	6.8	n/a	n/a	n/a
Temperature	2/2	13	15	14	1.0	n/a
Radionuclides (pCi/L) (f)						
Alpha activity	2/2	1.7*	45*	23	22	n/a
Beta activity	2/2	18*	290*	160	140	n/a
Strontium-89/90	2/2	7.6*	150*	80	72	40
Uranium-233/234	1/2	0.0	22*	11	11	20
Uranium-235/236	1/2	0.0	0.33*	0.16	0.16	n/a
Uranium-238	1/2	0.0	1.1*	0.57	0.57	24
Fifth Creek just upstream of White Oak Creek at ORNL (FIFTHCK 0.1)						
Field measurements						
Dissolved Oxygen	2/2	8.2	9.2	8.7	0.5	n/a
pH	2/2	6.6	6.7	n/a	n/a	n/a
Temperature	2/2	14	17	15	1.3	n/a
Radionuclides (pCi/L) (f)						
Beta activity	2/2	38*	67*	53	14	n/a
Strontium-89/90	2/2	16*	35*	26	9.6	40
Grassy Creek upstream of SEG and IT Corp. (GCK 3.6)						
Field measurements						
Dissolved Oxygen	2/2	6.5	9.3	7.9	1.4	n/a
pH	2/2	6.0	7.3	n/a	n/a	n/a
Temperature	2/2	13	15	14	0.65	n/a
Metals (mg/L)						
Aluminum	2/2	0.21	E0.84	~0.53	0.32	n/a
Barium	2/2	0.031	0.035	0.033	0.002	n/a
Boron	2/2	0.0046	0.011	0.0078	0.0032	n/a

Table 2.9. (continued)

Parameter	*N det/ N total*	*Min(b)*	*Max(b)*	*Avg(c)*	*Standard error(d)*	*TWQC(e)*
Calcium	2/2	19	34	26	7.3	n/a
Chromium	1/2	<0.0015	0.0038	~0.0027	0.0012	n/a
Cobalt	2/2	0.00044	0.00052	0.00048	0.00004	n/a
Copper	2/2	0.00073	0.00087	0.0008	0.00007	n/a
Iron	2/2	0.43	0.79	0.61	0.18	n/a
Lead	1/2	<0.0005	0.0011	~0.0008	0.0003	n/a
Magnesium	2/2	5.1	21	13	7.9	n/a
Manganese	2/2	0.027	0.11	0.069	0.042	n/a
Molybdenum	1/2	<0.0001	0.00029	~0.0002	0.000095	n/a
Nickel	2/2	0.00087	0.00087	0.00087	0.0	n/a
Phosphorous	1/2	<0.02	0.024	~0.022	0.002	n/a
Potassium	2/2	1.1	1.3	1.2	0.1	n/a
Sodium	2/2	E0.56	1.9	~1.2	0.67	n/a
Strontium	2/2	0.019	0.036	0.028	0.0085	n/a
Sulfur	2/2	0.46	2.4	1.4	0.97	n/a
Titanium	2/2	0.003	0.0088	0.0059	0.0029	n/a
Uranium	2/2	0.000067	0.00039	0.00023	0.00016	n/a
Zinc	2/2	0.0033	0.0059	0.0046	0.0013	n/a
Radionuclides (pCi/L) (f)						
Alpha activity	1/2	U1.1*	6.8*	~3.9	2.8	n/a
Beta activity	2/2	1.7*	4.9*	3.3	1.6	n/a
Ish Creek prior to entering CRK 30.8 (ICK 0.7)						
Field measurements						
Dissolved Oxygen	2/2	5.8	8.9	7.4	1.6	n/a
pH	2/2	6.4	6.6	n/a	n/a	n/a
Temperature	2/2	13	13	13	0.2	n/a
Radionuclides (pCi/L) (f)						
Alpha activity	1/2	U0.39	2.9*	~1.7	1.3	n/a
Beta activity	1/2	U0.59	2.9*	~1.8	1.2	n/a

Table 2.9. (continued)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
McCoy Branch prior to entering CRK 60.3 (McCBK 1.8)						
Field measurements						
Dissolved Oxygen	2/2	6.1	8.1	7.1	1.0	n/a
pH	2/2	6.6	6.7	n/a	n/a	n/a
Temperature	2/2	10	22	16	5.7	n/a
Radionuclides (pCi/L) (f)						
Beta activity	2/2	2.8*	3.7*	3.3*	0.48	n/a
Melton Branch downstream from ORNL (MEK 0.2)						
Field measurements						
Dissolved Oxygen	6/6	5.8	12	8.2	1.0	5
pH	6/6	6.6	8.0	n/a	n/a	n/a
Temperature	6/6	7.6	21	14	2.4	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	2/6	U-0.054	3.7*	~1.5*	0.69	n/a
Beta activity	6/6	37*	550*	160	79	n/a
Strontium-89/90	6/6	18*	250*	72*	35	40
Tritium	6/6	5,700*	23,000*	17,000*	3,200	80,000
Uranium-233/234	2/6	0.0	0.59*	0.18	0.11	20
Uranium-238	1/6	0.0	0.33*	0.055	0.055	24
Northwest Tributary prior to entering 1st Creek at ORNL (NWTK 0.1)						
Field measurements						
Dissolved Oxygen	2/2	7.2	8.7	8.0	0.75	n/a
pH	2/2	6.5	6.7	n/a	n/a	n/a
Temperature	2/2	13	14	13	0.45	n/a
Radionuclides (pCi/L) (f)						
Alpha activity	1/2	U2.1*	4.9*	~3.5	1.4	n/a
Beta activity	2/2	73*	140*	110	32	n/a
Potassium-40	1/2	U0.66	56*	~28	28	280

Table 2.9. (continued)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
Strontium-89/90	2/2	30*	60*	45	15	40
Uranium-233/234	1/2	0.0	0.64*	0.32	0.32	20
Uranium-238	1/2	0.0	0.34*	0.17	0.17	24
Raccoon Creek sampling station prior to entering CRK 31 (RCK 2.0) (g)						
Field measurements						
Dissolved Oxygen	1/1	3.6	3.6	n/a	n/a	n/a
pH	1/1	6.0	6.0	n/a	n/a	n/a
Temperature	1/1	13	13	n/a	n/a	n/a
Radionuclides (pCi/L) (f)						
Beta activity	1/1	4.9*	4.9*	n/a	n/a	n/a
Walker Branch prior to entering CRK 53.4 (WBK 0.1)						
Field measurements						
Dissolved Oxygen	2/2	5.6	8.3	7.0	1.4	n/a
pH	2/2	6.7	6.8	n/a	n/a	n/a
Temperature	2/2	13	15	14	1.2	n/a
Radionuclides (pCi/L) (f)						
Beta activity	2/2	2.9*	4.3*	3.6	0.66	n/a
White Oak Lake at White Oak Dam (WCK 1.0)						
Field measurements						
Dissolved Oxygen	12/12	2.7	12	7.4	0.84	5
pH	12/12	6.0	8.2	n/a	n/a	n/a
Temperature	12/12	9.7	29	17	1.9	30.5
Metals (mg/L)(h)						
Aluminum	13/13	0.14	4.7	1.1	0.33	n/a
Antimony	5/13	<0.0005	0.0014	~0.00065	0.000075	n/a
Arsenic	2/13	<0.0015	0.002	~0.0016	0.00004	0.34
Barium	13/13	0.036	0.094	0.052	0.0053	n/a
Beryllium	3/13	<0.0001	0.00065	~0.00015	0.000042	n/a

Table 2.9. (continued)

Parameter	*N det/ N total*	*Min(b)*	*Max(b)*	*Avg(c)*	*Standard error(d)*	*TWQC(e)*
Boron	13/13	0.021	0.035	0.026	0.0012	n/a
Cadmium	2/13	<0.00011	0.00061	~0.00015	0.000038	0.002
Calcium	13/13	24	57	44	2.8	n/a
Chromium	13/13	0.0017	0.016	0.0064	0.00098	n/a
Cobalt	13/13	0.00027	0.0026	0.00084	0.00016	n/a
Copper	13/13	0.0025	0.0087	0.0037	0.00046	0.01
Iron	13/13	0.4	5.6	1.6	0.35	n/a
Lead	13/13	0.00061	0.0055	0.0017	0.00035	0.06
Lithium	13/13	0.0023	0.0085	0.0035	0.00044	n/a
Magnesium	13/13	5.1	16	11	0.95	n/a
Manganese	13/13	0.066	E2.2	~0.35	0.16	n/a
Mercury	1/12	<0.00003	<0.00067	~0.00014	0.000057	0.0014
Molybdenum	13/13	0.0019	0.058	0.02	0.0047	n/a
Nickel	13/13	0.0015	0.0059	0.0024	0.00031	0.47
Phosphorous	13/13	0.083	0.7	0.34	0.05	n/a
Potassium	13/13	1.7	13	4.3	0.83	n/a
Selenium	1/13	<0.001	0.0012	~0.001	0.000015	0.02
Silver	6/13	<0.0002	0.00067	~0.00028	0.00004	0.0032
Sodium	13/13	8.1	69	28	5.0	n/a
Strontium	13/13	0.056	0.18	0.12	0.0099	n/a
Sulfur	13/13	6.0	44	22	3.7	n/a
Thallium	10/13	<0.0003	0.00099	~0.00046	0.000058	n/a
Titanium	12/13	<0.002	0.048	~0.014	0.0032	n/a
Uranium	13/13	0.00064	0.0029	0.0014	0.00017	n/a
Vanadium	4/13	<0.003	0.008	~0.0036	0.00041	n/a
Zinc	13/13	0.011	0.048	0.018	0.0028	0.12
Zirconium	12/13	<0.0005	0.0036	~0.0017	0.00027	n/a
Radionuclides (pCi/L) (f)						
Alpha activity	11/12	U1.9*	9.9*	~5.6*	0.64	n/a
Beta activity	12/12	110*	180*	140*	7.3	n/a

Table 2.9. (continued)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
Cesium-137	12/12	8.2*	85*	29*	6.7	120
Plutonium-239/240	1/12	0.0	0.31*	0.026	0.026	1.2
Strontium-89/90	12/12	39*	78*	60*	3.1	40
Thorium-230	2/12	0.0	0.61*	0.085	0.059	12
Tritium	12/12	6,000*	40,000*	23,000*	2,900	80,000
Uranium-233/234	9/12	0.0	4.3*	2.1*	0.44	20
Uranium-235/236	1/12	0.0	0.22*	0.019	0.019	n/a
Uranium-238	5/12	0.0	0.93*	0.26*	0.11	24
Volatile organics (ug/L)						
Acetone	1/12	BJ2.9	U10	~5.2	0.47	n/a
Chloroform	11/12	J0.26	J1.1	~0.57	0.077	n/a
Methylene chloride	1/12	J2.2	U10	~5.2	0.5	n/a
White Oak Creek downstream from ORNL (WCK 2.6)						
Field measurements						
Dissolved Oxygen	6/6	6.2	11	8.7	0.81	5
pH	6/6	6.5	8.2	n/a	n/a	n/a
Temperature	6/6	11	22	16	1.9	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	6/6	2.9*	7.1*	4.7*	0.71	n/a
Beta activity	6/6	64*	160*	120*	15	n/a
Cesium-137	6/6	10*	120*	47*	16	120
Strontium-89/90	6/6	37*	50*	40*	2.1	40
Tritium	6/6	8,200*	50,000*	28,000*	6,200	80,000
Uranium-233/234	4/6	0.0	2.9*	1.6*	0.55	20
Uranium-235/236	1/6	0.0	0.19*	0.031	0.031	n/a
Uranium-238	4/6	0.0	0.86*	0.42*	0.16	24

Table 2.9. (continued)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
White Oak Creek upstream from ORNL (WCK 6.8)						
Field measurements						
Dissolved Oxygen	4/4	8.8	12	9.8	0.7	5
pH	4/4	6.7	8.1	n/a	n/a	n/a
Temperature	4/4	9.8	19	13	1.9	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	1/4	U0.0093	2.6*	~0.95	0.58	n/a
Beta activity	2/4	U1.6*	17*	~5.6	3.8	n/a

(a) All values were included in the calculations. Only parameters that have detections in one or more samples are listed in the table. The sampling and analysis plan contains a complete list of analyses performed.
(b) Prefix "J" indicates the value was estimated at or below the analytical detection limit by the laboratory; "U" indicates that the value was undetected at the analytical detection limit or MDA; "E" indicates that the percent difference between the parent sample and its serial dilution's concentration exceeds 10%; "BJ" indicates the value was estimated at or below the analytical detection limit and the parameter was detected in the lab blank, and "<" indicates the value for a parameter was not quantifiable at the analytical detection limit.
(c) A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.
(d) Standard error of the mean.
(e) Tennessee General Water Quality Criteria for Freshwater Fish and Aquatic Life, as amended (MEK 0.2, WCK 1.0, WCK 2.6, WCK 6.8). 4% of DOE DCG used for radionuclides, where applicable.
(f) Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected at or above MDA.
(g) Location was dry at the time of the October sampling event.
(h) Metals were collected twice during July.

Table 3.1. 2008 tissue concentrations in Catfish and Sunfish(a)

Parameter	*Catfish (b)*	*Sunfish (b)*
Clinch River downstream from all DOE ORR inputs (CRK 16)		
Metals (mg/kg)		
Aluminum	1.0	2.8
Antimony	<0.081	0.14
Barium	<0.0075	0.12
Beryllium	0.0058	0.006
Boron	<0.037	0.062
Calcium	70	1,200
Chromium	<0.011	0.081
Cobalt	<0.012	0.019
Copper	0.19	0.22
Iron	2.9	5.0
Lithium	0.12	0.11
Magnesium	230	310
Manganese	0.14	1.3
Mercury	0.14	0.097
Nickel	<0.02	0.05
Phosphorous	2,100	2,700
Potassium	3,200	3,300
Selenium	1.0	1.5
Silicon	1.6	3.6
Sodium	370	590
Strontium	0.049	1.0
Thallium	0.0025	0.0057
Uranium	<0.000089	0.00021
Vanadium	<0.009	0.012
Zinc	6.9	16
Pesticides and PCBs (ug/kg)		
PCB-1254	260	U17
PCB-1260	300	22
Radionuclides (pCi/g) (c)		
Beta activity	2.5*	2.0*
Potassium-40	2.8*	2.2*

Table 3.1. (continued)

Parameter	*Catfish (b)*	*Sunfish (b)*
Clinch River downstream from ORNL (CRK 32)		
Metals (mg/kg)		
Aluminum	1.5	2.0
Antimony	0.097	<0.081
Barium	0.0083	0.13
Beryllium	<0.0023	0.006
Boron	<0.037	0.085
Calcium	120	1,600
Chromium	0.063	0.094
Cobalt	0.017	0.013
Copper	0.25	0.18
Iron	3.5	6.0
Lithium	0.1	0.12
Magnesium	230	310
Manganese	0.16	0.94
Mercury	0.12	0.024
Nickel	<0.02	0.02
Phosphorous	2,200	2,700
Potassium	3,300	3,100
Selenium	1.0	1.9
Silicon	1.9	2.6
Sodium	410	540
Strontium	0.1	1.3
Thallium	0.0036	0.008
Zinc	7.6	15
Pesticides and PCBs (ug/kg)		
PCB-1254	160	U17
PCB-1260	280	J14
Radionuclides (pCi/g) (c)		
Beta activity	2.6*	2.0*
Potassium-40	2.6*	2.8*
Strontium-90	0.029*	0.0031

Table 3.1. (continued)

Parameter	*Catfish (b)*	*Sunfish (b)*
Clinch River (Solway Bridge) upstream from all DOE ORR inputs (CRK 70)		
Metals (mg/kg)		
Aluminum	0.42	2.7
Antimony	0.097	<0.081
Barium	<0.0075	0.2
Beryllium	<0.0023	0.0091
Boron	<0.036	0.039
Calcium	120	1,100
Chromium	0.11	0.083
Cobalt	0.044	0.024
Copper	0.22	0.26
Iron	3.8	5.9
Lead	<0.042	0.054
Lithium	0.11	0.12
Magnesium	250	290
Manganese	0.21	0.67
Mercury	0.043	0.026
Nickel	0.037	0.027
Phosphorous	2,300	2,300
Potassium	3,200	3,000
Selenium	1.2	1.7
Silicon	1.5	3.6
Silver	<0.015	0.019
Sodium	360	540
Strontium	0.09	1.1
Thallium	0.0047	0.0073
Titanium	<0.0055	0.058
Vanadium	<0.0089	0.015
Zinc	7.1	15

Table 3.1. (continued)

Parameter	*Catfish (b)*	*Sunfish (b)*
Pesticides and PCBs (ug/kg)		
PCB-1254	96	U17
PCB-1260	160	28
Radionuclides (pCi/g) (c)		
Beta activity	2.8*	1.8*
Potassium-40	2.2*	2.1*

(a) Only parameters that were detected for both species are listed in the table. The sampling and analysis plan contains a complete list of analyses performed.
(b) Prefix "J" indicates the value was estimated at or below the analytical detection limit by the laboratory; "<" indicates the value for a parameter was not quantifiable at the analytical detection limit; and "U" indicates that the value was undetected at the analytical detection limit or MDA.
*(c) Radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected at or above MDA.*

Table 3.2. Radiological constituents in settleable solids near the ORR, 2008[a]

Event	Co-60[b]	Cs-137[b]	Gross alpha	Gross beta	Be-7	K-40
White Oak Creek Headwaters upstream from ORNL (WOCHW)						
February	b	b	5.7 ± 3.7	13 ± 4	b	b
August	b	b	b	b	b	2100 ± 400
Melton Branch upstream from ORNL (MEK 2.1)						
February	b	b	6.5 ± 2.7	70 ± 6	b	b
August	b	8.7 ± 2	b	13 ± 1	b	b
White Oak Creek downstream from ORNL (WCK 2.6)						
February	b	170 ± 10	6.8 ± 2.3	110 ± 10	b	b
August	b	570 ± 40	b	490 ± 30	1000 ± 200	b
White Oak Lake at White Oak Dam (WCK 1.0)						
February	b	610 ± 30	14 ± 6	480 ± 20	b	b
August	b	1200 ± 100	2.2 ± 0.9	130 ± 50	b	b

[a]All data are given in picocuries per gram (1 pCi = 3.7E-02 Bq).
[b]No value detected above MDA.

Table 3.3. Surface water analyses (2008) at ORR Environmental Monitoring Plan surface water locations (a)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
Clinch River downstream from all DOE ORR inputs (CRK 16)						
Field measurements						
Dissolved Oxygen	4/4	5.9	8.4	7.2	0.6	n/a
pH	4/4	7.3	8.3	n/a	n/a	n/a
Temperature	4/4	9.6	24	16	3.4	30.5
Radionuclides (pCi/L) (f)						
Beta activity	4/4	3.8*	4.5*	4.3*	0.17	n/a
Tritium	1/4	U58	410*	~190*	77	80,000
Water supply intake for the ETTP (CRK 23)						
Field measurements						
Dissolved Oxygen	4/4	5.5	9.7	7.6	0.89	n/a
pH	4/4	7.3	8.3	n/a	n/a	n/a
Temperature	4/4	9.4	23	16	3.1	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	1/4	U-0.4	1.4*	~0.2	0.39	n/a
Beta activity	4/4	2.4*	3.7*	3.2*	0.31	n/a
Tritium	2/4	U52	280*	~170*	51	80,000
Clinch River downstream from ORNL (CRK 32)						
Field measurements						
Dissolved Oxygen	4/4	4.5	9.0	7.4	1.1	n/a
pH	4/4	7.5	8.5	n/a	n/a	n/a
Temperature	4/4	8.6	22	15	3.1	30.5
Radionuclides (pCi/L) (f)						
Beta activity	4/4	3.0*	12*	5.8*	2.0	n/a
Cesium-137	1/4	0.0	5.4*	1.4	1.4	120
Strontium-89/90	1/4	U-0.049	2.7*	~0.72	0.67	40
Tritium	1/4	U130*	780*	~300	160	80,000

Table 3.3. (continued)

Parameter	N det/ N total	Min(b)	Max(b)	Avg(c)	Standard error(d)	TWQC(e)
Water supply intake for Knox County (CRK 58)						
Field measurements						
Dissolved Oxygen	4/4	7.5	9.1	8.4	0.38	n/a
pH	4/4	7.7	8.3	n/a	n/a	n/a
Temperature	4/4	9.0	29	18	4.5	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	2/4	U0.23	2.0*	~1.1*	0.36	n/a
Beta activity	4/4	1.8*	3.5*	2.6*	0.4	n/a
Tritium	1/4	U-120	220*	~66	70	80,000
Melton Hill Reservoir above city of Oak Ridge water intake (CRK 66)						
Field measurements						
Dissolved Oxygen	4/4	7.5	10	8.8	0.55	n/a
pH	4/4	7.4	8.1	n/a	n/a	n/a
Temperature	4/4	11	29	18	4.4	30.5
Radionuclides (pCi/L) (f)						
Alpha activity	1/4	U0.48	U1.7*	~1.1*	0.27	n/a
Beta activity	3/4	1.9*	2.7*	2.4*	0.17	n/a

(a) All values were included in the calculations. Only parameters that have detections in one or more samples are listed in the table. The sampling and analysis plan contains a complete list of analyses performed.
(b) Prefix "U" indicates that the value was undetected at the analytical detection limit or MDA.
(c) A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.
(d) Standard error of the mean.
(e) Tennessee General Water Quality Criteria for Recreation and Domestic Use, as amended (CRK 16, CRK 23, CRK 32, CRK 58, CRK 66). 4% of DOE DCG used for radionuclides, where applicable.
(f) Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected at or above MDA.
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Table 4.1. Y-12 Complex In-Stream Monitoring Point C11, MONITORING SITE C11

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	366	15.777	2.977	6.242	d	0
pH, Standard Unit	25	7.9	7.5	d	9/ 6(e)	0
Temperature, deg C	26	20.8	11.0	16.0	30.5	0
Total Residual Chlorine	24	0.09	<0.05	<0.05	d	0
Silver	13	<0.0004	<0.0002	<0.0004	d	0
Aluminum	13	1.28	<0.2	<0.5	d	0
Arsenic	13	<0.002	<0.002	<0.002	d	0
Boron	13	<0.1	<0.1	<0.1	d	0
Barium	13	0.0457	0.0372	0.0427	d	0
Beryllium	13	<0.0005	<0.0002	<0.0002	d	0
Cadmium	13	<0.01	<0.0002	<0.002	d	0
Cobalt	13	0.0008	<0.0002	<0.0005	d	0
Chromium	13	0.0048	<0.001	<0.003	d	0
Copper	13	0.0094	0.0023	0.0043	d	0
Hexane Extractable Material	13	<6.1	<5.4	<5.7	d	0
Mercury	25	0.0005	<0.0002	<0.0003	d	0
Lithium	13	0.0254	<0.01	<0.02	d	0
Magnesium	13	13.0	9.09	12.0	d	0
Molybdenum	13	0.0151	0.0029	0.0056	d	0
Total Nitrogen	12	6.04	0.961	1.71	d	0
Nickel	13	0.0191	<0.002	<0.005	d	0
Nitrate/Nitrite as Nitrogen	13	6.04	0.961	1.63	d	0
Phosphorus	13	<0.5	<0.5	<0.5	d	0
Lead	13	0.0049	<0.0002	<0.001	d	0
Antimony	13	<0.001	<0.001	<0.001	d	0
Strontium	13	0.148	0.101	0.133	d	0
Surfactant	13	<0.1	<0.05	<0.06	d	0
Suspended Solids	25	21.0	<1.0	<5.7	d	0
Thallium	13	<0.0002	<0.0002	<0.0002	d	0
Uranium	13	0.0488	0.0017	0.010	d	0
Vanadium	13	<0.02	<0.02	<0.02	d	0
Zinc	13	0.0886	0.0089	0.037	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.2. Y-12 Complex Discharge Point 021, OUTFALL 021

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	190	1.934	0.001	0.1	d	0
pH, Std Unit	5	8.2	7.1	d	9/ 6(e)	0
Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.188	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.3. Y-12 Complex Discharge Point 051, OUTFALL 051

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	272	2.105	0.0187	0.094	d	0
pH, Standard Units	12	7.2	6.9	d	9/ 6(e)	0
Mercury	60	0.0022	0.0009	0.001	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.4. Y-12 Complex Discharge Point 055, OUTFALL 055

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	106	0.036	0.00001	0.002	d	0
pH, Standard Unit	12	7.9	7.3	d	9/ 6(e)	0
Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
Mercury	42	0.0009	<0.0002	<0.0003	0.004	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.5. Y-12 Complex Discharge Point 077, OUTFALL 077

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	2	0.0114	0.0114	0.0114	d	0
pH, Std Unit	2	8.0	7.9	d	9/ 6(e)	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.6. Y-12 Complex Discharge Point 109, OUTFALL 109

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	5	2.3	0.1152	0.66	d	0
pH, Std Unit	5	8.1	6.9	d	9/ 6(e)	0
Total Residual Chlorine	16	0.1	<0.05	<0.06	0.5	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.7. Y-12 Complex Discharge Point 125, OUTFALL 125

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	4	5.0	+/-3.1	3.6	+/-2.5	4.4	0.30	e	7.7E-04
Beta activity (pCi/L)	4	7.4	+/-4.1	1.7*	+/-3	4.4	1.2	e	7.5E-04
Cobalt-60 (pCi/L)	4	1.4*	+/-2.3	-1.2*	+/-2.2	0.3	0.6338	0.006	5.20E-05
Cesium-137 (pCi/L)	4	0.37*	+/-2.3	-1.2*	+/-2.4	-0.37	0.38	-0.012	-6.4E-05
Radium-228 (pCi/L)	4	15.0	+/-7.8	7.3*	+/-7.5	12	1.7	12	2.0E-03
Thorium-228 (pCi/L)	4	0.21*	+/-0.24	-0.24*	+/-0.51	0.013	0.094	0.0033	2.3E-06
Thorium-230 (pCi/L)	4	-0.041*	+/-0.35	-0.13*	+/-0.36	-0.094	0.020	-0.031	-1.6E-05
Thorium-232 (pCi/L)	4	0.027*	+/-0.1	-0.079*	+/-0.11	-0.027	0.022	-0.054	-4.7E-06
Tritium (pCi/L)	4	68.0*	+/-380	-170.0*	+/-510	-80.0	52.9	-0.004	-1.39E-02
Uranium-234 (pCi/L)	4	3.2*	+/-1.8	-0.29*	+/-0.54	1.5	0.71	0.29	2.5E-04
Uranium-235 (pCi/L)	4	0.1*	+/-0.18	0.015*	+/-0.13	0.05	0.02	0.008	8E-06
Uranium-236 (pCi/L)	4	0.027*	+/-0.12	-0.036*	+/-0.097	-0.0032	0.013	-0.0006	-5.5E-07
Uranium-238 (pCi/L)	4	1.5	+/-0.44	-0.14*	+/-0.28	0.94	0.38	0.16	1.6E-04

(e) Not applicable
* Provisional Result

Table 4.8. Y-12 Complex Discharge Point 125, OUTFALL 125

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	366	0.501	0.024	0.13	d	0
IC 25 Ceriodaphnia, %	1	>36.0	>36.0	>36.0	d	0
IC 25 Fathead Minnows, %	1	>36.0	>36.0	>36.0	d	0
pH, Standard Unit	12	7.6	7.1	d	9/ 6(e)	0
Total Residual Chlorine	12	<0.05	<0.05	<0.05	d	0
Cadmium	12	<0.001	<0.0002	<0.0007	0.025	0
Mercury	53	0.0003	<0.0002	<0.0002	d	0
Lead	12	0.0045	<0.0002	<0.002	1.19	0
PCB, Total	4	0.0005U	0.0003J	0.0004JU	0.002	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.9. Y-12 Complex Discharge Point 135, OUTFALL 135

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	1.293	0.006	0.2	d	0
IC 25 Ceriodaphnia, %	1	>20.0	>20.0	>20.0	d	0
IC 25 Fathead Minnows, %	1	>20.0	>20.0	>20.0	d	0
pH, Std Unit	13	8.4	7.5	d	9/ 6(e)	0
Total Residual Chlorine	12	<0.05	<0.05	<0.05	d	0
Lead	14	<0.1	<0.0002	<0.01	1.19	0
PCB, Total	4	0.0005U	0.0005U	0.0005U	0.002	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.10. Y-12 Complex Discharge Point 135, OUTFALL 135

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	4	12.0	+/-4.1	3.2*	+/-3.5	6.7	1.9	e	1.5E-03
Beta activity (pCi/L)	4	18.0	+/-5	-0.46*	+/-3.8	6.5	4.0	e	1.5E-03
Cobalt-60 (pCi/L)	4	2.0*	+/-2.3	-0.85*	+/-2.2	0.56	0.75	0.011	1.3E-04
Cesium-137 (pCi/L)	4	1.9*	+/-2.2	-1.4*	+/-2.4	0.10	0.68	0.0034	2.3E-05
Radium-226 (pCi/L)	4	0.31*	+/-0.19	-23.0*	+/-0.13	-5.8	5.7	-5.8	-1.3E-03
Radium-228 (pCi/L)	4	3.0	+/-1.4	-0.55*	+/-1.1	0.81	0.76	0.81	1.8E-04
Strontium-89/90 (pCi/L)	4	4.9	+/-2	-1.9*	+/-2.6	1.1	1.4	0.11	2.4E-04
Total Radium Alpha (pCi/L)	4	1.9	+/-0.45	0.81	+/-0.33	1.4	0.23	e	3.1E-04
Technetium-99 (pCi/L)	4	6.5*	+/-6.5	-5.2*	+/-9.3	-1.6	2.7	-0.0016	-3.6E-04
Thorium-228 (pCi/L)	4	0.51*	+/-0.72	-0.17*	+/-0.35	0.082	0.15	0.021	1.9E-05
Thorium-230 (pCi/L)	4	0.15*	+/-0.38	-0.12*	+/-0.98	0.042	0.057	0.014	9.4E-06
Thorium-232 (pCi/L)	4	0.0*	+/-0.13	-0.046*	+/-0.16	-0.03	0.01	-0.06	-7E-06
Uranium-234 (pCi/L)	4	2.0*	+/-1.8	0.66*	+/-0.63	1.4	0.33	0.28	3.1E-04
Uranium-235 (pCi/L)	4	0.19*	+/-0.21	0.043*	+/-0.11	0.13	0.032	0.022	3.0E-05
Uranium-236 (pCi/L)	4	0.18*	+/-0.16	0.056*	+/-0.096	0.13	0.030	0.025	2.9E-05
Uranium-238 (pCi/L)	4	2.6	+/-0.54	1.6	+/-0.52	2.1	0.21	0.35	4.8E-04

(e) Not applicable
* Provisional Result

Table 4.11. Y-12 Complex Discharge Point 200, OUTFALL 200

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	53	7.311	0.17	1.4	d	0
IC 25 Ceriodaphnia, %	1	>100.0	>100.0	>100.0	d	0
IC 25 Fathead Minnows, %	1	>100.0	>100.0	>100.0	d	0
pH, Std Unit	54	8.0	7.0	d	9/ 6(e)	0
Total Residual Chlorine	17	0.15	<0.05	<0.06	d	0
Cadmium	12	0.0011	<0.0002	<0.0009	0.025	0
Dissolved Solids	4	248.0	220.0	232.2	d	0
Hexane Extractable Material	54	<6.5	<5.5	<6.0	15	0
Mercury	53	0.0016	0.0006	0.001	d	0
Nitrate/Nitrite as Nitrogen	4	5.07	4.43	4.70	d	0
Lead	12	0.0218	<0.0002	<0.004	1.19	0
PCB, Total	4	0.0005U	0.0005U	0.0005U		0
Uranium	12	0.15	0.0077	0.047	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.12. Y-12 Complex Discharge Point 200, OUTFALL 200

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	12	78.0	+/-6.6	2.2*	+/-2.8	23.	6.8	e	4.6E-02
Beta activity (pCi/L)	12	31.0	+/-5.1	3.7*	+/-3.5	15	2.6	e	3.1E-02
Cobalt-60 (pCi/L)	12	2.2*	+/-2.1	-0.69*	+/-2.1	0.45	0.28	0.0089	8.9E-04
Cesium-137 (pCi/L)	12	2.5*	+/-2.3	-0.63*	+/-2.2	0.47	0.2931	0.0157	9.39E-04
Radium-226 (pCi/L)	12	0.66	+/-1.1	-0.46*	+/-0.52	0.10	0.094	0.10	2.0E-04
Radium-228 (pCi/L)	12	1.3*	+/-0.94	-1.6*	+/-0.84	-0.11	0.21	-0.11	-2.1E-04
Technetium-99 (pCi/L)	12	94.0	+/-10	0.58*	+/-8.7	18	7.1	0.019	3.7E-02
Thorium-228 (pCi/L)	12	0.94	+/-0.35	-0.15*	+/-0.92	0.16	0.11	0.040	3.2E-04
Thorium-230 (pCi/L)	12	0.38*	+/-0.41	-0.4*	+/-0.89	-0.04	0.05	-0.01	-8E-05
Thorium-232 (pCi/L)	12	0.021*	+/-0.083	-0.069*	+/-0.12	-0.016	0.0073	-0.031	-3.1E-05
Tritium (pCi/L)	12	440.0*	+/-510	-200.0*	+/-510	142.3	65.23	0.0071	2.84E-01
Uranium-234 (pCi/L)	12	9.6	+/-1.4	1.6*	+/-0.72	5.2	0.77	1.0	1.0E-02
Uranium-235 (pCi/L)	12	1.0	+/-0.1	0.049*	+/-0.16	0.33	0.080	0.055	6.6E-04
Uranium-236 (pCi/L)	12	1.0	+/-0.1	-0.04*	+/-0.14	0.2	0.08	0.03	3.E-04
Uranium-238 (pCi/L)	12	43.0	+/-4.7	1.9*	+/-0.56	14	4.3	2.3	2.7E-02

(e) Not applicable
* Provisional Result

Table 4.13. Y-12 Complex Discharge Point 512, OUTFALL 512 (GWTF)

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	193	0.02	0.001	0.0087		0
pH, Standard Units	12	8.1	7.3	7.6583	9/ 6(e)	0
Copper	12	<0.005	<0.002	<0.0045		0
Lead	12	0.001	<0.0005	<0.0006		0
PCB, Total	4	0.0005	0.0005	0.0005	0.001	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.14. Y-12 Complex Discharge Point 512, OUTFALL 512 (GWTF)

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	4	14.0	+/-4.9	7.4	+/-3	11	1.4	e	1.3E-04
Beta activity (pCi/L)	4	14.0	+/-4	7.8	+/-4.1	12	1.4	e	1.4E-04
Cobalt-60 (pCi/L)	4	1.4*	+/-2.2	-0.077*	+/-2.1	0.48	0.33	0.0096	5.8E-06
Cesium-137 (pCi/L)	4	1.8*	+/-2.2	-0.79*	+/-2.7	0.060	0.59	0.0020	7.2E-07
Radium-226 (pCi/L)	4	0.78	+/-1.1	0.1*	+/-0.078	0.5	0.2	0.5	6E-06
Radium-228 (pCi/L)	4	2.5	+/-0.96	-1.2*	+/-0.62	1.1	0.81	1.1	1.4E-05
Strontium-89/90 (pCi/L)	4	3.0*	+/-3.3	-2.5*	+/-1.2	0.47	1.3	0.047	5.7E-06
Total Radium Alpha (pCi/L)	4	0.6	+/-0.26	-0.48*	+/-0.093	0.26	0.25	e	3.1E-06
Technetium-99 (pCi/L)	4	7.7*	+/-8.7	-3.2*	+/-8.7	3.4	2.5	0.0034	4.1E-05
Thorium-228 (pCi/L)	4	0.0*	+/-0.91	-0.17*	+/-0.51	-0.1	0.04	-0.03	-1E-06
Thorium-230 (pCi/L)	4	0.039*	+/-0.99	-0.15*	+/-0.25	-0.050	0.039	-0.017	-6.0E-07
Thorium-232 (pCi/L)	4	0.027*	+/-0.15	-0.0019*	+/-0.12	0.0060	0.0070	0.012	7.3E-08
Uranium-234 (pCi/L)	4	2.3	+/-0.74	-0.18*	+/-0.33	1.2	0.52	0.24	1.4E-05
Uranium-235 (pCi/L)	4	0.25*	+/-0.19	0.0*	+/-0.19	0.1	0.06	0.02	2E-06
Uranium-236 (pCi/L)	4	0.13*	+/-0.13	0.0*	+/-0.15	0.06	0.03	0.01	7E-07
Uranium-238 (pCi/L)	4	8.3	+/-1.2	-0.036*	+/-0.37	3.5	1.7	0.59	4.3E-05

(e) Not applicable
* Provisional Result

Table 4.15. Y-12 Complex Discharge Point 520, OUTFALL 520

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
pH, Standard Units	13	7.9	6.2	d	9/ 6(e)	0
Dissolved Solids	13	270.0	<1.0	<73	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.16. Y-12 Complex Discharge Point 520, OUTFALL 520

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Uranium-234 (pCi/L)	1	0.024*	+/-0.3	0.024*	+/-0.3	0.024	d	0.0048	d
Uranium-235 (pCi/L)	1	0.029*	+/-0.077	0.029*	+/-0.077	0.029	d	0.0048	d
Uranium-238 (pCi/L)	1	-0.011*	+/-0.11	-0.011*	+/-0.11	-0.011	d	-0.0018	d

(e) Not applicable
* Provisional Result

Table 4.17. Y-12 Complex Discharge Point 551, CENTRAL MERCURY TREATMENT UNIT

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	358	0.015	0.001	0.005	d	0
pH, Std Unit	53	7.6	6.4	d	9/ 6(e)	0
Mercury	53	<0.0002	<0.0001	<0.0001	0.004	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.18. Y-12 Complex Discharge Point 551, CENTRAL MERCURY TREATMENT UNIT

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	4	4.3	+/-2.7	-0.99*	+/-3.5	2.6	1.2	e	1.8E-05
Beta activity (pCi/L)	4	8.0	+/-3.6	0.71*	+/-3.6	5.8	1.7	e	4.1E-05
Cobalt-60 (pCi/L)	4	2.7*	+/-2.2	1.2*	+/-2.2	2.0	0.35	0.040	1.4E-05
Cesium-137 (pCi/L)	4	0.74*	+/-2.2	-2.5*	+/-2.1	-0.11	0.80	-0.0036	-7.6E-07
Radium-226 (pCi/L)	4	0.61	+/-1.4	-0.062*	+/-0.088	0.28	0.15	0.28	2.0E-06
Radium-228 (pCi/L)	4	2.0*	+/-0.97	-0.51*	+/-1.0	0.67	0.66	0.67	4.8E-06
Strontium-89/90 (pCi/L)	4	3.1*	+/-3.6	-0.5*	+/-1.2	1.	0.7	0.1	1.E-05
Total Radium Alpha (pCi/L)	4	0.46	+/-0.23	0.17*	+/-0.21	0.36	0.064	e	2.5E-06
Technetium-99 (pCi/L)	4	-0.69*	+/-8.8	-6.5*	+/-9.4	-2.9	1.2	-0.0029	-2.1E-05
Thorium-228 (pCi/L)	4	3.1	+/-0.84	-0.027*	+/-0.27	0.78	0.77	0.20	5.5E-06
Thorium-230 (pCi/L)	4	3.6	+/-0.86	-0.092*	+/-0.14	0.92	0.90	0.31	6.5E-06
Thorium-232 (pCi/L)	4	0.25*	+/-0.21	-0.025*	+/-0.042	0.071	0.061	0.14	5.0E-07
Uranium-234 (pCi/L)	4	0.59*	+/-0.6	-0.76*	+/-1.7	0.042	0.29	0.0085	3.0E-07
Uranium-235 (pCi/L)	4	0.065*	+/-0.12	-0.14*	+/-0.19	-0.018	0.044	-0.0030	-1.2E-07
Uranium-236 (pCi/L)	4	0.018*	+/-0.061	-0.029*	+/-0.14	-0.0055	0.0099	-0.0011	-3.9E-08
Uranium-238 (pCi/L)	4	0.58*	+/-0.32	0.088*	+/-0.17	0.33	0.12	0.055	2.3E-06

(e) Not applicable
* Provisional Result

Table 4.19. Y-12 Complex Category I Outfalls

From: 2008/01/01 To: 2008/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
003	Flow, mgd	1	0.2283	0.2283	0.2283	d	d
	pH, Standard Units	1	7.7	7.7	d	9/ 6(e)	0
006	Flow, mgd	2	0432	0.1902	0.311	d	d
	pH, Standard Units	2	7.9	7.8	d	9/ 6(e)	0
007	Flow, mgd	1	0.1902	0.1902	0.1902	d	d
	pH, Standard Units	1	8.1	8.1	d	9/ 6(e)	0
033	Flow, mgd	2	0.0228	0.0056	0.014	d	d
	pH, Standard Units	2	7.9	7.8	d	9/ 6(e)	0
041	Flow, mgd	2	0.0086	0.0004	0.004	d	d
	pH, Standard Units	2	8.1	7.8	d	9/ 6(e)	0
044	Flow, mgd	3	0.0076	0.0008	0.004	d	d
	pH, Standard Units	3	8.3	7.5	d	9/ 6(e)	0
045	Flow, mgd	2	0.0076	0.0004	0.004	d	d
	pH, Standard Units	2	7.6	7.3	d	9/ 6(e)	0
046	Flow, mgd	2	0.0095	0.0046	0.0071	d	d
	pH, Standard Units	2	7.9	7.7	d	9/ 6(e)	0
057	Flow, mgd	2	0.0076	0.0046	0.0061	d	d
	pH, Standard Units	2	7.8	7.7	d	9/ 6(e)	0
058	Flow, mgd	2	0.0115	0.0076	0.0096	d	d
	pH, Standard Units	2	7.8	7.1	d	9/ 6(e)	0
062	Flow, mgd	2	0.0003	0.0001	0.0002	d	d
	pH, Standard Units	2	7.9	7.2	d	9/ 6(e)	0

Table 4.19. Y-12 Complex Category I Outfalls (continued)

From: 2008/01/01 To: 2008/12/31

063	Flow, mgd	2	0.1522	0.0008	0.08	d	d
	pH, Standard Units	2	7.9	7.7	d	9/ 6(e)	0
064	Flow, mgd	2	0.0381	0.0004	0.02	d	d
	pH, Standard Units	2	7.9	7.4	d	9/ 6(e)	0
086	Flow, mgd	2	0.0152	0.0072	0.011	d	d
	pH, Standard Units	2	8.2	7.1	d	9/ 6(e)	0
087	Flow, mgd	3	0.0419	0.0004	0.02	d	d
	pH, Standard Units	3	8.6	7.8	d	9/ 6(e)	0
102	Flow, mgd	3	0.2102	0.0029	0.079	d	d
	pH, Standard Units	3	7.8	7.3	d	9/ 6(e)	0
110	Flow, mgd	3	0.1008	0.0076	0.044	d	d
	pH, Standard Units	3	8.4	7.3	d	9/ 6(e)	0
134	Flow, mgd	2	0.0114	0.003	0.007	d	d
	pH, Standard Units	2	8.2	7.8	d	9/ 6(e)	0
S18	Flow, mgd	1	1.14	1.14	1.14	d	d
	pH, Standard Units	1	8.1	8.1	d	9/ 6(e)	0
S26	Flow, mgd	2	0.1902	0.0418	0.116	d	d
	pH, Standard Units	2	8.1	7.2	d	9/ 6(e)	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.20. Y-12 Complex Category II Outfalls

From: 2008/01/01 To: 2008/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
002	Flow, mgd	3	3.4128	0.046	1.3	d	d
	pH, Standard Units	3	8.0	7.5	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
004	Flow, mgd	2	0.0288	0.0144	0.0216	d	d
	pH, Standard Units	2	8.0	7.8	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
014	Flow, mgd	2	0.0864	0.023	0.055	d	d
	pH, Standard Units	2	8.1	8.0	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
016	Flow, mgd	3	1.899	0.0004	0.6	d	d
	pH, Standard Units	3	7.8	7.5	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
019	Flow, mgd	4	0.0216	0.0058	0.012	d	d
	pH, Standard Units	4	7.9	7.6	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
020	Flow, mgd	3	0.432	0.0004	0.2	d	d
	pH, Standard Units	3	7.9	7.5	d	9/ 6(e)	0
	Total Residual Chlorine	3	<0.05	<0.05	<0.05	0.5	0
047	Flow, mgd	2	0.0144	0.0019	0.0081	d	d
	pH, Standard Units	2	8.1	7.4	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
048	Flow, mgd	4	0.216	0.0008	0.06	d	d
	pH, Standard Units	4	8.1	7.5	d	9/64(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0

Table 4.20. Y-12 Complex Category II Outfalls (continued)

054	Flow, mgd	2	0.0144	0.0023	0.0084	d	d
	pH, Standard Units	2	8.1	7.3	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
067	Flow, mgd	3	2.92	0.0014	0.98	d	d
	pH, Standard Units	3	8.1	7.4	d	9/ 6(e)	0
	Total Residual Chlorine	2	0.68	<0.05	<0.4	0.5	1
083	Flow, mgd	3	0.1152	0.0288	0.0624	d	d
	pH, Standard Units	3	7.5	6.7	d	9/ 6(e)	0
	Total Residual Chlorine	3	<0.05	<0.05	<0.05	0.5	0
088	Flow, mgd	3	0.023	0.0038	0.011	d	d
	pH, Standard Units	3	7.9	7.0	d	9/ 6(e)	0
	Total Residual Chlorine	3	<0.05	<0.05	<0.05	0.5	0
099	Flow, mgd	2	0.0228	0.0068	0.018	d	d
	pH, Standard Units	2	8.0	7.7	d	9/ 6(e)	0
	Total Residual Chlorine	6	<0.4	<0.05	<0.2	0.5	0
126	Flow, mgd	3	0.0216	0.0002	0.009	d	d
	pH, Standard Units	3	8.1	7.6	d	9/ 6(e)	0
	Total Residual Chlorine	3	<0.05	<0.05	<0.05	0.5	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.21. Y-12 Complex Category III Outfalls

From: 2008/01/01 To: 2008/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
034	Flow, mgd	2	0.216	0.1008	0.158	d	d
	pH, Standard Units	2	7.7	7.6	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
042	Flow, mgd	2	0.0072	0.0046	0.0059	d	d
	pH, Standard Units	2	7.9	7.7	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
071	Flow, mgd	2	0.0864	0.0043	0.045	d	d
	pH, Standard Units	2	8.0	7.7	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0
113	Flow, mgd	3	0.288	0.0029	0.10	d	d
	pH, Standard Units	3	7.9	7.5	d	9/ 6(e)	0
	Total Residual Chlorine	3	<0.05	<0.05	<0.05	0.5	0
114	Flow, mgd	3	0.0977	0.0076	0.039	d	d
	pH, Standard Units	3	8.3	7.4	d	9/ 6(e)	0
	Total Residual Chlorine	2	<0.05	<0.05	<0.05	0.5	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.22. Y-12 Complex Discharge Point 94221, Outfall EFP

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Dissolved Oxygen	52	10.8	8.2	9.1	d	0
Flow, mgd	366	46.052	5.166	8.952	d	0
pH, Standard Unit	262	8.6	7.5	d	9/ 6(e)	0
Tempurature, deg C	53	21.0	8.2	15	d	0
Silver	52	<0.0005	<0.0002	<0.0003	d	0
Aluminum	52	1.62	<0.2	<0.3	d	0
Arsenic	52	<0.0024	<0.002	<0.002	d	0
Boron	52	<0.1	<0.1	<0.1	d	0
Barium	52	0.0472	0.0391	0.0430	d	0
Beryllium	52	<0.0002	<0.0002	<0.0002	d	0
Cadmium	52	<0.0012	<0.0002	<0.0008	d	0
Cobalt	52	0.0007	<0.0002	<0.0003	d	0
Chromium	52	<0.0048	<0.001	<0.003	d	0
Copper	52	0.0064	<0.002	<0.003	d	0
Mercury	52	0.0009	<0.0001	<0.0002	d	0
Lithium	52	0.0171	<0.01	<0.01	d	0
Magnesium	52	13.6	8.2	12	d	0
Molybdenum	52	0.0115	0.0033	0.0059	d	0
Nickel	52	0.0206	<0.002	<0.003	d	0
Nitrate/Nitrite as Nitrogen	53	1.42	<0.05	<0.6	d	0
Lead	52	0.005	<0.0002	<0.001	d	0
PCB, Total	1	0.0005U	0.0005U	0.0005U	d	0
Phosphate as Phosphorus	52	0.383	<0.31	<0.31	d	0
Antimony	52	<0.0012	<0.001	<0.001	d	0
Strontium	52	0.154	0.0986	0.129	d	0
Suspended Solids	52	49.5	<1.0	<5.2	d	0
Thallium	52	0.0003	<0.0002	<0.0002	d	0
Uranium	13	0.0234	<0.001	<0.006	d	d

Table 4.22. Y-12 Complex Discharge Point 94221, Outfall EFP (continued)

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Vanadium	52	<0.02	<0.02	<0.02	d	0
Zinc	52	0.0546	0.0054	0.021	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.23. Y-12 Complex Discharge Point 94221, SWHISS STATION 9422-1

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	13	14.0	+/-3.6	-0.0029*	+/-2.7	4.8	0.99	e	6.0E-02
Beta activity (pCi/L)	13	25.0	+/-4.1	-2.1*	+/-3.2	4.3	1.9	e	5.3E-02
Cobalt-60 (pCi/L)	13	2.1*	+/-2.3	-0.84*	+/-2.1	0.56	0.24	0.011	6.9E-03
Cesium-137 (pCi/L)	13	2.1*	+/-2.2	-0.18*	+/-2.4	0.59	0.20	0.020	7.3E-03
Radium-226 (pCi/L)	13	0.69	+/-1.2	-0.35*	+/-0.33	0.28	0.097	0.28	3.5E-03
Radium-228 (pCi/L)	13	2.6	+/-0.90	-3.9*	+/-1.4	0.25	0.46	0.25	3.2E-03
Strontium-89/90 (pCi/L)	13	250.0*	+/-2	-0.79*	+/-2.2	21	19	2.1	2.6E-01
Total Radium Alpha (pCi/L)	13	1.2	+/-0.48	-0.23*	+/-0.26	0.32	0.095	e	4.0E-03
Technetium-99 (pCi/L)	13	10.0*	+/-9	-2.5*	+/-8.6	3.8	1.2	0.0038	4.7E-02
Thorium-228 (pCi/L)	13	2.2*	+/-24	-0.12*	+/-0.66	0.25	0.18	0.063	3.1E-03
Thorium-230 (pCi/L)	13	1.6	+/-0.95	-0.21*	+/-1.1	0.10	0.13	0.035	1.3E-03
Thorium-232 (pCi/L)	13	0.13*	+/-0.2	-0.079*	+/-0.16	0.00020	0.015	0.00040	2.2E-06
Tritium (pCi/L)	13	400.0*	+/-510	-620.0*	+/-510	-38.5	73.8	-0.0019	-4.78E-01
Uranium-234 (pCi/L)	13	4.5	+/-1.2	0.23*	+/-1.7	1.4	0.34	0.29	1.8E-02
Uranium-235 (pCi/L)	13	0.33*	+/-0.29	-0.13*	+/-0.16	0.062	0.033	0.010	7.6E-04
Uranium-236 (pCi/L)	13	0.11*	+/-0.12	-0.027*	+/-0.13	0.014	0.011	0.0028	1.8E-04
Uranium-238 (pCi/L)	13	6.9	+/-1.3	0.35*	+/-0.34	2.2	0.58	0.37	2.7E-02

(e) Not applicable
* Provisional Result

Table 4.24. Y-12 Complex Discharge Point S06, INSTREAM BEAR CREEK, DOWNSTREAM OF TRIBUTARY

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	3	0.425	0.094	0.26	d	0
pH, Standard Unit	3	7.2	7.2	d	9/ 6(e)	0
Silver	3	<0.0004	<0.0002	<0.0003	d	0
Aluminum	3	5.82	0.205	2.16	d	0
Arsenic	3	<0.002	<0.002	<0.002	d	0
Boron	3	<0.1	<0.1	<0.1	d	0
Barium	3	0.186	0.12	0.16	d	0
Beryllium	3	<0.0002	<0.0002	<0.0002	d	0
Cadmium	3	0.0065	0.0019	0.0045	d	0
Cobalt	3	0.0041	0.0012	0.0027	d	0
Chromium	3	0.0058	<0.004	<0.005	d	0
Copper	3	0.0051	<0.002	<0.003	d	0
Lithium	3	0.0144	<0.01	<0.01	d	0
Magnesium	3	19.5	12.5	15.9	d	0
Molybdenum	3	0.0005	<0.0004	<0.0004	d	0
Nickel	3	0.0259	0.0129	0.0214	d	0
Nitrate/Nitrite as Nitrogen	3	788.0	38.6	291	d	0
Lead	3	0.0055	0.0005	0.002	d	0
Antimony	3	<0.001	<0.001	<0.001	d	0
Strontium	3	0.414	0.255	0.321	d	0
Thallium	3	<0.002	<0.0002	<0.0008	d	0
Vanadium	3	<0.02	<0.02	<0.02	d	0
Zinc	3	0.132	0.0047	0.049	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.25. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, gpd	366	1882000.0	428000.0	651910	1.4	2
pH, Std Unit	14	7.7	7.3	d	9/ 6(e)	0
1,1,1-Trichloroethane	5	0.005U	0.005U	0.005U	d	d
Silver	14	0.0103	0.0004	<0.002	0.1	0
Arsenic	14	0.0058	<0.002	<0.003	0.025	0
Barium	1	0.0811	0.0811	0.0811	d	d
Beryllium	14	0.0004	<0.0002	<0.0002	d	d
Benzene	5	0.005U	0.005U	0.005U	d	0
Biochemical Oxygen Demand	14	88.9	26.3	50.0	300	0
Carbon tetrachloride	5	0.005U	0.005U	0.005U	d	d
Cadmium	14	0.0013	<0.0002	<0.0009	0.005	0
Chloroform	5	0.006	0.002	0.004	d	d
Tetrachloroethene	5	0.005J	0.002J	0.003J	d	d
Cobalt	14	0.0086	0.0003	0.002	d	d
Chromium	14	0.0051	0.0016	<0.0038	0.075	0
Copper	14	0.552	0.0139	0.0692	0.21	1
Cyanide	15	<0.025	<0.005	<0.01	0.062	0
Ethylbenzene	5	0.005U	0.005U	0.005U	d	0
Iron	14	10.3	0.371	2.43	30	0
Hexane Extractable Material	15	30.1	<5.9	<10.	50	0
Mercury	14	0.0134	0.0008	0.003	0.035	0
Kjeldahl Nitrogen	14	17.4	9.9	12.	90	0
Methylene chloride	5	0.005U	0.005U	0.005U	d	0
Manganese	14	0.0988	0.0233	0.0437	d	d
Molybdenum	14	0.0137	0.0037	0.0065	d	0
Nickel	14	0.0214	<0.002	<0.01	0.032	1
Lead	14	0.0078	<0.0002	<0.002	0.074	0
Phenols - Total Recoverable	14	0.0275	<0.005	<0.02	0.3	0
Selenium	14	<0.01	<0.004	<0.004	d	0
Suspended Solids	14	110.0	37.2	72.0	300	0
trans-1,2-Dichloroethene	5	0.005U	0.005U	0.005U	d	d
Thorium	14	<0.0004	<0.0002	<0.0003	d	d
Toluene	5	0.005U	0.005U	0.005U	d	0

Table 4.25. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6 (continued)

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Trichloroethene	5	0.005U	0.005U	0.005U	d	0
Zinc	14	0.252	0.0328	0.0965	0.75	0

(a) Units in mg/L unless otherwise indicated.
(b Industrial User Wastewater Discharge permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.26. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	53	19.0	+/-7.2	-6.0*	+/-8.5	4.5	0.62	e	4.0E-03
Beta activity (pCi/L)	53	41.0	+/-7	-1.4*	+/-4.8	11	0.93	e	9.8E-03
Cobalt-60 (pCi/L)	1	0.47*	+/-2.5	0.47*	+/-2.5	0.47	d	0.0094	4.2E-04
Cesium-137 (pCi/L)	1	0.53*	+/-2.5	0.53*	+/-2.5	0.53	d	0.018	4.8E-04
Radium-228 (pCi/L)	1	0.75*	+/-14	0.75*	+/-14	0.75	d	0.75	6.8E-04

(e) Not applicable
* Provisional Result

Table 4.27. Y-12 Complex Discharge Point S17, UNNAMED TRIBUTARY TO THE CLINCH RIVER

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	1	2.1*	+/-3.3	2.1*	+/-3.3	2.1	e	e	e
Beta activity (pCi/L)	1	0.92*	+/-3.8	0.92*	+/-3.8	0.92	e	e	e
Cobalt-60 (pCi/L)	1	1.8*	+/-2.3	1.8*	+/-2.3	1.8	e	0.036	e
Cesium-137 (pCi/L)	1	-2.4*	+/-2.4	-2.4*	+/-2.4	-2.4	e	-0.08	e
Radium-226 (pCi/L)	1	0.17*	+/-1.2	0.17*	+/-1.2	0.17	e	0.17	e
Radium-228 (pCi/L)	1	0.79*	+/-0.64	0.79*	+/-0.64	0.79	e	0.79	e
Strontium-89/90 (pCi/L)	1	4.4*	+/-3.4	4.4*	+/-3.4	4.4	e	0.44	e
Total Radium Alpha (pCi/L)	1	-0.19*	+/-0.18	-0.19*	+/-0.18	-0.19	e	e	e
Technetium-99 (pCi/L)	1	2.5*	+/-8.4	2.5*	+/-8.4	2.5	e	0.0025	e
Thorium-228 (pCi/L)	1	0.039*	+/-0.14	0.039*	+/-0.14	0.039	e	0.0098	e
Thorium-230 (pCi/L)	1	-0.24*	+/-0.16	-0.24*	+/-0.16	-0.24	e	-0.08	e
Thorium-232 (pCi/L)	1	-0.046*	+/-0	-0.046*	+/-0	-0.046	e	-0.092	e
Tritium (pCi/L)	1	280.0*	+/-550	280.0*	+/-550	280.0	e	0.014	e
Uranium-234 (pCi/L)	1	2.2	+/-0.67	2.2	+/-0.67	2.2	e	0.44	e
Uranium-235 (pCi/L)	1	0.16*	+/-0.19	0.16*	+/-0.19	0.16	e	0.0267	e
Uranium-236 (pCi/L)	1	0.14*	+/-0.16	0.14*	+/-0.16	0.14	e	0.028	e
Uranium-238 (pCi/L)	1	0.68	+/-0.37	0.68	+/-0.37	0.68	e	0.1133	e

(e) Not applicable
* Provisional Result

Table 4.28. Y-12 Complex Discharge Point S19, S19, ROGER'S QUARRY

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	2	1.8*	+/-3.4	-0.43*	+/-3	0.68	1.1	e	3.6E-04
Beta activity (pCi/L)	2	3.2*	+/-3.5	-3.0*	+/-4.4	0.10	3.1	e	5.3E-05
Cobalt-60 (pCi/L)	2	0.85*	+/-2.2	0.66*	+/-2.2	0.76	0.095	0.015	4.0E-04
Cesium-137 (pCi/L)	2	-1.4*	+/-2.5	-3.0*	+/-2.4	-2.2	0.80	-0.073	-1.2E-03
Radium-226 (pCi/L)	2	0.59	+/-1.4	0.31*	+/-0.48	0.45	0.14	0.45	2.4E-04
Radium-228 (pCi/L)	2	1.6*	+/-1.1	0.5*	+/-0.64	1	0.6	1.	6E-04
Strontium-89/90 (pCi/L)	2	3.2	+/-2.4	2.2*	+/-2.1	2.7	0.50	0.27	1.4E-03
Total Radium Alpha (pCi/L)	2	0.16*	+/-0.19	-0.1*	+/-0.19	0.03	0.1	e	2E-05
Technetium-99 (pCi/L)	2	43.0	+/-9.6	-2.7*	+/-9	20.	23	0.020	1.1E-02
Thorium-228 (pCi/L)	2	0.036*	+/-0.52	-0.2*	+/-0.92	-0.08	0.1	-0.02	-4E-05
Thorium-230 (pCi/L)	2	0.065*	+/-0.99	-0.064*	+/-0.31	0.00050	0.064	0.00020	2.7E-07
Thorium-232 (pCi/L)	2	0.02*	+/-0.076	-0.04*	+/-0.15	-0.01	0.03	-0.02	-5E-06
Tritium (pCi/L)	2	-170.0*	+/-520	-320.0*	+/-500	-245.0	75.0	-0.0123	-1.30E-01
Uranium-234 (pCi/L)	2	0.38*	+/-0.4	0.056*	+/-0.39	0.22	0.16	0.044	1.2E-04
Uranium-235 (pCi/L)	2	0.0*	+/-0.19	-0.0059*	+/-0.18	-0.003	0.003	-0.0005	-1.6E-06
Uranium-236 (pCi/L)	2	0.018*	+/-0.12	0.0*	+/-0.15	0.009	0.009	0.002	5E-06
Uranium-238 (pCi/L)	2	0.23*	+/-0.31	0.089*	+/-0.28	0.16	0.070	0.027	8.5E-05

(e) Not applicable
* Provisional Result

Table 4.29. Y-12 Complex Discharge Point S19, S19, ROGER'S QUARRY

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	3	0.474	0.23	0.38	d	0
pH, Standard Unit	3	7.8	7.6	d	9/ 6(e)	0
Silver	2	<0.0004	<0.0004	<0.0004	d	0
Aluminum	2	<0.2	<0.2	<0.2	d	0
Arsenic	2	0.0068	0.006	0.006	d	0
Boron	2	<0.1	<0.1	<0.1	d	0
Barium	2	0.0586	0.0562	0.0574	d	0
Beryllium	2	<0.0002	<0.0002	<0.0002	d	0
Cadmium	2	<0.001	<0.001	<0.001	d	0
Cobalt	2	0.0002	<0.0002	<0.0002	d	0
Chromium	2	<0.004	<0.004	<0.004	d	0
Copper	2	<0.002	<0.002	<0.002	d	0
Dissolved Solids	2	157.0	<1.0	<79	d	0
Lithium	2	0.0142	0.0135	0.0139	d	0
Magnesium	2	12.6	12.0	12.3	d	0
Molybdenum	2	0.0203	0.0015	0.011	d	0
Nickel	2	<0.002	<0.002	<0.002	d	0
Lead	2	0.0026	<0.0002	<0.001	d	0
Antimony	2	<0.001	<0.001	<0.001	d	0
Strontium	2	0.248	0.245	0.246	d	0
Suspended Solids	2	<1.0	<1.0	<1.0	d	0
Thallium	2	<0.0002	<0.0002	<0.0002	d	0
Uranium	4	<0.001	0.0005	<0.0007	d	d
Vanadium	2	<0.02	<0.02	<0.02	d	0
Zinc	2	0.0167	0.003	0.01	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.30. Y-12 Complex Discharge Point S24, BEAR CREEK KILOMETER 9.4

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Standard Error	Percentage of DCG	Total Curies
Alpha activity (pCi/L)	4	68.0	+/-7	31.0	+/-4.9	51.8	8.33	e	e
Beta activity (pCi/L)	4	76.0	+/-7.6	21.0	+/-4.4	40.2	12.2	e	e
Cobalt-60 (pCi/L)	4	3.2*	+/-2.2	-0.78*	+/-2.3	1.3	0.91	0.026	e
Cesium-137 (pCi/L)	4	1.3*	+/-2.3	-0.57*	+/-2.3	0.30	0.44	0.010	e
Radium-226 (pCi/L)	4	0.32*	+/-3.8	-0.27*	+/-0.19	-0.0050	0.15	-0.0050	e
Radium-228 (pCi/L)	4	2.4	+/-0.65	0.66*	+/-1.2	1.6	0.41	1.6	e
Strontium-89/90 (pCi/L)	4	6.3	+/-2	0.61*	+/-1.1	3.3	1.4	0.33	e
Total Radium Alpha (pCi/L)	4	0.5	+/-0.24	-0.001*	+/-0.17	0.3	0.1	e	e
Technetium-99 (pCi/L)	4	79.0	+/-10	16.0	+/-6.6	41.5	14.4	0.0415	e
Thorium-228 (pCi/L)	4	0.079*	+/-0.27	-0.21*	+/-0.9	-0.048	0.070	-0.012	e
Thorium-230 (pCi/L)	4	0.081*	+/-0.35	-0.44*	+/-0.86	-0.12	0.12	-0.038	e
Thorium-232 (pCi/L)	4	0.059*	+/-0.12	-0.078*	+/-0.15	-0.024	0.030	-0.048	e
Tritium (pCi/L)	4	360.0*	+/-510	-160.0*	+/-370	32.50	118.3	0.001600	e
Uranium-234 (pCi/L)	4	23.0	+/-2.7	7.7	+/-1.2	18	3.5	3.6	e
Uranium-235 (pCi/L)	4	1.6	+/-0.46	0.36	+/-0.22	0.95	0.26	0.16	e
Uranium-236 (pCi/L)	4	0.59	+/-0.26	0.11*	+/-0.12	0.33	0.10	0.066	e
Uranium-238 (pCi/L)	4	56.0	+/-5.8	22.0	+/-2.5	38.8	8.16	6.46	e

(e) Not applicable
* Provisional Result

Table 4.31. Y-12 Complex Discharge Point S24, BEAR CREEK KILOMETER 9.4

From: 2008/01/01 To: 2008/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
pH, Standard Unit	5	7.8	7.2	d	9/ 6(e)	0
Silver	4	<0.0004	<0.0002	<0.0004	d	0
Aluminum	4	1.03	<0.2	<0.5	d	0
Arsenic	4	<0.002	<0.002	<0.002	d	0
Boron	4	1.35	<0.1	<0.6	d	0
Barium	4	0.114	0.0676	0.0923	d	0
Beryllium	4	<0.0002	<0.0002	<0.0002	d	0
Cadmium	4	<0.001	0.0003	<0.0008	d	0
Cobalt	4	0.001	0.0004	0.0006	d	0
Chromium	4	<0.004	<0.001	<0.003	d	0
Copper	4	<0.002	<0.002	<0.002	d	0
Mercury	4	<0.0002	<0.0002	<0.0002	d	0
Lithium	4	0.147	0.0169	0.0727	d	0
Magnesium	4	10.5	8.79	9.47	d	0
Molybdenum	4	0.001	<0.0004	<0.0006	d	0
Total Nitrogen	4	4.65	1.54	3.23	d	0
Nickel	4	0.0054	0.0024	0.0037	d	0
Nitrate/Nitrite as Nitrogen	4	4.65	1.54	3.23	d	0
Phosphorus	4	<0.5	<0.5	<0.5	d	0
Lead	4	0.0026	<0.0002	<0.0009	d	0
PCB, Total	4	0.0005U	0.0005U	0.0005U	d	0
Antimony	4	<0.001	<0.001	<0.001	d	0
Strontium	4	0.171	0.108	0.141	d	0
Suspended Solids	4	6.0	1.0	2.8	d	0
Thallium	4	<0.0002	<0.0002	<0.0002	d	0
Uranium	4	0.409	0.0599	0.209	d	0
Vanadium	4	<0.02	<0.02	<0.02	d	0
Zinc	4	0.0124	0.0083	0.0096	d	0

(a) Units in mg/L unless otherwise indicated.
(b) NPDES permit limits.
(c) Flow during operations and/or discharging.
(d) Not applicable.
(e) Maximum value/minimum value.

Table 4.32. Constituents Detected in Groundwater at the Y-12 Complex, 2008

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
REGIME =		BC		AREA NAME = Bear Creek Burial Grounds WMA					
1,1,1-Trichloroethane	ug/L	40	17	1100 D	0.1 J	95.0176	200		1
1,1,2,2-Tetrachloroethane	ug/L	37	1	0.2 J	0.2 J	0.2000			0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	27	12	590 D	1 J	203.0000	NR		NA
1,1,2-Trichloroethane	ug/L	37	7	9	1 J	3.4286	5		1
1,1-Dichloroethane	ug/L	40	23	3000 D	9	639.6522	NR		NA
1,1-Dichloroethene	ug/L	38	24	380 D	2 J	99.4583	7		22
1,2-Dichloroethane	ug/L	37	5	18	0.9 J	7.5800	5		2
1,2-Dichloroethene	ug/L	31	24	14000 D	4 J	2801.8333	NR		NA
1,2-Dichloropropane	ug/L	37	1	2 J	2 J	2.0000	5		0
2-Butanone	ug/L	40	1	2 J	2 J	2.0000	NR		NA
4,4'-DDE	ug/L	3	1	0.018 J	0.018 J	0.0180			0
Acetone	ug/L	40	3	56	17	39.3333	NR		NA
Actinium-227	pCi/L	3	1	0.23 J	0.23 J	0.2300	0.4		0
Alkalinity	mg/L	25	25	692	19.8	330.5520	NR		NA
Aluminum, ICAP	mg/L	28	7	2.92	0.247	0.6667	0.2		7
Arsenic, ICAP	mg/L	28	0				0.05		0
Arsenic, PMS	mg/L	25	3	0.0155	0.00704	0.0115	0.05		0
Barium, ICAP	mg/L	28	28	0.928	0.0259	0.2235	2		0
Benzene	ug/L	40	20	1600 D	2 J	223.6000	5		18
Benzo(a)pyrene	ug/L	3	1	0.7	0.7	0.7000			0
Bicarbonate	mg/L	25	25	470	19.8	264.9120	NR		NA
Boron, ICAP	mg/L	28	13	17.7	0.253	2.1569	NR	w	NA
Calcium, ICAP	mg/L	28	28	160	0.635	52.3863	NR		NA
Carbonate	mg/L	25	8	407	102	205.3750	NR		NA
Chloride	mg/L	25	25	111	1.21	36.1336	250		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Chloroethane	ug/L	40	9	24		2	J	8.2222	NR		NA
Chloroform	ug/L	40	11	120		0.5	J	56.1364	100		2
Chromium, ICAP	mg/L	28	2	0.15		0.0603		0.1052	0.1	z	1
Chromium, PMS	mg/L	25	2	0.0908		0.0552		0.0730	0.1		0
cis-1,2-Dichloroethene	ug/L	40	26	14000	D	4	J	2768.6154	70		18
cis-1,3-Dichloropropene	ug/L	37	1	3	J	3	J	3.0000			0
Cobalt, ICAP	mg/L	28	1	0.0266		0.0266		0.0266	NR		NA
Copper, ICAP	mg/L	28	1	0.0292		0.0292		0.0292	1.3		0
Dichlorodifluoromethane	ug/L	27	3	46		29		39.6667	NR		NA
Endosulfan sulfate	ug/L	3	1	0.013	JX	0.013	JX	0.0130			0
Endrin aldehyde	ug/L	3	1	0.028	JX	0.028	JX	0.0280			0
Ethyl Benzene	ug/L	40	4	6		2	J	3.5000	700		0
Flouride	mg/L	25	12	6.9		0.106		3.7232			0
Gross Alpha Activity	pCi/L	27	11	33		2		8.2182	15		2
Gross Beta Activity	pCi/L	27	11	58		4.02		17.2682	50		1
Indeno(1,2,3-cd)pyrene	ug/L	3	1	0.5		0.5		0.5000			0
Iron, ICAP	mg/L	28	18	3.57		0.0558		0.4339	0.3		4
Lead, ICAP	mg/L	28	0						0.015		0
Lead, PMS	mg/L	25	10	0.0278		0.000955		0.0055	0.015		1
Lithium, ICAP	mg/L	28	25	0.307		0.0108		0.0779	NR	w	NA
Magnesium, ICAP	mg/L	28	24	21.4		0.214		6.4957	NR		NA
Manganese, ICAP	mg/L	28	13	3.05		0.00532		0.3702	0.05		4
Methylene chloride	ug/L	40	2	21		10		15.5000	5		2
Nickel, ICAP	mg/L	28	5	0.187		0.0608		0.1153	0.1	z	2
Nickel, PMS	mg/L	25	12	0.176		0.0102		0.0666	0.1		2
Nitrate as Nitrogen	mg/L	25	6	18.2		0.0321		3.3004	10		1
Np-237	pCi/L	3	1	0.18	J	0.18	J	0.1800	1.2		0
Phosphorus, ICAP	mg/L	28	4	0.544		0.0423		0.1689	NR	wz	NA
Plutonium-242	pCi/L	3	1	0.29	J	0.29	J	0.2900	1.2		0
Potassium, ICAP	mg/L	28	13	10.4		1.48		4.0038	NR		NA
Potassium-40	pCi/L	3	1	68.8	J	68.8	J	68.8000	280		0
Sodium, ICAP	mg/L	28	28	381		2.06		117.8021	NR	k	NA
Strontium, ICAP	mg/L	28	28	1.83		0.0173		0.2188	NR	w	NA
Strontium-90	pCi/L	3	2	1.5	J	1.33	J	1.4150	8		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Sulfate	mg/L	25	25	84		0.539		16.1328	250	0
Tetrachloroethene	ug/L	40	30	22000	D	0.2	J	1900.9467	5	26
Thorium-227	pCi/L	3	1	0.23	J	0.23	J	0.2300	160	0
Thorium-230	pCi/L	3	1	0.51		0.51		0.5100	12	0
Thorium-234	pCi/L	3	1	0.2	J	0.2	J	0.2000	400	0
Toluene	ug/L	40	10	37		0.2	J	8.6900	1000	0
Total Dissolved Solids	mg/L	33	33	880		39		382.4545	500	9
Total Suspended Solids	mg/L	33	19	60		1		11.5789	NR	NA
Total Xylene	ug/L	40	11	25		0.1	J	6.5000	1000	0
trans-1,2-Dichloroethene	ug/L	37	22	73		1	J	16.0455	100	0
Trichloroethene	ug/L	40	26	4600	D	1	J	755.5769	5	25
Trichlorofluoromethane	ug/L	27	1	2	J	2	J	2.0000	NR	NA
Turbidity	NTU	7	7	94.4		0.211		14.0656	1	3
Uranium	mg/L	1	0						0.03	0
Uranium, ICAP	mg/L	27	0						0.03	0
Uranium, PMS	mg/L	35	4	0.0964		0.00114		0.0253	0.03	1
Uranium-233/234	pCi/L	5	3	0.88		0.36	J	0.6233	20	0
Uranium-238	pCi/L	5	1	0.2	J	0.2	J	0.2000	24	0
Vinyl Chloride	ug/L	40	22	3800	D	3		781.1364	2	22
Yttrium-90	pCi/L	3	2	1.5	J	1.33	J	1.4150	400	0
		REGIME =	BC	AREA NAME = EMWMF						
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ug/L	36	1	0.000003		0.000003		0.0000		0
Actinium-227	pCi/L	36	4	0.35	J	0.18	J	0.2475	0.4	0
Aluminum, ICAP	mg/L	36	27	32.1		0.0258		1.8702	0.2	13
Americium-241	pCi/L	36	1	0.71	J	0.71	J	0.7100	1.2	0
Americium-243	pCi/L	36	4	0.99		0.24	J	0.6025	1.2	0
Arsenic, ICAP	mg/L	36	6	0.0082		0.0025		0.0042	0.05	0
Barium, ICAP	mg/L	36	36	0.754		0.0882		0.2597	2	0
Benz(a)anthracene	ug/L	36	6	0.5		0.5		0.5000		0
Benzidine	ug/L	12	1	1	J	1	J	1.0000		0
Benzoic acid	ug/L	36	2	1	J	0.9	J	0.9500		0
Beryllium, ICAP	mg/L	36	2	0.0018		0.00056		0.0012	0.004	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Bis(2-ethylhexyl)phthalate	ug/L	36	2	2 J	1 J	1.5000	NR	NA
Boron, ICAP	mg/L	36	35	0.205	0.0067	0.0394	NR	NA
Calcium, ICAP	mg/L	36	36	66.9	2.96	43.7436	NR	NA
Carbazole	ug/L	36	1	0.5	0.5	0.5000	NR	NA
Chlorine-36	pCi/L	36	1	9.94	9.94	9.9400	2000	0
Chromium, ICAP	mg/L	36	6	0.0738	0.0034	0.0197	0.1	0
Cobalt, ICAP	mg/L	36	3	0.0177	0.0029	0.0090	NR	NA
Copper, ICAP	mg/L	36	8	0.0869	0.0045	0.0263	1.3	0
Curium-245	pCi/L	36	7	1.24	0.22 J	0.5200	1.2	1
Curium-246	pCi/L	36	7	1.24	0.22 J	0.5200	1.2	1
Curium-248	pCi/L	36	1	0.43 J	0.43 J	0.4300	0.32	1
Di-n-butyl phthalate	ug/L	36	4	4 J	0.6 J	1.6000	NR	NA
Iodine-129	pCi/L	36	1	2.35 J	2.35 J	2.3500	20	0
Iron, ICAP	mg/L	36	35	27.6	0.018	1.3977	0.3	14
Lead, ICAP	mg/L	36	6	0.0299	0.0016	0.0085	0.015	1
Lithium, ICAP	mg/L	36	33	0.0762	0.0096	0.0262	NR	NA
Magnesium, ICAP	mg/L	36	36	16.3	1.21	7.9881	NR	NA
Manganese, ICAP	mg/L	36	36	0.785	0.0051	0.0878	0.05	9
Mercury, CVAA	mg/L	36	1	0.0001	0.0001	0.0001	0.002	0
Molybdenum, ICAP	mg/L	36	1	0.0052	0.0052	0.0052	NR	NA
Nickel, ICAP	mg/L	36	5	0.0674	0.0052	0.0233	0.1	0
Nickel-63	pCi/L	36	3	141	38.3 J	72.5333	1200	0
Np-237	pCi/L	36	2	0.31 J	0.19 J	0.2500	1.2	0
Phosphorus, ICAP	mg/L	36	25	1.06	0.0138	0.0931	NR	NA
Plutonium-242	pCi/L	36	3	0.34 J	0.24 J	0.2967	1.2	0
Potassium, ICAP	mg/L	36	36	5.87	0.799	2.0047	NR	NA
Potassium-40	pCi/L	36	1	63.3 J	63.3 J	63.3000	280	0
Pu-239/240	pCi/L	36	1	0.15 J	0.15 J	0.1500	1.2	0
Radium-226	pCi/L	36	17	2.23	0.1 J	0.3700	4	0
Radium-228	pCi/L	36	3	1.12 J	0.91 J	1.0033	4	0
Silver, ICAP	mg/L	36	2	0.0054	0.0042	0.0048	0.1	0
Sodium, ICAP	mg/L	36	36	140	4.26	20.3644	NR	NA
Strontium, ICAP	mg/L	36	36	1.3	0.043	0.4273	NR	NA
Strontium-90	pCi/L	36	2	1.64 J	1.56 J	1.6000	8	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Technetium-99	pCi/L	36	2	5.19 J	4.15 J	4.6700	4000	0
Thorium-227	pCi/L	36	4	0.35 J	0.18 J	0.2475	160	0
Thorium-228	pCi/L	36	4	0.79	0.22 J	0.4825	16	0
Thorium-229	pCi/L	36	9	2.17	0.07 J	0.4444	1.6	1
Thorium-230	pCi/L	36	11	0.92	0.18 J	0.4109	12	0
Thorium-232	pCi/L	36	3	0.79	0.15 J	0.5167	2	0
Thorium-234	pCi/L	36	10	5.65	0.14 J	0.8830	400	0
Tin, ICAP	mg/L	36	1	0.0402	0.0402	0.0402	NR	NA
Titanium, ICAP	mg/L	36	13	0.131	0.0032	0.0264	NR	NA
Toluene	ug/L	36	4	0.2 J	0.1 J	0.1500	1000	0
Uranium-233/234	pCi/L	37	11	1.46	0.14 J	0.5427	20	0
Uranium-235/236	pCi/L	37	1	0.35 J	0.35 J	0.3500	20	0
Uranium-238	pCi/L	37	10	5.65	0.14 J	0.8830	24	0
Vanadium, ICAP	mg/L	36	5	0.0316	0.0056	0.0120	NR	NA
Yttrium-90	pCi/L	36	2	1.64 J	1.56 J	1.6000	400	0
Zinc, ICAP	mg/L	36	8	0.0854	0.0052	0.0211	5	0
	REGIME =	BC		AREA NAME = Exit Pathway - Traverse A				
Barium, ICAP	mg/L	4	4	0.125	0.0847	0.1040	2	0
Bicarbonate	mg/L	4	4	228	189	205.5000	NR	NA
Boron, ICAP	mg/L	4	4	0.0538	0.0231	0.0336	NR	NA
Calcium, ICAP	mg/L	4	4	71.1	50.9	58.8250	NR	NA
Chloride	mg/L	4	4	18.7	8.7	13.6250	250	0
Chromium, ICAP	mg/L	4	1	0.0275	0.0275	0.0275	0.1	0
cis-1,2-Dichloroethene	ug/L	4	3	1 J	0.3 J	0.6667	70	0
Flouride	mg/L	4	3	0.68	0.12	0.3233		0
Gross Alpha Activity	pCi/L	4	4	10.6	5.89	8.1825	15	0
Gross Beta Activity	pCi/L	4	4	21.7	16.3	18.5250	50	0
Iron, ICAP	mg/L	4	3	0.66	0.0255	0.2712	0.3	1
Lithium, ICAP	mg/L	4	2	0.0298	0.0284	0.0291	NR	NA
Magnesium, ICAP	mg/L	4	4	22.7	13.7	18.0250	NR	NA
Manganese, ICAP	mg/L	4	3	0.056	0.0154	0.0421	0.05	2
Mercury	mg/L	4	4	0.000001	0	0.0000		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Nickel, ICAP	mg/L	4	1	0.0248	0.0248	0.0248	0.1	0
Nitrate/Nitrite	mg/L	4	4	4.2	1.4	2.8500	10	0
Potassium, ICAP	mg/L	4	4	4.35	1.02	2.6075	NR	NA
Sodium, ICAP	mg/L	4	4	8.07	4.08	5.4400	NR	NA
Strontium, ICAP	mg/L	4	4	0.179	0.111	0.1485	NR	NA
Sulfate	mg/L	4	4	21.2	13.9	16.6750	250	0
Technetium-99	pCi/L	4	4	19.8	11.5	15.6500	4000	0
Tetrachloroethene	ug/L	4	2	0.1 J	0.1 J	0.1000	5	0
Total Dissolved Solids	mg/L	4	4	290	252	274.0000	500	0
Trichloroethene	ug/L	4	3	0.6 J	0.3 J	0.4333	5	0
Uranium-233/234	pCi/L	4	4	5.16	3.49	4.4475	20	0
Uranium-235/236	pCi/L	4	2	0.586	0.502	0.5440	20	0
Uranium-238	pCi/L	4	4	9.09	5.36	7.1975	24	0
	REGIME =		BC	AREA NAME = Exit Pathway - Traverse B				
1,1,1-Trichloroethane	ug/L	6	3	1 J	0.7 J	0.9000	200	0
1,1-Dichloroethane	ug/L	6	4	0.7 J	0.5 J	0.5750	NR	NA
1,1-Dichloroethene	ug/L	6	4	4	1 J	3.0000	7	0
1,2-Dichloroethene	ug/L	4	3	30	7	14.6667	NR	NA
Alkalinity	mg/L	2	2	222	168	195.0000	NR	NA
Barium, ICAP	mg/L	6	6	0.162	0.0416	0.1091	2	0
Benzene	ug/L	6	3	0.3 J	0.1 J	0.2000	5	0
Bicarbonate	mg/L	6	6	295	117	216.3333	NR	NA
Boron, ICAP	mg/L	6	4	0.148	0.0521	0.0972	NR	NA
Calcium, ICAP	mg/L	6	6	115	21.8	76.2667	NR	NA
Carbon Tetrachloride	ug/L	6	1	0.7 J	0.7 J	0.7000	5	0
Chloride	mg/L	6	6	82.6	10.8	35.7500	250	0
Chlorobenzene	ug/L	6	1	0.1 J	0.1 J	0.1000	100	0
Chloroform	ug/L	6	3	0.4 J	0.3 J	0.3333	100	0
cis-1,2-Dichloroethene	ug/L	6	5	30	2 J	14.6000	70	0
Copper, ICAP	mg/L	6	1	0.0106	0.0106	0.0106	1.3	0
Flouride	mg/L	6	6	0.42	0.159	0.2382		0
Gross Alpha Activity	pCi/L	6	5	22.1	4.91	14.2220	15	3

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Gross Beta Activity	pCi/L	6	6	49.2	9.2	27.3667	50	0
Iron, ICAP	mg/L	6	6	1.03	0.102	0.5292	0.3	4
Lead, ICAP	mg/L	6	0				0.015	0
Lead, PMS	mg/L	2	1	0.00056	0.00056	0.0006	0.015	0
Lithium, ICAP	mg/L	6	5	0.0419	0.0153	0.0240	NR w	NA
Magnesium, ICAP	mg/L	6	6	30.7	14.6	25.2333	NR	NA
Manganese, ICAP	mg/L	6	5	0.0743	0.0084	0.0269	0.05	1
Mercury	mg/L	2	2	0.000001	0.000001	0.0000		0
Mercury, CVAA	mg/L	2	0				0.002	0
Nitrate as Nitrogen	mg/L	2	2	17.6	7.5	12.5500	10	1
Nitrate/Nitrite	mg/L	4	4	12.7	5.9	10.4250	10	3
Potassium, ICAP	mg/L	6	5	16.6	2.64	7.4240	NR	NA
Sodium, ICAP	mg/L	6	6	18.2	7	13.5333	NR	NA
Strontium, ICAP	mg/L	6	6	0.405	0.0913	0.2551	NR w	NA
Sulfate	mg/L	6	6	47.2	9.8	26.1000	250	0
Technetium-99	pCi/L	4	3	57.1	36.9	47.4000	4000	0
Tetrachloroethene	ug/L	6	4	0.7 J	0.1 J	0.4250	5	0
Toluene	ug/L	6	1	0.3 J	0.3 J	0.3000	1000	0
Total Dissolved Solids	mg/L	6	6	546	240	383.6667	500	2
Total Suspended Solids	mg/L	6	2	1	1	1.0000	NR	NA
Total Xylene	ug/L	6	1	0.2 J	0.2 J	0.2000	1000	0
trans-1,2-Dichloroethene	ug/L	6	1	0.1 J	0.1 J	0.1000	100	0
Trichloroethene	ug/L	6	6	26	3 J	15.5000	5	5
Turbidity	NTU	2	2	4.08	0.735	2.4075	1	1
Uranium, ICAP	mg/L	2	0				0.03	0
Uranium, PMS	mg/L	4	4	0.064	0.0042	0.0312	0.03	2
Uranium-233/234	pCi/L	4	4	12.4	1.76	7.3075	20	0
Uranium-235/236	pCi/L	4	2	2.14	1.72	1.9300	20	0
Uranium-238	pCi/L	4	4	23.7	1.17	12.7950	24	0
	REGIME =		BC	AREA NAME = Exit Pathway - Traverse C				
1,2-Dichloroethene	ug/L	9	7	16	1 J	3.5714	NR	NA
Alkalinity	mg/L	8	8	337	195	271.1250	NR	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Aluminum, ICAP	mg/L	8	1	0.244	0.244	0.2440	0.2		1
Barium, ICAP	mg/L	8	8	0.204	0.0401	0.1091	2		0
Bicarbonate	mg/L	8	8	337	195	271.1250	NR		NA
Calcium, ICAP	mg/L	8	8	144	30.9	87.0000	NR	k	NA
Carbon Tetrachloride	ug/L	9	3	1 J	1 J	1.0000	5		0
Chloride	mg/L	8	8	67.1	6.03	23.4775	250		0
Chromium, ICAP	mg/L	8	0				0.1		0
Chromium, PMS	mg/L	8	1	0.0116	0.0116	0.0116	0.1		0
cis-1,2-Dichloroethene	ug/L	9	7	16	1 J	3.5714	70		0
Flouride	mg/L	8	7	0.239	0.127	0.1813			0
Gross Alpha Activity	pCi/L	8	2	7.1	6.7	6.9000	15		0
Gross Beta Activity	pCi/L	8	5	42	8.6	19.5200	50		0
Iron, ICAP	mg/L	8	7	28.8	0.302	6.0989	0.3		7
Lead, ICAP	mg/L	8	0				0.015		0
Lead, PMS	mg/L	8	3	0.0154	0.000885	0.0057	0.015		1
Lithium, ICAP	mg/L	8	6	0.0203	0.0156	0.0177	NR	w	NA
Magnesium, ICAP	mg/L	8	8	38	22.7	31.1125	NR	k	NA
Manganese, ICAP	mg/L	8	7	0.857	0.00664	0.1659	0.05		3
Nickel, ICAP	mg/L	8	0				0.1		0
Nickel, PMS	mg/L	8	1	0.0051	0.0051	0.0051	0.1		0
Nitrate	mg/L	1	1	4.99	4.99	4.9900			0
Nitrate as Nitrogen	mg/L	8	8	16.2	0.5	6.3388	10		3
Potassium, ICAP	mg/L	8	4	5.9	2.44	3.6000	NR		NA
Sodium, ICAP	mg/L	8	8	30	2.23	9.9738	NR		NA
Strontium, ICAP	mg/L	8	8	1.16	0.0247	0.2386	NR	w	NA
Sulfate	mg/L	8	8	37.4	3.94	18.8438	250		0
Tetrachloroethene	ug/L	9	2	4 J	2 J	3.0000	5		0
Total Dissolved Solids	mg/L	8	8	524	209	356.1250	500		1
Total Suspended Solids	mg/L	8	5	20	1	8.6000	NR		NA
Trichloroethene	ug/L	9	9	64	7	36.1111	5		9
Turbidity	NTU	4	4	8.74	0.288	3.5295	1		3
Uranium, ICAP	mg/L	8	0				0.03		0
Uranium, PMS	mg/L	8	4	0.0126	0.000665	0.0042	0.03		0
Zinc, ICAP	mg/L	8	2	0.231	0.183	0.2070	5		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
	REGIME =	BC		AREA NAME = Exit Pathway - Traverse W				
Barium, ICAP	mg/L	6	6	0.0902	0.0052	0.0435	2	0
Boron, ICAP	mg/L	6	6	0.0714	0.0342	0.0531	NR	NA
Calcium, ICAP	mg/L	6	6	58.1	5.41	37.7300	NR	NA
Carbon Disulfide	ug/L	6	1	1 J	1 J	1.0000	NR	NA
Copper, ICAP	mg/L	6	1	0.0181	0.0181	0.0181	1.3	0
Gross Alpha Activity	pCi/L	6	1	3.08	3.08	3.0800	15	0
Gross Beta Activity	pCi/L	6	3	4.13	3	3.6800	50	0
Iron, ICAP	mg/L	6	6	1.88	0.153	0.8382	0.3	5
Lithium, ICAP	mg/L	6	4	0.0183	0.0105	0.0148	NR	NA
Magnesium, ICAP	mg/L	6	6	32.4	23	27.1833	NR	NA
Manganese, ICAP	mg/L	6	6	0.162	0.0259	0.0828	0.05	4
Nitrate/Nitrite	mg/L	6	2	0.22	0.19	0.2050	10	0
Potassium, ICAP	mg/L	6	6	3.7 E	1.38 E	2.3967	NR	NA
Sodium, ICAP	mg/L	6	6	14.8	5.85	9.5683	NR	NA
Strontium, ICAP	mg/L	6	6	1.2	0.055	0.4391	NR	NA
Trichloroethene	ug/L	6	1	0.2 J	0.2 J	0.2000	5	0
Uranium-233/234	pCi/L	6	5	1.1	0.405	0.7532	20	0
Uranium-238	pCi/L	6	2	0.731	0.702	0.7165	24	0
Zinc, ICAP	mg/L	6	1	0.0168	0.0168	0.0168	5	0
	REGIME =	BC		AREA NAME = Exit Pathway Spring/Surface Water				
Alkalinity	mg/L	2	2	172	143	157.5000	NR	NA
Aluminum, ICAP	mg/L	4	3	0.272	0.112	0.1963	0.2	2
Barium, ICAP	mg/L	4	4	0.0986	0.0538	0.0755	2	0
Bicarbonate	mg/L	2	2	172	143	157.5000	NR	NA
Boron, ICAP	mg/L	4	2	0.0359	0.0329	0.0344	NR	NA
Calcium, ICAP	mg/L	4	4	84.2	47	61.4750	NR	NA
Chloride	mg/L	2	2	19.1	6.92	13.0100	250	0
Flouride	mg/L	2	2	0.301	0.112	0.2065		0
Gross Alpha Activity	pCi/L	4	4	69	3.04	23.2675	15	2

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Gross Beta Activity	pCi/L	4	4	45	5.83	17.7450	50	0
Iron, ICAP	mg/L	4	4	0.375	0.0929	0.2525	0.3	1
Lead, ICAP	mg/L	4	0				0.015	0
Lead, PMS	mg/L	2	2	0.0228	0.000905	0.0119	0.015	1
Magnesium, ICAP	mg/L	4	4	17.8	11.9	15.2250	NR	NA
Manganese, ICAP	mg/L	4	4	0.171	0.00582	0.0593	0.05	1
Nitrate as Nitrogen	mg/L	2	2	13	2.19	7.5950	10	1
Nitrate/Nitrite	mg/L	2	2	1.2	1.2	1.2000	10	0
Potassium, ICAP	mg/L	4	3	2.33	0.947 E	1.4757	NR	NA
Sodium, ICAP	mg/L	4	4	11.6	4.44	6.4300	NR	NA
Strontium, ICAP	mg/L	4	4	0.198	0.0786	0.1156	NR w	NA
Sulfate	mg/L	2	2	39.7	18.6	29.1500	250	0
Technetium-99	pCi/L	2	1	9.85	9.85	9.8500	4000	0
Total Dissolved Solids	mg/L	2	2	324	184	254.0000	500	0
Total Suspended Solids	mg/L	2	1	11	11	11.0000	NR	NA
Trichloroethene	ug/L	4	1	3 J	3 J	3.0000	5	0
Turbidity	NTU	2	2	12.3	4.22	8.2600	1	2
Uranium, ICAP	mg/L	2	0				0.03	0
Uranium, PMS	mg/L	4	4	0.0954	0.0091	0.0343	0.03	1
Uranium-233/234	pCi/L	6	6	8.43	2.23	6.0700	20	0
Uranium-235/236	pCi/L	6	3	0.486	0.361	0.4230	20	0
Uranium-238	pCi/L	6	6	15.9	2.85	9.9100	24	0
	REGIME =		BC	AREA NAME = Industrial Landfill I				
1,1-Dichloroethane	ug/L	4	1	4 J	4 J	4.0000	NR	NA
1,1-Dichloroethene	ug/L	4	1	10	10	10.0000	7	1
1,2-Dichloroethene	ug/L	4	1	28	28	28.0000	NR	NA
Alkalinity	mg/L	4	4	431	180	250.0000	NR	NA
Barium, ICAP	mg/L	4	4	0.374	0.0768	0.1576	2	0
Bicarbonate	mg/L	4	4	431	180	250.0000	NR	NA
Boron, ICAP	mg/L	4	1	0.224	0.224	0.2240	NR w	NA
Calcium, ICAP	mg/L	4	4	149	46	85.1750	NR	NA
Chloride	mg/L	4	4	88.7	4.41	33.3000	250	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
cis-1,2-Dichloroethene	ug/L	4	1	28	28	28.0000	70		0
Flouride	mg/L	4	3	0.428	0.148	0.2453			0
Gross Alpha Activity	pCi/L	4	1	8.6	8.6	8.6000	15		0
Gross Beta Activity	pCi/L	4	2	18	6.7	12.3500	50		0
Iron, ICAP	mg/L	4	4	24.8	0.199	7.8898	0.3		3
Lead, ICAP	mg/L	4	0				0.015		0
Lead, PMS	mg/L	4	1	0.0439	0.0439	0.0439	0.015		1
Lithium, ICAP	mg/L	4	2	0.0444	0.0178	0.0311	NR	w	NA
Magnesium, ICAP	mg/L	4	4	42.8	20.6	31.7250	NR		NA
Manganese, ICAP	mg/L	4	2	0.214	0.013	0.1135	0.05		1
Nickel, ICAP	mg/L	4	0				0.1		0
Nickel, PMS	mg/L	4	3	0.0349	0.0053	0.0152	0.1		0
Nitrate as Nitrogen	mg/L	4	3	8.19	1.52	3.8767	10		0
Potassium, ICAP	mg/L	4	2	7.79	4.25	6.0200	NR		NA
Sodium, ICAP	mg/L	4	4	20.1	2.92	10.3775	NR		NA
Strontium, ICAP	mg/L	4	4	1.44	0.103	0.6950	NR	w	NA
Sulfate	mg/L	4	4	168	7.34	53.0100	250		0
Total Dissolved Solids	mg/L	4	3	617	196	337.0000	500		1
Total Suspended Solids	mg/L	4	2	23	4	13.5000	NR		NA
Trichloroethene	ug/L	4	4	33	5	15.7500	5		3
Turbidity	NTU	3	3	280	2.69	106.3300	1		3
Uranium, ICAP	mg/L	4	0				0.03		0
Uranium, PMS	mg/L	4	3	0.002	0.00072	0.0015	0.03		0
Vinyl Chloride	ug/L	4	1	4	4	4.0000	2		1
	REGIME =		BC	AREA NAME = Lysimeter Demo					
Alkalinity	mg/L	1	1	35.3	35.3	35.3000	NR		NA
Barium, ICAP	mg/L	1	1	0.0256	0.0256	0.0256	2		0
Bicarbonate	mg/L	1	1	35.3	35.3	35.3000	NR		NA
Calcium, ICAP	mg/L	1	1	5.87	5.87	5.8700	NR		NA
Chloride	mg/L	1	1	0.853	0.853	0.8530	250		0
Gross Alpha Activity	pCi/L	1	1	2.6	2.6	2.6000	15		0
Gross Beta Activity	pCi/L	1	1	4.5	4.5	4.5000	50		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Iron, ICAP	mg/L	1	1	0.0773		0.0773		0.0773	0.3		0
Magnesium, ICAP	mg/L	1	1	1.43		1.43		1.4300	NR		NA
Manganese, ICAP	mg/L	1	1	0.00594		0.00594		0.0059	0.05		0
Nitrate as Nitrogen	mg/L	1	1	0.104		0.104		0.1040	10		0
Sodium, ICAP	mg/L	1	1	5.17		5.17		5.1700	NR		NA
Strontium, ICAP	mg/L	1	1	0.0184		0.0184		0.0184	NR	w	NA
Sulfate	mg/L	1	1	3.63		3.63		3.6300	250		0
Total Dissolved Solids	mg/L	1	1	76		76		76.0000	500		0
		REGIME =	BC	AREA NAME = Oil Landfarm WMA							
1,1,1-Trichloroethane	ug/L	23	5	7		2	J	4.4000	200		0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	18	5	40		3	J	24.8000	NR		NA
1,1-Dichloroethane	ug/L	23	9	13		6		9.6667	NR		NA
1,1-Dichloroethene	ug/L	21	11	47		1	J	19.7273	7		5
1,2-Dichloroethene	ug/L	18	13	340	D	2	J	115.3846	NR		NA
1,2-Dichloropropane	ug/L	20	1	1	J	1	J	1.0000	5		0
1,4-Dichlorobenzene	ug/L	21	5	4	J	3	J	3.2000	75		0
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ug/L	3	1	0.000005		0.000005		0.0000			0
Alkalinity	mg/L	18	18	643		134		369.8889	NR		NA
Aluminum, ICAP	mg/L	23	3	1.02		0.0506		0.4222	0.2		1
Arsenic, ICAP	mg/L	23	0						0.05		0
Arsenic, PMS	mg/L	18	5	0.0638		0.00847		0.0209	0.05		1
Barium, ICAP	mg/L	23	23	1.67		0.0233		0.5126	2		0
Benzene	ug/L	23	6	11		1	J	7.8333	5		5
Bicarbonate	mg/L	18	18	643		134		369.8889	NR		NA
Boron, ICAP	mg/L	23	14	3.55		0.123		1.2732	NR	w	NA
Calcium, ICAP	mg/L	23	23	731		1.23		143.7991	NR	k	NA
Carbon Tetrachloride	ug/L	23	3	4	J	1	J	2.3333	5		0
Chloride	mg/L	18	18	148		0.74		67.4900	250		0
Chlorobenzene	ug/L	23	5	14		11		11.8000	100		0
Chloroethane	ug/L	23	1	0.5	J	0.5	J	0.5000	NR		NA
Chloroform	ug/L	23	4	2	J	1	J	1.7500	100		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Chromium, ICAP	mg/L	23	0						0.1		0
Chromium, PMS	mg/L	18	1	0.0195		0.0195		0.0195	0.1		0
cis-1,2-Dichloroethene	ug/L	23	15	340	D	2	J	103.2667	70		5
Cobalt, ICAP	mg/L	23	3	0.05		0.0142		0.0320	NR		NA
Flouride	mg/L	18	9	0.5		0.107		0.2051			0
Gross Alpha Activity	pCi/L	20	14	60		4.6		25.0571	15		6
Gross Beta Activity	pCi/L	20	15	220		9.1		47.1933	50		5
Iron, ICAP	mg/L	23	19	46.9		0.0721		8.0601	0.3		13
Lead, ICAP	mg/L	23	0						0.015		0
Lead, PMS	mg/L	18	7	0.0242		0.000575		0.0051	0.015		1
Lithium, ICAP	mg/L	23	19	0.126		0.0161		0.0523	NR	w	NA
Magnesium, ICAP	mg/L	23	23	55		0.536		24.2765	NR	k	NA
Manganese, ICAP	mg/L	23	20	7.3		0.004		1.8099	0.05	k	12
Nickel, ICAP	mg/L	23	5	0.0637		0.0142		0.0427	0.1	z	0
Nickel, PMS	mg/L	18	16	0.0581		0.00516		0.0302	0.1		0
Nitrate as Nitrogen	mg/L	18	12	491		0.0526		68.0594	10		7
Phosphorus, ICAP	mg/L	21	5	0.855		0.0272		0.3383	NR	wz	NA
Potassium, ICAP	mg/L	23	21	14.7		1.02		5.1281	NR		NA
Sodium, ICAP	mg/L	23	23	112		1.54		40.8243	NR	k	NA
Strontium, ICAP	mg/L	23	23	1.92		0.0243		0.5959	NR	kw	NA
Strontium-90	pCi/L	3	1	1.56	J	1.56	J	1.5600	8		0
Sulfate	mg/L	18	18	59.5		4.53		22.6700	250		0
Technetium-99	pCi/L	4	1	570		570		570.0000	4000		0
Tetrachloroethene	ug/L	23	5	42		1	J	15.0000	5		2
Thorium-230	pCi/L	3	1	0.38	J	0.38	J	0.3800	12		0
Titanium, ICAP	mg/L	21	1	0.0051		0.0051		0.0051	NR		NA
Toluene	ug/L	23	3	0.2	J	0.1	J	0.1333	1000		0
Total Dissolved Solids	mg/L	18	18	26300		1		3609.8889	500		14
Total Suspended Solids	mg/L	18	11	95		1		21.3182	NR		NA
trans-1,2-Dichloroethene	ug/L	20	4	2	J	0.1	J	1.0250	100		0
Trichloroethene	ug/L	23	16	230	D	3	J	51.6250	5		11
Turbidity	NTU	8	8	76.6		0.43		16.9050	1		7
Uranium, ICAP	mg/L	21	0						0.03		0
Uranium, PMS	mg/L	20	14	0.174		0.00104		0.0644	0.03		6

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Uranium-233/234	pCi/L	3	0				20		0
Vinyl Chloride	ug/L	23	5	73	20	43.0000	2		5
Yttrium-90	pCi/L	3	1	1.56 J	1.56 J	1.5600	400		0
Zinc, ICAP	mg/L	23	1	0.0105	0.0105	0.0105	5		0
		REGIME =	BC	AREA NAME = Rust Spoil Area					
1,2-Dichloroethene	ug/L	7	2	2 J	2 J	2.0000	NR		NA
Alkalinity	mg/L	7	7	428	54	312.7143	NR		NA
Barium, ICAP	mg/L	7	7	0.207	0.00496	0.0791	2		0
Bicarbonate	mg/L	7	7	428	54	312.7143	NR		NA
Calcium, ICAP	mg/L	7	7	150	32.3	116.3857	NR		NA
Chloride	mg/L	7	7	44.1	1.24	20.2429	250		0
Chromium, ICAP	mg/L	7	1	0.0451	0.0451	0.0451	0.1	z	0
Chromium, PMS	mg/L	7	1	0.0427	0.0427	0.0427	0.1		0
cis-1,2-Dichloroethene	ug/L	7	2	2 J	2 J	2.0000	70		0
Copper, ICAP	mg/L	7	1	0.0393	0.0393	0.0393	1.3		0
Flouride	mg/L	7	3	0.254	0.182	0.2247			0
Gross Alpha Activity	pCi/L	7	2	4.2	2.2	3.2000	15		0
Gross Beta Activity	pCi/L	7	1	8	8	8.0000	50		0
Iron, ICAP	mg/L	7	1	0.0601	0.0601	0.0601	0.3		0
Lead, ICAP	mg/L	7	0				0.015		0
Lead, PMS	mg/L	7	1	0.00118	0.00118	0.0012	0.015		0
Lithium, ICAP	mg/L	7	1	0.0257	0.0257	0.0257	NR	w	NA
Magnesium, ICAP	mg/L	7	7	31.8	3.18	17.9257	NR		NA
Manganese, ICAP	mg/L	7	2	6.76	6.31	6.5350	0.05		2
Nickel, ICAP	mg/L	7	0				0.1		0
Nickel, PMS	mg/L	7	5	0.0212	0.00579	0.0132	0.1		0
Nitrate as Nitrogen	mg/L	7	5	3.55	0.749	2.3718	10		0
Potassium, ICAP	mg/L	7	6	8.34	2.39	4.0417	NR		NA
Sodium, ICAP	mg/L	7	7	22.8	1.89	11.7729	NR		NA
Strontium, ICAP	mg/L	7	7	0.392	0.075	0.2513	NR	w	NA
Sulfate	mg/L	7	7	81.7	4.68	39.4257	250		0
Technetium-99	pCi/L	5	1	51	51	51.0000	4000		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Tetrachloroethene	ug/L	7	2	2 J	1 J	1.5000	5	0
Total Dissolved Solids	mg/L	7	7	544	115	325.1429	500	1
Trichloroethene	ug/L	7	5	31	10	22.4000	5	5
Turbidity	NTU	5	5	0.391	0.193	0.2892	1	0
Uranium, ICAP	mg/L	7	0				0.03	0
Uranium, PMS	mg/L	7	6	0.00486	0.00096	0.0018	0.03	0
		REGIME =	BC	AREA NAME = S-3 Site				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	10	5	78	30	44.2000	NR	NA
1,1-Dichloroethene	ug/L	12	5	3 J	2 J	2.2000	7	0
1,2-Dichloroethene	ug/L	10	2	1 J	1 J	1.0000	NR	NA
Alkalinity	mg/L	10	10	392	29.7	150.2500	NR	NA
Aluminum, ICAP	mg/L	12	8	82.9	1.35	33.1238	0.2	8
Barium, ICAP	mg/L	12	12	371	0.0694	37.2805	2	7
Beryllium, ICAP	mg/L	12	7	0.0402	0.002	0.0196	0.004	5
Bicarbonate	mg/L	10	10	392	29.7	142.5000	NR	NA
Boron, ICAP	mg/L	12	5	0.934	0.0291	0.3308	NR w	NA
Cadmium, ICAP	mg/L	12	7	0.447	0.007	0.2568	0.005 z	7
Cadmium, PMS	mg/L	10	6	0.423	0.0258	0.2923	0.005	6
Calcium, ICAP	mg/L	12	12	10100	1.91	2393.5083	NR	NA
Carbonate	mg/L	10	2	69.4	7.74	38.5700	NR	NA
Chloride	mg/L	10	10	300	2.06	192.2160	250	5
Chloroform	ug/L	12	7	36	0.2 J	20.7429	100	0
Chromium, ICAP	mg/L	12	0				0.1	0
Chromium, PMS	mg/L	10	2	0.0149	0.0102	0.0126	0.1	0
cis-1,2-Dichloroethene	ug/L	12	2	1 J	1 J	1.0000	70	0
Cobalt, ICAP	mg/L	12	7	0.624	0.0299	0.3536	NR	NA
Flouride	mg/L	10	9	4.65	0.14	1.6926		0
Gross Alpha Activity	pCi/L	12	9	1100	1.9	303.4333	15	8
Gross Beta Activity	pCi/L	12	10	9600	23	4044.9000	50	9
Iron, ICAP	mg/L	12	4	1.09	0.0219 *	0.4690	0.3	3
Lead, ICAP	mg/L	12	0				0.015	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Lead, PMS	mg/L	10	2	0.0109	0.00144	0.0062	0.015		0
Lithium, ICAP	mg/L	12	12	1.06	0.0124	0.4248	NR	w	NA
Magnesium, ICAP	mg/L	12	12	2430	0.691	518.5626	NR		NA
Manganese, ICAP	mg/L	12	10	137	0.0784	57.3048	0.05		10
Mercury, CVAA	mg/L	12	7	0.00142	0.000317	0.0008	0.002		0
Methylene chloride	ug/L	12	7	12	2 J	8.8571	5		5
Nickel, ICAP	mg/L	12	7	5.8	0.101	3.1703	0.1	z	7
Nickel, PMS	mg/L	10	8	5.36	0.0118	2.5985	0.1		7
Nitrate	mg/L	2	2	18700	13400	16050.0000			0
Nitrate as Nitrogen	mg/L	10	10	11100	10.8	3077.1800	10		10
Nitrate/Nitrite	mg/L	2	2	19	12.4	15.7000	10		2
Np-237	pCi/L	2	2	6.33	5.93	6.1300	1.2		2
Potassium, ICAP	mg/L	12	10	117	4.19	30.9980	NR		NA
Sodium, ICAP	mg/L	12	12	2360	52.6	475.6833	NR		NA
Strontium, ICAP	mg/L	12	12	292	0.0676	31.0638	NR	w	NA
Sulfate	mg/L	10	10	30.8	5	18.9800	250		0
Technetium-99	pCi/L	10	9	140000	44	27626.0000	4000		5
Tetrachloroethene	ug/L	12	9	170	1 J	61.3333	5		5
Total Dissolved Solids	mg/L	10	10	64600	265	17328.5000	500		9
Total Radium Alpha	pCi/L	2	2	0.527	0.405	0.4660	5		0
Total Suspended Solids	mg/L	10	5	8	2	4.6000	NR		NA
Trichloroethene	ug/L	12	5	2 J	0.1 J	1.0200	5		0
Turbidity	NTU	2	2	2.17	0.132	1.1510	1		1
Uranium, ICAP	mg/L	10	0				0.03		0
Uranium, PMS	mg/L	12	11	1.53	0.0016	0.4573	0.03	k	9
Uranium-233/234	pCi/L	2	2	65.8	54.4	60.1000	20		2
Uranium-234	pCi/L	8	6	170	2.9	73.9833	20		5
Uranium-235	pCi/L	8	5	9.7	2.8	4.6200	24		0
Uranium-235/236	pCi/L	2	2	7.12	5	6.0600	20		0
Uranium-236	pCi/L	7	4	4.2	1.5	2.4000	20		0
Uranium-238	pCi/L	10	9	460	0.48	149.2978	24		7
Zinc, ICAP	mg/L	12	3	0.22	0.0251	0.0920	5		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
REGIME = BC AREA NAME = Spoil Area I								
Alkalinity	mg/L	3	3	388	275	321.6667	NR	NA
Barium, ICAP	mg/L	3	3	0.0909	0.0697	0.0784	2	0
Bicarbonate	mg/L	3	3	388	275	321.6667	NR	NA
Calcium, ICAP	mg/L	3	3	135	110	122.0000	NR	NA
Chloride	mg/L	3	3	13.2	4.79	8.8567	250	0
Gross Alpha Activity	pCi/L	3	0				15	0
Gross Beta Activity	pCi/L	3	3	19	7.6	12.8667	50	0
Lead, ICAP	mg/L	3	0				0.015	0
Lead, PMS	mg/L	3	1	0.00064	0.00064	0.0006	0.015	0
Magnesium, ICAP	mg/L	3	3	30.5	15.6	21.6333	NR	NA
Manganese, ICAP	mg/L	3	3	0.113	0.0548	0.0833	0.05	3
Nickel, ICAP	mg/L	3	0				0.1	0
Nickel, PMS	mg/L	3	2	0.00882	0.00554	0.0072	0.1	0
Nitrate as Nitrogen	mg/L	3	3	6.42	1.14	3.3633	10	0
Potassium, ICAP	mg/L	3	3	4.02	2.4	3.1733	NR	NA
Sodium, ICAP	mg/L	3	3	16.1	5.87	10.2700	NR	NA
Strontium, ICAP	mg/L	3	3	0.234	0.141	0.1837	NR w	NA
Sulfate	mg/L	3	3	82.9	22.4	54.9667	250	0
Tetrachloroethene	ug/L	3	3	11	4 J	7.0000	5	2
Total Dissolved Solids	mg/L	3	3	471	371	420.0000	500	0
Total Suspended Solids	mg/L	3	1	1	1	1.0000	NR	NA
Trichloroethene	ug/L	3	3	3 J	1 J	2.0000	5	0
Turbidity	NTU	2	2	0.321	0.117	0.2190	1	0
Uranium, ICAP	mg/L	3	0				0.03	0
Uranium, PMS	mg/L	3	3	0.003	0.00103	0.0019	0.03	0
REGIME = CR AREA NAME = Chestnut Ridge Borrow Area Waste Pile								
Barium, ICAP	mg/L	4	4	0.017	0.0102	0.0144	2	0
Bicarbonate	mg/L	4	4	199	170	183.5000	NR	NA
Calcium, ICAP	mg/L	4	4	39.6	34.3	36.2750	NR	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Chloride	mg/L	4	4	3	0.99	1.8700	250	0
Chromium, ICAP	mg/L	4	2	0.0095	0.0073	0.0084	0.1	0
Flouride	mg/L	4	2	0.11	0.11	0.1100		0
Iron, ICAP	mg/L	4	2	10.2	4.73	7.4650	0.3	2
Magnesium, ICAP	mg/L	4	4	25.8	20.4	22.3750	NR	NA
Manganese, ICAP	mg/L	4	2	0.0983	0.0639	0.0811	0.05	2
Nitrate/Nitrite	mg/L	4	2	0.092	0.091	0.0915	10	0
Potassium, ICAP	mg/L	4	4	3.57	1.04	2.2450	NR	NA
Sodium, ICAP	mg/L	4	4	2.55	1.22	1.8825	NR	NA
Strontium, ICAP	mg/L	4	4	0.0253	0.0155	0.0206	NR	NA
Sulfate	mg/L	4	2	5.8	5.8	5.8000	250	0
REGIME = CR AREA NAME = Chestnut Ridge Security Pits								
1,1,1-Trichloroethane	ug/L	14	7	27	4 J	12.0000	200	0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	10	4	5 J	2 J	3.2500	NR	NA
1,1-Dichloroethane	ug/L	14	7	88	9	47.0000	NR	NA
1,1-Dichloroethene	ug/L	14	7	75	5 J	30.1429	7	6
Alkalinity	mg/L	8	8	289	202	234.5000	NR	NA
Aluminum, ICAP	mg/L	10	1	0.224	0.224	0.2240	0.2	1
Barium, ICAP	mg/L	10	10	0.0715	0.0123	0.0219	2	0
Bicarbonate	mg/L	8	8	289	202	234.5000	NR	NA
Boron, ICAP	mg/L	10	1	0.179	0.179	0.1790	NR w	NA
Calcium, ICAP	mg/L	10	10	61.2	41.5	49.1700	NR	NA
Carbon Tetrachloride	ug/L	14	1	0.6 J	0.6 J	0.6000	5	0
Chloride	mg/L	8	8	2.53	1.13	1.7325	250	0
Chromium, ICAP	mg/L	10	2	0.0142	0.0134	0.0138	0.1	0
Chromium, PMS	mg/L	8	0				0.1	0
Gross Alpha Activity	pCi/L	10	0				15	0
Gross Beta Activity	pCi/L	10	1	7.3	7.3	7.3000	50	0
Iron, ICAP	mg/L	10	5	2.1	0.0569	0.5131	0.3	1
Lead, ICAP	mg/L	10	1	0.0027	0.0027	0.0027	0.015	0
Lead, PMS	mg/L	8	1	0.00281	0.00281	0.0028	0.015	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Lithium, ICAP	mg/L	10	1	0.029	0.029	0.0290	NR w	NA
Magnesium, ICAP	mg/L	10	10	38.3	24.6	29.8300	NR	NA
Manganese, ICAP	mg/L	10	3	0.17	0.0063	0.0614	0.05	1
Nitrate as Nitrogen	mg/L	8	7	0.912	0.327	0.5813	10	0
Potassium, ICAP	mg/L	10	5	5.93	2.36	3.7340	NR	NA
Sodium, ICAP	mg/L	10	10	1.84	0.705	1.3236	NR	NA
Strontium, ICAP	mg/L	10	10	0.0824	0.0146	0.0264	NR w	NA
Sulfate	mg/L	8	8	6.35	0.885	3.5644	250	0
Tetrachloroethene	ug/L	14	8	7	0.3 J	3.5375	5	1
Thallium, ICAP	mg/L	10	1	0.002	0.002	0.0020	0.002	0
Thallium, PMS	mg/L	8	0				0.002	0
Total Dissolved Solids	mg/L	10	10	266	14	184.1000	500	0
Total Suspended Solids	mg/L	10	3	2	1	1.3333	NR	NA
Trichloroethene	ug/L	14	1	0.1 J	0.1 J	0.1000	5	0
Trichlorofluoromethane	ug/L	10	5	37	2 J	14.2000	NR	NA
Uranium, ICAP	mg/L	8	0				0.03	0
Uranium, PMS	mg/L	10	1	0.00156	0.00156	0.0016	0.03	0
Zinc, ICAP	mg/L	10	2	0.0273	0.0268	0.0271	5	0

REGIME = CR AREA NAME = Chestnut Ridge Sediment Disposal Basin

Aluminum, ICAP	mg/L	4	1	0.548	0.548	0.5480	0.2	1
Barium, ICAP	mg/L	4	4	0.033	0.0103	0.0163	2	0
Calcium, ICAP	mg/L	4	4	64.4	29.1	42.0500	NR	NA
Copper, ICAP	mg/L	4	1	0.0388	0.0388	0.0388	1.3	0
Iron, ICAP	mg/L	4	3	0.475	0.0157	0.1787	0.3	1
Magnesium, ICAP	mg/L	4	4	40.4	17.1	25.9000	NR	NA
Manganese, ICAP	mg/L	4	1	0.0114	0.0114	0.0114	0.05	0
Potassium, ICAP	mg/L	4	4	20	0.868	5.9570	NR	NA
Sodium, ICAP	mg/L	4	4	5	0.508	1.7680	NR	NA
Strontium, ICAP	mg/L	4	4	0.0265	0.0152	0.0196	NR	NA
Total Dissolved Solids	mg/L	4	4	384	176	240.0000	500	0
Total Suspended Solids	mg/L	4	1	11	11	11.0000	NR	NA
Zinc, ICAP	mg/L	4	2	0.022	0.0116	0.0168	5	0

REGIME = CR AREA NAME = Construction/Demolition Landfill VII

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
1,1,1-Trichloroethane	ug/L	8	2	2.1 J	1.7 J	1.9000	200	0
1,1-Dichloroethane	ug/L	8	2	3.4 J	2.5 J	2.9500	NR	NA
1,1-Dichloroethene	ug/L	8	2	4.7 J	3.6 J	4.1500	7	0
1,2-Dichlorobenzene	ug/L	8	2	0.29 J	0.27 J	0.2800		0
1,2-Dichloropropane	ug/L	8	1	0.16 J	0.16 J	0.1600	5	0
Alkalinity as HCO3	mg/L	8	8	200	100	151.2500	NR	NA
Aluminum, ICAP	mg/L	8	2	0.67	0.29	0.4800	0.2	2
Barium, ICAP	mg/L	8	7	0.23	0.011	0.0781	2	0
Calcium, ICAP	mg/L	8	8	41	27	34.8750	NR	NA
Chloride	mg/L	8	2	4.7	3.6	4.1500	250	0
cis-1,2-Dichloroethene	ug/L	8	2	8.9	6	7.4500	70	0
Conductivity	umho/	8	8	360	260	302.5000	NR	NA
Copper, PMS	mg/L	8	1	0.0076	0.0076	0.0076		0
Gross Alpha Activity	pCi/L	8	1	4.6	4.6	4.6000	15	0
Gross Beta Activity	pCi/L	8	5	2.4 J	1.18 J	1.7600	50	0
Iron, ICAP	mg/L	8	2	0.39	0.35	0.3700	0.3	2
Magnesium, ICAP	mg/L	8	8	22	11	16.7500	NR	NA
Nitrate as Nitrogen	mg/L	8	3	1.9	0.59	1.0367	10	0
pH	Std	8	8	7.9	6.7	7.5250	6.5/8.5	0
Sodium, ICAP	mg/L	8	3	3.2	2.2	2.5667	NR	NA
Strontium, ICAP	mg/L	8	8	0.085	0.016	0.0353	NR	NA
Sulfate	mg/L	8	2	21	14	17.5000	250	0
Tetrachloroethene	ug/L	8	2	8.8	5.8	7.3000	5	2
Total Dissolved Solids	mg/L	8	8	190	100	155.0000	500	0
Total Suspended Solids	mg/L	8	3	11	4	8.3333	NR	NA
trans-1,2-Dichloroethene	ug/L	8	1	0.15 J	0.15 J	0.1500	100	0
Trichloroethene	ug/L	8	2	0.88 J	0.73 J	0.8050	5	0
Trichlorofluoromethane	ug/L	8	2	11	9.3	10.1500	NR	NA
Turbidity	NTU	8	7	16	0.12	4.4300	1	3
Zinc, PMS	mg/L	8	4	0.021	0.012	0.0173		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
REGIME = CR				AREA NAME = East Chestnut Ridge Waste Pile						
Barium, ICAP	mg/L	4	4	0.013		0.012		0.0127	2	0
Bicarbonate	mg/L	4	4	246		229		239.7500	NR	NA
Calcium, ICAP	mg/L	4	4	55.8		49.1		51.9750	NR	NA
Chloride	mg/L	4	4	9.7		2.9		6.2500	250	0
Chromium, ICAP	mg/L	4	1	0.005		0.005		0.0050	0.1	0
Copper, ICAP	mg/L	4	1	0.0255		0.0255		0.0255	1.3	0
Flouride	mg/L	4	1	0.11		0.11		0.1100		0
Iron, ICAP	mg/L	4	2	0.0714		0.0333		0.0524	0.3	0
Magnesium, ICAP	mg/L	4	4	34.4		30.1		31.8250	NR	NA
Nitrate/Nitrite	mg/L	4	4	1.6		0.22		0.8925	10	0
Potassium, ICAP	mg/L	4	4	1.29		0.822		1.0808	NR	NA
Sodium, ICAP	mg/L	4	4	4.91		1.74		3.3375	NR	NA
Strontium, ICAP	mg/L	4	4	0.0278		0.0185		0.0227	NR	NA
Sulfate	mg/L	4	4	2.7		1		1.9500	250	0
Zinc, ICAP	mg/L	4	1	0.0158		0.0158		0.0158	5	0
REGIME = CR				AREA NAME = Exit Pathway Spring/Surface Water						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	2	1	2	J	2	J	2.0000	NR	NA
Alkalinity	mg/L	2	2	153		118		135.5000	NR	NA
Aluminum, ICAP	mg/L	6	3	0.728	*	0.185		0.3683	0.2	1
Arsenic, ICAP	mg/L	6	1	0.0057		0.0057		0.0057	0.05	0
Arsenic, PMS	mg/L	2	0						0.05	0
Barium, ICAP	mg/L	6	6	0.101		0.0262		0.0592	2	0
Bicarbonate	mg/L	6	6	195		118		156.8333	NR	NA
Boron, ICAP	mg/L	6	4	0.0814		0.0129		0.0416	NR	NA
Calcium, ICAP	mg/L	6	6	49.7		29.1		42.1000	NR	NA
Chloride	mg/L	6	6	2.8		1.8		2.3600	250	0
Flouride	mg/L	6	1	0.16		0.16		0.1600		0
Gross Alpha Activity	pCi/L	6	0						15	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Gross Beta Activity	pCi/L	6	0				50		0
Iron, ICAP	mg/L	6	5	1.19	0.0562	0.3999	0.3		2
Lithium, ICAP	mg/L	6	2	0.023	0.0131	0.0181	NR		NA
Magnesium, ICAP	mg/L	6	6	19.3	10.5	14.2000	NR		NA
Manganese, ICAP	mg/L	6	4	0.186	0.025	0.0884	0.05		2
Nitrate as Nitrogen	mg/L	2	2	0.807	0.0829	0.4450	10		0
Nitrate/Nitrite	mg/L	4	4	0.52	0.094	0.2210	10		0
Potassium, ICAP	mg/L	6	4	2.31	0.912	1.5430	NR		NA
Sodium, ICAP	mg/L	6	6	1.67	1.15	1.4500	NR		NA
Strontium, ICAP	mg/L	6	6	0.354	0.0348	0.1360	NR	w	NA
Sulfate	mg/L	6	6	17	5.7	10.3517	250		0
Total Dissolved Solids	mg/L	6	6	214	119	177.1667	500		0
Total Suspended Solids	mg/L	6	3	15	5	11.0000	NR		NA
Uranium, ICAP	mg/L	2	0				0.03		0
Uranium, PMS	mg/L	6	2	0.00171	0.000565	0.0011	0.03		0
	REGIME =		CR	AREA NAME = Filled Coal Ash Pond					
Alkalinity	mg/L	1	1	183	183	183.0000	NR		NA
Barium, ICAP	mg/L	1	1	0.0156	0.0156	0.0156	2		0
Bicarbonate	mg/L	1	1	183	183	183.0000	NR		NA
Calcium, ICAP	mg/L	1	1	34.7	34.7	34.7000	NR	k	NA
Chloride	mg/L	1	1	1.05	1.05	1.0500	250		0
Gross Alpha Activity	pCi/L	1	0				15		0
Gross Beta Activity	pCi/L	1	0				50		0
Iron, ICAP	mg/L	1	1	6.42	6.42	6.4200	0.3	k	1
Magnesium, ICAP	mg/L	1	1	23.7	23.7	23.7000	NR	k	NA
Manganese, ICAP	mg/L	1	1	0.0395	0.0395	0.0395	0.05		0
Sodium, ICAP	mg/L	1	1	0.511	0.511	0.5110	NR		NA
Strontium, ICAP	mg/L	1	1	0.0199	0.0199	0.0199	NR	w	NA
Total Dissolved Solids	mg/L	1	1	193	193	193.0000	500		0
Total Suspended Solids	mg/L	1	1	4	4	4.0000	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
		REGIME =	CR	AREA NAME = Industrial Landfill II				
Alkalinity as CO3	mg/L	6	1	35	35	35.0000	NR	NA
Alkalinity as HCO3	mg/L	6	6	250	92	178.6667	NR	NA
Barium, ICAP	mg/L	6	6	0.59	0.012	0.2673	2	0
Calcium, ICAP	mg/L	6	6	41	5.3	29.0500	NR	NA
Chromium, PMS	mg/L	6	1	0.012	0.012	0.0120	0.1	0
Conductivity	umho/	6	6	470	270	368.3333	NR	NA
Flouride	mg/L	6	2	1.5	1.3	1.4000		0
Gross Alpha Activity	pCi/L	6	3	2.7 J	2 J	2.3667	15	0
Gross Beta Activity	pCi/L	6	2	13.4	1.46 J	7.4300	50	0
Magnesium, ICAP	mg/L	6	6	27	13	23.3333	NR	NA
pH	Std	6	6	9.5	7.9	8.3333	6.5/8.5	1
Potassium, ICAP	mg/L	6	4	16	2.1	5.7000	NR	NA
Sodium, ICAP	mg/L	6	6	27	2.9	11.5500	NR	NA
Strontium, ICAP	mg/L	6	6	0.78	0.029	0.2257	NR	NA
Sulfate	mg/L	6	6	10	6.3	8.3667	250	0
Total Dissolved Solids	mg/L	6	6	250	150	195.0000	500	0
Total Suspended Solids	mg/L	6	1	6	6	6.0000	NR	NA
Turbidity	NTU	6	6	1.1	0.16	0.4500	1	1
		REGIME =	CR	AREA NAME = Industrial Landfill IV				
1,1,1-Trichloroethane	ug/L	10	2	13	12	12.5000	200	0
1,1-Dichloroethane	ug/L	10	2	25	24	24.5000	NR	NA
1,1-Dichloroethene	ug/L	10	2	6.4	5.5	5.9500	7	0
Alkalinity as CO3	mg/L	10	1	11	11	11.0000	NR	NA
Alkalinity as HCO3	mg/L	10	10	210	130	178.0000	NR	NA
Aluminum, ICAP	mg/L	10	1	0.11	0.11	0.1100	0.2	0
Barium, ICAP	mg/L	10	6	0.031	0.01	0.0195	2	0
Calcium, ICAP	mg/L	10	10	43	16	34.8000	NR	NA
Chloride	mg/L	10	1	3.6	3.6	3.6000	250	0
Chromium, PMS	mg/L	10	1	0.011	0.011	0.0110	0.1	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Conductivity	umho/	10	10	400	250	347.0000	NR	NA
Dibromochloromethane	ug/L	10	1	0.32 J	0.32 J	0.3200	100	0
Gross Beta Activity	pCi/L	10	3	2.1 J	1.4 J	1.6733	50	0
Magnesium, ICAP	mg/L	10	10	26	20	22.7000	NR	NA
Nickel, PMS	mg/L	10	2	0.11	0.097	0.1035	0.1	1
pH	Std	10	10	8.9	7.5	7.9700	6.5/8.5	1
Sodium, ICAP	mg/L	10	4	5.5 E	2.8	4.2750	NR	NA
Strontium, ICAP	mg/L	10	9	0.018 E	0.01	0.0150	NR	NA
Sulfate	mg/L	10	1	5.6	5.6	5.6000	250	0
Total Dissolved Solids	mg/L	10	10	200	130	181.0000	500	0
Total Suspended Solids	mg/L	10	1	11	11	11.0000	NR	NA
Turbidity	NTU	10	8	2.5	0.18	1.0650	1	3
Zinc, PMS	mg/L	10	2	0.016	0.013	0.0145		0
	REGIME =		CR	AREA NAME = Industrial Landfill V				
1,1,1-Trichloroethane	ug/L	12	2	0.44 J	0.39 J	0.4150	200	0
1,1-Dichloroethane	ug/L	12	2	0.32 J	0.27 J	0.2950	NR	NA
1,1-Dichloroethene	ug/L	12	2	0.19 J	0.14 J	0.1650	7	0
Alkalinity as HCO3	mg/L	12	12	210	110	148.3333	NR	NA
Aluminum, ICAP	mg/L	12	4	0.89	0.14	0.3800	0.2	2
Barium, ICAP	mg/L	12	5	0.1	0.01	0.0432	2	0
Calcium, ICAP	mg/L	12	12	57	23	35.7500	NR	NA
Carbon Disulfide	ug/L	12	1	0.66 J	0.66 J	0.6600	NR	NA
Chloride	mg/L	12	4	7.8	3.9	5.9250	250	0
Chromium, PMS	mg/L	12	2	0.032	0.029	0.0305	0.1	0
Conductivity	umho/	12	12	540	230	322.5000	NR	NA
Copper, PMS	mg/L	12	1	0.012	0.012	0.0120		0
Gross Alpha Activity	pCi/L	12	0				15	0
Gross Beta Activity	pCi/L	12	4	2.67 J	1.34 J	1.8125	50	0
Iron, ICAP	mg/L	12	3	0.61	0.11	0.3600	0.3	2
Magnesium, ICAP	mg/L	12	12	33	10 E	18.8333	NR	NA
Nitrate as Nitrogen	mg/L	12	5	3	0.91	1.7720	10	0
pH	Std	12	12	8.5	7	7.9083	6.5/8.5	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Potassium, ICAP	mg/L	12	2	2.4	2.3	2.3500	NR	NA
Sodium, ICAP	mg/L	12	3	5.1	2	3.9333	NR	NA
Strontium, ICAP	mg/L	12	12	0.13	0.013 E	0.0353	NR	NA
Sulfate	mg/L	12	4	58	20	41.0000	250	0
Total Dissolved Solids	mg/L	12	12	310	120	177.5000	500	0
Total Suspended Solids	mg/L	12	3	16	6.8	10.2667	NR	NA
Turbidity	NTU	12	11	32	0.14	5.5082	1	6
Zinc, PMS	mg/L	12	1	0.012	0.012	0.0120		0
REGIME = CR AREA NAME = Kerr Hollow Quarry								
Barium, ICAP	mg/L	4	4	0.1	0.0462	0.0701	2	0
Boron, ICAP	mg/L	4	3	0.802	0.0249	0.3506	NR	NA
Calcium, ICAP	mg/L	4	4	53.1	28.3	42.5000	NR	NA
Chromium, ICAP	mg/L	4	1	0.0086	0.0086	0.0086	0.1	0
Copper, ICAP	mg/L	4	1	0.0396	0.0396	0.0396	1.3	0
Gross Alpha Activity	pCi/L	4	2	8.45	1.72	5.0850	15	0
Gross Beta Activity	pCi/L	4	2	17.5	17.3	17.4000	50	0
Iron, ICAP	mg/L	4	4	0.491	0.0154	0.1387	0.3	1
Lithium, ICAP	mg/L	4	3	0.313	0.0271	0.1497	NR	NA
Magnesium, ICAP	mg/L	4	4	34	17.9	25.1750	NR	NA
Manganese, ICAP	mg/L	4	2	0.0097	0.0075	0.0086	0.05	0
Potassium, ICAP	mg/L	4	4	16.4	1.73	7.8325	NR	NA
Sodium, ICAP	mg/L	4	4	20	0.796	6.5090	NR	NA
Strontium, ICAP	mg/L	4	4	6.65	0.0542	2.4041	NR	NA
Total Dissolved Solids	mg/L	4	4	296	243	262.0000	500	0
Uranium, PMS	mg/L	4	1	0.011	0.011	0.0110	0.03	0
Zinc, ICAP	mg/L	4	1	0.0449	0.0449	0.0449	5	0
REGIME = CR AREA NAME = South Campus Facility, Bethel Valley								
1,2-Dichloroethene	ug/L	2	2	11	0.9 J	5.9500	NR	NA
cis-1,2-Dichloroethene	ug/L	2	2	11	0.9 J	5.9500	70	0
Trichloroethene	ug/L	2	2	7	3	5.0000	5	1

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
	REGIME =	CR		AREA NAME = United Nuclear Corporation Site				
Aluminum, ICAP	mg/L	10	3	1.81	0.104	0.7190	0.2	2
Barium, ICAP	mg/L	10	8	0.0527	0.0073	0.0204	2	0
Bicarbonate	mg/L	10	10	246	20.2	148.6600	NR	NA
Boron, ICAP	mg/L	10	1	0.0115	0.0115	0.0115	NR	NA
Calcium, ICAP	mg/L	10	10	54.5	1.27	28.2350	NR	NA
Carbonate	mg/L	10	2	82.8	4	43.4000	NR	NA
Chloride	mg/L	10	10	11.9	1.4	4.6600	250	0
Copper, ICAP	mg/L	10	1	0.0116	0.0116	0.0116	1.3	0
Gross Alpha Activity	pCi/L	10	1	4.18	4.18	4.1800	15	0
Gross Beta Activity	pCi/L	10	3	68.2	7.15	43.7833	50	2
Iron, ICAP	mg/L	10	6	1.46	0.0135	0.3069	0.3	1
Lead, ICAP	mg/L	10	1	0.0062	0.0062	0.0062	0.015	0
Lithium, ICAP	mg/L	10	2	0.157	0.152	0.1545	NR	NA
Magnesium, ICAP	mg/L	10	10	32.2	2.59	17.3220	NR	NA
Manganese, ICAP	mg/L	10	2	0.0476	0.0132	0.0304	0.05	0
Nitrate/Nitrite	mg/L	10	10	0.74	0.046	0.3030	10	0
Potassium, ICAP	mg/L	10	10	69.6	0.501	14.4551	NR	NA
Sodium, ICAP	mg/L	10	10	11.6	0.447	4.0775	NR	NA
Strontium, ICAP	mg/L	10	9	0.0725	0.0067	0.0215	NR	NA
Strontium-90	pCi/L	8	1	2.49	2.49	2.4900	8	0
Sulfate	mg/L	10	10	21.5	1.2	4.9100	250	0
Total Dissolved Solids	mg/L	8	8	304	151	229.2500	500	0
Uranium-233/234	pCi/L	8	4	0.974	0.608	0.7408	20	0
Uranium-235/236	pCi/L	8	3	0.336	0.193	0.2773	20	0
Uranium-238	pCi/L	8	3	0.49	0.219	0.3833	24	0
Zinc, ICAP	mg/L	10	1	0.0124	0.0124	0.0124	5	0
	REGIME =	EF		AREA NAME = Beta-4 Security Pits				
1,2-Dichloroethene	ug/L	1	1	22	22	22.0000	NR	NA
Alkalinity	mg/L	1	1	266	266	266.0000	NR	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Barium, ICAP	mg/L	1	1	0.142	0.142	0.1420	2		0
Bicarbonate	mg/L	1	1	266	266	266.0000	NR		NA
Calcium, ICAP	mg/L	1	1	97.6	97.6	97.6000	NR		NA
Chloride	mg/L	1	1	26.3	26.3	26.3000	250		0
cis-1,2-Dichloroethene	ug/L	1	1	22	22	22.0000	70		0
Copper, ICAP	mg/L	1	1	0.0274	0.0274	0.0274	1.3		0
Flouride	mg/L	1	1	0.129	0.129	0.1290			0
Gross Alpha Activity	pCi/L	1	0				15		0
Gross Beta Activity	pCi/L	1	1	8.2	8.2	8.2000	50		0
Iron, ICAP	mg/L	1	1	2.69	2.69	2.6900	0.3		1
Lead, ICAP	mg/L	1	0				0.015		0
Lead, PMS	mg/L	1	1	0.00418	0.00418	0.0042	0.015		0
Lithium, ICAP	mg/L	1	1	0.0174	0.0174	0.0174	NR	w	NA
Magnesium, ICAP	mg/L	1	1	8.71	8.71	8.7100	NR		NA
Manganese, ICAP	mg/L	1	1	2.03	2.03	2.0300	0.05		1
Nickel, ICAP	mg/L	1	0				0.1		0
Nickel, PMS	mg/L	1	1	0.00604	0.00604	0.0060	0.1	d	0
Sodium, ICAP	mg/L	1	1	9.12	9.12	9.1200	NR		NA
Strontium, ICAP	mg/L	1	1	0.158	0.158	0.1580	NR	w	NA
Sulfate	mg/L	1	1	5.04	5.04	5.0400	250		0
Tetrachloroethene	ug/L	1	1	1 J	1 J	1.0000	5		0
Total Dissolved Solids	mg/L	1	1	364	364	364.0000	500		0
Total Suspended Solids	mg/L	1	1	8	8	8.0000	NR		NA
Trichloroethene	ug/L	1	1	3 J	3 J	3.0000	5		0
		REGIME =	EF	AREA NAME = Building 8110					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	5	5	75	4 J	39.4000	NR		NA
1,1-Dichloroethane	ug/L	5	1	1 J	1 J	1.0000	NR		NA
1,1-Dichloroethene	ug/L	5	1	2 J	2 J	2.0000	7		0
1,2-Dichloroethene	ug/L	5	5	120	22	70.0000	NR		NA
Alkalinity	mg/L	5	5	286	252	264.8000	NR		NA
Aluminum, ICAP	mg/L	5	4	11.1	0.744	4.0135	0.2		4

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Barium, ICAP	mg/L	5	5	0.29	0.0449	0.2186	2	0
Bicarbonate	mg/L	5	5	286	252	264.8000	NR	NA
Calcium, ICAP	mg/L	5	5	254	127	205.0000	NR	NA
Carbon Tetrachloride	ug/L	5	4	7	3 J	5.7500	5	3
Chloride	mg/L	5	5	23.3	13.2	20.6400	250	0
Chloroform	ug/L	5	4	21	8	15.2500	100	0
Chromium, ICAP	mg/L	5	1	0.028	0.028	0.0280	0.1 z	0
Chromium, PMS	mg/L	5	1	0.0279	0.0279	0.0279	0.1	0
cis-1,2-Dichloroethene	ug/L	5	5	120	22	69.6000	70	2
Copper, ICAP	mg/L	5	1	0.0437	0.0437	0.0437	1.3	0
Dichlorodifluoromethane	ug/L	5	1	3 J	3 J	3.0000	NR	NA
Gross Alpha Activity	pCi/L	5	2	12	5.9	8.9500	15	0
Gross Beta Activity	pCi/L	5	2	19	12	15.5000	50	0
Iron, ICAP	mg/L	5	5	10.7	0.0692	3.0774	0.3	4
Lead, ICAP	mg/L	5	0				0.015	0
Lead, PMS	mg/L	5	4	0.0133	0.00063	0.0047	0.015	0
Lithium, ICAP	mg/L	5	1	0.0117	0.0117	0.0117	NR w	NA
Magnesium, ICAP	mg/L	5	5	75.7	9.89	54.5580	NR	NA
Manganese, ICAP	mg/L	5	5	3.58	0.458	1.2656	0.05	5
Mercury, CVAA	mg/L	5	4	0.0403	0.00109	0.0126	0.002	3
Nickel, ICAP	mg/L	5	0				0.1	0
Nickel, PMS	mg/L	5	5	0.0272	0.0069	0.0166	0.1	0
Nitrate as Nitrogen	mg/L	5	4	166	74.3	139.8250	10	4
Potassium, ICAP	mg/L	5	4	6.53	3.79	4.6800	NR	NA
Sodium, ICAP	mg/L	5	5	27.9	14	22.0200	NR	NA
Strontium, ICAP	mg/L	5	5	0.792	0.169	0.5574	NR w	NA
Sulfate	mg/L	5	5	83.6	27.4	55.7800	250	0
Tetrachloroethene	ug/L	5	5	200	82	145.2000	5	5
Total Dissolved Solids	mg/L	5	5	1350	387	939.8000	500	4
Total Suspended Solids	mg/L	5	5	220	7	54.6000	NR	NA
trans-1,2-Dichloroethene	ug/L	5	3	2 J	1 J	1.6667	100	0
Trichloroethene	ug/L	5	5	770 D	16	453.2000	5	5
Uranium, ICAP	mg/L	5	0				0.03	0
Uranium, PMS	mg/L	5	5	0.00132	0.00064	0.0011	0.03	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
REGIME = EF				AREA NAME = Building 9201-2				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	2	2	70	40	55.0000	NR	NA
1,1-Dichloroethene	ug/L	2	2	4 J	4 J	4.0000	7	0
1,2-Dichloroethene	ug/L	2	2	970 D	770 D	870.0000	NR	NA
1,3-Dichlorobenzene	ug/L	2	2	3 J	2 Jz	2.5000	Jz	0
1,4-Dichlorobenzene	ug/L	2	2	3 J	2 J	2.5000	75	0
Alkalinity	mg/L	2	2	183	168	175.5000	NR	NA
Antimony, ICAP	mg/L	2	0				0.006	0
Antimony, PMS	mg/L	2	1	0.00332	0.00332	0.0033	0.006	0
Barium, ICAP	mg/L	2	2	0.187	0.187	0.1870	2	0
Bicarbonate	mg/L	2	2	183	168	175.5000	NR	NA
Calcium, ICAP	mg/L	2	2	66.6	65.8	66.2000	NR	NA
Chloride	mg/L	2	2	31.1	30.3	30.7000	250	0
cis-1,2-Dichloroethene	ug/L	2	2	960 D	770 D	865.0000	70	2
Flouride	mg/L	2	2	0.258	0.241	0.2495		0
Gross Alpha Activity	pCi/L	2	2	9.6	3.1	6.3500	15	0
Gross Beta Activity	pCi/L	2	1	8.1	8.1	8.1000	50	0
Iron, ICAP	mg/L	2	2	0.444	0.111	0.2775	0.3	1
Magnesium, ICAP	mg/L	2	2	11.7	11.2	11.4500	NR	NA
Manganese, ICAP	mg/L	2	2	0.376	0.354	0.3650	0.05	2
Nitrate	mg/L	1	1	0.128	0.128	0.1280		0
Nitrate as Nitrogen	mg/L	2	2	0.0315	0.029	0.0303	10	0
Potassium, ICAP	mg/L	2	2	2.84	2.3	2.5700	NR	NA
Sodium, ICAP	mg/L	2	2	22.3	19.9	21.1000	NR	NA
Strontium, ICAP	mg/L	2	2	0.282	0.281	0.2815	NR w	NA
Sulfate	mg/L	2	2	41.3	38.6	39.9500	250	0
Tetrachloroethene	ug/L	2	2	4100 D	2700 D	3400.0000	5	2
Thallium, ICAP	mg/L	2	0				0.002	0
Thallium, PMS	mg/L	2	1	0.000635	0.000635	0.0006	0.002	0
Total Dissolved Solids	mg/L	2	2	284	255	269.5000	500	0
Total Suspended Solids	mg/L	2	1	3	3	3.0000	NR	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
trans-1,2-Dichloroethene	ug/L	2	2	7	5 J	6.0000	100	0
Trichloroethene	ug/L	2	2	750 D	560 D	655.0000	5	2
Vinyl Chloride	ug/L	2	2	70	26	48.0000	2	2
REGIME = EF AREA NAME = Coal Pile Trench								
1,2-Dichloroethene	ug/L	4	4	34	6	15.5000	NR	NA
Alkalinity	mg/L	4	4	337	152	250.5000	NR	NA
Barium, ICAP	mg/L	4	4	0.0832	0.0138	0.0435	2	0
Bicarbonate	mg/L	4	4	337	152	250.5000	NR	NA
Boron, ICAP	mg/L	4	1	0.229	0.229	0.2290	NR w	NA
Calcium, ICAP	mg/L	4	4	387	70.8	232.9500	NR	NA
Chloride	mg/L	4	4	69.7	14.1	29.6500	250	0
Chloroform	ug/L	4	1	8	8	8.0000	100	0
cis-1,2-Dichloroethene	ug/L	4	4	34	6	15.5000	70	0
Flouride	mg/L	4	1	0.843	0.843	0.8430		0
Gross Alpha Activity	pCi/L	4	1	7.2	7.2	7.2000	15	0
Gross Beta Activity	pCi/L	4	1	8.1	8.1	8.1000	50	0
Iron, ICAP	mg/L	4	2	1.92	1.5	1.7100	0.3	2
Lead, ICAP	mg/L	4	0				0.015	0
Lead, PMS	mg/L	4	1	0.0006	0.0006	0.0006	0.015	0
Lithium, ICAP	mg/L	4	1	0.0112	0.0112	0.0112	NR w	NA
Magnesium, ICAP	mg/L	4	4	56	16.4	33.0000	NR	NA
Manganese, ICAP	mg/L	4	4	7.53	0.00839	2.4118	0.05	3
Mercury, CVAA	mg/L	4	1	0.000375	0.000375	0.0004	0.002	0
Nickel, ICAP	mg/L	4	0				0.1	0
Nickel, PMS	mg/L	4	4	0.0423	0.00731	0.0206	0.1	0
Nitrate as Nitrogen	mg/L	4	4	3.96	0.107	1.3940	10	0
Potassium, ICAP	mg/L	4	4	8.27	2.67	4.7950	NR	NA
Sodium, ICAP	mg/L	4	4	16	8.19	12.0475	NR	NA
Strontium, ICAP	mg/L	4	4	0.63	0.197	0.4075	NR w	NA
Sulfate	mg/L	4	4	905	84.6	402.4000	250	2
Tetrachloroethene	ug/L	4	3	1300 D	6	462.3333	5	3
Total Dissolved Solids	mg/L	4	4	1700	290	934.7500	500	3

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Total Suspended Solids	mg/L	4	3	8	1	3.6667	NR		NA
Trichloroethene	ug/L	4	3	8	3 J	5.0000	5		1
Uranium, ICAP	mg/L	4	0				0.03		0
Uranium, PMS	mg/L	4	3	0.00114	0.00067	0.0009	0.03		0
Vinyl Chloride	ug/L	4	1	2 J	2 J	2.0000	2		0
Zinc, ICAP	mg/L	4	1	0.059	0.059	0.0590	5		0
REGIME = EF AREA NAME = Exit Pathway - Traverse E									
1,2-Dichloroethene	ug/L	2	1	10	10	10.0000	NR		NA
Alkalinity	mg/L	1	1	79.2	79.2	79.2000	NR		NA
Barium, ICAP	mg/L	2	2	0.0416	0.0329	0.0373	2		0
Bicarbonate	mg/L	2	2	281	79.2	180.1000	NR		NA
Boron, ICAP	mg/L	2	2	0.11	0.107	0.1085	NR	w	NA
Cadmium, ICAP	mg/L	2	1	0.0027	0.0027	0.0027	0.005		0
Cadmium, PMS	mg/L	1	0				0.005		0
Calcium, ICAP	mg/L	2	2	97.9	19.3	58.6000	NR		NA
Chloride	mg/L	2	2	8.5	5.63	7.0650	250		0
cis-1,2-Dichloroethene	ug/L	2	1	10	10	10.0000	70		0
Flouride	mg/L	2	1	0.21	0.21	0.2100			0
Gross Alpha Activity	pCi/L	2	0				15		0
Gross Beta Activity	pCi/L	2	1	4.74	4.74	4.7400	50		0
Iron, ICAP	mg/L	2	2	0.42	0.176	0.2980	0.3		1
Magnesium, ICAP	mg/L	2	2	8.91	5.85	7.3800	NR		NA
Manganese, ICAP	mg/L	2	2	2.2	0.28	1.2400	0.05		2
Methane	ug/L	1	1	39	39	39.0000	NR		NA
Nickel, ICAP	mg/L	2	0				0.1		0
Nickel, PMS	mg/L	1	1	0.0107	0.0107	0.0107	0.1		0
Nitrate as Nitrogen	mg/L	1	1	0.212	0.212	0.2120	10		0
Nitrate/Nitrite	mg/L	1	1	0.16	0.16	0.1600	10		0
Potassium, ICAP	mg/L	2	1	4.45	4.45	4.4500	NR		NA
Sodium, ICAP	mg/L	2	2	13.2	6.16	9.6800	NR		NA
Strontium, ICAP	mg/L	2	2	0.204	0.0448	0.1244	NR	w	NA
Sulfate	mg/L	2	2	18.1	9.49	13.7950	250		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Tetrachloroethene	ug/L	2	1	7	7	7.0000	5	1
Total Dissolved Solids	mg/L	2	2	397	89	243.0000	500	0
Total Suspended Solids	mg/L	2	1	6	6	6.0000	NR	NA
trans-1,2-Dichloroethene	ug/L	2	1	0.2 J	0.2 J	0.2000	100	0
Trichloroethene	ug/L	2	1	8	8	8.0000	5	1
Vinyl Chloride	ug/L	2	1	0.4 J	0.4 J	0.4000	2	0
	REGIME =	EF		AREA NAME = Exit Pathway - Traverse I				
1,1-Dichloroethane	ug/L	4	1	0.4 J	0.4 J	0.4000	NR	NA
1,1-Dichloroethene	ug/L	4	1	0.9 J	0.9 J	0.9000	7	0
Barium, ICAP	mg/L	4	4	0.199	0.0461	0.1245	2	0
Benzene	ug/L	4	1	0.4 J	0.4 J	0.4000	5	0
Bicarbonate	mg/L	4	4	337	271	304.5000	NR	NA
Boron, ICAP	mg/L	4	4	0.101	0.0209	0.0560	NR	NA
Calcium, ICAP	mg/L	4	4	102	84.8	91.4750	NR	NA
Carbon Tetrachloride	ug/L	4	4	80	45	59.5000	5	4
Chloride	mg/L	4	4	32.2	22.2	26.3750	250	0
Chloroform	ug/L	4	4	55	16	33.7500	100	0
cis-1,2-Dichloroethene	ug/L	4	3	160	0.1 J	82.7000	70	2
Copper, ICAP	mg/L	4	1	0.009	0.009	0.0090	1.3	0
Flouride	mg/L	4	4	0.48	0.1	0.2200		0
Gross Alpha Activity	pCi/L	4	4	66.8	4.9	32.1000	15	2
Gross Beta Activity	pCi/L	4	4	19.2	5.32	11.6600	50	0
Iron, ICAP	mg/L	4	3	0.044	0.0196	0.0301	0.3	0
Lithium, ICAP	mg/L	4	2	0.0117	0.0109	0.0113	NR	NA
Magnesium, ICAP	mg/L	4	4	41.9	20.6	31.7250	NR	NA
Manganese, ICAP	mg/L	4	4	0.215	0.0128	0.1012	0.05	2
Nitrate/Nitrite	mg/L	4	4	11.5	0.16	5.1900	10	1
Potassium, ICAP	mg/L	4	4	3.97	2.24	3.1175	NR	NA
Sodium, ICAP	mg/L	4	4	18.6	6.61	11.4850	NR	NA
Strontium, ICAP	mg/L	4	4	0.624	0.176	0.4028	NR	NA
Sulfate	mg/L	4	4	62.9	31.3	46.3750	250	0
Tetrachloroethene	ug/L	4	4	91	5 J	41.7500	5	2

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
trans-1,2-Dichloroethene	ug/L	4	1	1 J	1 J	1.0000	100	0
Trichloroethene	ug/L	4	3	96	0.2 J	52.4000	5	2
Uranium, PMS	mg/L	4	4	0.14	0.0051	0.0651	0.03	2
Vinyl Chloride	ug/L	4	1	1	1	1.0000	2	0
Zinc, ICAP	mg/L	4	2	0.0171	0.0117	0.0144	5	0
REGIME = EF AREA NAME = Exit Pathway - Traverse J								
Acetone	ug/L	12	2	10	8 J	9.0000	NR	NA
Alkalinity	mg/L	5	5	276	218	247.6000	NR	NA
Barium, ICAP	mg/L	5	5	0.121	0.0409	0.0973	2	0
Benzene	ug/L	12	1	0.1 J	0.1 J	0.1000	5	0
Bicarbonate	mg/L	5	5	276	218	247.6000	NR	NA
Boron, ICAP	mg/L	5	4	0.154	0.116	0.1338	NR w	NA
Calcium, ICAP	mg/L	5	5	85.1	49.1	61.8600	NR	NA
Carbon Tetrachloride	ug/L	12	10	64	4	31.9000	5	9
Chloride	mg/L	5	5	34.4	3.3	12.6520	250	0
Chloroform	ug/L	12	12	14	0.6 J	4.8000	100	0
Chromium, ICAP	mg/L	5	0				0.1	0
Chromium, PMS	mg/L	5	2	0.0153	0.0133	0.0143	0.1	0
cis-1,2-Dichloroethene	ug/L	12	4	0.7 J	0.2 J	0.4000	70	0
Ethyl Benzene	ug/L	12	3	0.2 J	0.1 J	0.1667	700	0
Flouride	mg/L	5	4	0.591	0.202	0.3313		0
Gross Alpha Activity	pCi/L	7	2	4.3	3.4	3.8500	15	0
Gross Beta Activity	pCi/L	7	1	9.4	9.4	9.4000	50	0
Iron, ICAP	mg/L	5	2	0.0918	0.0653	0.0786	0.3	0
Lithium, ICAP	mg/L	5	4	0.0313	0.0158	0.0209	NR w	NA
Magnesium, ICAP	mg/L	5	5	28.3	16	25.2600	NR	NA
Nickel, ICAP	mg/L	5	0				0.1	0
Nickel, PMS	mg/L	5	5	0.0103	0.00622	0.0089	0.1	0
Nitrate as Nitrogen	mg/L	5	5	0.828	0.063	0.3788	10	0
Potassium, ICAP	mg/L	5	2	2.39	2.24	2.3150	NR	NA
Sodium, ICAP	mg/L	5	5	36.9	3.08	17.1360	NR	NA
Strontium, ICAP	mg/L	5	5	1.17	0.0782	0.6642	NR w	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Styrene	ug/L	12	1	0.1 J	0.1 J	0.1000	100	0
Sulfate	mg/L	5	5	32.4	11.1	19.3000	250	0
Tetrachloroethene	ug/L	12	10	11	0.2 J	4.8500	5	5
Toluene	ug/L	12	1	0.1 J	0.1 J	0.1000	1000	0
Total Dissolved Solids	mg/L	5	5	315	223	281.0000	500	0
Total Suspended Solids	mg/L	5	3	6	2	4.0000	NR	NA
Trichloroethene	ug/L	12	10	2 J	0.1 J	1.2600	5	0
Zinc, ICAP	mg/L	5	5	0.442	0.0773	0.2248	5	0
REGIME = EF AREA NAME = Exit Pathway Scarboro Road/Pine Ridge								
Alkalinity	mg/L	1	1	196	196	196.0000	NR	NA
Barium, ICAP	mg/L	1	1	0.0846	0.0846	0.0846	2	0
Bicarbonate	mg/L	1	1	196	196	196.0000	NR	NA
Calcium, ICAP	mg/L	1	1	50.2	50.2	50.2000	NR	NA
Chloride	mg/L	1	1	10.9	10.9	10.9000	250	0
Flouride	mg/L	1	1	0.12	0.12	0.1200		0
Gross Alpha Activity	pCi/L	1	1	4.1	4.1	4.1000	15	0
Gross Beta Activity	pCi/L	1	1	7.5	7.5	7.5000	50	0
Iron, ICAP	mg/L	1	1	17.9	17.9	17.9000	0.3	1
Magnesium, ICAP	mg/L	1	1	14.7	14.7	14.7000	NR	NA
Manganese, ICAP	mg/L	1	1	1.21	1.21	1.2100	0.05	1
Potassium, ICAP	mg/L	1	1	4.67	4.67	4.6700	NR	NA
Sodium, ICAP	mg/L	1	1	7.12	7.12	7.1200	NR	NA
Strontium, ICAP	mg/L	1	1	0.0686	0.0686	0.0686	NR w	NA
Sulfate	mg/L	1	1	1.36	1.36	1.3600	250	0
Total Dissolved Solids	mg/L	1	1	234	234	234.0000	500	0
Total Suspended Solids	mg/L	1	1	20	20	20.0000	NR	NA
REGIME = EF AREA NAME = Exit Pathway Spring/Surface Water								
Tetrachloroethene	ug/L	1	1	0.1 J	0.1 J	0.1000	5	0
Total Dissolved Solids	mg/L	1	1	466	466	466.0000	500	0

REGIME = EF AREA NAME = Fire Training Facility

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
1,1-Dichloroethene	ug/L	2	1	1 J	1 J	1.0000	7		0
1,2-Dichloroethene	ug/L	2	1	7	7	7.0000	NR		NA
Alkalinity	mg/L	2	2	101	37.9	69.4500	NR		NA
Aluminum, ICAP	mg/L	2	2	0.566	0.241	0.4035	0.2		2
Barium, ICAP	mg/L	2	2	0.0127	0.00729	0.0100	2		0
Bicarbonate	mg/L	2	2	101	19.4	60.2000	NR		NA
Calcium, ICAP	mg/L	2	2	31.8	2.85	17.3250	NR		NA
Carbonate	mg/L	2	1	18.5	18.5	18.5000	NR		NA
Chloride	mg/L	2	2	2.32	1.91	2.1150	250		0
Chromium, ICAP	mg/L	2	0				0.1		0
Chromium, PMS	mg/L	2	1	0.0127	0.0127	0.0127	0.1		0
cis-1,2-Dichloroethene	ug/L	2	1	7	7	7.0000	70		0
Flouride	mg/L	2	1	0.135	0.135	0.1350			0
Gross Alpha Activity	pCi/L	2	1	5.4	5.4	5.4000	15		0
Gross Beta Activity	pCi/L	2	1	12	12	12.0000	50		0
Lithium, ICAP	mg/L	2	1	0.0269	0.0269	0.0269	NR	w	NA
Magnesium, ICAP	mg/L	2	1	3.97	3.97	3.9700	NR		NA
Nitrate	mg/L	1	1	5.98	5.98	5.9800			0
Nitrate as Nitrogen	mg/L	2	2	1.35	1.27	1.3100	10		0
Potassium, ICAP	mg/L	2	2	23.4	12.2	17.8000	NR		NA
Sodium, ICAP	mg/L	2	2	2.83	2.16	2.4950	NR		NA
Strontium, ICAP	mg/L	2	2	0.177	0.0803	0.1287	NR	w	NA
Sulfate	mg/L	2	2	5.53	5.2	5.3650	250		0
Technetium-99	pCi/L	1	0				4000		0
Tetrachloroethene	ug/L	2	2	35	3 J	19.0000	5		1
Total Dissolved Solids	mg/L	2	2	66	42	54.0000	500		0
Total Suspended Solids	mg/L	2	1	1	1	1.0000	NR		NA
Trichloroethene	ug/L	2	1	9	9	9.0000	5		1
Uranium, ICAP	mg/L	2	0				0.03		0
Uranium, PMS	mg/L	2	1	0.000615	0.000615	0.0006	0.03		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
		REGIME =	EF	AREA NAME = New Hope Pond							
1,1,1-Trichloroethane	ug/L	26	2	0.2	J	0.2	J	0.2000	200		0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	14	2	2	J	2	J	2.0000	NR		NA
1,1-Dichloroethane	ug/L	26	2	0.7	J	0.7	J	0.7000	NR		NA
1,1-Dichloroethene	ug/L	26	11	4	J	0.4	J	1.5636	7		0
1,2-Dichloroethene	ug/L	20	17	240	D	0.2	J	57.4118	NR		NA
Alkalinity	mg/L	12	12	365		187		241.2500	NR		NA
Aluminum, ICAP	mg/L	24	9	0.874	N	0.0516		0.3495	0.2		6
Barium, ICAP	mg/L	24	24	0.606		0.0281		0.1911	2		0
Benzene	ug/L	26	1	0.1	J	0.1	J	0.1000	5		0
Bicarbonate	mg/L	22	22	365		133		226.5909	NR		NA
Boron, ICAP	mg/L	24	12	0.12		0.0246		0.0525	NR		NA
Cadmium, ICAP	mg/L	24	5	0.00099		0.00013		0.0003	0.005		0
Cadmium, PMS	mg/L	12	0						0.005		0
Calcium, ICAP	mg/L	24	24	174		42.3		78.6708	NR	k	NA
Carbon Disulfide	ug/L	26	2	2	J	1	J	1.5000	NR		NA
Carbon Tetrachloride	ug/L	26	21	1400	D	0.2	J	536.9524	5		16
Chloride	mg/L	22	22	114		9.8		30.2545	250		0
Chloroform	ug/L	26	19	120		0.5	J	52.7263	100		2
Chromium, ICAP	mg/L	24	2	2.02		1.15		1.5850	0.1		2
Chromium, PMS	mg/L	12	0						0.1		0
cis-1,2-Dichloroethene	ug/L	26	22	240	D	0.1	J	51.3955	70		3
Cobalt, ICAP	mg/L	24	1	0.0052		0.0052		0.0052	NR		NA
Copper, ICAP	mg/L	24	5	0.0989		0.0055		0.0283	1.3		0
Ethane	ug/L	12	2	1.5	J	1.1	J	1.3000	NR		NA
Ethyl Benzene	ug/L	26	1	0.1	J	0.1	J	0.1000	700		0
Flouride	mg/L	22	7	0.25		0.11		0.1609			0
Gross Alpha Activity	pCi/L	25	14	431		2.3		65.4529	15		2
Gross Beta Activity	pCi/L	25	12	125		3.61		27.2050	50		3
Iron, ICAP	mg/L	24	17	9.26		0.0571		1.5070	0.3		10
Lead, ICAP	mg/L	24	2	0.0073		0.0026		0.0050	0.015		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Lead, PMS	mg/L	12	3	0.00442		0.000585		0.0020	0.015		0
Lithium, ICAP	mg/L	24	4	0.0155		0.0105		0.0127	NR	w	NA
Magnesium, ICAP	mg/L	24	24	27.5		11.3		20.9958	NR	k	NA
Manganese, ICAP	mg/L	24	21	2.35		0.00595		0.2433	0.05		11
Methane	ug/L	12	9	590		30		171.6667	NR		NA
Nickel, ICAP	mg/L	24	2	0.363		0.114		0.2385	0.1		2
Nickel, PMS	mg/L	12	3	0.043		0.011		0.0217	0.1		0
Nitrate as Nitrogen	mg/L	12	9	1.13		0.492		0.6659	10		0
Nitrate/Nitrite	mg/L	10	8	2		0.094		0.9905	10		0
Potassium, ICAP	mg/L	24	23	6.67		1.43		2.7887	NR		NA
Sodium, ICAP	mg/L	24	24	37.7		5.36		11.0179	NR	k	NA
Strontium, ICAP	mg/L	24	24	0.593		0.0554		0.3408	NR	w	NA
Sulfate	mg/L	22	22	43.9		2.62		20.4418	250		0
Tetrachloroethene	ug/L	26	22	850	D	0.5	J	287.1409	5		18
Toluene	ug/L	26	1	1	J	1	J	1.0000	1000		0
Total Dissolved Solids	mg/L	24	24	523		204		335.7917	500		3
Total Suspended Solids	mg/L	24	13	52		1		12.9231	NR		NA
Total Xylene	ug/L	26	1	0.6	J	0.6	J	0.6000	1000		0
trans-1,2-Dichloroethene	ug/L	26	5	2	J	0.3	J	0.8200	100		0
Trichloroethene	ug/L	26	20	160	D	0.1	J	70.3550	5		14
Trichlorofluoromethane	ug/L	14	3	2	J	1	J	1.3333	NR		NA
Turbidity	NTU	1	1	1.26		1.26		1.2600	1		1
Uranium, ICAP	mg/L	12	0						0.03		0
Uranium, PMS	mg/L	24	9	0.54		0.000795		0.1223	0.03		4
Uranium-233/234	pCi/L	8	7	360		0.909		102.4584	20		2
Uranium-235/236	pCi/L	8	3	23.5		0.757		15.0523	20		2
Uranium-238	pCi/L	8	6	164		1.44		56.0533	24		2
Vanadium, ICAP	mg/L	24	1	0.0142		0.0142		0.0142	NR		NA
Vinyl Chloride	ug/L	26	6	7		0.4	J	3.3333	2		4
Zinc, ICAP	mg/L	24	3	0.0842		0.0125		0.0434	5		0
		REGIME =	EF	AREA NAME = Rust Garage Area							
1,1-Dichloroethene	ug/L	3	1	1	J	1	J	1.0000	7		0
1,2-Dichloroethene	ug/L	3	1	11		11		11.0000	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
4-Methyl-2-pentanone	ug/L	3	1	10		10		10.0000	NR		NA
Acetone	ug/L	3	2	57		9		33.0000	NR		NA
Alkalinity	mg/L	3	3	303		20		119.7667	NR		NA
Barium, ICAP	mg/L	3	3	4.92		0.0933		1.7039	2		1
Benzene	ug/L	3	3	1800	D	240	D	816.6667	5		3
Beryllium, ICAP	mg/L	3	1	0.000582		0.000582		0.0006	0.004		0
Bicarbonate	mg/L	3	3	303		20		119.7667	NR		NA
Bromoform	ug/L	3	1	2	J	2	J	2.0000	100		0
Calcium, ICAP	mg/L	3	3	1110		1.96		371.8467	NR		NA
Chloride	mg/L	3	3	40.4		32.3		35.1333	250		0
Chloroform	ug/L	3	1	12		12		12.0000	100		0
Chromium, ICAP	mg/L	3	2	1.34		0.434		0.8870	0.1	z	2
Chromium, PMS	mg/L	3	2	1.35		0.371		0.8605	0.1		2
cis-1,2-Dichloroethene	ug/L	3	1	11		11		11.0000	70		0
Cobalt, ICAP	mg/L	3	2	0.0494		0.0475		0.0485	NR		NA
Copper, ICAP	mg/L	3	1	0.0361		0.0361		0.0361	1.3		0
Ethyl Benzene	ug/L	3	3	470	D	1	J	263.6667	700		0
Gross Alpha Activity	pCi/L	3	1	34		34		34.0000	15		1
Gross Beta Activity	pCi/L	3	1	1500		1500		1500.0000	50		1
Iron, ICAP	mg/L	3	2	15.6		11.8		13.7000	0.3		2
Lead, ICAP	mg/L	3	0						0.015		0
Lead, PMS	mg/L	3	2	0.00078		0.000615		0.0007	0.015		0
Lithium, ICAP	mg/L	3	1	0.141		0.141		0.1410	NR	w	NA
Magnesium, ICAP	mg/L	3	3	109		2.41		38.2100	NR		NA
Manganese, ICAP	mg/L	3	3	7.16		3.41		4.8267	0.05		3
Mercury, CVAA	mg/L	3	1	0.00006		0.00006		0.0001	0.002		0
Methylene chloride	ug/L	3	1	16		16		16.0000	5		1
Nickel, ICAP	mg/L	3	3	1.14		0.199		0.6537	0.1	z	3
Nickel, PMS	mg/L	3	3	1.14		0.205		0.6513	0.1		3
Nitrate as Nitrogen	mg/L	3	1	863		863		863.0000	10		1
Potassium, ICAP	mg/L	3	1	6.85		6.85		6.8500	NR		NA
Sodium, ICAP	mg/L	3	3	85.1		9.79		35.8967	NR		NA
Strontium, ICAP	mg/L	3	3	2.58		0.0131		0.8703	NR	w	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Styrene	ug/L	3	2	7		5		6.0000	100		0
Sulfate	mg/L	3	1	0.828		0.828		0.8280	250		0
Technetium-99	pCi/L	1	1	3800		3800		3800.0000	4000		0
Tetrachloroethene	ug/L	3	2	280	D	1	J	140.5000	5		1
Toluene	ug/L	3	2	1200	D	460	D	830.0000	1000		1
Total Dissolved Solids	mg/L	3	3	30800		104		10346.0000	500		1
Total Suspended Solids	mg/L	3	2	2		1		1.5000	NR		NA
Total Xylene	ug/L	3	3	2300	D	51		1550.3333	1000		0
Trichloroethene	ug/L	3	1	6		6		6.0000	5		1
Uranium, ICAP	mg/L	3	0						0.03		0
Uranium, PMS	mg/L	3	1	0.00077		0.00077		0.0008	0.03		0
REGIME = EF AREA NAME = S-2 Site											
1,1-Dichloroethene	ug/L	2	1	6		6		6.0000	7		0
1,2-Dichloroethene	ug/L	2	2	310	D	12		161.0000	NR		NA
Alkalinity	mg/L	1	1	162		162		162.0000	NR		NA
Aluminum, ICAP	mg/L	2	1	4.53		4.53		4.5300	0.2		1
Barium, ICAP	mg/L	2	2	0.309		0.0869		0.1980	2		0
Benzene	ug/L	2	1	0.5	J	0.5	J	0.5000	5		0
Beryllium, ICAP	mg/L	2	1	0.0144		0.0144		0.0144	0.004		1
Bicarbonate	mg/L	2	2	162		58.4		110.2000	NR		NA
Boron, ICAP	mg/L	2	1	0.341		0.341		0.3410	NR		NA
Bromodichloromethane	ug/L	2	1	1	J	1	J	1.0000	100		0
Cadmium, ICAP	mg/L	2	2	4.37		0.0901		2.2301	0.005	z	2
Cadmium, PMS	mg/L	1	1	0.0935		0.0935		0.0935	0.005		1
Calcium, ICAP	mg/L	2	2	577		95.4		336.2000	NR		NA
Carbon Disulfide	ug/L	2	1	0.5	J	0.5	J	0.5000	NR		NA
Carbon Tetrachloride	ug/L	2	1	36	DJ	36	DJ	36.0000	5		1
Chloride	mg/L	2	2	124		6.17		65.0850	250		0
Chlorobenzene	ug/L	2	1	0.5	J	0.5	J	0.5000	100		0
Chloroform	ug/L	2	2	50	DJ	10		30.0000	100		0
cis-1,2-Dichloroethene	ug/L	2	2	310	D	12		161.0000	70		1
Cobalt, ICAP	mg/L	2	1	0.294		0.294		0.2940	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Copper, ICAP	mg/L	2	2	79.2		0.169		39.6845	1.3		1
Ethane	ug/L	1	1	1.8	J	1.8	J	1.8000	NR		NA
Flouride	mg/L	2	2	5.5		0.913		3.2065			0
Gross Alpha Activity	pCi/L	2	2	31.6		7.7		19.6500	15		1
Gross Beta Activity	pCi/L	2	2	26.5		8.9		17.7000	50		0
Iron, ICAP	mg/L	2	1	0.165		0.165		0.1650	0.3		0
Lead, ICAP	mg/L	2	1	0.029		0.029		0.0290	0.015		1
Lead, PMS	mg/L	1	0						0.015		0
Magnesium, ICAP	mg/L	2	2	136		11.2		73.6000	NR		NA
Manganese, ICAP	mg/L	2	2	53.9		2.5		28.2000	0.05		2
Methane	ug/L	1	1	10		10		10.0000	NR		NA
Nickel, ICAP	mg/L	2	1	2.67		2.67		2.6700	0.1		1
Nickel, PMS	mg/L	1	1	0.0236		0.0236		0.0236	0.1		0
Nitrate as Nitrogen	mg/L	1	1	45.7		45.7		45.7000	10		1
Nitrate/Nitrite	mg/L	1	1	535		535		535.0000	10		1
Potassium, ICAP	mg/L	2	2	9.84		2.77		6.3050	NR		NA
Sodium, ICAP	mg/L	2	2	128		10.2		69.1000	NR		NA
Strontium, ICAP	mg/L	2	2	1.08		0.154		0.6170	NR	w	NA
Sulfate	mg/L	2	2	88.9		11.2		50.0500	250		0
Tetrachloroethene	ug/L	2	2	940	D	280	D	610.0000	5		2
Thallium, ICAP	mg/L	2	0						0.002		0
Thallium, PMS	mg/L	1	1	0.00167		0.00167		0.0017	0.002		0
Toluene	ug/L	2	1	1	J	1	J	1.0000	1000		0
Total Dissolved Solids	mg/L	2	2	6100		517		3308.5000	500		2
Total Suspended Solids	mg/L	2	2	5		2		3.5000	NR		NA
Total Xylene	ug/L	2	1	0.8	J	0.8	J	0.8000	1000		0
trans-1,2-Dichloroethene	ug/L	2	1	2	J	2	J	2.0000	100		0
Trichloroethene	ug/L	2	2	830	D	110		470.0000	5		2
Uranium, ICAP	mg/L	1	0						0.03		0
Uranium, PMS	mg/L	2	2	0.0053		0.00276		0.0040	0.03		0
Vinyl Chloride	ug/L	2	1	110	D	110	D	110.0000	2		1
Zinc, ICAP	mg/L	2	1	6.81		6.81		6.8100	5		1

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
REGIME = EF				AREA NAME = S-3 Site				
1,1,2,2-Tetrachloroethane	ug/L	8	1	0.1 J	0.1 J	0.1000		0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	6	4	4 J	2 J	2.7500	NR	NA
1,1,2-Trichloroethane	ug/L	8	1	0.8 J	0.8 J	0.8000	5	0
1,1-Dichloroethene	ug/L	8	2	2 J	1 J	1.5000	7	0
1,2-Dichloroethane	ug/L	8	1	0.8 J	0.8 J	0.8000	5	0
Acetone	ug/L	8	4	51	6 J	21.7500	NR	NA
ACETONITRILE (UG/L)	ug/L	6	2	40	35	37.5000		0
Alkalinity	mg/L	6	6	565	129	363.8333	NR	NA
Aluminum, ICAP	mg/L	8	4	7.87	0.632	5.2130	0.2	4
Barium, ICAP	mg/L	8	8	102	2.68	58.8575	2	8
Benzene	ug/L	8	1	1 J	1 J	1.0000	5	0
Beryllium, ICAP	mg/L	8	1	0.0102	0.0102	0.0102	0.004	1
Bicarbonate	mg/L	8	8	806	129	466.0000	NR	NA
Boron, ICAP	mg/L	8	1	0.108	0.108	0.1080	NR w	NA
Bromodichloromethane	ug/L	8	1	0.2 J	0.2 J	0.2000	100	0
Bromoform	ug/L	8	4	7	1 J	3.7500	100	0
Bromomethane	ug/L	8	1	2 J	2 J	2.0000	NR	NA
Cadmium, ICAP	mg/L	8	4	2.66	1.11	1.5400	0.005 z	4
Cadmium, PMS	mg/L	6	4	2.39	1.03	1.4550	0.005	4
Calcium, ICAP	mg/L	8	8	11500	689	7773.5000	NR	NA
Carbon Disulfide	ug/L	8	2	2 J	0.7 J	1.3500	NR	NA
Carbon Tetrachloride	ug/L	8	1	2 J	2 J	2.0000	5	0
Chloride	mg/L	8	8	164	11.8	100.6625	250	0
Chloroform	ug/L	8	6	35	3 J	15.0000	100	0
Chloromethane	ug/L	8	2	4 J	0.7 J	2.3500	NR	NA
Chromium, ICAP	mg/L	8	0				0.1	0
Chromium, PMS	mg/L	6	1	0.0189	0.0189	0.0189	0.1	0
cis-1,2-Dichloroethene	ug/L	8	1	0.6 J	0.6 J	0.6000	70	0
Cobalt, ICAP	mg/L	8	3	0.797	0.134	0.3593	NR	NA
Dibromochloromethane	ug/L	8	1	65	65	65.0000	100	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Flouride	mg/L	8	4	12	3.34	6.8650		0
Gross Alpha Activity	pCi/L	8	2	230	129	179.5000	15	2
Gross Beta Activity	pCi/L	8	6	21300	24	7437.3333	50	5
Iron, ICAP	mg/L	8	2	2.38	0.554	1.4670	0.3	2
Lead, ICAP	mg/L	8	1	0.0124	0.0124	0.0124	0.015	0
Lead, PMS	mg/L	6	2	0.00845	0.000825	0.0046	0.015	0
Lithium, ICAP	mg/L	8	8	0.85	0.0479	0.4719	NR w	NA
Magnesium, ICAP	mg/L	8	8	1430	97.4	944.0500	NR	NA
Manganese, ICAP	mg/L	8	8	146	0.0537	80.5664	0.05	8
Mercury, CVAA	mg/L	8	4	0.0321	0.00332	0.0169	0.002	4
Methylene chloride	ug/L	8	4	14	9	11.7500	5	4
Nickel, ICAP	mg/L	8	6	5.61	0.151	1.7568	0.1 z	6
Nickel, PMS	mg/L	6	6	5.18	0.0155	1.7380	0.1	2
Nitrate as Nitrogen	mg/L	6	6	11200	635	6635.8333	10	6
Nitrate/Nitrite	mg/L	2	2	7440	7040	7240.0000	10	2
Potassium, ICAP	mg/L	8	8	108	12.3	57.9000	NR	NA
Sodium, ICAP	mg/L	8	8	571	22.4	341.1375	NR	NA
Strontium, ICAP	mg/L	8	8	71.1	1.78	39.2850	NR w	NA
Sulfate	mg/L	8	4	21.9	6.23	11.4275	250	0
Technetium-99	pCi/L	6	6	31000	4000	18250.0000	4000	5
Tetrachloroethene	ug/L	8	6	110	5 J	63.0000	5	5
Toluene	ug/L	8	1	0.3 J	0.3 J	0.3000	1000	0
Total Dissolved Solids	mg/L	6	6	53500	4140	34596.6667	500	6
Total Suspended Solids	mg/L	6	6	81	1	19.1667	NR	NA
Trichloroethene	ug/L	8	6	5	2 J	2.8333	5	0
Uranium, ICAP	mg/L	6	0				0.03	0
Uranium, PMS	mg/L	8	8	0.0292	0.00095	0.0160	0.03	0
Uranium-234	pCi/L	4	2	7	3.5	5.2500	20	0
Uranium-235	pCi/L	4	1	0.51	0.51	0.5100	24	0
Uranium-236	pCi/L	4	1	0.3	0.3	0.3000	20	0
Uranium-238	pCi/L	4	4	6.9	4.5	5.7250	24	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
REGIME =			EF	AREA NAME =	Union Valley - Exit Pathway			
1,1-Dichloroethane	ug/L	7	1	0.2 J	0.2 J	0.2000	NR	NA
1,2-Dichloroethene	ug/L	6	1	6	6	6.0000	NR	NA
Aluminum, ICAP	mg/L	3	3	0.594	0.197	0.3747	0.2	2
Barium, ICAP	mg/L	3	3	0.167	0.026	0.1150	2	0
Benzene	ug/L	7	3	1 J	0.3 J	0.7667	5	0
Bicarbonate	mg/L	3	1	144	144	144.0000	NR	NA
Boron, ICAP	mg/L	3	2	0.0155	0.0142	0.0149	NR	NA
Cadmium, ICAP	mg/L	3	1	0.00015	0.00015	0.0002	0.005	0
Calcium, ICAP	mg/L	3	3	144	50.2	106.0667	NR	NA
Carbon Disulfide	ug/L	7	1	3 J	3 J	3.0000	NR	NA
Carbon Tetrachloride	ug/L	7	2	3	2	2.5000	5	0
Carbonate	mg/L	3	2	41	31.7	36.3500	NR	NA
Chloride	mg/L	3	3	7.9	2.4	5.6000	250	0
Chlorobenzene	ug/L	7	1	1 J	1 J	1.0000	100	0
Chloroethane	ug/L	7	1	0.3 J	0.3 J	0.3000	NR	NA
Chloroform	ug/L	7	2	2 J	1 J	1.5000	100	0
cis-1,2-Dichloroethene	ug/L	7	1	6	6	6.0000	70	0
Flouride	mg/L	3	1	0.1	0.1	0.1000		0
Gross Beta Activity	pCi/L	3	2	12.1	10.9	11.5000	50	0
Iron, ICAP	mg/L	3	3	1.29	0.188	0.6283	0.3	2
Lithium, ICAP	mg/L	3	2	0.0451 N	0.0437	0.0444	NR	NA
Magnesium, ICAP	mg/L	3	3	3.4	1.25	2.4767	NR	NA
Manganese, ICAP	mg/L	3	2	0.009	0.0054	0.0072	0.05	0
Nitrate/Nitrite	mg/L	3	3	0.52	0.22	0.3300	10	0
Potassium, ICAP	mg/L	3	3	14.7	2.24	10.4467	NR	NA
Sodium, ICAP	mg/L	3	3	6.91	1.12	4.8833	NR	NA
Strontium, ICAP	mg/L	3	3	0.658	0.0643	0.4398	NR	NA
Sulfate	mg/L	3	3	7.3	4.8	6.2333	250	0
Tetrachloroethene	ug/L	7	3	1 J	1 J	1.0000	5	0
Toluene	ug/L	7	3	0.2 J	0.2 J	0.2000	1000	0
Total Dissolved Solids	mg/L	7	7	618	171	354.8571	500	1
Total Suspended Solids	mg/L	7	5	22	5	13.0000	NR	NA
Total Xylene	ug/L	7	2	0.2 J	0.1 J	0.1500	1000	0
Trichloroethene	ug/L	7	4	2 J	0.1 J	0.8750	5	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Vinyl Chloride	ug/L	7	1	2		2		2.0000	2		0
REGIME = EF AREA NAME = Waste Coolant Processing Facility											
1,1,1-Trichloroethane	ug/L	3	3	47		7		23.0000	200		0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	3	3	4600	D	630	D	2110.0000	NR		NA
1,1-Dichloroethane	ug/L	3	3	43		29		35.3333	NR		NA
1,1-Dichloroethene	ug/L	3	3	60		30		47.3333	7		3
1,2-Dichloroethene	ug/L	3	3	1300	D	990	D	1096.6667	NR		NA
Alkalinity	mg/L	3	3	236		81.6		162.2000	NR		NA
Barium, ICAP	mg/L	3	3	0.224		0.134		0.1780	2		0
Bicarbonate	mg/L	3	3	236		81.6		162.2000	NR		NA
Calcium, ICAP	mg/L	3	3	95.9		31.9		62.5667	NR		NA
Carbon Tetrachloride	ug/L	3	1	2	J	2	J	2.0000	5		0
Chloride	mg/L	3	3	18.6		11		14.0667	250		0
cis-1,2-Dichloroethene	ug/L	3	3	1300	D	990	D	1096.6667	70		3
Gross Alpha Activity	pCi/L	3	0						15		0
Gross Beta Activity	pCi/L	3	0						50		0
Lead, ICAP	mg/L	3	0						0.015		0
Lead, PMS	mg/L	3	2	0.00463		0.00065		0.0026	0.015		0
Magnesium, ICAP	mg/L	3	3	9.32		4.76		6.7167	NR		NA
Manganese, ICAP	mg/L	3	1	0.00522		0.00522		0.0052	0.05		0
Nickel, ICAP	mg/L	3	0						0.1		0
Nickel, PMS	mg/L	3	3	0.00631		0.00593		0.0062	0.1	d	0
Nitrate as Nitrogen	mg/L	3	3	4.87		1.66		2.9067	10		0
Potassium, ICAP	mg/L	3	1	2.1		2.1		2.1000	NR		NA
Sodium, ICAP	mg/L	3	3	7.48		5.48		6.3667	NR		NA
Strontium, ICAP	mg/L	3	3	0.246		0.13		0.1797	NR	w	NA
Sulfate	mg/L	3	3	13.7		8.77		11.7567	250		0
Tetrachloroethene	ug/L	3	3	1100	D	250	D	610.0000	5		3
Total Dissolved Solids	mg/L	3	3	304		118		212.6667	500		0
Total Suspended Solids	mg/L	3	2	3		3		3.0000	NR		NA
trans-1,2-Dichloroethene	ug/L	3	3	16		11		13.3333	100		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Trichloroethene	ug/L	3	3	350	D	200		253.3333	5		3
Uranium, ICAP	mg/L	3	0						0.03		0
Uranium, PMS	mg/L	3	1	0.0012		0.0012		0.0012	0.03		0
Vinyl Chloride	ug/L	3	3	23		16		18.3333	2		3
REGIME = EF AREA NAME = Y-12 Fuel Station											
1,1,2-Trichloroethane	ug/L	2	1	72	E	72	E	72.0000	5		1
1,2-Dichloroethane	ug/L	2	1	470	DJ	470	DJ	470.0000	5		1
Acetone	ug/L	2	1	17		17		17.0000	NR		NA
Benzene	ug/L	2	1	7700	D	7700	D	7700.0000	5		1
Ethyl Benzene	ug/L	2	1	1000	DJ	1000	DJ	1000.0000	700		1
Toluene	ug/L	2	1	3100	D	3100	D	3100.0000	1000		1
Total Xylene	ug/L	2	1	8300	D	8300	D	8300.0000	1000		0
REGIME = EF AREA NAME = Y-12 Grid Well B2											
Alkalinity	mg/L	1	1	134		134		134.0000	NR		NA
Barium, ICAP	mg/L	1	1	0.0774		0.0774		0.0774	2		0
Bicarbonate	mg/L	1	1	134		134		134.0000	NR		NA
Calcium, ICAP	mg/L	1	1	124		124		124.0000	NR		NA
Chloride	mg/L	1	1	147		147		147.0000	250		0
Chromium, ICAP	mg/L	1	1	0.0684		0.0684		0.0684	0.1	z	0
Chromium, PMS	mg/L	1	1	0.0687		0.0687		0.0687	0.1		0
Gross Alpha Activity	pCi/L	1	0						15		0
Gross Beta Activity	pCi/L	1	0						50		0
Iron, ICAP	mg/L	1	1	0.882		0.882		0.8820	0.3		1
Lithium, ICAP	mg/L	1	1	0.0281		0.0281		0.0281	NR	w	NA
Magnesium, ICAP	mg/L	1	1	15.3		15.3		15.3000	NR		NA
Manganese, ICAP	mg/L	1	1	0.00795		0.00795		0.0080	0.05		0
Nickel, ICAP	mg/L	1	1	0.454		0.454		0.4540	0.1	z	1
Nickel, PMS	mg/L	1	1	0.486		0.486		0.4860	0.1		1
Nitrate as Nitrogen	mg/L	1	1	6.61		6.61		6.6100	10		0
Potassium, ICAP	mg/L	1	1	2.02		2.02		2.0200	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Sodium, ICAP	mg/L	1	1	24.6		24.6		24.6000	NR		NA
Strontium, ICAP	mg/L	1	1	0.236		0.236		0.2360	NR	w	NA
Sulfate	mg/L	1	1	71.5		71.5		71.5000	250		0
Total Dissolved Solids	mg/L	1	1	644		644		644.0000	500		1
		REGIME =	EF	AREA NAME = Y-12 Grid Well B3							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	2	2	230	D	200		215.0000	NR		NA
1,1-Dichloroethane	ug/L	2	2	13		10		11.5000	NR		NA
1,1-Dichloroethene	ug/L	2	2	14		13		13.5000	7		2
1,2-Dichloroethene	ug/L	2	2	560	D	550	D	555.0000	NR		NA
Alkalinity	mg/L	2	2	216		145		180.5000	NR		NA
Barium, ICAP	mg/L	2	2	1.44		0.907		1.1735	2		0
Bicarbonate	mg/L	2	2	216		145		180.5000	NR		NA
Calcium, ICAP	mg/L	2	2	369		279		324.0000	NR		NA
Chloride	mg/L	2	2	14.3		13.6		13.9500	250		0
cis-1,2-Dichloroethene	ug/L	2	2	560	D	550	D	555.0000	70		2
Gross Alpha Activity	pCi/L	2	0						15		0
Gross Beta Activity	pCi/L	2	2	15		11		13.0000	50		0
Lead, ICAP	mg/L	2	0						0.015		0
Lead, PMS	mg/L	2	1	0.00381		0.00381		0.0038	0.015		0
Lithium, ICAP	mg/L	2	2	0.0607		0.0202		0.0405	NR	w	NA
Magnesium, ICAP	mg/L	2	2	47.5		29.9		38.7000	NR		NA
Manganese, ICAP	mg/L	2	2	0.576		0.515		0.5455	0.05		2
Nickel, ICAP	mg/L	2	0						0.1		0
Nickel, PMS	mg/L	2	2	0.0127		0.0081		0.0104	0.1		0
Nitrate as Nitrogen	mg/L	2	2	252		237		244.5000	10		2
Potassium, ICAP	mg/L	2	2	15.4		3.08		9.2400	NR		NA
Sodium, ICAP	mg/L	2	2	104		10.7		57.3500	NR		NA
Strontium, ICAP	mg/L	2	2	5.98		1.14		3.5600	NR	w	NA
Sulfate	mg/L	2	2	19.8		16.6		18.2000	250		0
Tetrachloroethene	ug/L	2	2	510	D	370	D	440.0000	5		2
Total Dissolved Solids	mg/L	2	2	2210		1940		2075.0000	500		2

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
trans-1,2-Dichloroethene	ug/L	2	2	7		6	6.5000	100		0
Trichloroethene	ug/L	2	2	180		150	165.0000	5		2
Vinyl Chloride	ug/L	2	2	12		10	11.0000	2		2
REGIME = EF AREA NAME = Y-12 Grid Well C2										
Alkalinity	mg/L	1	1	155		155	155.0000	NR		NA
Barium, ICAP	mg/L	1	1	0.0893		0.0893	0.0893	2		0
Bicarbonate	mg/L	1	1	155		155	155.0000	NR		NA
Calcium, ICAP	mg/L	1	1	61.9		61.9	61.9000	NR		NA
Chloride	mg/L	1	1	2.75		2.75	2.7500	250		0
Flouride	mg/L	1	1	0.166		0.166	0.1660			0
Gross Alpha Activity	pCi/L	1	0					15		0
Gross Beta Activity	pCi/L	1	0					50		0
Lead, ICAP	mg/L	1	0					0.015		0
Lead, PMS	mg/L	1	1	0.00219		0.00219	0.0022	0.015		0
Magnesium, ICAP	mg/L	1	1	9.97		9.97	9.9700	NR		NA
Nitrate as Nitrogen	mg/L	1	1	1.52		1.52	1.5200	10		0
Sodium, ICAP	mg/L	1	1	4.32		4.32	4.3200	NR		NA
Strontium, ICAP	mg/L	1	1	0.103		0.103	0.1030	NR	w	NA
Sulfate	mg/L	1	1	34.3		34.3	34.3000	250		0
Total Dissolved Solids	mg/L	1	1	254		254	254.0000	500		0
Uranium, ICAP	mg/L	1	0					0.03		0
Uranium, PMS	mg/L	1	1	0.000955		0.000955	0.0010	0.03		0
REGIME = EF AREA NAME = Y-12 Grid Well C3										
1,1-Dichloroethene	ug/L	3	1	17		17	17.0000	7		1
1,2-Dichloroethene	ug/L	3	2	910	D	64	487.0000	NR		NA
Alkalinity	mg/L	3	3	238		188	209.3333	NR		NA
Barium, ICAP	mg/L	3	3	0.121		0.0551	0.0957	2		0
Bicarbonate	mg/L	3	3	238		188	209.3333	NR		NA
Boron, ICAP	mg/L	3	3	1.15		0.104	0.4607	NR	w	NA
Calcium, ICAP	mg/L	3	3	108		5.21	67.7700	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Chloride	mg/L	3	3	30.6		14.1	23.2333	250		0
cis-1,2-Dichloroethene	ug/L	3	2	900	D	64	482.0000	70		1
Flouride	mg/L	3	1	0.593		0.593	0.5930			0
Gross Alpha Activity	pCi/L	3	1	4.75		4.75	4.7500	15		0
Gross Beta Activity	pCi/L	3	0					50		0
Iron, ICAP	mg/L	3	1	0.0648		0.0648	0.0648	0.3		0
Lead, ICAP	mg/L	3	0					0.015		0
Lead, PMS	mg/L	3	1	0.000555		0.000555	0.0006	0.015		0
Lithium, ICAP	mg/L	3	3	0.0812		0.0143	0.0379	NR	w	NA
Magnesium, ICAP	mg/L	3	3	12.2		1.57	7.1833	NR		NA
Nickel, ICAP	mg/L	3	0					0.1		0
Nickel, PMS	mg/L	3	1	0.0114		0.0114	0.0114	0.1		0
Nitrate as Nitrogen	mg/L	3	2	1.19		0.414	0.8020	10		0
Potassium, ICAP	mg/L	3	3	4.42		2.6	3.2467	NR		NA
Sodium, ICAP	mg/L	3	3	125		8.48	48.2600	NR		NA
Strontium, ICAP	mg/L	3	3	0.306		0.248	0.2833	NR	w	NA
Sulfate	mg/L	3	3	95.3		25.2	64.7000	250		0
Tetrachloroethene	ug/L	3	3	1300	D	5	551.6667	5		2
Total Dissolved Solids	mg/L	3	3	387		352	369.0000	500		0
Total Suspended Solids	mg/L	3	3	2		1	1.6667	NR		NA
trans-1,2-Dichloroethene	ug/L	3	1	9		9	9.0000	100		0
Trichloroethene	ug/L	3	2	340	D	43	191.5000	5		2
Vinyl Chloride	ug/L	3	1	59		59	59.0000	2		1
	REGIME =	EF		AREA NAME = Y-12 Grid Well D2						
Alkalinity	mg/L	2	2	216		104	160.0000	NR		NA
Barium, ICAP	mg/L	2	2	0.263		0.121	0.1920	2		0
Bicarbonate	mg/L	2	2	216		104	160.0000	NR		NA
Calcium, ICAP	mg/L	2	2	71.2		66.2	68.7000	NR		NA
Chloride	mg/L	2	2	39.2		8.75	23.9750	250		0
Chromium, ICAP	mg/L	2	1	0.0238		0.0238	0.0238	0.1	z	0
Chromium, PMS	mg/L	2	1	0.0224		0.0224	0.0224	0.1		0
Flouride	mg/L	2	1	0.103		0.103	0.1030			0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Gross Alpha Activity	pCi/L	2	0				15		0
Gross Beta Activity	pCi/L	2	0				50		0
Iron, ICAP	mg/L	2	1	0.422	0.422	0.4220	0.3		1
Lithium, ICAP	mg/L	2	2	0.0121	0.0108	0.0115	NR	w	NA
Magnesium, ICAP	mg/L	2	2	14.7	6.1	10.4000	NR		NA
Manganese, ICAP	mg/L	2	2	0.0203	0.0166	0.0185	0.05		0
Nickel, ICAP	mg/L	2	1	0.0962	0.0962	0.0962	0.1	z	0
Nickel, PMS	mg/L	2	1	0.0877	0.0877	0.0877	0.1		0
Nitrate as Nitrogen	mg/L	2	1	3.94	3.94	3.9400	10		0
Potassium, ICAP	mg/L	2	1	2.07	2.07	2.0700	NR		NA
Sodium, ICAP	mg/L	2	2	11.8	7.43	9.6150	NR		NA
Strontium, ICAP	mg/L	2	2	0.425	0.116	0.2705	NR	w	NA
Sulfate	mg/L	2	2	33.2	11	22.1000	250		0
Tetrachloroethene	ug/L	2	2	33	4 J	18.5000	5		1
Total Dissolved Solids	mg/L	2	2	227	219	223.0000	500		0
Total Suspended Solids	mg/L	2	2	7	1	4.0000	NR		NA
Trichloroethene	ug/L	2	1	2 J	2 J	2.0000	5		0
		REGIME =	EF	AREA NAME = Y-12 Grid Well E3					
1,1,1-Trichloroethane	ug/L	3	1	1 J	1 J	1.0000	200		0
1,1-Dichloroethane	ug/L	3	2	37	4 J	20.5000	NR		NA
1,1-Dichloroethene	ug/L	3	2	20	2 J	11.0000	7		1
1,2-Dichloroethene	ug/L	3	2	23	4 J	13.5000	NR		NA
Alkalinity	mg/L	3	3	245	163	202.0000	NR		NA
Barium, ICAP	mg/L	3	3	0.535	0.0985	0.2992	2		0
Bicarbonate	mg/L	3	3	245	163	202.0000	NR		NA
Boron, ICAP	mg/L	3	2	0.577	0.107	0.3420	NR	w	NA
Calcium, ICAP	mg/L	3	3	90.6	8.7	59.1000	NR		NA
Carbon Tetrachloride	ug/L	3	1	2 J	2 J	2.0000	5		0
Chloride	mg/L	3	3	35.9	6.76	24.6533	250		0
Chromium, ICAP	mg/L	3	1	0.0204	0.0204	0.0204	0.1	z	0
Chromium, PMS	mg/L	3	1	0.0206	0.0206	0.0206	0.1		0
cis-1,2-Dichloroethene	ug/L	3	2	19	3 J	11.0000	70		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Gross Alpha Activity	pCi/L	3	1	20	20	20.0000	15	1
Gross Beta Activity	pCi/L	3	2	6.1	5	5.5500	50	0
Iron, ICAP	mg/L	3	1	0.172	0.172	0.1720	0.3	0
Lithium, ICAP	mg/L	3	2	0.0646	0.0182	0.0414	NR w	NA
Magnesium, ICAP	mg/L	3	3	15.6	3.12	7.8233	NR	NA
Manganese, ICAP	mg/L	3	2	0.0227	0.00866	0.0157	0.05	0
Nickel, ICAP	mg/L	3	1	0.167	0.167	0.1670	0.1 z	1
Nickel, PMS	mg/L	3	1	0.152	0.152	0.1520	0.1	1
Nitrate	mg/L	3	3	4.78	0.512	2.5540		0
Nitrate as Nitrogen	mg/L	3	3	1.08	0.116	0.5770	10	0
Potassium, ICAP	mg/L	3	2	5.5	5.3	5.4000	NR	NA
Sodium, ICAP	mg/L	3	3	86.1	11.9	38.2000	NR	NA
Strontium, ICAP	mg/L	3	3	1.14	0.172	0.6067	NR w	NA
Sulfate	mg/L	3	3	26.9	9	18.8000	250	0
Tetrachloroethene	ug/L	3	3	55	1 J	20.6667	5	2
Total Dissolved Solids	mg/L	3	3	323	273	300.6667	500	0
trans-1,2-Dichloroethene	ug/L	3	2	4 J	0.9 J	2.4500	100	0
Trichloroethene	ug/L	3	1	30	30	30.0000	5	1
Uranium, ICAP	mg/L	3	0				0.03	0
Uranium, PMS	mg/L	3	2	0.00098	0.00069	0.0008	0.03	0
REGIME = EF				AREA NAME = Y-12 Grid Well F2				
Alkalinity	mg/L	2	2	253	250	251.5000	NR	NA
Barium, ICAP	mg/L	2	2	0.151	0.125	0.1380	2	0
Beryllium, ICAP	mg/L	2	1	0.000626	0.000626	0.0006	0.004	0
Bicarbonate	mg/L	2	2	253	250	251.5000	NR	NA
Calcium, ICAP	mg/L	2	2	104	93.6	98.8000	NR k	NA
Chloride	mg/L	2	2	76.9	41.9	59.4000	250	0
Gross Alpha Activity	pCi/L	2	0				15	0
Gross Beta Activity	pCi/L	2	0				50	0
Iron, ICAP	mg/L	2	2	8.29	0.906	4.5980	0.3 k	2
Lithium, ICAP	mg/L	2	2	0.0143	0.0106	0.0125	NR w	NA
Magnesium, ICAP	mg/L	2	2	19.1	18.5	18.8000	NR k	NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Manganese, ICAP	mg/L	2	2	0.521		0.243		0.3820	0.05		2
Nickel, ICAP	mg/L	2	0						0.1		0
Nickel, PMS	mg/L	2	1	0.00752		0.00752		0.0075	0.1		0
Nitrate as Nitrogen	mg/L	2	1	0.0403		0.0403		0.0403	10		0
Potassium, ICAP	mg/L	2	2	3.75		3.21		3.4800	NR		NA
Sodium, ICAP	mg/L	2	2	25		24.5		24.7500	NR	k	NA
Strontium, ICAP	mg/L	2	2	1.82		1.77		1.7950	NR	kw	NA
Sulfate	mg/L	2	2	58.5		53.7		56.1000	250		0
Thallium, ICAP	mg/L	2	0						0.002		0
Thallium, PMS	mg/L	2	1	0.000535		0.000535		0.0005	0.002		0
Total Dissolved Solids	mg/L	2	2	449		434		441.5000	500		0
Total Suspended Solids	mg/L	2	2	8		2		5.0000	NR		NA
		REGIME =	EF	AREA NAME = Y-12 Grid Well G3							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	6	3	5	J	2	J	3.3333	NR		NA
1,1-Dichloroethene	ug/L	6	3	3	J	2	J	2.3333	7		0
1,2-Dichloroethene	ug/L	6	4	8		2	J	4.2500	NR		NA
Alkalinity	mg/L	6	6	215		83.5		162.9167	NR		NA
Aluminum, ICAP	mg/L	6	2	1.27		0.302		0.7860	0.2		2
Barium, ICAP	mg/L	6	6	0.409		0.0622		0.2466	2		0
Bicarbonate	mg/L	6	6	215		83.5		162.9167	NR		NA
Calcium, ICAP	mg/L	6	6	82.5		18.5		63.5333	NR	k	NA
Carbon Tetrachloride	ug/L	6	6	180	D	27		97.6667	5		6
Chloride	mg/L	6	6	17.3		2.8		10.7050	250		0
Chloroform	ug/L	6	6	6		2	J	3.8333	100		0
Chromium, ICAP	mg/L	6	2	0.0642		0.0281		0.0462	0.1	z	0
Chromium, PMS	mg/L	6	2	0.0544		0.0324		0.0434	0.1		0
cis-1,2-Dichloroethene	ug/L	6	4	8		2	J	4.2500	70		0
Flouride	mg/L	6	2	0.216		0.184		0.2000			0
Gross Alpha Activity	pCi/L	6	3	7.6		5.9		6.4667	15		0
Gross Beta Activity	pCi/L	6	4	19		7.2		10.2500	50		0
Iron, ICAP	mg/L	6	5	12.4		0.0553		2.6099	0.3		2

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Lead, ICAP	mg/L	6	0						0.015		0
Lead, PMS	mg/L	6	4	0.00838		0.000805		0.0031	0.015		0
Lithium, ICAP	mg/L	6	4	0.0185		0.014		0.0164	NR	w	NA
Magnesium, ICAP	mg/L	6	6	10.1		5.38		8.4400	NR	k	NA
Manganese, ICAP	mg/L	6	3	0.0785		0.00837		0.0340	0.05		1
Nickel, ICAP	mg/L	6	0						0.1		0
Nickel, PMS	mg/L	6	1	0.0122		0.0122		0.0122	0.1		0
Nitrate	mg/L	1	1	7.93		7.93		7.9300			0
Nitrate as Nitrogen	mg/L	6	6	1.79		0.296		0.7195	10		0
Potassium, ICAP	mg/L	6	6	5.23		2.21		3.3300	NR		NA
Sodium, ICAP	mg/L	6	6	7.74		4.65		6.6667	NR	k	NA
Strontium, ICAP	mg/L	6	6	0.398		0.0858		0.2629	NR	w	NA
Sulfate	mg/L	6	6	22.6		13		20.1333	250		0
Tetrachloroethene	ug/L	6	6	31		1	J	13.8333	5		4
Total Dissolved Solids	mg/L	6	6	296		94		212.6667	500		0
Total Suspended Solids	mg/L	6	1	62		62		62.0000	NR		NA
Trichloroethene	ug/L	6	2	4	J	2	J	3.0000	5		0
Uranium, ICAP	mg/L	6	0						0.03		0
Uranium, PMS	mg/L	6	2	0.00178		0.00176		0.0018	0.03		0

REGIME = EF AREA NAME = Y-12 Grid Well J-Primary

1,1,1-Trichloroethane	ug/L	3	2	2	J	2	J	2.0000	200		0
1,1-Dichloroethane	ug/L	3	2	17		13		15.0000	NR		NA
1,1-Dichloroethene	ug/L	3	2	48	DJ	41	DJ	44.5000	7		2
Alkalinity	mg/L	1	1	286		286		286.0000	NR		NA
Barium, ICAP	mg/L	3	3	0.539		0.0627		0.3722	2		0
Bicarbonate	mg/L	3	3	286		246		266.0000	NR		NA
Boron, ICAP	mg/L	3	2	0.0739		0.0716		0.0728	NR		NA
Calcium, ICAP	mg/L	3	3	108		78.1		88.8667	NR		NA
Carbon Tetrachloride	ug/L	3	1	0.3	J	0.3	J	0.3000	5		0
Chloride	mg/L	3	3	76.7		38.2		51.2333	250		0
Chloroform	ug/L	3	2	0.6	J	0.5	J	0.5500	100		0
Chromium, ICAP	mg/L	3	1	0.0056		0.0056		0.0056	0.1		0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Chromium, PMS	mg/L	1	0				0.1	0
cis-1,2-Dichloroethene	ug/L	3	2	54 DJ	51 DJ	52.5000	70	0
Flouride	mg/L	3	1	0.25	0.25	0.2500		0
Gross Alpha Activity	pCi/L	3	0				15	0
Gross Beta Activity	pCi/L	3	2	6.61	5.27	5.9400	50	0
Iron, ICAP	mg/L	3	2	24	0.0303	12.0152	0.3	1
Lithium, ICAP	mg/L	3	2	0.0217	0.0157	0.0187	NR	NA
Magnesium, ICAP	mg/L	3	3	24.5	14.4	20.9333	NR	NA
Manganese, ICAP	mg/L	3	3	0.53	0.0409	0.2090	0.05	2
Methane	ug/L	2	2	16	7.1	11.5500	NR	NA
Nickel, ICAP	mg/L	3	0				0.1	0
Nickel, PMS	mg/L	1	1	0.00857	0.00857	0.0086	0.1	0
Nitrate/Nitrite	mg/L	2	2	0.045	0.029	0.0370	10	0
Potassium, ICAP	mg/L	3	2	6.01	4.32	5.1650	NR	NA
Sodium, ICAP	mg/L	3	3	23.6	11.5	15.6667	NR	NA
Strontium, ICAP	mg/L	3	3	0.755	0.231	0.5670	NR w	NA
Sulfate	mg/L	3	3	14.2	0.272	9.2907	250	0
Tetrachloroethene	ug/L	3	2	2600 D	2600 D	2600.0000	5	2
Total Dissolved Solids	mg/L	3	3	439	361	395.3333	500	0
Total Suspended Solids	mg/L	3	1	34	34	34.0000	NR	NA
trans-1,2-Dichloroethene	ug/L	3	2	3 J	3 J	3.0000	100	0
Trichloroethene	ug/L	3	2	190 DJ	170 DJ	180.0000	5	2
Vinyl Chloride	ug/L	3	2	6	4	5.0000	2	2
	REGIME =		EF	AREA NAME = Y-12 Grid Well K1				
Alkalinity	mg/L	1	1	239	239	239.0000	NR	NA
Barium, ICAP	mg/L	1	1	0.305	0.305	0.3050	2	0
Bicarbonate	mg/L	1	1	239	239	239.0000	NR	NA
Calcium, ICAP	mg/L	1	1	53.2	53.2	53.2000	NR	NA
Chloride	mg/L	1	1	7.96	7.96	7.9600	250	0
Chromium, ICAP	mg/L	1	0				0.1	0
Chromium, PMS	mg/L	1	1	0.0152	0.0152	0.0152	0.1	0
Gross Alpha Activity	pCi/L	1	1	8.3	8.3	8.3000	15	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Gross Beta Activity	pCi/L	1	1	7	7	7.0000	50		0
Lithium, ICAP	mg/L	1	1	0.0295	0.0295	0.0295	NR	w	NA
Magnesium, ICAP	mg/L	1	1	11.8	11.8	11.8000	NR		NA
Manganese, ICAP	mg/L	1	1	0.0261	0.0261	0.0261	0.05		0
Potassium, ICAP	mg/L	1	1	3.44	3.44	3.4400	NR		NA
Sodium, ICAP	mg/L	1	1	37.1	37.1	37.1000	NR		NA
Strontium, ICAP	mg/L	1	1	1.39	1.39	1.3900	NR	w	NA
Sulfate	mg/L	1	1	16.5	16.5	16.5000	250		0
Total Dissolved Solids	mg/L	1	1	343	343	343.0000	500		0
Zinc, ICAP	mg/L	1	1	0.263	0.263	0.2630	5		0
REGIME = EF AREA NAME = Y-12 Grid Well K2									
Alkalinity	mg/L	2	2	210	207	208.5000	NR		NA
Barium, ICAP	mg/L	2	2	0.162	0.162	0.1620	2		0
Bicarbonate	mg/L	2	2	210	207	208.5000	NR		NA
Calcium, ICAP	mg/L	2	2	93.3	40	66.6500	NR		NA
Chloride	mg/L	2	2	25.9	2.17	14.0350	250		0
Flouride	mg/L	2	2	0.203	0.1	0.1515			0
Gross Alpha Activity	pCi/L	2	1	2.4	2.4	2.4000	15		0
Gross Beta Activity	pCi/L	2	0				50		0
Iron, ICAP	mg/L	2	2	0.188	0.103	0.1455	0.3		0
Lithium, ICAP	mg/L	2	1	0.0186	0.0186	0.0186	NR	w	NA
Magnesium, ICAP	mg/L	2	2	9.66	9.53	9.5950	NR		NA
Manganese, ICAP	mg/L	2	2	0.515	0.0145	0.2648	0.05		1
Nickel, ICAP	mg/L	2	0				0.1		0
Nickel, PMS	mg/L	2	1	0.0133	0.0133	0.0133	0.1		0
Nitrate as Nitrogen	mg/L	2	1	0.0313	0.0313	0.0313	10		0
Potassium, ICAP	mg/L	2	2	3.49	2.22	2.8550	NR		NA
Sodium, ICAP	mg/L	2	2	33.8	16.1	24.9500	NR		NA
Strontium, ICAP	mg/L	2	2	0.684	0.257	0.4705	NR	w	NA
Sulfate	mg/L	2	2	53	12.7	32.8500	250		0
Total Dissolved Solids	mg/L	2	2	381	262	321.5000	500		0
Zinc, ICAP	mg/L	2	1	0.35	0.35	0.3500	5		0

REGIME = EF AREA NAME = Y-12 Plant Site

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	15	3	150		9		58.3333	NR		NA
1,1-Dichloroethane	ug/L	15	5	26		3	J	11.0000	NR		NA
1,1-Dichloroethene	ug/L	15	5	200		7		76.6000	7		4
1,2-Dichloroethene	ug/L	15	8	1400	D	1	J	441.6250	NR		NA
Alkalinity	mg/L	15	15	336		88.8		176.7067	NR		NA
Aluminum, ICAP	mg/L	15	1	0.639		0.639		0.6390	0.2		1
Barium, ICAP	mg/L	15	15	0.298		0.0377		0.1357	2		0
Bicarbonate	mg/L	15	15	336		88.8		176.7067	NR		NA
Boron, ICAP	mg/L	15	4	0.175		0.125		0.1433	NR	w	NA
Bromodichloromethane	ug/L	15	1	1	J	1	J	1.0000	100		0
Calcium, ICAP	mg/L	15	15	354		27		89.0267	NR	k	NA
Chloride	mg/L	15	15	34.9		2.45		14.5933	250		0
Chloroform	ug/L	15	5	17		2	J	7.2000	100		0
Chromium, ICAP	mg/L	15	2	0.101		0.0405		0.0708	0.1	z	1
Chromium, PMS	mg/L	15	6	0.108		0.0109		0.0378	0.1		1
cis-1,2-Dichloroethene	ug/L	15	8	1400	D	1	J	437.8750	70		5
Flouride	mg/L	15	6	0.501		0.103		0.2888			0
Gross Alpha Activity	pCi/L	15	4	27		4.6		10.8000	15		1
Gross Beta Activity	pCi/L	15	6	92		6.5		23.2833	50		1
Iron, ICAP	mg/L	15	7	2.15		0.0725		0.6075	0.3		4
Lead, ICAP	mg/L	15	0						0.015		0
Lead, PMS	mg/L	15	2	0.00176		0.00139		0.0016	0.015		0
Lithium, ICAP	mg/L	15	8	1.24		0.0129		0.1744	NR	w	NA
Magnesium, ICAP	mg/L	15	15	32.7		4.07		11.0580	NR	k	NA
Manganese, ICAP	mg/L	15	9	1.93		0.00628		0.4648	0.05		5
Nickel, ICAP	mg/L	15	2	0.178		0.0954		0.1367	0.1	z	1
Nickel, PMS	mg/L	15	9	0.172		0.00615		0.0430	0.1	d	1
Nitrate as Nitrogen	mg/L	15	11	203		0.0363		19.1270	10		1
Potassium, ICAP	mg/L	15	9	6.8		2.23		3.3644	NR		NA
Sodium, ICAP	mg/L	15	15	48		2.62		11.5467	NR		NA

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT	MINIMUM DETECTED RESULT	AVERAGE DETECTED RESULT	REF. VALUE	NUMBER OF RESULTS > REF.
Strontium, ICAP	mg/L	15	15	1.37	0.0554	0.3920	NR w	NA
Sulfate	mg/L	15	15	178	11.5	46.5600	250	0
Tetrachloroethene	ug/L	15	11	50000 D	2 J	6578.0909	5	8
Toluene	ug/L	15	1	3 J	3 J	3.0000	1000	0
Total Dissolved Solids	mg/L	15	15	1880	176	395.2667	500	1
Total Suspended Solids	mg/L	15	11	16	1	3.5909	NR	NA
trans-1,2-Dichloroethene	ug/L	15	5	36	3 J	19.4000	100	0
Trichloroethene	ug/L	15	7	3800 D	3 J	1168.0000	5	6
Uranium, ICAP	mg/L	15	0				0.03	0
Uranium, PMS	mg/L	15	7	0.0431	0.0005	0.0075	0.03	1
Vinyl Chloride	ug/L	15	5	170	3	68.8000	2	5
REGIME = EF AREA NAME = Y-12 Salvage Yard								
1,1,1,2-Tetrachloroethane	ug/L	4	1	2 J	2 J	2.0000	NR	NA
1,1,1-Trichloroethane	ug/L	4	1	8	8	8.0000	200	0
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/L	4	1	28	28	28.0000	NR	NA
1,1-Dichloroethane	ug/L	4	1	3 J	3 J	3.0000	NR	NA
1,1-Dichloroethene	ug/L	4	1	120	120	120.0000	7	1
1,2-Dichloroethene	ug/L	4	2	44	27	35.5000	NR	NA
Alkalinity	mg/L	4	4	653	64.2	324.9750	NR	NA
Barium, ICAP	mg/L	4	4	151	0.0555	41.1454	2	2
Benzene	ug/L	4	1	160	160	160.0000	5	1
Bicarbonate	mg/L	4	4	653	64.2	324.9750	NR	NA
Bromoform	ug/L	4	1	9	9	9.0000	100	0
Calcium, ICAP	mg/L	4	4	9630	16.8	2951.0500	NR	NA
Chloride	mg/L	4	4	53.7	4.39	29.3975	250	0
Chloroform	ug/L	4	3	15	1 J	6.0000	100	0
cis-1,2-Dichloroethene	ug/L	4	2	44	27	35.5000	70	0
Flouride	mg/L	4	1	0.103	0.103	0.1030		0
Gross Alpha Activity	pCi/L	4	1	3.2	3.2	3.2000	15	0
Gross Beta Activity	pCi/L	4	3	4400	7.3	1472.4333	50	1
Lead, ICAP	mg/L	4	0				0.015	0

COMPOUND	UNITS	NUMBER OF SAMPLES	NUMBER DETECTED	MAXIMUM DETECTED RESULT		MINIMUM DETECTED RESULT		AVERAGE DETECTED RESULT	REF. VALUE		NUMBER OF RESULTS > REF.
Lead, PMS	mg/L	4	1	0.000525		0.000525		0.0005	0.015		0
Lithium, ICAP	mg/L	4	2	0.37		0.0778		0.2239	NR	w	NA
Magnesium, ICAP	mg/L	4	4	1410		2.37		440.7850	NR		NA
Manganese, ICAP	mg/L	4	2	59.1		1.77		30.4350	0.05		2
Methylene chloride	ug/L	4	1	26		26		26.0000	5		1
Nickel, ICAP	mg/L	4	0						0.1		0
Nickel, PMS	mg/L	4	2	0.266		0.142		0.2040	0.1		2
Nitrate as Nitrogen	mg/L	4	4	8570		0.19		2607.7058	10		2
Potassium, ICAP	mg/L	4	1	35.6		35.6		35.6000	NR		NA
Sodium, ICAP	mg/L	4	4	240		9.43		96.4075	NR		NA
Strontium, ICAP	mg/L	4	4	74.3		0.0401		20.2438	NR	w	NA
Sulfate	mg/L	4	3	22.6		2.88		10.5267	250		0
Technetium-99	pCi/L	2	1	7800		7800		7800.0000	4000		1
Tetrachloroethene	ug/L	4	3	1700	D	22		583.0000	5		3
Total Dissolved Solids	mg/L	4	4	48300		93		14901.5000	500		2
Total Suspended Solids	mg/L	4	3	3		1		2.0000	NR		NA
Trichloroethene	ug/L	4	3	10		2	J	5.0000	5		1
Uranium, ICAP	mg/L	4	0						0.03		0
Uranium, PMS	mg/L	4	1	0.0098		0.0098		0.0098	0.03		0
Uranium-234	pCi/L	2	2	6.6		1.1		3.8500	20		0
Uranium-235	pCi/L	2	0						24		0
Uranium-236	pCi/L	2	0						20		0
Uranium-238	pCi/L	2	1	3.1		3.1		3.1000	24		0

Footnote Definitions

[d] Dilution is due to sample matrix.
[k] Sample concentration is greater than 4 times the spike level for this sample batch.
[w] Not a recommended analyte by the preparation method used.
[z] Analyte reported, but not required or requested; use for qualitative purposes only.

Definitions

BC	Bear Creek Hydrogeologic Regime
CO3	Carbonate
CR	Chestnut Ridge Hydrogeologic Regime
CVAA	Cold Vapor Atomic Absorption
EF	East Fork Hydrogeologic Regime
HCO3	Bicarbonate
ICAP	Inductively Coupled Argon Plasma Spectroscopy
KPA	Kinetic Phosphorescence Analysis
mg/L	milligrams per liter
NA	Not Applicable
NR	No Reference
NTU	Nephelemetric Turbidity Units
pCi/L	picocuries per liter
PMS	Plasma Mass Spectroscopy
REF	Reference (Safe Drinking Water Act Maximum Contaminant Level)
µg/L	microgram per liter
µmhos/cm	micromhos per centimeter

Qualifier Definitions

* - Duplicate analysis not within control limits
D - Compounds identified in an analysis at a secondary dilution factor
E - Result estimated due to interferences
J - Indicates an estimated value (VOA)
J - Chemical tracer recovery is less than 50% or exceeds 125% (RAD)
N - Sample spike recovery not within control limits
X - Confirmation of GC pesticide results attempted by GC/MS but failed