DOE/ORO/2161

ENVIRONMENTAL MONITORING ON THE OAK RIDGE RESERVATION: 2002 RESULTS

Compiled by
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List of Tables

East Tennessee Technology Park

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Oak Ridge National Laboratory

ORR Surveillance

Y-12 National Security Complex

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Constituents Detected in Groundwater at the Y-12 Complex Site for 2002

Regime = Bear Creek

Regime = Chestnut Ridge

Regime = Upper East Fork Poplar Creek

List of Tables (continued)

Table 1.1. 2002 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	147500	1400	28740		
Total Suspended Solids, mg/L	12	16.4	<1.0	<4.1		
pH, Standard Units	12	7.6	6.9	7.3	4.0 - 9.0	0
Discharge Point SD 100						
Flow, GPD	52	6572800	439400	1195380		
Total Suspended Solids, mg/L	52	16.0	<1.0	<2.3		
pH, Standard Units	52	8.0	6.7	7.2	6.0 - 9.0	0
Oil & Grease	52	6.6	<5.0	<5.1		
Discharge Point SD 120						
Flow, GPD	3	840100	0	476170		
Total Suspended Solids, mg/L	3	16	<1.0	<10.3		
pH, Standard Units	3	6.9	6.7	6.8	4.0 - 9.0	0
Discharge Point SD 124						
Flow, GPD	48	812800	0	155160		
Total Suspended Solids, mg/L	48	22.5	<1.0	<3.9		
pH, Standard Units	48	8.2	6.7	7.5	6.0 - 9.0	0
Oil & Grease	48	<5.3	<5.0	<5.0		
Discharge Point SD 130						
Flow, GPD	52	12667800	112700	1199630		
Total Suspended Solids, mg/L	52	18.2	<1.0	<9.0		
pH, Standard Units	52	7.9	6.6	7.1	6.0 - 9.0	0
Oil & Grease	52	13.3	<5.0	<5.7		
Discharge Point SD 140						
Flow, GPD	4	131600	44900	87800		
ph, Standard Units	4	7.5	6.9	7.2	4.0 - 9.0	0
Discharge Point SD 142						
Flow, GPD	10	202200	0	93220		
pH, Standard Units	10	8.3	6.8	7.6	4.0 - 9.0	0
Discharge Point SD 144						
Flow, GPD	7	480200	0	183100		
pH, Standard Units	7	7.9	6.6	7.1	4.0 - 9.0	0
Total Suspended Solids,	7	14.0	<1.0	<3.7		
Oil & Grease	7	7.0	<5.0	<5.3		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 146				
Flow, GPD	6	41062	0	17780		
Total Suspended Solids, mg/L	6	7.2	<1.0	<2.0		
pH, Standard Units	6	7.6	6.4	6.9	4.0 - 9.0	0
Oil & Grease	6	6.6	<5.0	<5.3		
		Discharge Point SD 148				
Flow, GPD	6	25089	0	9500		
pH, Standard Units	6	7.4	6.5	7.0	4.0 - 9.0	0
		Discharge Point SD 150				
Flow, GPD	4	705100	0	354725		
pH, Standard Units	4	7.6	6.5	7.2	4.0 - 9.0	0
Total Suspended Solids, mg/L	4	7.6	<1.0	<2.7		
		Discharge Point SD 154				
Flow, GPD	5	294700	0	145540		
pH, Standard Units	5	7.1	6.6	6.9	4.0 - 9.0	0
		Discharge Point SD 156				
Flow, GPD	1	4177700	0	4177700		
pH, Standard Units	1	6.7	6.7	6.7	4.0 - 9.0	
		Discharge Point SD 158				
Flow, GPD	2	82550	0	58900		
pH, Standard Units	2	6.8	6.5	6.7	4.0 - 9.0	0
		Discharge Point SD 160				
Flow, GPD	3	253500	0	201030		
pH, Standard Units	3	7.4	7.0	7.2	4.0 - 9.0	0
Total suspended solids, mg/L	3	4.4	<1.0	<2.1		
		Discharge Point SD 162				
Flow, GPD	4	277900	0	143490		
Oil & Grease	4	8.1	<5.0	<5.8		
pH, Standard Units	4	6.9	6.7	6.8	4.0 - 9.0	0
		Discharge Point SD 170				
Flow, GPD	52	2394500	20700	305275		
Total Suspended Solids, mg/L	52	19.0	<1.0	<3.6		
pH, Standard Units	52	8.4	6.8	7.5	6.0 - 9.0	0
Oil & Grease	52	7.2	<5.0	<5.2		
		Discharge Point SD 180				
Flow, GPD	52	2132600	21700	286850		
Total Suspended Solids, mg/L	52	22.4	<1.0	<9.8		
pH, Standard Units	52	8.2	6.8	7.6	6.0 - 9.0	0
Oil & Grease	52	6.1	<5.0	<5.1		

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	52	2572900	60400	432040		
Total Suspended Solids, mg/L	52	13.6	<1.0	<4.8		
pH, Standard Units	52	7.6	6.8	7.2	6.0 - 9.0	0
Oil & Grease	52	6.2	<5.0	<5.1		
		Discharge Point SD 192				
Flow, GPD	1	76830	0	76830		
pH, Standard Units	1	7.4	7.4	7.4	4.0 - 9.0	0
		Discharge Point SD 194				
Flow, GPD	2	123200	76832	100015		
pH, Standard Units	2	7. 5	7.1	7.3	4.0 - 9.0	0
		Discharge Point SD 195				
Flow, GPD	1	86440	0	86440		
pH, Standard Units	1	7.0	7.0	7.0	4.0 - 9.0	0
		Discharge Point SD 196				
Flow, GPD	1	75775	75775	75775		
pH, Standard Units	1	6.9	6.9	6.9	4.0 - 9.0	0
		Discharge Point SD 197				
Flow, GPD	5	97591	0	40490		
pH, Standard Units	5	7.3	6.3	6.8	4.0 - 9.0	0
Oil & Grease	5	13.0	<5.0	<6.6		
		Discharge Point SD 198				
Flow, GPD	2	403700	0	288300		
pH, Standard Units	2	7.2	6.4	6.8	4.0 - 9.0	0
		Discharge Point SD 200				
Flow, GPD	5	367400	0	265840		
pH, Standard Units	5	7.7	6.4	7.2	4.0-9.0	0
Total Suspended Solids, mg/L	5	8.0	<1.0	<2.6		
		Discharge Point SD 210				
Flow, GPD	2	1388400	0	988100		
pH, Standard Units	2	6.7	6.3	6.5	4.0 - 9.0	0
		Discharge Point SD 220				
Flow, GPD	6	128700	0	51570		
Total Suspended Solids, mg/L	6	26.2	<1.0	<11.4		
pH, Standard Units	6	7.7	6.5	7.1	4.0 - 9.0	0
		Discharge Point SD 230				
Flow, GPD	11	1662700	0	625390		
pH, Standard Units	11	8.5	7.3	7.8	4.0 - 9.0	0
Total Suspended Solids, mg/L	11	4.5	<1.0	<1.3		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 238				
Flow, GPD	1	7230	0	7230		
pH, Standard Units	1	7.0	7.0	7.0		
		Discharge Point SD 240				
Flow, GPD	6	1178300	0	612300		
Total Suspended Solids, mg/L	6	2.0	<1.0	<1.2		
pH, Standard Units	6	7.6	6.4	7.1	4.0 - 9.0	0
		Discharge Point SD 250				
Flow, GPD	1	86773	0	86773		
Total Suspended Solids, mg/L	1	22.0	22.0	22.0		
pH, Standard Units	1	6.1	6.1	6.1		
		Discharge Point SD 270				
Flow, GPD	1	22570	0	22570		
pH, Standard Units	1	6.7	6.7	6.7		
		Discharge Point SD 280				
Flow, GPD	2	98570	0	82910		
pH, Standard Units	2	7.3	6.6	7.0		
		Discharge Point SD 292				
Flow, GPD	2	94380	61310	77845		
pH, Standard Units	2	7.0	6.8	6.9	4.0 - 9.0	0
		Discharge Point SD 294				
Flow, GPD	3	173600	109500	149000		
pH, Standard Units	3	7.0	6.9	6.9	4.0 - 9.0	0
		Discharge Point SD 296				
Flow, GPD	3	32980	21225	28465		
pH, Standard Units	3	7.1	6.7	6.9		
		Discharge Point SD 297				
Flow, GPD	3	76600	47790	63535		
pH, Standard Units	3	6.9	6.8	6.9	4.0 - 9.0	0
		Discharge Point SD 300				
Flow, GPD	3	731100	59360	292885		
pH, Standard Units	3	7.0	6.5	6.8		
		Discharge Point SD 310				
Flow, GPD	2	84682	0	73400		
pH, Standard Units	2	7.2	6.7	7.0		
		Discharge Point SD 320				
Flow, GPD	3	388900	247200	334430		
pH, Standard Units	3	6.9	6.6	6.7		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 322				
Flow, GPD	2	52540	30940	41740		
pH, Standard Units	2	7.0	6.5	6.8	4.0 - 9.0	0
		Discharge Point SD 326				
Flow, GPD	3	31870	18770	26830		
pH, Standard Units	3	7.0	6.6	6.8		
		Discharge Point SD 330				
Flow, GPD	2	700100	0	485150		
pH, Standard Units	2	7.3	6.9	7.1	4.0 - 9.0	0
Total Suspended Solids, mg/L	2	10.0	<1.0	<5.5		
		Discharge Point SD 332				
Flow, GPD	3	38350	22580	32280		
pH, Standard Units	3	7.0	6.2	6.7		
		Discharge Point SD 334				
Flow, GPD	3	52590	30970	44270		
pH, Standard Units	3	6.9	6.2	6.6		
		Discharge Point SD 340				
Flow, GPD	2	717400	532100	624750		
pH, Standard Units	2	7.3	7.1	7.2	4.0 - 9.0	0
		Discharge Point SD 350				
Flow, GPD	2	82905	53115	68010		
pH, Standard Units	2	7.2	7.0	7.1	4.0 - 9.0	0
		Discharge Point SD 352				
Flow, GPD	2	454	0	327		
pH, Standard Units	2	7.0	6.8	6.9		
		Discharge Point SD 360				
Flow, GPD	3	44310	30985	39200		
pH, Standard Units	3	7.0	6.9	6.9		
		Discharge Point SD 362				
Flow, GPD	2	202700	0	173900		
pH, Standard Units	2	7.3	7.0	7.2		
		Discharge Point SD 370				
Flow, GPD	1	760	0	760		
pH, Standard Units	1	7.7	7.7	7.7		
		Discharge Point SD 380				
Flow, GPD	9	1395600	0	655555		
pH, Standard Units	9	8.3	6.5	7.3	4.0 - 9.0	0
Oil & Grease	9	10.0	<5.0	<5.6		
Total Suspended Solids, mg/L	9	2.6	<1.0	<1.2		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 382				
Flow, GPD	2	167700	121900	144800		
pH, Standard Units	2	7.4	7.3	7.4	4.0 - 9.0	0
		Discharge Point SD 390				
Flow, GPD	3	522500	0	280830		
pH, Standard Units	3	7.1	6.7	6.9	4.0 - 9.0	0
Total Suspended Solids, mg/L	3	3.6	<1.0	<1.9		
		Discharge Point SD 400				
Flow, GPD	1	495	0	495		
pH, Standard Units	1	7.6	7.6	7.6	4.0 - 9.0	0
		Discharge Point SD 410				
Flow, GPD	1	49420	0	49420		
pH, Standard Units	1	7.1	7.1	7.1	4.0 - 9.0	0
		Discharge Point SD 420				
Flow, GPD	1	181500	0	181500		
pH, Standard Units	1	7.4	7.4	7.4	4.0 - 9.0	0
		Discharge Point SD 430				
Flow, GPD	11	1367800	0	502960		
pH, Standard Units	11	7.7	6.9	7.4	4.0 - 9.0	0
Oil & Grease	11	5.8	<5.0	<5.1		
		Discharge Point SD 440				
Flow, GPD	8	899500	0	409200		
pH, Standard Units	8	7.3	6.7	7.1	4.0 - 9.0	0
		Discharge Point SD 450				
Flow, GPD	1	50415	0	50415		
pH, Standard Units	1	7.5	7.5	7.5	4.0 - 9.0	0
		Discharge Point SD 460				
Flow, GPD	1	13510	0	13510		
pH, Standard Units	1	7.4	7.4	7.4		
		Discharge Point SD 470				
Flow, GPD	1	33390	0	33390		
pH, Standard Units	1	7.4	7.4	7.4	4.0 - 9.0	0
		Discharge Point SD 490				
Flow, GPD	11	6074400	0	2148000		
pH, Standard Units	11	7.6	7.0	7.3	4.0 - 9.0	0
Oil & Grease	11	5.7	<5.0	<5.1		
		Discharge Point SD 500				
Flow, GPD	1	34420	0	34420		
pH, Standard Units	1	7.5	7.5	7.5	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 510				
Flow, GPD	12	1062600	30600	451730		
Total Suspended Solids, mg/L	12	28.0	<1.0	<7.4		
pH, Standard Units	12	7.5	6.3	6.9	4.0 - 9.0	0
		Discharge Point SD 520				
Flow, GPD	1	45690	0	45690		
pH, Standard Units	1	6.9	6.9	6.9	4.0 - 9.0	0
		Discharge Point SD 522				
Flow, GPD	1	99230	0	99230		
pH, Standard Units	1	7.1	7.1	7.1	4.0 - 9.0	0
		Discharge Point SD 530				
Flow, GPD	2	838100	0	571900		
Total Suspended Solids, md/L	2	13.6	<1.0	<7.3		
pH, Stnadard Units	2	6.3	5.8	6.1		
		Discharge Point SD 532				
Flow, GPD	3	43910	28450	37975		
pH, Standard Units	3	7.0	6.2	6.6		
		Discharge Point SD 540				
Flow, GPD	3	71145	45030	61110		
pH, Standard Units	3	6.8	6.2	6.5		
		Discharge Point SD 550				
Flow, GPD	3	78115	47625	66385		
pH, Standard Units	3	6.9	6.3	6.6		
		Discharge Point SD 560				
Flow, GPD	4	346900	0	168500		
Total Suspended Solids, mg/L	4	12.6	<1.0	<5.6		
pH, Standard Units	4	7.2	6.2	6.6	4.0 - 9.0	0
		Discharge Point SD 570				
Flow, GPD	3	203500	130900	175600		
pH, Standard Units	3	7.0	6.6	6.8		
		Discharge Point SD 580				
Flow, GPD	3	175600	107600	149430		
pH, Standard Units	3	7.1	6.4	6.8		
		Discharge Point SD 590				
Flow, GPD	2	65600	0	49410		
pH, Standard Units	2	7.4	7.4	7.4	4.0 - 9.0	0
		Discharge Point SD 600				
Flow, GPD	1	843500	0	843500		
Total Suspended Solids, mg/L	1	85.2	85.2	85.2		
pH, Standard Units	1	7.0	7.0	7.0		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 610				
Flow, GPD	3	622000	0	297500		
Total Suspended Solids, mg/L	3	13.4	<1.0	<8.5		
Oil & Grease	3	<7.1	<5.0	<5.7		
pH, Standard Units	3	7.4	6.5	7.1		
		Discharge Point SD 620				
Flow, GPD	3	94260	57160	79990		
pH, Standard Units	3	7.2	6.5	6.8		
		Discharge Point SD 640				
Flow, GPD	3	107000	0	56530		
Total Suspended Solids, mg/L	3	9.8	6.6	8.7		
pH, Standard Units	3	7.6	7.0	7.4	4.0 - 9.0	0
		Discharge Point SD 650				
Flow, GPD	1	24910	0	24910		
pH, Standard Units	1	7.1	7.1	7.1		
		Discharge Point SD 660				
Flow, GPD	2	29520	0	15460		
pH, Standard Units	2	7.5	7.5	7.5	4.0 - 9.0	0
Total Suspended Solids, mg/L	2	16.5	<1.0	<8.8		
		Discharge Point SD 680				
Flow, GPD	2	124900	0	85360		
pH, Standard Units	2	7.8	7.5	7.7	4.0 - 9.0	0
		Discharge Point SD 690				
Flow, GPD	5	2551900	0	1495580		
Total Suspended Solids, mg/L	5	2.0	<1.0	<1.2		
pH, Standard Units	5	7.4	6.5	7.2	4.0 - 9.0	0
		Discharge Point SD 692				
Flow, GPD	2	39830	26407	33120		
pH, Standard Units	2	7.1	6.7	6.9	4.0 - 9.0	0
		Discharge Point SD 694				
Flow, GPD	1	52390	0	52390		0
pH, Standard Units	1	7.2	7.2	7.2	4.0 - 9.0	0
		Discharge Point SD 696				
Flow, GPD	2	85370	0	72890		
pH, Standard Units	2	7.5	7.2	7.4		
		Discharge Point SD 700				
Flow, GPD	5	2012000	0	1144800		
Total Suspended Solids, mg/L	5	8.0	<1.0	<2.7		
pH, Standard Units	5	7.2	6.7	6.9	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 710				
Flow, GPD	12	3031100	84600	1265450		
Total Suspended Solids, mg/L	12	4.8	<1.0	<1.3		
pH, Standard Units	12	7.9	6.7	7.3	4.0 - 9.0	0
		Discharge Point SD 720				
Flow, GPD	3	562700	0	278230		
pH, Standard Units	3	6.9	6.6	6.7	4.0 - 9.0	0
Total Suspended Solids, mg/L	3	8.4	<1.0	<5.1		
		Discharge Point SD 724				
Flow, GPD	1	1096300	0	1096300		
pH, Standard Units	1	6.8	6.8	6.8		
		Discharge Point SD 730				
Flow, GPD	1	60980	0	60980		
pH, Standard Units	1	7.2	7.2	7.2		
		Discharge Point SD 740				
Flow, GPD	1	32950	0	32950		
pH, Standard Units	1	7.3	7.3	7.3	4.0 - 9.0	
		Discharge Point SD 750				
Flow, GPD	2	14910	0	9970		
pH, Standard Units	2	7.4	7.3	7.4	4.0 - 9.0	0
		Discharge Point SD 760				
Flow, GPD	1	13570	0	13570		
pH, Standard Units	1	7.4	7.4	7.4	4.0 - 9.0	0
		Discharge Point SD 770				
Flow, GPD	2	5863	0	3920		
pH, Standard Units	2	7.6	7.3	7.5	4.0 - 9.0	0
		Discharge Point SD 780				
Flow, GPD	2	581900	0	381450		
pH, Standard Units	2	7.1	7.1	7.1	4.0 - 9.0	0
		Discharge Point SD 810				
Flow, GPD	2	11520	0	8800		
Total Suspended Solids, mg/L	2	19.0	7.6	13.3		
pH, Standard Units	2	7.3	6.9	7.1	4.0 - 9.0	0
		Discharge Point SD 820				
Flow, GPD	1	71480	0	71480		
pH, Standard Units	1	7.1	7.1	7.1	4.0 - 9.0	0
		Discharge Point SD 830				
Flow, GPD	1	371400	0	371400		
pH, Standard Units	1	7.5	7.5	7.5	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 850				
Flow, GPD	2	1440	0	800		
pH, Standard Units	2	7.3	7.0	7.2	4.0 - 9.0	
		Discharge Point SD 870				
Flow, GPD	1	183800	0	183800		
Total Suspended Solids, mg/L	1	5.6	5.6	5.6		
pH, Standard Units	1	8.0	8.0	8.0	4.0 - 9.0	0
		Discharge Point SD 880				
Flow, GPD	2	122300	0	83320		
Total Suspended Solids, mg/L	2	589.0	20.0	305		
pH, Standard Units	2	7.7	6.9	7.3	4.0 - 9.0	0
		Discharge Point SD 890				
Flow, GPD	1	432200	0	432200		
Total Suspended Solids, mg/L	1	13.4	13.4	13.4		
pH, Standard Units	1	7.6	7.6	7.6	4.0 - 9.0	0
		Discharge Point SD 892				
Flow, GPD	1	8010	0	8010		
pH, Standard Units	1	7.3	7.3	7.3		
		Discharge Point SD 900				
Flow, GPD	1	31460	0	31460		
pH, Standard Units	1	6.9	6.9	6.9	4.0 - 9.0	0
		Discharge Point SD 910				
Flow, GPD	1	184400	0	184400		
pH, Standard Units	1	7.0	7.0	7.0	4.0 - 9.0	0
		Discharge Point SD 920				
Flow, GPD	2	232200	0	192950		
pH, Standard Units	2	7.4	6.3	6.9		
		Discharge Point SD 929				
Flow, GPD	1	710	0	710		
pH, Standard Units	1	7.5	7.5	7.5	4.0 - 9.0	0
		Discharge Point SD 930				
Flow, GPD	2	130100	91180	110640		
pH, Standard Units	2	7.8	7.3	7.6	4.0 - 9.0	0
		Discharge Point SD 934				
Flow, GPD	2	41450	25140	33290		
pH, Standard Units	2	7.6	7.1	7.4	4.0-9.0	0
		Discharge Point SD 940				
Flow, GPD	2	2360	1760	2060		
pH, Standard Units	2	7.2	6.8	7.0		

Table 1.1 (continued)

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
		Discharge Point SD 950				
Flow, GPD	2	1135	0	1010		
pH, Standard Units	2	6.9	6.8	6.9		
		Discharge Point SD 960				
Flow, GPD	2	3010	1770	2390		
pH, Standard Units	2	7.5	7.0	7.3	4.0-9.0	0
		Discharge Point SD 970				
Flow, GPD	1	366800	0	366800		
pH, Standard Units	1	6.9	6.9	6.9		
		Discharge Point SD 980				
Flow, GPD	1	521900	0	521900		
pH, Standard Units	1	6.9	6.9	6.9		
		Discharge Point SD 990				
Flow, GPD	1	53170	0	53170		
pH, Standard Units	1	7.0	7.0	7.0		
		Discharge Point SD 992				
Flow, GPD	4	1445000	0	525225		
Total Suspended Solids	4	33.6	14.8	20.9		
pH, Standard Units	4	6.7	6.1	6.4	4.0 - 9.0	0
		Discharge Point SD 996				
Flow, GPD	1	181600	0	181600		
pH, Standard Units	1	7.1	7.1	7.1		

[a] - Units are mg/L unless otherwise noted

[b] - NPDES permit limit

Table 1.2. 2002 NPDES Permit Number TN 0002950

Discharge Point 005, Sewage Treatment Plant, ETTP

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
			K-1203			
Biological Oxygen Demand	156	10.0	<5.0	<5.1		
Ammonia Nitrogen	156	4.0	<0.1	<0.14	7	0
Dissolved Oxygen, mg/L	365	9.0	5.0	6.4	5.0 min[c]	0
Fecal Coliform, col/100ml	156	72	<2.0	<2.8	400	0
Flow Total (GPD)	365	918200	234300	269860		
Suspended Solids, mg/L	156	44.0	7.8	13.4	45	0
pH, Standard Units	365	9.0	6.3	7.7	6.0 - 9.0	0

[a] - Units are mg/L unless otherwise noted

[b] - NPDES permit limit

[c] - Daily minimum

Table 1.3. 2002 NPDES Permit Number TN 0002950

Discharge Point 014, Central Neutralization Facility to Clinch River, ETTP

Parameter	Number of samples	Concentration[a]			Reference Value[b]	No. of values exceeding reference
		Max	Min	Avg		
			K-1407J			
Oil & Grease	104	3.80	<1.0	<1.3		
Cadmium, mg/L	4	0.002	0.001	0.001	0.069	0
Chemical Oxygen Demand, mg/L	52	18	12	15		
Chloride, mg/L	208	493	165	239	70000	0
Chromium, mg/L	4	0.045	0.022	0.031	2.8	0
Copper	4	0.006	<0.001	<0.0035	2.15	
Flow, GPD	365	177800	62200	91020		
Lead, mg/L	4	0.006	<0.0005	<0.002	0.69	0
Methylene chloride	24	0.02	<0.01	<0.01		
Nickel, mg/L	4	0.009	0.002	<0.005	4.0	0
pH, Standard Units	365	8.9	6.0	6.9	6.0 - 9.0	0
Suspended Solids, mg/L	208	43.0	5.0	13.6	40	1
Total Petroleum Hydrocarbons	12	<1.8	<0.1	<0.24		1
Uranium, mg/L	12	0.3080	0.0384	0.1177		
Zinc, mg/L	4	0.031	0.011	0.020	2.6	
Silver	4	0.001	<0.0005	<0.0006	0.43	

[a] - Units are mg/L unless otherwise noted

[b] - NPDES permit limit

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
				CRK-16				
Bi-214	1	1.3e+02	1.3e+02	1.3e+02	1.3e+02	6.0e+05	1.9e-03	1.9e-05
Cs-137	5	3.6e-01	-7.5e+00	0.00+00	-1.0e-01	3.0e+03	-3.3e-02	-3.3e-04
Co-60	3	1.6e+01	-4.4e+00	0.0e+00	1.0e+00	5.0e+03	2.0e-02	2.0e-04
Potassium-40	6	1.3e+03	1.9e+02	0.0e+00	1.4e+02	7.0e+03	1.9e+00	1.9e-02
Tc-99	12	1.3e+01	-6.3e+00	1.8e+00	2.6e+00	1.0e+05	2.6e-03	2.6e-05
U-234	12	7.8e-01	-4.1e-02	2.1e-01	2.5e-01	5.0e+02	4.9e-02	4.9e-04
U-235	12	8.7e-02	-2.2e-02	9.8e-03	1.4e-02	1.4e-02	2.4e-03	2.4e-05
U-236	9	3.9e-02	-7.8e-02	0.0e+00	-3.9e-02	5.0e+02	-7.7e-04	-7.7e-06
U-238	12	2.1e-01	0.0e+00	1.2e-01	1.2e-01	6.0e+02	2.0e-02	2.0e-04
Alpha activity	12	1.3e+00	4.0e-01	1.0e+00	1.0e+00	a	a	a
Beta activity	12	9.8e+00	-3.4e+00	5.5e+00	5.5e+00	a	a	a
All listed isotopes								2.0e-02

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-716 (Poplar Creek)								
Tc-99	2	2.2e+01	-5.1e+00	8.4e+00	8.4e+00	1.0e+05	8.4e-03	8.4e-05
U-234	2	3.1e-01	1.0e-01	2.0e-01	2.0e-01	5.0e+02	4.1e-02	4.1e-04
U-235	2	5.0e-02	0.0e+00	2.5e-02	2.5e-02	6.0e+02	4.2e-03	4.2e-05
U-238	2	1.7e-01	1.6e-01	1.6e-01	1.6e-01	6.0e+02	2.7e-02	2.7e-04
All listed isotopes								8.0e-04

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-901-A (settling basin for surface water runoff)								
U-234	2	1.3e+00	7.7e-01	1.0e+00	1.0e+00	5.0e+02	2.0e-01	2.0e-03
U-235	2	4.8e-02	0.0e+00	2.4e-02	2.4e-02	6.0e+02	4.0e-03	4.0e-05
U-236	1	-1.1e-01	-1.1e-01	-1.1e-01	-1.1e-01	5.0e+02	-1.1e-02	-1.1e-04
U-238	2	9.5e-01	9.4e-01	9.5e-01	9.5e-01	6.0e+02	1.6e-01	1.6e-03
Tc-99	2	3.2e+01	6.2e+00	1.9e+01	1.9e+01	1.0e+05	1.9e-02	1.9e-04
Gross Beta	4	1.6e+01	1.4e+01	1.5e+01	1.5e+01	*a*	*a*	*a*
All listed isotopes								3.7e-03

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-1007-B (settling basin for surface water runoff)								
U-234	2	8.0e-01	5.7e-01	6.8e-01	6.8e-01	5.0e+02	1.4e-01	1.4e-03
U-235	2	4.7e-02	-2.1e-02	1.3e-02	1.3e-02	6.0e+02	2.2e-03	2.2e-05
U-236	1	1.9e-02	1.9e-02	1.9e-02	1.9e-02	5.0e+02	1.9e-03	1.9e-05
U-238	2	1.9e-01	1.9e-02	1.0e-01	1.0e-01	6.0e+02	1.7e-02	1.7e-04
Tc-99	2	1.8e+01	3.5e-01	8.9e+00	8.9e+00	1.0e+05	8.9e-03	8.9e-05
All listed isotopes								1.7e-03

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-1407-J (treated effluents from Central Neutralization Facility and TSCA Incinerator)								
Am-241	12	7.6e-01	0.0e+00	1.3e-01	1.6e-01	3.0e+01	5.4e-01	5.4e-03
C-14	11	1.2e+03	0.0e+00	1.6e+02	3.0e+02	7.0e+04	4.3e-01	4.3e-03
Co-60	6	3.1e+00	0.0e+00	0.0e+00	3.4e+01	5.0e+03	6.9e-03	6.9e-05
Cs-137	12	5.5e+01	-8.9e-01	1.8e+00	8.5e+00	3.0e+03	2.8e-01	2.8e-03
H-3	11	5.3e+03	0.0e+00	2.7e+02	6.4e+02	2.0e+06	3.2e-02	3.2e-04
I-131	5	2.6e+00	0.0e+00	0.0e+00	5.4e-01	3.0e+03	1.8e-02	1.8e-04
K-40	6	2.6e+01	-2.2e+01	0.0e+00	4.9e+00	7.0e+03	7.0e-02	7.0e-04
Np-237	12	5.4e-01	0.0e+00	5.0e-02	1.4e-01	3.0e+01	4.6e-01	4.6e-03
Pb-210	5	2.3e+01	0.0e+00	0.0e+00	1.9e+00	3.0e+01	6.3e+00	6.3e-02
Pu-238	12	9.0e-02	0.0e+00	2.5e-02	3.5e-02	4.0e+01	8.8e-02	8.8e-04
Pu-239	12	1.1e-01	0.0e+00	4.0e-02	5.4e-02	3.0e+01	1.8e-01	1.8e-03
Sr-90	4	3.5e+00	0.0e+00	0.0e+00	3.8e-01	1.0e+03	3.8e-02	3.8e-04
Tc-99	12	7.6e+02	1.8e-01	9.9e+01	1.8e+02	1.0e+05	1.8e-01	1.8e-03
Th-228	5	2.6e-01	0.0e+00	0.0e+00	2.8e-02	4.0e+02	7.1e-03	7.1e-05
Th-230	6	4.5e+00	0.0e+00	8.5e-02	5.3e-01	3.0e+02	1.8e-01	1.8e-03
Th-234	6	4.4e+01	-1.3e-01	0.0e+00	5.8e+00	1.0e+04	5.8e-02	5.8e-04
U-234	12	4.9e+01	6.4e+00	1.6e+01	2.0e+01	5.0e+02	3.9e+00	3.9e-02
U-235	12	3.8e+00	2.3e-01	1.1e+00	1.5e+-00	6.0e+02	2.5e-01	2.5e-03
U-236	12	2.5e+00	2.5e-01	5.9e-01	9.0e-01	5.0e+02	1.8e-01	1.8e-03
U-238	12	9.4e+01	9.2e+00	2.5e+01	3.4e+01	6.0e+02	5.6e+00	5.5e-02
Gross Alpha	12	1.1e+02	1.4e+01	3.6e+01	4.0e+01	*a*	*a*	*a*
Gross Beta	12	7.6e+02	2.6e+01	1.0e+02	1.9e+02	*a*	*a*	*a*
All listed isotopes								1.9e-01

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-1700 (Mitchell Branch)								
U-234	4	2.7e+01	1.9e-01	5.1e+00	9.5e+00	5.0e+02	1.9e+00	1.9e-02
U-235	4	8.6e-01	-1.9e-02	2.8e-01	3.5e-01	6.0e+02	5.8e-02	5.8e-04
U-236	3	1.3e-01	0.0e+00	3.5e-02	4.9e-02	5.0e+02	9.7e-03	9.7e-05
U-238	4	3.4e+00	-4.7e-02	2.6e+00	2.1e+00	6.0e+02	3.5e-01	3.5e-03
Tc-99	4	3.6e+01	2.8e+00	1.2e+01	1.6e+01	1.0e+05	1.6e-02	1.6e-04
Gross Alpha	4	1.9e+01	9.3e+00	1.4e+00	1.4e+01	*a*	*a*	*a*
Gross Beta	2	5.3e+01	8.1e+00	2.1e+01	2.1e+01	*a*	*a*	*a*
All listed isotopes								2.3e-02

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
K-1710 (Poplar Creek upstream of the ETTP)								
Tc-99	2	1.6e+01	-5.6e+00	5.2e+00	5.2e+00	1.0e+05	5.2e-03	5.2e-05
U-234	2	1.1e+00	1.8e-01	6.3e-01	6.3e-01	5.0e+02	1.3e-01	1.3e-03
U-235	2	2.5e-02	2.1e-02	2.3e-02	2.3e-02	6.0e+02	3.8e-03	3.8e-05
U-236	1	-4.5e-02	-4.5e-02	-4.5e-02	-4.5e-02	5.0e+02	-4.5e-03	-4.5e-05
U-238	2	2.4e-01	1.0e-02	1.7e-01	1.7e-01	6.0e+02	2.8e-02	2.8e-04
All listed isotopes								1.6e-03

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
				MIK 0.4				
Tc-99	2	1.5e+01	-2.5e+00	6.1e+00	6.1e+00	1.0e+05	6.1e-03	6.1e-05
U-234	2	2.6e+00	1.2e+00	1.9e+00	1.9e+00	5.0e+02	3.9e-01	3.9e-03
U-235	2	6.7e-02	5.1e-06	3.4e-02	3.4e-02	6.0e+02	5.6e-03	5.6e-05
U-236	1	4.2e-02	4.2e-02	4.2e-02	4.2e-02	5.0e+02	4.2e-03	4.2e-05
U-238	2	1.6e+00	4.9e-01	1.0e+00	1.0e+00	6.0e+02	1.7e-01	1.7e-03
All listed isotopes								5.7e-03

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

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

Radionuclide	No. of samples	Concentration (pCi/L)				DCG	Percent of DCG	Sum of the fractions of the DCGs
		Max	Min	Median[b]	Average[b]			
				MIK 1.4				
Tc-99	4	1.8e+01	-9.2e+00	1.2e+00	2.9e+00	1.0e+05	2.9e-03	2.9e-05
U-234	4	9.4e+00	1.6e-02	4.1e+00	4.4e+00	5.0e+02	8.9e-01	8.9e-03
U-235	4	4.6e-01	0.0e+00	7.6e-02	1.5e-01	6.0e+02	2.5e-02	2.5e-04
U-236	3	1.9e-01	-4.0e-02	0.0e+00	3.7e-02	5.0e+02	7.3e-03	7.3e-05
U-238	4	3.9e+00	1.6e-02	1.5e-01	1.1e+00	6.0e+02	1.8e-01	1.8e-03
Gross Beta	4	6.8e+00	6.4e-01	3.5e+00	3.5e+00	a	a	a
All listed isotopes								1.1e-02

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

Table 1.13. 2002 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		
Acetone (mg/L)	2/12	0.06	0.05	0.06		
Barium (mg/L)	12/12	0.039	0.030	0.033		
Calcium (mg/L)	12/12	38	30	35		
Chloroethane (mg/L)	6/24	0.010	0.005	0.005		
Dissolved oxygen (mg/L)	12/12	12	7.4	9.3	5.0 min	0
Iron (mg/L)	12/12	0.42	0.046	0.13		
Magnesium (mg/L)	12/12	12	8.9	9.7		
Manganese (mg/L)	12/12	0.072	0.029	0.042		
Nickel	1/4	0.064	0.064	0.064		
pH (standard units)	12/12	7.9	7.0	7.5	6.5-8.5	0
Sodium (mg/L)	10/12	8.6	5.7	6.8		
Temperature (C^{o})	12/12	27	8.0	16		

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

Table 1. 14. 2002 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	8.3	7.9	8.1	5.0 min	0
pH (standard units)	2/2	7.8	7.4	7.6	6.5 - 8.5	0
Temperature (C°)	2/2	19	15	17		

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

Table 1.15. 2002 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		
Barium (mg/L)	2/2	0.047	0.038	0.042		
Calcium (mg/L)	2/2	38	35	37		
Dissolved Oxygen (mg/L)	5/5	7.1	4.7	6	5.0 min	1
Iron (mg/L)	2/2	0.44	0.30	0.37		
Magnesium (mg/L)	2/2	10	9.6	9.8		
Manganese (mg/L)	2/2	0.055	0.028	0.42		
pH (standard units)	4/4	7.3	6.5	6.9	6.5-8.5	0
Sodium (mg/L)	2/2	0.88	0.82	0.85		
Temperature (C^o)	4/4	23	13	18		
Zinc (mg/L)	1/2	0.015	0.015	0.015		

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

Table 1.16. 2002 ETTP parameters detected at K-1007-B

Parameter	Number detected/ number of samples	Detected results			Reference Value[a]	Number of exceeding reference
		Max	Min	Avg		
Barium	2/2	0.034	0.032	0.033		
Calcium	2/2	35	33	34		
Dissolved Oxygen	4/4	11	6.2	8.3	5.0 min	0
Iron	2/2	0.62	0.36	0.49		
Magnesium	2/2	8.6	7.8	8.4		
Manganese	2/2	0.13	0.063	0.094		
pH (standard units)	4/4	8.1	7.3	7.7	6.5 - 8.5	0
Sodium	2/2	2.2	2.1	2.1		
Temperature (C°)	4/4	25	15	20		

a All Reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.17. 2002 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		
1,2 Dichloroethene (mg/L)	3/8	0.018	0.015	0.016	140	0
Acetone (mg/L)	1/8	0.068	0.068	0.068		
Barium	4/4	0.061	0.048	0.053		
Calcium	4/4	67	50	58		
Carbontetrachloride (mg/L)	1/8	0.003	0.003	0.003	0.044	0
Chloroform (mg/L)	1/4	0.002	0.002	0.002	4.7	0
Chloroethane (mg/L)	2/8	0.006	0.0058	0.0059		
Dissolved Oxygen (mg/L)	8/8	12	6.1	9.2	5.0 min	0
Iron (mg/L)	4/4	0.27	0.18	0.22		
Magnesium (mg/L)	4/4	12	11	12		
Manganese (mg/L)	4/4	0.019	0.012	0.15		
Sodium (mg/L)	3/4	12	4.9	7.4		
Temperature (C°)	8/8	20	7.3	15		
Trichloroethene (mg/L)	4/8	0.040	0.002	0.014	0.810	0
Vinyl Chloride (mg/L)	4/8	0.006	0.001	0.0028	5.3	
pH (standard units)	8/8	7.3	6.8	7.1	6.5 - 8.5	0
Zinc (mg/L)	1/4	0.015	0.015	0.015		

a All Reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.18. 2002 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	8.8	7.4	8.1	5.0 min	0
pH (standard units)	2/2	7.1	6.8	7.0	6.5 - 8.5	0
Temperature (C°)	2/2	16	12	14		

a All Reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.19. 2002 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		
Chloroethene (mg/L)	1/4	0.005	0.005	0.005		
Dissolved Oxygen (mg/L)	5/5	9.9	6.7	8.3	5.0 min.	0
pH (standard units)	5/5	7.3	6.5	6.9	6.5 - 8.5	0
Temperature (C°)	5/5	18	5.4	14		

a All Reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.20. 2002 ETTP parameters detected at MIK 0.4

Parameter	Number detected/ number of samples	Detected results			Reference Value[a]	Number of values exceeding reference
		Max	Min	Avg		
1,1 Dichloroethane (mg/L)	3/3	0.007	0.006	0.007		
1,1 Dichloroethene (mg/L)	3/3	0.003	0.003	0.003		
1,2-Dichlorothene (mg/L)	3/3	0.39	0.33	0.35	140	0
Barium (mg/L)	2/2	0.089	0.082	0.083		
Calcium (mg/L)	2/2	120	120	120		
Dissolved Oxygen (mg/L)	2/2	1.9	1.7	1.8	5.0 min	2
Iron (mg/L)	2/2	1.0	0.16	0.58		
Magnesium (mg/L)	2/2	12	12	12		
Manganese (mg/L)	2/2	1.8	1.6	1.7		
pH (standard units)	2/2	6.9	6.5	6.7	6.5 - 8.5	0
Sodium (mg/L)	2/2	8.0	7.8	7.9		
Temperature (C^o)	2/2	18	18	18		
Trichloroethene (mg/L)	3/3	0.16	0.13	0.14	0.810	0
Vinyl chloride (mg/L)	3/3	0.083	0.081	0.082	5.3	0

a All Reference values are Tennessee Water Quality Standards for fish and aquatic life.

Table 1.21. K2 Soil Sample Results

	Detected Results		
Parameter	Max	Min	Avg
Aluminum (mg/Kg)	1.1e+04	8.2e+03	9.4e+03
Arsenic	1.3e+01	1.3e+01	1.3e+01
Barium	5.3e+01	5.1e+01	5.2e+01
Beryllium	3.6e-01	3.3e-01	3.5e-01
Chromium	1.9e+01	1.6e+01	1.8e+01
Cobalt	9.2e+00	8.9e+00	9.1e+00
Copper	1.6e+01	1.5e+01	1.6e+01
Lead	3.7e+01	3.5e+01	3.6e+01
Lithium	5.0e+00	2.5e+00	3.8e+00
Magnanese	2.1e+03	2.0e+03	2.1e+03
Nickel	2.5e+01	2.2e+01	2.4e+01
Vanadium	3.9e+01	3.8e+01	3.9e+01
U-233 (pCi/g)	1.0e+00	1.0e+00	1.0e+00
U-235 (pCi/g)	6.5e-02	6.5e-02	6.5e-02
U-238 (pCi/g	1.0e+00	1.0e+00	1.0e+00

[a]Units are mg/Kg unless otherwise noted.

Table 1.22. K6 Soil Sample Results

Parameter	Concentration[a] (mg/Kg)
Aluminum	3.5e+03
Barium	3.0e+01
Beryllium	4.7e-01
Chromium	1.4e+01
Cobalt	8.0e+00
Copper	7.7e+00
Lithium	1.4e+00
Manganese	8.4e+02
Vanadium	1.8e+01
Tc-99 (pCi/g)	2.5e-01
U-233 (pCi/g)	9.1e-01
U-235 (pCi/g)	5.4e-02
U-238 (pCi/g)	7.3e-01

[a]Units are mg/Kg unless otherwise noted.

Table 1.23. K9 Soil Sample Results

Parameter	Concentration[a]
Aluminum	2.8e+03
Barium	2.7e+01
Copper	4.9e+01
Magnesium	3.8e+04
Manganese	1.6e+02
U-233 (pCi/g)	2.7e-01
U-238 (pCi/g)	2.0e-01

[a]Units are mg/Kg unless otherwise noted.

Table 1.24. K10 Soil Sample Results

Parameter	Concentration[a]
Alumium	1.1e+04
Barium	7.4e+01
Beryllium	7.7e-01
Boron	4.4e+00
Chromium	2.8e+01
Cobalt	1.4e+01
Copper	2.1e+01
Lithium	1.3e+01
Magnesium	4.0e+03
Manganese	5.0e+02
Nickel	3.1e+01
Potassium	2.7e+03
Vanadium	2.7e+01
U-234 (pCi/g)	7.7e-01
U-238 (pCi/g)	7.2e-01

[a]Units are mg/Kg unless otherwise noted.

Table 1.25. PAM 35 Soil Sample Results

Parameter	Concentration[a]
Aluminum	4.0e+03
Barium	1.1e+02
Calcium	1.1e+05
Copper	7.3e+01
Iron	1.0e+04
Magnesium	4.4e+04
Manganese	3.6e+02
Sodium	1.0e+02
U-233 (pCi/g()	3.1e-01
U-238 (pCi/g)	2.5e-01
Vanadium	1.8e+01
Zinc	1.4e+02

[a]Units are mg/Kg unless otherwise noted.

Table 1.26. PAM 42 Soil Sample Results

Parameter	Concentration[a]
Aluminum	7.8e+03
Barium	1.6e+02
Beryllium	7.1e-01
Chromium	1.9e+01
Cobalt	1.6e+01
Copper	1.6e+01
Lithium	6.2e+00
Magnesium	7.4e+02
Manganese	1.1e+03
Potassium	9.8e+02
Vanadium	2.3e+01
U-233/234 (pCi/g)	4.5e-01
U-238 (pCi/g)	5.0e-01

[a]Units are mg/Kg unless otherwise noted.

Table 2.1. Major sources of radiological airborne emissions at Oak Ridge National Laboratory, 2002 (Ci)[a]

Isotope	Stack				
	X-2026	X-3020	X-3039	X-7503[b]	X-7911
^{241}Am	1.60E-07	1.26E-06	4.45E-07	5.37E-10	4.28E-09
^{41}Ar					1.49E+03
^{139}Ba			3.14E-03		3.38E-01
^{140}Ba					8.95E-05
^{7}Be	7.18E-07	7.86E-07	2.11E-05	1.25E-07	
^{252}Cf					1.25E-08
^{244}Cm	1.47E-06	3.32E-08	1.20E-07	5.60E-09	7.02E-08
^{60}Co			3.18E-05		
^{137}Cs	6.72E-06	1.77E-06	8.43E-05	2.40E-06	4.18E-06
^{138}Cs					1.59E+03
^{152}Eu			1.50E-06		
^{3}H	3.48E-01		1.93E+01	2.48E+00	6.16E+01
^{131}I			3.76E-04		8.96E-02
^{132}I					9.10E-01
^{133}I			1.26E-03		4.68E-01
^{134}I					1.53E+00
^{135}I			4.21E-04		1.31E+00
^{85}Kr					3.14E+02
^{85m}Kr					2.55E+01
^{87}Kr					1.28E+02
^{88}Kr					1.07E+02
^{89}Kr					5.55E+01
^{140}La			1.28E-05		2.92E-04
^{191}Os			3.48E-01		3.80E-03
^{212}Pb	1.93E-01		1.15E+00	1.08E-01	1.19E-01
^{238}Pu	5.15E-08	1.46E-06	2.63E-08		1.53E-09
^{239}Pu	1.70E-07	1.30E-06	9.69E-07	4.42E-10	3.46E-09
^{90}Sr	8.25E-07	1.87E-06	1.48E-03	1.23E-08	9.28E-06
^{228}Th	3.29E-08	1.49E-08	1.23E-08	7.77E-10	9.69E-09
^{230}Th	2.64E-09	4.26E-09	2.40E-08	5.75E-10	6.09E-09
^{232}Th	1.57E-09	2.09E-09	6.67E-09	5.36E-10	8.54E-09
^{234}U	3.03E-07	4.77E-07	4.63E-07	1.99E-09	2.21E-08
^{235}U	6.15E-09	1.28E-08	3.92E-08	5.62E-11	5.06E-09
^{238}U	4.47E-09	1.12E-08	5.87E-08	1.13E-09	1.36E-08
^{131m}Xe					1.47E+02
^{133}Xe			3.09E-09		5.88E+00
^{133m}Xe					1.22E+01
^{135}Xe			2.09E-03		1.01E+02
^{135m}Xe					7.04E+02
^{137}Xe					1.34E+02
^{138}Xe					2.91E+02
^{90}Y	8.25E-07	1.87E-06	1.48E-03	1.23E-08	9.28E-06

[a]1 Ci = 3.7E+10 Bq.
[b]Formerly 7512.

Table 2.2. Constituents in Waste Area Grouping (WAG) 1 groundwater at ORNL, June and August, 2002

Parameter	N det/ N total	Max	Min	Av	Reference value	Number of values exceeding reference [ref][a]
			Downgradient Wells			
Field measurements, unfiltered						
Conductivity (mS/cm)	4/4	1.0	0.62	0.84	b	[b]
Dissolved oxygen (mg/L)	4/4	2.4	1.2	1.6	b	[b]
Redox (mV)	4/4	300	140	230	b	[b]
Temperature (°C)	4/4	17	14	15	30.5	0[1]
Turbidity (JTU)	4/4	0	0	0	1	0[2]
pH (SU)	4/4	8.5	6.8	7.3	(6.0, 9.0)	0[1]
Radionuclides, unfiltered (pCi/L)[c]						
Cs-137	1/2	6.9*	2.6	4.8	120	0[4]

[a]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.

[b]Not applicable.

[c]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those whose values are above MDA.

Table 2.3. Constituents in Waste Area Grouping (WAG) 2 groundwater at ORNL, June 13 - July 19, 2002

Parameter	N det/ N total	Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Downgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	8/8	0.83	0.22	0.54	d	[d]
Dissolved oxygen (mg/L)	8/8	7.5	1.0	2.7	d	[d]
Redox (mV)	8/8	270	150	190	d	[d]
Temperature (°C)	8/8	20	16	18	30.5	0 [1]
Turbidity (JTU)	8/8	84	1.0	13	1	4 [2]
pH (SU)	8/8	9.8	6.8	7.6	(6.0, 9.0)	2 [1]
Metals, unfiltered (mg/L)						
Antimony, total	4/4	9.7	0.40	3.1	0.006	4 [1]
Barium, total	4/4	1.0	0.13	0.37	2	0 [1]
Beryllium, total	1/4	0.0030	<0.0010	~0.0015	0.004	0 [1]
Calcium, total	4/4	140	59	99	d	[d]
Iron, total	4/4	11	0.33	3.6	0.3	4 [3]
Lead, total	1/4	0.0022	<0.0020	~0.0021	0.005	0 [1]
Magnesium, total	4/4	22	4.4	14	d	[d]
Manganese, total	2/4	0.23	<0.0020	~0.088	0.05	2 [3]
Potassium, total	3/4	3.4	<0.79	~2.4	d	[d]
Sodium, total	4/4	15	12	13	d	[d]
Radionuclides, unfiltered (pCi/L)[e]						
Gross alpha	1/8	6.1*	-1.6	0.41	15	0 [2]
Gross beta	1/8	430*	0.90	58	50	1 [2]
H-3	5/8	86,000*	0	21,000	20,000	3 [2]
Total rad Sr	1/8	180*	-0.50	23	8	1 [2]
Upgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	12/12	0.71	0.25	0.51	d	[d]
Dissolved oxygen (mg/L)	12/12	11	1.5	3.8	d	[d]
Redox (mV)	12/12	360	230	280	d	[d]
Temperature (°C)	12/12	18	15	16	30.5	0 [1]
Turbidity (JTU)	12/12	97	0	9.4	1	4 [2]
pH (SU)	12/12	9.2	6.6	7.5	(6.0, 9.0)	1 [1]

Table 2.3 (continued)

Parameter	N det/ N total	Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Radionuclides, unfiltered (pCi/L)[e]						
Co-60	1/2	28*	3.8	16	200	0[4]
Gross beta	1/12	220*	-3.0	22	50	1[2]
H-3	9/12	570,000*	0	49,000	20,000	1[2]

[a]Prefix "<" indicates the value for a parameter was not quantifiable at the analytical detection limit.

[b]A tilde (~) indicates that estimated and/or undetected values were used in the calculation.

[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]Not applicable.

[e]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those whose values are above MDA.

Table 2.4. Constituents in Waste Area Grouping (WAG) 8 groundwater at ORNL, May 31 - June 10, 2002

Parameter	N det/ N total	Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Downgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	9/9	0.88	0.25	0.48	b	[b]
Dissolved oxygen (mg/L)	9/9	4.4	1.4	3.2	b	[b]
Redox (mV)	9/9	270	160	220	b	[b]
Temperature (°C)	9/9	18	14	16	30.5	0[1]
Turbidity (JTU)	9/9	7.0	0	1.1	1	1[2]
pH (SU)	9/9	9.8	6.4	7.6	(6.0, 9.0)	1[1]
Radionuclides, unfiltered (pCi/L)[c]						
Gross alpha	1/9	7.1*	-0.60	1.3	15	0[2]
Gross beta	3/9	2,300*	-1.3	500	50	3[2]
H-3	3/9	38,000*	0	4,400	20,000	1[2]
K-40	1/9	200*	9.0	66*	280	0[4]
Total rad Sr	3/9	1,200*	-0.40	250	8	3[2]
Upgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	2/2	0.33	0.33	0.33	b	[b]
Dissolved oxygen (mg/L)	2/2	3.4	1.3	2.4	b	[b]
Redox (mV)	2/2	260	180	220	b	[b]
Temperature (°C)	2/2	17	16	17	30.5	0[1]
Turbidity (JTU)	2/2	7.0	0	3.5	1	1[2]
pH (SU)	2/2	9.0	6.4	7.7	(6.0, 9.0)	0[1]

[a]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.

[b]Not applicable.

[c]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those whose values are above MDA.

Table 2.5. Constituents in Waste Area Grouping (WAG) 17 groundwater at ORNL, May 9 - June 10, 2002

Parameter	N det/ N total	Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Downgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	4/4	0.75	0.40	0.60	d	[d]
Dissolved oxygen (mg/L)	4/4	2.5	0.83	1.7	d	[d]
Redox (mV)	4/4	230	160	200	d	[d]
Temperature (°C)	4/4	20	15	18	30.5	0[1]
Turbidity (JTU)	4/4	5.0	0	1.8	1	2[2]
pH (SU)	4/4	7.2	6.9	7.1	(6.0, 9.0)	0[1]
Radionuclides, unfiltered (pCi/L)[e]						
H-3	3/4	2,800*	340	1,300*	20,000	0[2]
K-40	1/4	290*	21	110	280	1[4]
Volatile organics, unfiltered (µg/L)						
1,1,1-Trichloroethane	1/4	U5.0	J2.0	~4.3	200	0[1]
1,1-Dichloroethene	1/4	21	U5.0	~9.0	7	1[1]
Benzene	1/4	10	U5.0	~6.3	5	1[1]
Tetrachloroethene	1/4	23	U5.0	~9.5	5	1[1]
Trichloroethene	2/4	D13,000	U5.0	~3,300	5	2[1]
Vinyl chloride	1/4	89	U2.0	~24	2	1[1]
cis-1,2-Dichloroethene	2/4	D2,600	U5.0	~660	d	[d]
trans-1,2-Dichloroethene	1/4	17	U5.0	~8.0	d	[d]
Upgradient Wells						
Field measurements, unfiltered						
Conductivity (mS/cm)	4/4	0.61	0.39	0.52	d	[d]
Dissolved oxygen (mg/L)	4/4	4.8	2.8	4.0	d	[d]
Redox (mV)	4/4	260	200	230	d	[d]
Temperature (°C)	4/4	18	15	16	30.5	0[1]
Turbidity (JTU)	4/4	0	0	0	1	0[2]
pH (SU)	4/4	7.7	6.7	7.2	(6.0, 9.0)	0[1]

Table 2.5 (continued)

Parameter	N det/ N total	Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Radionuclides, unfiltered (pCi/L)[e]						
H-3	4/4	3,500*	640*	2,000*	20,000	0[2]

[a]"J" indicates the value was estimated at or below the analytical detection limit by the laboratory; "U" indicates the value for an organic parameter was undetected at the analyticaldetection limit; and "D" indicates the sample was diluted.

[b]A tilde (~) indicates that estimated and/or undetected values were used in the calculation.

[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]Not applicable.

[e]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those whose values are above MDA.

Table 2.6. 2002 radionuclide concentrations in surface waters around ORNL

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			White Oak Creek Headwaters				
Am-241	1/2	0.35*	0.00060	0.18	0.17	30	f
C-14	0/12	170	-290	-77	39	f	f
Cm-243/244	1/2	0.62*	-0.019	0.30	0.32	f	f
Co-60	0/12	2.4	-0.75	0.53*	0.25	5,000	0.011
Cs-137	0/12	2.2	-1.5	0.42	0.35	3,000	f
Gross alpha	6/12	4.9*	-0.59	2.4*	0.46	f	f
Gross beta	1/12	6.8*	-0.72	3.8*	0.66	f	f
H-3	0/12	440	-330	96	63	2,000,000	f
Pu-238	0/1	-0.23	-0.23	-0.23	f	40	f
Pu-239/240	0/1	-0.044	-0.044	-0.044	f	f	f
Total uranium	0/2	0.42	0.21	0.32	0.11	500	f
U-234	1/2	0.29*	0.11	0.20	0.090	500	f
U-235	0/2	0.095	-0.032	0.032	0.064	600	f
U-236	0/0	f	f	f	f	500	f
U-238	0/2	0.13	-0.0085	0.061	0.069	600	f

[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 the average concentration is significantly greater than zero.

[f]Not applicable.

Table 2.7. 2002 radionuclide concentrations at ORNL NPDES permitted locations

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Sewage Treatment Plant (X01)				
Co-60	0/1	2.5	2.5	2.5	f	5,000	f
Cs-137	1/1	8.9*	8.9*	8.9	f	3,000	f
Gross alpha	0/12	2.5	-0.58	1.0*	0.27	f	f
Gross beta	12/12	410*	160*	270*	22	f	f
Total rad Sr	12/12	210*	63*	120*	13	1,000	12
			Coal Yard Runoff Treatment Facility (X02)				
Gross alpha	0/12	15	-13	3.1	2.1	f	f
Gross beta	12/12	350*	14*	160*	26	f	f
			Nonradiological Wastewater Treatment Facility (X12)				
Am-241	1/1	0.35*	0.35*	0.35	f	30	f
Cm-243/244	1/1	0.62*	0.62*	0.62	f	f	f
Co-60	1/12	3.6*	-1.9	1.5*	0.47	5,000	0.030
Cs-134	5/5	36*	11*	17*	4.8	2,000	0.86
Cs-137	12/12	4,500*	520*	1,300*	320	3,000	43
Gross alpha	12/12	25*	5.3*	13*	1.9	f	f
Gross beta	12/12	5,200*	770*	1,600*	350	f	f
H-3	12/12	240,000*	35,000*	120,000*	21,000	2,000,000	6.2
I-124	2/2	510*	110*	310	200	f	f
Pu-238	0/1	-0.039	-0.039	-0.039	f	40	f
Pu-239/240	0/1	-0.030	-0.030	-0.030	f	f	f
Th-228	0/1	-0.010	-0.010	-0.010	f	400	f
Th-230	1/1	0.19*	0.19*	0.19	f	300	f
Th-232	0/1	-0.018	-0.018	-0.018	f	50	f
Th-234	1/1	0.29*	0.29*	0.29	f	f	f
Total rad Sr	12/12	160*	53*	100*	8.3	1,000	10
Total uranium	12/12	18*	4.0*	8.2*	1.2	500	1.6
U-233/234	12/12	16*	3.8*	7.7*	1.0	f	f
U-234	0/0	f	f	f	f	500	f
U-235	0/12	0.078	-0.054	0.011	0.013	600	f
U-236	0/12	0.068	-0.055	0.016	0.0091	500	f
U-238	11/12	1.7*	0.074	0.38*	0.12	600	0.063

Table 2.7 (continued)

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Melton Branch 1 (X13)				
Co-60	1/12	3.5*	-2.2	0.83*	0.41	5,000	0.017
Cs-137	0/12	3.2	-0.53	1.1*	0.31	3,000	0.035
Gross alpha	6/12	6.8*	-0.26	3.5*	0.65	f	f
Gross beta	12/12	970*	310*	540*	51	f	f
H-3	12/12	490,000*	70,000*	290,000*	35,000	2,000,000	15
Total rad Sr	12/12	460*	140*	240*	24	1,000	24
			White Oak Creek (X14)				
Co-60	0/12	3.2	-1.1	1.2*	0.33	5,000	0.023
Cs-137	12/12	230*	17*	73*	18	3,000	2.4
Gross alpha	8/12	9.6*	0	4.4*	0.89	f	f
Gross beta	12/12	340*	110*	210*	19	f	f
H-3	12/12	52,000*	17,000*	32,000*	2,600	2,000,000	1.6
Total rad Sr	12/12	95*	32*	63*	6.2	1,000	6.3
Total uranium	2/2	3.1*	3.0*	3.1*	0.050	500	0.61
U-233/234	2/2	2.8*	2.0*	2.4	0.40	f	f
U-234	0/0	f	f	f	f	500	f
U-235	1/2	0.10*	0.011	0.056	0.045	600	f
U-236	0/2	0.0064	0	0.0032	0.0032	500	f
U-238	2/2	1.1*	0.95*	1.0*	0.075	600	0.17
			White Oak Dam (X15)				
Co-60	1/12	4.2*	-1.4	1.6*	0.44	5,000	0.031
Cs-137	12/12	260*	6.0*	88*	22	3,000	2.9
Gross alpha	10/12	10*	1.9	7.0*	0.78	f	f
Gross beta	12/12	580*	190*	350*	29	f	f
H-3	12/12	120,000*	30,000*	75,000*	7,600	2,000,000	3.7
Total rad Sr	12/12	140*	64*	120*	7.4	1,000	12
			Outfall 001				
Gross alpha	0/1	1.1	1.1	1.1	f	f	f
Gross beta	1/1	7.1*	7.1*	7.1	f	f	f
			Outfall 081				
Gross alpha	0/1	-0.23	-0.23	-0.23	f	f	f
Gross beta	1/1	47*	47*	47	f	f	f

Table 2.7 (continued)

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Outfall 085				
Am-241	0/1	-0.24	-0.24	-0.24	f	30	f
Cm-243/244	0/1	0.14	0.14	0.14	f	f	f
Co-60	1/2	25*	2.6	14	11	5,000	f
Cs-137	0/2	0.88	-1.5	-0.31	1.2	3,000	f
Gross alpha	3/4	73*	2.3	44*	15	f	f
Gross beta	4/4	4,200*	110*	2,000	910	f	f
H-3	0/1	800	800	800	f	2,000,000	f
Pu-238	0/1	-0.054	-0.054	-0.054	f	40	f
Pu-239/240	0/1	-0.039	-0.039	-0.039	f	f	f
Total rad Sr	3/3	1,800*	390*	1,200	420	1,000	f
Total uranium	3/3	50*	43*	48*	2.3	500	9.5
U-233/234	3/3	42*	36*	40*	2.0	f	f
U-234	0/0	f	f	f	f	500	f
U-235	2/2	0.50*	0.43*	0.47*	0.035	600	0.078
U-236	0/3	0.071	0.021	0.039	0.016	500	f
U-238	3/3	7.1*	6.7*	7.0*	0.13	600	1.2
			Outfall 086				
Gross alpha	0/2	-0.79	-0.96	-0.88	0.085	f	f
Gross beta	0/2	7.3	-8.6	-0.65	8.0	f	f
H-3	2/2	150,000*	140,000*	150,000*	5,000	2,000,000	7.3
			Outfall 087				
Co-60	0/1	1.1	1.1	1.1	f	5,000	f
Cs-137	0/1	1.1	1.1	1.1	f	3,000	f
Gross alpha	1/1	3.0*	3.0*	3.0	f	f	f
Gross beta	1/1	440*	440*	440	f	f	f
			Outfall 203				
Gross alpha	1/1	11*	11*	11	f	f	f
Gross beta	1/1	120*	120*	120	f	f	f
			Outfall 204				
Gross alpha	4/4	19*	8.3*	14*	2.2	f	f
Gross beta	4/4	330*	99*	210*	54	f	f
Total rad Sr	4/4	140*	35*	86*	22	1,000	8.6

Table 2.7 (continued)

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Outfall 205				
Gross alpha	0/1	0.92	0.92	0.92	f	f	f
Gross beta	1/1	21*	21*	21	f	f	f
			Outfall 207				
Co-60	0/4	1.3	-0.69	0.30	0.47	5,000	f
Cs-137	3/4	6.3*	3.7	5.5*	0.60	3,000	0.18
Gross alpha	3/4	20*	2.5	8.3	4.0	f	f
Gross beta	4/4	820*	130*	430*	150	f	f
Total rad Sr	4/4	360*	55*	200*	66	1,000	20
			Outfall 211				
Gross alpha	1/4	5.2*	-0.45	1.7	1.2	f	f
Gross beta	1/4	15*	-0.97	6.1	3.3	f	f
Total rad Sr	0/4	3.4	-1.2	1.2	1.0	1,000	f
			Outfall 217				
Gross alpha	1/1	3.0*	3.0*	3.0	f	f	f
Gross beta	0/1	2.3	2.3	2.3	f	f	f
			Outfall 234				
Gross alpha	0/1	0.39	0.39	0.39	f	f	f
Gross beta	0/1	5.8	5.8	5.8	f	f	f
			Outfall 281				
Co-60	0/4	0.75	-1.3	-0.14	0.44	5,000	f
Cs-137	0/4	0.78	-1.1	-0.13	0.38	3,000	f
Gross alpha	0/4	0.059	-2.6	-0.78	0.62	f	f
Gross beta	2/4	24*	0.36	9.2	5.2	f	f
H-3	4/4	33,000*	4,300*	13,000	6,800	2,000,000	f
			Outfall 282				
Gross alpha	0/4	0.33	-0.91	-0.34	0.30	f	f
Gross beta	1/4	8.8*	-1.3	5.4	2.3	f	f

Table 2.7 (continued)

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Outfall 290				
Co-60	0/1	1.3	1.3	1.3	f	5,000	f
Cs-137	0/1	0.39	0.39	0.39	f	3,000	f
			Outfall 302				
Co-60	0/12	2.3	-2.3	0.39	0.40	5,000	f
Cs-137	0/12	3.5	0.24	1.2*	0.29	3,000	0.041
Gross alpha	4/12	5.7*	-0.27	3.0*	0.51	f	f
Gross beta	12/12	680*	150*	320*	48	f	f
H-3	9/12	3,100*	650	1,500*	230	2,000,000	0.073
Total rad Sr	12/12	330*	68*	150*	24	1,000	15
			Outfall 304				
Co-60	0/12	2.2	-0.41	0.74*	0.22	5,000	0.015
Cs-137	8/12	180*	0.41	37*	15	3,000	1.2
Gross alpha	7/12	25*	-1.4	3.9*	2.0	f	f
Gross beta	12/12	1,100*	62*	260*	83	f	f
H-3	0/12	710	-260	210*	87	2,000,000	0.010
Total rad Sr	12/12	440*	21*	110*	33	1,000	11
Total uranium	1/1	17*	17*	17	f	500	f
U-233/234	1/1	13*	13*	13	f	f	f
U-234	0/0	f	f	f	f	500	f
U-236	0/1	0	0	0	f	500	f
U-238	1/1	3.8*	3.8*	3.8	f	600	f
			Outfall 365				
Gross alpha	2/4	9.2*	0.81	4.7*	1.8	f	f
Gross beta	4/4	93*	52*	67*	9.4	f	f
			Outfall 368				
Co-60	0/4	1.6	-0.75	0.32	0.56	5,000	f
Cs-137	0/4	0.97	-0.88	0.17	0.46	3,000	f
Gross alpha	2/4	5.5*	0	2.6	1.3	f	f
Gross beta	4/4	25*	9.7*	15*	3.4	f	f

Table 2.7 (continued)

Radionuclide	N det/ N total	Concentration (pCi/L) Max[a]	Min[a]	Av[b]	Standard error[c]	DCG[d]	Percent of DCG[e]
			Outfall 381				
Co-60	4/4	120*	96*	110*	4.9	5,000	2.2
Cs-137	0/4	1.1	-0.45	0.50	0.36	3,000	f
Gross alpha	1/4	4.7*	0	1.5	1.1	f	f
Gross beta	4/4	120*	100*	110*	4.1	f	f
H-3	4/4	150,000*	62,000*	120,000*	19,000	2,000,000	5.8
			Outfall 383				
Gross alpha	0/1	1.3	1.3	1.3	f	f	f
Gross beta	0/1	3.4	3.4	3.4	f	f	f
H-3	1/1	15,000*	15,000*	15,000	f	2,000,000	f

[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 the average concentration is significantly greater than zero.

[f]Not applicable.

Table 2.8. NPDES Permit Number TN 0002941, 2002 ORNL outfall monitoring

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Standard error[c]
Category 1 outfalls					
Field Measurements					
Flow (gpm)	19/19	25	0.10	5.7	1.8
pH (Std Unit)	19/19	8.2	7.5	7.8	0.046
Category 2 outfalls					
Field Measurements					
Flow (gpm)	22/22	280	0.10	29	16
pH (Std Unit)	22/22	8.0	7.0	7.7	0.047
Category 3 outfalls					
Field Measurements					
Flow (gpm)	48/48	40	0.25	8.7	1.6
pH (Std Unit)	48/48	8.1	7.1	7.7	0.034
Category 4 outfalls					
Field Measurements					
Flow (gpm)	312/312	220	0.10	47	3.1
Temperature (C)	312/312	31	4.3	18	0.33
pH (Std Unit)	312/312	9.4	6.9	7.8	0.019
Cooling Tower Blowdown outfalls					
Field Measurements					
Flow (gpm)	4/4	47	14	29	7.4
Temperature (C)	4/4	27	22	24	1.1
Total residual oxidant (mg/L)	0/4	<0.050	<0.050	~0.050	0
pH (Std Unit)	4/4	8.4	8.4	8.4	0
Physical					
Total suspended solids (mg/L)	3/4	290	<1.0	~76	71
Cooling Tower Blowdown/Cooling Water outfalls					
Field Measurements					
Flow (gpm)	48/48	120	22	45	3.2
Total residual oxidant (mg/L)	1/48	0.18	<0.050	~0.053	0.0027
pH (Std Unit)	48/48	8.1	7.0	7.6	0.043

Table 2.8 (continued)

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Standard error[c]
Groundwater/Pumpwater outfalls					
Field Measurements					
Flow (gpm)	4/4	0.10	0.10	0.10	0
pH (Std Unit)	4/4	8.0	7.6	7.8	0.085
Steam Condensate outfalls					
Field Measurements					
Flow (gpm)	11/11	0.25	0.10	0.12	0.014
Temperature (C)	11/11	43	34	37	0.82
pH (Std Unit)	11/11	8.2	7.6	7.9	0.056

[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 2002 analyses for ORNL reference surface waters

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Standard error[c]	Ref. Value[d]	Percent of Ref. Value[e]
White Oak Creek Headwaters							
Field Measurements							
Conductivity (mS/cm)	52/52	0.28	0.082	0.21	0.0064	f	f
Dissolved oxygen (mg/L)	52/52	11	7.5	9.3	0.11	f	f
pH (SU)	52/52	8.8	7.0	8.0	0.041	f	f
Temperature (C)	52/52	19	4.4	13	0.55	f	f
Turbidity (NTU)	52/52	500	1.0	26	9.9	f	f
Metals (mg/L)							
Antimony, total	0/12	<0.00050	<0.00050	~0.00050	0	f	f
Arsenic, total	3/12	0.0032	<0.0010	~0.0013	0.00019	f	f
Beryllium, total	1/12	0.00019	<0.00010	~0.00011	0.0000078	f	f
Cadmium, total	0/12	<0.00050	<0.00050	~0.00050	0	0.0039	f
Chromium, total	4/12	0.0071	<0.0020	~0.0025	0.00042	f	f
Cobalt, total	12/12	0.0028	0.00012	0.00075	0.00022	f	f
Copper, total	10/12	0.0049	<0.0010	~0.0020	0.00033	0.0177	11
Iron, total	10/12	7.3	<0.25	~1.3	0.58	f	f
Lead, total	12/12	0.0091	0.00030	0.0019	0.00071	0.0817	2.4
Manganese, total	12/12	0.16	0.0077	0.060	0.016	f	f
Nickel, total	3/12	0.0066	<0.0010	~0.0017	0.00047	1.418	0.12
Selenium, total	0/12	<0.0020	<0.0020	~0.0020	0	0.02	f
Silver, total	0/12	<0.00020	<0.00020	~0.00020	0	0.0041	f
Strontium, total	12/12	0.054	0.026	0.040	0.0026	f	f
Thallium, total	0/1	<0.00010	<0.00010	~0.00010	f	f	f
Uranium, total	12/12	0.00067	0.00013	0.00032	0.000043	f	f
Zinc, total	12/12	0.063	0.0098	0.027	0.0049	0.117	23

[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]Average concentration as a percentage of the reference value, calculated when a reference exists, the parameter is a contaminant, and the parameter is detected.

[f]Not applicable.

Table 2.10. NPDES Permit Number TN 0002941, 2002 ORNL Instream Chlorine monitoring

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Standard error[c]
		Fifth Creek			
Field Measurements					
Temperature (C)	72/72	24	8.8	16	0.47
Total residual oxidant (mg/L)	0/72	<0.050	<0.050	~0.050	0
pH (Std Unit)	72/72	8.3	7.5	7.9	0.017
		First Creek			
Field Measurements					
Temperature (C)	48/48	21	7.0	14	0.67
Total residual oxidant (mg/L)	0/48	<0.050	<0.050	~0.050	0
pH (Std Unit)	48/48	8.4	7.5	7.9	0.028
		White Oak Creek			
Field Measurements					
Temperature (C)	144/144	24	7.9	16	0.41
Total residual oxidant (mg/L)	0/144	<0.050	<0.050	~0.050	0
pH (Std Unit)	144/144	8.2	7.2	7.8	0.014

[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 2.11. 2002 ORNL Storm Water Pollution Prevention Plan monitoring

Parameter	Sample Type	Value[a]
	Category 2 Outfall 216	
Field Measurements		
Flow (gpm)	b	0.25
pH (Std Unit)	b	7.6
Temperature (oC)	b	18
Others (mg/L)		
Biochemical oxygen demand	Grab	<5.0
Biochemical oxygen demand	Composite	<5.0

[a]Prefix "<" indicates the value for a parameter was not quantifiable at the analytical detection limit

[b]Not applicable.

Table 3.1. ORNL Plant Perimeter Monitoring summary statistics from 2002 sampling events

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Melton Valley Exit Pathway						
Field Measurements -- Unfiltered						
Conductivity (mS/cm)	11/11	0.80	0.030	0.37	d	[d]
Dissolved oxygen (ppm)	11/11	7.5	1.5	4.4	d	[d]
Temperature (°C)	11/11	21	16	18	30.5	0[2]
pH (SU)	11/11	9.5	4.7	7.1	(6.0, 9.0)	4[2]
Metals (mg/L) -- Unfiltered						
Aluminum	2/10	< 0.93	< 0.050	~ 0.16	(0.05, 0.20)	6[4]
Antimony	4/10	9.7	< 0.00025	~ 1.3	0.006	4[2]
Barium	9/10	1.0	< 0.0020	~ 0.19	2	0[2]
Beryllium	1/10	0.0030	< 0.00025	~ 0.00075	0.004	0[2]
Boron	2/10	< 0.51	< 0.033	~ 0.094	d	[d]
Calcium	10/10	140	< 0.76	~ 48	d	[d]
Chromium	3/10	< 0.021	< 0.00025	~ 0.0095	0.1	0[2]
Cobalt	1/10	< 0.10	< 0.00025	~ 0.040	d	[d]
Copper	5/10	< 0.0070	< 0.00025	~ 0.0036	1.3	0[3]
Iron	5/10	11	< 0.11	~ 1.6	0.3	7[4]
Lead	2/10	< 0.0085	< 0.00050	~ 0.0019	0.005	1[2]
Magnesium	10/10	22	< 0.33	~ 7.2	d	[d]
Manganese	8/10	0.23	< 0.00034	~ 0.037	0.05	2[4]
Nickel	3/10	< 0.050	< 0.00025	~ 0.021	0.1	0[2]
Potassium	9/10	< 5.0	< 0.57	~ 2.1	d	[d]
Sodium	10/10	< 220	< 1.2	~ 34	d	[d]
Vanadium	1/10	< 0.062	< 0.00025	~ 0.025	d	[d]
Zinc	2/10	< 0.58	< 0.0050	~ 0.23	5	0[4]
Radionuclides (pCi/L) -- Filtered[e]						
Cs-137	1/1	11*	11*	11	120	0[1]
Gross beta	1/1	260*	260*	260	50	1[3]
H-3	1/1	56,000*	56,000*	56,000	80,000	0[1]
I-131	1/1	19*	19*	19	120	0[1]
Total rad Sr	1/1	100*	100*	100	40	1[1]
Radionuclides (pCi/L) -- Unfiltered[e]						
Cs-137	1/2	11*	0.20	5.6	120	0[1]
Gross beta	2/11	430*	-0.90	64	50	2[3]
H-3	7/11	86,000*	0	17,000*	80,000	1[1]
I-131	1/1	14*	14*	14	120	0[1]
Total rad Sr	2/11	180*	-1.2	25	40	2[1]

Table 3.1 (continued)

Parameter	N det/ N total	Concentration Max[a]	Min[a]	Av[b]	Reference value	Number of values exceeding reference [ref][c]
Volatile Organics (µg/L) -- Unfiltered						
Benzene	1/11	U 5.0	J 2.0	~ 4.7	5	0[2]

[a]Prefix "<" indicates the value for a parameter (excluding organics) was not quantifiable at the analytical detection limit; "J" indicates the value was estimated at or below the analytical detection limit by the laboratory; and "U" indicates the value for an organic parameter was undetected at the analytical detection limit.

[b]A tilde (~) indicates that estimated and/or undetected values were used in the calculation.

[c]If a reference limit exists, the source is coded as:

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

2 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.

3 40 CFR Part 141--National Primary Drinking Water Regulations, Subparts B and G, as amended.

4 40 CFR Part 143--National Secondary Drinking Water Regulations, as amended.

[d]Not applicable.

[e]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those whose values are above MDA.

Table 3.2. 2002 tissue concentrations in Sunfish[a]

Parameter	N det/ N total	Concentration First Composite[b]	Second Composite[b]	Av[c]	Standard error[d]
Clinch River downstream from all DOE inputs (CRK 16)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.069	0.16	0.11	0.045
Zinc, total	2/2	9.2	11	10	0.79
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	J44	77	~61	17
Radionuclides (pCi/g ash wt)[e]					
Cs-137	2/2	0.39*	0.82*	0.61	0.22
Gross beta	2/2	180*	170*	180*	5.0
K-40	2/2	190*	200*	200*	5.0
Radionuclides (pCi/g wet wt)[e]					
Cs-137	2/2	0.0065*	0.015*	0.011	0.0041
Gross beta	2/2	3.0*	3.1*	3.0*	0.029
K-40	2/2	3.2*	3.6*	3.4*	0.22
Clinch River downstream from ORNL (CRK 32)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.025	0.053	0.039	0.014
Zinc, total	2/2	10	8.6	9.3	0.77
Pesticides (µg/kg wet wt)					
4,4'-DDE	1/2	U47	J4.2	~26	21
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	J51	54	~53	1.5
Radionuclides (pCi/g ash wt)[e]					
Cs-137	2/2	14*	5.6*	9.8	4.2
Gross beta	2/2	160*	180*	170*	10
K-40	2/2	140*	160*	150*	10
Total rad Sr	2/2	1.2*	1.4*	1.3*	0.10
Radionuclides (pCi/g wet wt)[e]					
Cs-137	2/2	0.30*	0.11*	0.20	0.094
Gross beta	2/2	3.4*	3.5*	3.4*	0.051
K-40	2/2	3.0*	3.1*	3.0*	0.069
Total rad Sr	2/2	0.025*	0.027*	0.026*	0.00087

Table 3.2 (continued)

Parameter	N det/ N total	Concentration First Composite[b]	Second Composite[b]	Av[c]	Standard error[d]
Clinch River (Solway Bridge) upstream from all DOE inputs (CRK 70)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.037	0.031	0.034	0.0028
Zinc, total	2/2	8.5	8.8	8.6	0.13
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	J39	J22	~31	8.5
Radionuclides (pCi/g ash wt)[e]					
Gross beta	2/2	200*	210*	210*	5.0
K-40	2/2	180*	200*	190*	10
Radionuclides (pCi/g wet wt)[e]					
Gross beta	2/2	3.0*	2.9*	3.0*	0.031
K-40	2/2	2.7*	2.8*	2.7*	0.048

[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; and "U" indicates that the value was undetected 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]Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected above MDA.

Table 3.3. 2002 tissue concentrations in Catfish[a]

Parameter	N det/ N total	Concentration First Composite[b]	Second Composite[b]	Av[c]	Standard error[d]
Clinch River downstream from all DOE inputs (CRK 16)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.36	0.20	0.28	0.081
Zinc, total	2/2	11	5.8	8.6	2.8
Pesticides (µg/kg wet wt)					
Aldrin	2/2	JB6.9	JB6.9	~8.0	1.1
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	830	630	730	100
Radionuclides (pCi/g ash wt)[e]					
Cs-137	2/2	1.5*	1.4*	1.5*	0.050
Gross beta	2/2	260*	260*	260	0
K-40	2/2	280*	270*	280*	5.0
Radionuclides (pCi/g wet wt)[e]					
Cs-137	2/2	0.017*	0.017*	0.017*	0.00015
Gross beta	2/2	3.0*	3.0*	3.1*	0.078
K-40	2/2	3.2*	3.2*	3.2*	0.024
Clinch River downstream from ORNL (CRK 32)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.054	0.054	0.058	0.0039
Zinc, total	2/2	11	6.4	8.7	2.2
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	130	130	170	35
Radionuclides (pCi/g ash wt)[e]					
Cs-137	2/2	1.3*	1.3*	1.6	0.25
Gross beta	2/2	240*	240*	260*	20
K-40	2/2	240*	240*	250*	10
Radionuclides (pCi/g wet wt)[e]					
Cs-137	2/2	0.016*	0.016*	0.019	0.0034
Gross beta	2/2	3.0*	3.0*	3.3*	0.29
K-40	2/2	3.0*	3.0*	3.1*	0.17

Table 3.3 (continued)

Parameter	N det/ N total	Concentration First Composite[b]	Second Composite[b]	Av[c]	Standard error[d]
Clinch River (Solway Bridge) upstream from all DOE inputs (CRK 70)					
Metals (mg/kg wet wt)					
Mercury, total	2/2	0.091	0.091	0.11	0.020
Zinc, total	2/2	3.0	3.0	4.3	1.3
PCBs (µg/kg wet wt)					
Aroclor-1260	2/2	730	440	590	150
Radionuclides (pCi/g ash wt)[e]					
Gross beta	2/2	110*	110*	180	65
K-40	2/2	92*	92*	210	120
Radionuclides (pCi/g wet wt)[e]					
Gross beta	2/2	3.5*	2.9*	3.2*	0.33
K-40	2/2	2.9*	2.9*	3.4*	0.50

[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 "BJ" indicates the value was detected in the laboratory blank and was estimated at or below the analytical detection limit by the laboratory.

[c] A tilde (~) indicates that estimated values and/or detection limits were used in the calculation.

[d] Standard error of the mean.

[e] Individual and average radionuclide concentrations significantly greater than zero are identified by an *. Detected radionuclides are those detected above MDA.

Table 3.4. Radiological constituents in settleable solids sites near the ORR, 2002[a]

Event	Co-60	Cs-137	Gross alpha	Gross beta
		Melton Branch upstream from ORNL (MEK 2.1)		
January	b	b	12,000	b
March	b	b	b	b
		White Oak Lake at White Oak Dam (WCK 1.0)		
January	b	810,000	21,000	980,000
March	b	220,000	14,000	290,000
		White Oak Creek downstream from ORNL (WCK 2.6)		
January	b	550,000	22,000	480,000
March	b	210,000	14,000	250,000

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

Table 4.1. Y-12 Complex Discharge Point 017, OUTFALL 017
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	358	0.893	0.002	0.07	d	d
pH, Standard Unit	53	7.3	6.6	d	9/ 6(e)	0
Kjeldahl Nitrogen	53	16.8	0.581	<3.54	d	d
Ammonia as Nitrogen	53	15.9	0.438	2.93	64.8	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: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	330	3.713	0.088	0.29	d	d
pH, Standard Unit	158	8.1	6.5	d	9/ 6(e)	0
Temperature, deg C	158	23.6	8.0	18	30.5	0
Total Residual Chlorine	157	<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: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	348	1.055	0.09	0.3	d	d
pH, Std Unit	108	8.31	6.7	d	9/ 6(e)	0
Mercury	53	0.0173	<0.00021	<0.0024	d	d

(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: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	0.127	0.009	0.03	d	d
pH, Std Unit	106	7.7	6.9	d	9/ 6(e)	0
Total Residual Chlorine	106	<0.05	<0.05	<0.05	0.5	0
Mercury	106	0.00502	<0.00021	<0.00035	0.004	1

(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: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	12	0.0114	0.0114	0.0114	d	d
pH, Standard Unit	12	8.0	7.3	d	9/ 6(e)	0
Total Residual Chlorine	12	<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 4.6. Y-12 Complex Discharge Point 125, OUTFALL 125
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	14	1.38	0.288	0.641	d	d
pH, Standard Unit	14	7.8	6.8	d	9/ 6(e)	0
Total Residual Chlorine	13	1.54	<0.05	<0.2	0.5	1
Mercury	7	0.0003	<0.0002	<0.0002	d	d
Lead	6	<0.1	<0.0005	<0.0337	d	d

(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 135, OUTFALL 135
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	359	0.496	0.168	0.246	d	d

(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 4.8. Y-12 Complex Discharge Point 200, OUTFALL 200
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	159	15.46	1.06	2.31	d	d
Beryllium	14	<0.0005	<0.0005	<0.0005	d	d
Cadmium	14	<0.01	<0.01	<0.01	d	d
Copper	14	0.0364	<0.02	<0.02	d	d
Iron	14	8.11	<0.05	<0.8	d	d
Fluoride	12	1.12	0.197	0.800	d	d
Mercury	55	0.00104	0.000296	0.000657	d	d
Nitrate/Nitrite as Nitrogen	12	6.27	2.72	4.61	d	d
Oil and Grease	159	<6.7	<5.6	<6.2	15	0
Lead	14	<0.1	<0.1	<0.1	d	d
Phosphate as Phosphorus	13	0.988	0.353	0.623	d	d
Sulfate	55	384.0	1.26	44.4	d	d
Zinc	14	0.315	<0.05	<0.08	d	d

(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 200, OUTFALL 200
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	53	55.0	+/-8.4	0.84*	+/-2.3	17	1.9	e	5.4E-02
Americium-241 (pCi/L)	53	0.48*	+/-.58	-0.21*	+/-.11	0.056	0.016	0.19	1.8E-04
Beta activity (pCi/L)	53	120.0	+/-58	2.3*	+/-5.9	17	2.3	e	5.5E-02
Cobalt-60 (pCi/L)	53	3.5*	+/-2.3	-1.7*	+/-2.2	0.72	0.13	0.014	2.3E-03
Cesium-137 (pCi/L)	53	3.4*	+/-2.3	-2.0*	+/-2.1	0.46	0.16	0.016	1.5E-03
Gamma Activity (pCi/L)	53	17.0*	+/-15	-13.0*	+/-17	2.06	1.04	e	6.58E-03
Neptunium-237 (pCi/L)	53	0.27	+/-.21	-0.27*	+/-.16	0.022	0.012	0.073	7.0E-05
Plutonium-238 (pCi/L)	53	0.72	+/-.27	-0.73*	+/-.15	0.019	0.027	0.048	6.1E-05
Plutonium-239/240 (pCi/L)	53	0.092	+/-.1	-0.72*	+/-.086	-0.013	0.015	-0.043	-4.1E-05
Radium-226 (pCi/L)	53	0.81	+/-.87	-0.45*	+/-.73	0.25	0.039	0.25	7.9E-04
Radium-228 (pCi/L)	53	3.4	+/-1.8	-5.8*	+/-11	0.47	0.17	0.47	1.5E-03
Strontium-89/90 (pCi/L)	53	11.0	+/-2.9	-3.0*	+/-2.1	0.56	0.31	e	1.8E-03
Total Radium Alpha (pCi/L)	53	0.68	+/-.25	-0.032*	+/-.085	0.32	0.023	e	1.0E-03
Technetium-99 (pCi/L)	53	130.0	+/-11	-11.0*	+/-8	13.5	3.19	0.0135	4.32E-02
Thorium-228 (pCi/L)	53	2.9	+/-.75	-1.2*	+/-.62	0.074	0.071	0.018	2.4E-04
Thorium-230 (pCi/L)	53	1.1	+/-.51	-0.33*	+/-.22	0.14	0.040	0.047	4.6E-04
Thorium-232 (pCi/L)	53	0.11*	+/-.13	-0.1*	+/-.041	0	0.005	0	-5E-09
Thorium-234 (pCi/L)	53	46.0	+/-4.8	1.2	+/-.35	13	1.6	0.13	4.2E-02
Tritium (pCi/L)	53	960.0	+/-550	-280.0*	+/-510	309.0	45.31	0.01540	9.870E-01
Uranium-234 (pCi/L)	53	9.8	+/-1.4	0.47	+/-.22	3.2	0.30	0.65	1.0E-02
Uranium-235 (pCi/L)	53	0.68	+/-.26	-0.022*	+/-0	0.22	0.024	0.036	7.0E-04
Uranium-236 (pCi/L)	44	0.27	+/-.15	-0.073*	+/-.031	0.070	0.013	0.014	2.2E-04
Uranium-238 (pCi/L)	53	46.0	+/-4.8	1.2	+/-.35	13	1.6	2.2	4.2E-02

(e) Not applicable
* Provisional Result

Table 4.10. Y-12 Complex Discharge Point 201, OUTFALL 201
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
96-Hour Toxicity Test with Ceriodaphnia	4	>100.0	>100.0	>100.0	d/ 100(e)	0
96-Hour Toxicity Test with Fathead Minnows	4	>100.0	>100.0	>100.0	d/ 100(e)	0
NOEC, Reproduction/ Growth in Ceriodaphnia	4	100.0	100.0	100.0	d/ 100(e)	0
NOEC, Reproduction/ Growth in Fathead Minnows	4	100.0	100.0	100.0	d/ 100(e)	0
pH, Standard Unit	157	8.0	7.1	d	8.5/ 6.5(e)	0
Temperature, deg C	157	22.1	9.4	15	30.5	0
Total Residual Chlorine	158	0.964	<0.05	<0.06	0.019	2
Suspended Solids	55	50.4	<1.0	<4.8	d	d

(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 4.11. Y-12 Complex Discharge Point 501, CENTRAL POLLUTION CONTROL FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
48-Hour Toxicity Test with Ceriodaphnia	1	>100.0	>100.0	>100.0	d	d
Flow, mgd	1	0.0111	0.0111	0.0111	d	d
pH, Standard Unit	1	7.1	7.1	d	9/ 6(e)	0
Temperature, deg C	1	18.4	18.4	18.4	d	d
Silver	1	<0.001	<0.001	<0.001	0.05	0
Boron	1	0.601	0.601	0.601	d	d
Beryllium	1	<0.0005	<0.0005	<0.0005	d	d
Calcium	1	531.0	531.0	531.0	d	d
Cadmium	1	<0.0025	<0.0025	<0.0025	0.15	0
Chloride	1	45.0	45.0	45.0	d	d
Chromium	1	<0.02	<0.02	<0.02	1	0
Copper	1	<0.02	<0.02	<0.02	1	0
Cyanide	1	<0.005	<0.005	<0.005	1.2	0
Iron	1	0.0663	0.0663	0.0663	d	d
Fluoride	1	0.428	0.428	0.428	d	d
Mercury	1	<0.0002	<0.0002	<0.0002	d	d
Potassium	1	21.5	21.5	21.5	d	d
Lithium	1	1.0	1.0	1.0	d	d
Magnesium	1	3.37	3.37	3.37	d	d
Sodium	1	56.5	56.5	56.5	d	d
Nickel	1	<0.05	<0.05	<0.05	3.98	0
Nitrate/Nitrite as Nitrogen	1	0.442	0.442	0.442	100	0
Oil and Grease	1	<6.3	<6.3	<6.3	15	0
Lead	1	0.0045	0.0045	0.0045	0.2	0
PCB, Total	1	0.0005U	0.0005U	0.0005U	0.001	0
Phosphate as Phosphorus	1	<6.13	<6.13	<6.13	d	d
Sulfate	1	1300.0	1300.0	1300.0	d	d

(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 501, CENTRAL POLLUTION CONTROL FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Surfactant	1	0.0712	0.0712	0.0712	d	d
Suspended Solids	1	<1.0	<1.0	<1.0	40	0
Sum of TTO Analysis	1	<0.01	<0.01	<0.01	2.13	0
Zinc	1	<0.05	<0.05	<0.05	2	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 4.13. Y-12 Complex Discharge Point 501, CENTRAL POLLUTION CONTROL FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	1	-9.3*	+/-16	-9.3*	+/-16	-9.3		e	-1.4E-04
Americium-241 (pCi/L)	1	0.018*	+/-.16	0.018*	+/-.16	0.018		0.060	2.8E-07
Beta activity (pCi/L)	1	-0.33*	+/-34	-0.33*	+/-34	-0.33		e	-5.08E-06
Cobalt-60 (pCi/L)	1	1.1*	+/-2.3	1.1*	+/-2.3	1.1		0.022	1.7E-05
Cesium-137 (pCi/L)	1	0.75*	+/-2.1	0.75*	+/-2.1	0.75		0.025	1.2E-05
Gamma Activity (pCi/L)	1	0.0*	+/-16	0.0*	+/-16	0.0		e	0.0E+00
Neptunium-237 (pCi/L)	1	0.13*	+/-.18	0.13*	+/-.18	0.13		0.43	2.0E-06
Plutonium-238 (pCi/L)	1	0.16*	+/-.15	0.16*	+/-.15	0.16		0.40	2.5E-06
Plutonium-239/240 (pCi/L)	1	0.04*	+/-.076	0.04*	+/-.076	0.04		0.1	6E-07
Radium-226 (pCi/L)	1	-0.013*	+/-.21	-0.013*	+/-.21	-0.013		-0.013	-2.0E-07
Radium-228 (pCi/L)	1	-0.084*	+/-1.3	-0.084*	+/-1.3	-0.084		-0.084	-1.3E-06
Strontium-89/90 (pCi/L)	1	-0.99*	+/-1.7	-0.99*	+/-1.7	-0.99		e	-1.5E-05
Total Radium Alpha (pCi/L)	1	0.38*	+/-.37	0.38*	+/-.37	0.38		e	5.8E-06
Technetium-99 (pCi/L)	1	3.2*	+/-7.2	3.2*	+/-7.2	3.2		0.0032	4.9E-05
Thorium-228 (pCi/L)	1	-0.015*	+/-.056	-0.015*	+/-.056	-0.015		-0.0037	-2.3E-07
Thorium-230 (pCi/L)	1	-0.064*	+/-.13	-0.064*	+/-.13	-0.064		-0.021	-9.8E-07
Thorium-232 (pCi/L)	1	0.006*	+/-.048	0.006*	+/-.048	0.006		0.01	9E-08
Thorium-234 (pCi/L)	1	3.8	+/-.66	3.8	+/-.66	3.8		0.038	5.8E-05
Tritium (pCi/L)	1	56.0*	+/-490	56.0*	+/-490	56.0		0.00280	8.61E-04
Uranium-234 (pCi/L)	1	1.8	+/-.42	1.8	+/-.42	1.8		0.36	2.8E-05
Uranium-235 (pCi/L)	1	0.032*	+/-.077	0.032*	+/-.077	0.032		0.0053	4.9E-07
Uranium-236 (pCi/L)	1	0.052*	+/-.079	0.052*	+/-.079	0.052		0.010	8.0E-07
Uranium-238 (pCi/L)	1	3.8	+/-.66	3.8	+/-.66	3.8		0.63	5.8E-05

(e) Not applicable
* Provisional Result

Table 4.14. Y-12 Complex Discharge Point 502, WEST END TREATMENT FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
48-Hour Toxicity Test with Ceriodaphnia	1	16.5	16.5	16.5	d	d
Flow, mgd	8	0.066	0.034	0.052	d	d
pH, Standard Unit	6	6.9	6.2	d	9/ 6(e)	0
Temperature, deg C	6	23.8	21.6	22.5833	d	d
Silver	6	<0.001	<0.001	<0.001	0.05	0
Arsenic	6	<2.0	<2.0	<2.0	d	d
Boron	6	4.86	4.72	4.80	d	d
Beryllium	6	<0.005	<0.005	<0.005	d	d
Calcium	6	37.3	34.1	35.4	d	d
Cadmium	6	0.0079	0.007	0.008	0.15	0
Chloride	6	6290.0	5920.0	6070.0	d	d
Chromium	6	<0.2	<0.2	<0.2	1	0
Copper	6	<0.2	<0.2	<0.2	1	0
Cyanide	6	<0.01	<0.01	<0.01	1.2	0
Iron	6	4.08	0.621	1.67	d	d
Fluoride	2	2.95	2.92	2.94	d	d
Mercury	6	<0.0002	<0.0002	<0.0002	d	d
Potassium	6	251.0	240.0	245.5	d	d
Lithium	6	2.2	2.08	2.14	d	d
Magnesium	6	9.17	7.28	7.86	d	d
Manganese	6	0.161	0.0834	0.103	d	d
Sodium	6	8310.0	7990.0	8171.7	d	d
Nickel	6	0.919	0.872	0.892	3.98	0
Nitrate/Nitrite as Nitrogen	6	8.3	7.85	7.97	150	0
Oil and Grease	6	<6.2	<5.5	<5.8	15	0
Lead	6	0.0043	0.001	0.002	0.2	0
PCB, Total	1	0.0005U	0.0005U	0.0005U	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 4.15. Y-12 Complex Discharge Point 502, WEST END TREATMENT FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Phosphate as Phosphorus	6	1.6	1.13	1.5	d	d
Selenium	6	<2.0	<2.0	<2.0	d	d
Sulfate	6	8680.0	8240.0	8411.7	d	d
Suspended Solids	6	31.2	<1.0	<13	40	0
Sum of TTO Analysis	1	<0.01	<0.01	<0.01	2.13	0
Zinc	6	<0.5	<0.5	<0.5	2	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 502, WEST END TREATMENT FACILITY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	2	66.0*	+/-130	60.0*	+/-140	63.0	3.00	e	4.54E-03
Americium-241 (pCi/L)	2	0.14*	+/-.19	-0.0093*	+/-.13	0.065	0.075	0.22	4.7E-06
Beta activity (pCi/L)	2	1600.0	+/-300	1200.0	+/-320	1400.0	200.0	e	1.01E-01
Cobalt-60 (pCi/L)	2	-1.1*	+/-4.4	-2.9*	+/-4.5	-2.0	0.90	-0.040	-1.4E-04
Cesium-137 (pCi/L)	2	69.0	+/-8.7	68.0	+/-8.9	68.5	0.500	2.28	4.93E-03
Gamma Activity (pCi/L)	2	78.0	+/-17	63.0	+/-17	70.5	7.50	e	5.08E-03
Neptunium-237 (pCi/L)	2	1.2	+/-.35	1.2	+/-.35	1.2	0.00020	4.0	8.6E-05
Plutonium-238 (pCi/L)	2	0.25	+/-.19	-0.059*	+/-.13	0.0965	0.1545	0.2387	6.88E-06
Plutonium-239/240 (pCi/L)	2	-0.0017*	+/-.075	-0.11*	+/-.034	-0.056	0.054	-0.19	-4.0E-06
Radium-226 (pCi/L)	2	0.68	+/-.85	0.18*	+/-.15	0.43	0.25	0.43	3.1E-05
Radium-228 (pCi/L)	2	1.7	+/-.78	0.26*	+/-1.8	0.98	0.72	0.98	7.1E-05
Strontium-89/90 (pCi/L)	2	5.3*	+/-6	1.9*	+/-4.4	3.6	1.7	e	2.6E-04
Total Radium Alpha (pCi/L)	2	0.71	+/-.22	0.29*	+/-.3	0.50	0.21	e	3.6E-05
Technetium-99 (pCi/L)	2	2800.0	+/-31	2800.0	+/-31	2800.0	0.000	2.8000	2.0200E-01
Thorium-228 (pCi/L)	2	0.27	+/-.23	0.18*	+/-.17	0.22	0.045	0.056	1.6E-05
Thorium-230 (pCi/L)	2	0.68	+/-.33	0.31	+/-.27	0.50	0.18	0.16	3.6E-05
Thorium-232 (pCi/L)	2	-0.016*	+/-.1	-0.035*	+/-.047	-0.026	0.0095	-0.051	-1.8E-06
Thorium-234 (pCi/L)	2	18.0	+/-2.5	17.0	+/-2.1	17.5	0.500	0.175	1.26E-03
Tritium (pCi/L)	2	740.0*	+/-570	600.0*	+/-530	670.0	70.0	0.0335	4.830E-02
Uranium-234 (pCi/L)	2	11.0	+/-1.7	10.0	+/-1.4	10.5	0.500	2.10	7.56E-04
Uranium-235 (pCi/L)	2	0.78	+/-.38	0.66	+/-.28	0.72	0.060	0.12	5.2E-05
Uranium-236 (pCi/L)	2	0.42	+/-.25	0.37	+/-.21	0.40	0.025	0.079	2.8E-05
Uranium-238 (pCi/L)	2	18.0	+/-2.5	17.0	+/-2.1	17.5	0.500	2.92	1.26E-03

(e) Not applicable
* Provisional Result

Table 4.17. Y-12 Complex Discharge Point 512, OUTFALL 512 (GWTF)
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
48-Hour Toxicity Test with Ceriodaphnia	4	>100.0	62.2	>84.0	d	d
Flow, mgd	181	0.027	0.000006	0.0087	d	d
pH, Standard Unit	118	8.1	6.6	d	9/ 6(e)	0
Copper	118	<0.02	<0.02	<0.02	d	d
Iron	118	0.672	<0.05	<0.1	1	0
Manganese	118	3.74	0.0218	0.583	d	d
Lead	118	<0.1	<0.1	<0.1	d	d
PCB, Total	12	0.0005U	0.0005U	0.0005U	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 4.18. Y-12 Complex Discharge Point 512, OUTFALL 512 (GWTF)
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	40	14.0	+/-4.8	0.15*	+/-2.3	6.2	0.62	e	7.5E-05
Americium-241 (pCi/L)	40	0.3	+/-.18	-0.25*	+/-.16	0.072	0.021	0.24	8.7E-07
Beta activity (pCi/L)	40	15.0	+/-5.7	-1.7*	+/-7.2	8.1	0.58	e	9.7E-05
Cobalt-60 (pCi/L)	40	2.6*	+/-2.1	-4.2*	+/-3	0.38	0.19	0.0076	4.6E-06
Cesium-137 (pCi/L)	40	2.7*	+/-2.2	-2.3*	+/-2.1	0.28	0.16	0.0095	3.4E-06
Gamma Activity (pCi/L)	40	17.0*	+/-14	-19.0*	+/-16	1.16	1.41	e	1.40E-05
Neptunium-237 (pCi/L)	40	0.29*	+/-.34	-0.32*	+/-.19	0.0085	0.014	0.028	1.0E-07
Plutonium-238 (pCi/L)	40	0.5	+/-.24	-0.68*	+/-.091	-0.007	0.03	-0.02	-9E-08
Plutonium-239/240 (pCi/L)	40	0.085*	+/-.11	-0.62*	+/-.11	-0.013	0.017	-0.043	-1.6E-07
Radium-226 (pCi/L)	40	1.0	+/-.72	-0.068*	+/-.062	0.27	0.037	0.27	3.2E-06
Radium-228 (pCi/L)	40	2.8	+/-.94	-0.67*	+/-.64	0.76	0.12	0.76	9.2E-06
Strontium-89/90 (pCi/L)	40	7.6*	+/-9.4	-1.5*	+/-1.4	0.95	0.34	e	1.2E-05
Total Radium Alpha (pCi/L)	40	1.9	+/-.58	-0.0086*	+/-.2	0.43	0.061	e	5.2E-06
Technetium-99 (pCi/L)	40	13.0	+/-8.6	-8.8*	+/-7.8	1.4	0.82	0.0014	1.6E-05
Thorium-228 (pCi/L)	40	1.5	+/-.41	-1.0*	+/-.18	0.11	0.058	0.028	1.4E-06
Thorium-230 (pCi/L)	40	0.69	+/-.46	-0.48*	+/-.23	0.090	0.041	0.030	1.1E-06
Thorium-232 (pCi/L)	40	0.072	+/-.083	-0.07*	+/-.032	-0.002	0.005	-0.005	-3E-08
Thorium-234 (pCi/L)	40	12.0	+/-1.7	1.4	+/-.48	5.2	0.39	0.052	6.3E-05
Tritium (pCi/L)	40	2000.0	+/-600	-200.0*	+/-490	1371	67.11	0.06860	1.660E-02
Uranium-234 (pCi/L)	40	12.0	+/-1.7	0.67	+/-.33	2.2	0.28	0.45	2.7E-05
Uranium-235 (pCi/L)	40	2.4	+/-.6	-0.056*	+/-.08	0.16	0.059	0.027	2.0E-06
Uranium-236 (pCi/L)	32	0.15	+/-.12	-0.062*	+/-.084	0.030	0.0086	0.0059	3.6E-07
Uranium-238 (pCi/L)	40	12.0	+/-1.7	1.4	+/-.48	5.2	0.39	0.87	6.3E-05

(e) Not applicable
* Provisional Result

Table 4.19. Y-12 Complex Discharge Point 550, OUTFALL 550
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	0.045	0.006	0.0173	d	d
pH, Standard Unit	53	7.8	6.8	d	9/ 6(e)	0
Mercury	53	0.000466	<0.00021	<0.00022	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 4.20. Y-12 Complex Discharge Point 551, CENTRAL MERCURY TREATMENT UNIT
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	0.046	0.002	0.0088	d	d
pH, Standard Unit	53	8.1	6.6	d	9/ 6(e)	0
Mercury	53	0.00194	<0.00021	<0.00026	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 4.21. Y-12 Complex Discharge Point 551, CENTRAL MERCURY TREATMENT UNIT
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	13	16.0	+/-5.9	0.44*	+/-2.6	6.7	1.4	e	8.2E-05
Americium-241 (pCi/L)	13	0.39	+/-.18	-0.087*	+/-.13	0.092	0.033	0.31	1.1E-06
Beta activity (pCi/L)	13	32.0*	+/-44	-2.7*	+/-5.5	9.7	2.4	e	1.2E-04
Cobalt-60 (pCi/L)	13	1.6*	+/-2.2	-2.1*	+/-4.4	0.34	0.31	0.0068	4.1E-06
Cesium-137 (pCi/L)	13	0.94*	+/-1.8	-3.3*	+/-2.6	-0.33	0.32	-0.011	-4.0E-06
Gamma Activity (pCi/L)	13	16.0*	+/-17	-19.0*	+/-16	4.18	2.98	e	5.06E-05
Neptunium-237 (pCi/L)	13	0.045*	+/-.11	-0.082*	+/-.082	-0.0023	0.011	-0.0078	-2.8E-08
Plutonium-238 (pCi/L)	13	0.39	+/-.18	-0.13*	+/-.071	0.062	0.038	0.15	7.5E-07
Plutonium-239/240 (pCi/L)	13	0.026*	+/-.052	-0.091*	+/-0	-0.031	0.010	-0.10	-3.8E-07
Radium-226 (pCi/L)	13	0.9	+/-1	-0.2*	+/-.17	0.4	0.1	0.4	4E-06
Radium-228 (pCi/L)	13	2.0*	+/-1.1	0.43*	+/-.73	1.3	0.12	1.3	1.6E-05
Strontium-89/90 (pCi/L)	13	6.8	+/-3.4	-1.4*	+/-1.9	1.1	0.56	e	1.4E-05
Total Radium Alpha (pCi/L)	13	1.7	+/-.45	0.55*	+/-.46	1.0	0.10	e	1.2E-05
Technetium-99 (pCi/L)	13	14.0	+/-8.1	-8.6*	+/-8.3	3.4	1.7	0.0034	4.1E-05
Thorium-228 (pCi/L)	13	1.5	+/-.45	-0.11*	+/-.12	0.33	0.15	0.084	4.0E-06
Thorium-230 (pCi/L)	13	0.41	+/-.21	-0.2*	+/-.26	0.1	0.05	0.04	1E-06
Thorium-232 (pCi/L)	13	0.03*	+/-.073	-0.066*	+/-.042	-0.01	0.008	-0.02	-1E-07
Thorium-234 (pCi/L)	13	5.5	+/-.9	0.52	+/-.21	2.7	0.43	0.027	3.2E-05
Tritium (pCi/L)	13	520.0*	+/-530	-220.0*	+/-490	0.4615	66.12	0.000	5.600E-06
Uranium-234 (pCi/L)	13	2.5	+/-.54	0.24	+/-.17	1.5	0.21	0.29	1.8E-05
Uranium-235 (pCi/L)	13	0.29	+/-.19	-0.05*	+/-.11	0.09	0.02	0.02	1E-06
Uranium-236 (pCi/L)	11	0.065*	+/-.076	-0.03*	+/-0	0.002	0.008	0.0005	3E-08
Uranium-238 (pCi/L)	13	4.7	+/-.78	0.52	+/-.21	2.6	0.39	0.43	3.1E-05

(e) Not applicable
* Provisional Result

Table 4.22. Y-12 Complex Discharge Point 94221, SWHISS STATION 9422-1
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	83.8	2.3	9.2	d	d
pH, Standard Unit	149	8.8	7.2	d	9/ 6(e)	0
Silver	149	<0.02	<0.02	<0.02	0.0041	0
Aluminum	149	7.9	<0.2	<0.5	d	d
Arsenic	149	<0.2	<0.2	<0.2	0.0014	0
Boron	149	0.13	<0.1	<0.1	d	d
Barium	149	0.0975	0.035	0.046	d	d
Beryllium	149	<0.0005	<0.0005	<0.0005	0.0013	0
Calcium	149	48.5	21.4	40.5	d	d
Cadmium	149	<0.01	<0.01	<0.01	0.0039	0
Cobalt	149	<0.02	<0.02	<0.02	d	d
Chromium	149	<0.02	<0.02	<0.02	0.016	0
Copper	149	0.022	<0.02	<0.02	0.0177	1
Iron	149	6.33	0.0754	0.467	d	d
Mercury	398	0.0173	<0.0002	<0.0005	0.00015	365
Potassium	149	4.01	<2.0	<2.2	d	d
Lithium	149	0.0388	<0.01	<0.02	d	d
Magnesium	149	12.6	4.68	10.6	d	d
Manganese	149	0.356	0.0149	0.0673	d	d
Molybdenum	149	<0.05	<0.05	<0.05	d	d
Sodium	149	70.6	3.7	10.	d	d
Ammonia as Nitrogen	149	1.14	<0.2	<0.2	d	d
Nickel	149	<0.05	<0.05	<0.05	1.418	0
Nitrate/Nitrite as Nitrogen	149	2.11	0.0681	<0.845	10	0
Lead	149	<0.1	<0.1	<0.1	0.0817	0
Antimony	149	<0.2	<0.2	<0.2	4.31	0
Selenium	149	<0.2	<0.2	<0.2	0.02	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: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Strontium	149	0.14	0.0557	0.12	d	d
Suspended Solids	149	154.0	<1.0	<12	d	d
Thorium	149	<0.2	<0.2	<0.2	d	d
Titanium	149	0.126	<0.05	<0.05	d	d
Thallium	149	<0.2	<0.2	<0.2	0.0063	0
Vanadium	149	<0.02	<0.02	<0.02	d	d
Zinc	149	0.108	<0.05	<0.05	0.117	0
Zirconium	149	<0.2	<0.2	<0.2	d	d

(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 4.24. Y-12 Complex Discharge Point 94221, SWHISS STATION 9422-1
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	52	24.0	+/-5.2	-3.6*	+/-3.9	5.2	0.60	e	6.6E-02
Americium-241 (pCi/L)	52	0.29	+/-.25	-0.2*	+/-.2	0.06	0.02	0.2	8E-04
Beta activity (pCi/L)	52	16.0	+/-5.1	-5.3*	+/-5	5.2	0.67	e	6.6E-02
Cobalt-60 (pCi/L)	52	2.9*	+/-2.6	-2.4*	+/-3.1	0.51	0.14	0.010	6.4E-03
Cesium-137 (pCi/L)	52	3.1*	+/-2.3	-2.8*	+/-2.3	0.0064	0.15	0.00020	8.2E-05
Gamma Activity (pCi/L)	52	30.0	+/-16	-17.0*	+/-16	-0.386	1.20	e	-4.91E-03
Neptunium-237 (pCi/L)	52	0.35	+/-.25	-0.31*	+/-.13	-0.0048	0.011	-0.016	-6.1E-05
Plutonium-238 (pCi/L)	52	0.4	+/-.19	-0.32*	+/-.072	-0.004	0.02	-0.009	-4E-05
Plutonium-239/240 (pCi/L)	52	0.1*	+/-.12	-0.14*	+/-.069	-0.006	0.007	-0.02	-7E-05
Radium-226 (pCi/L)	52	0.93	+/-1.7	-0.35*	+/-.45	0.30	0.039	0.30	3.8E-03
Radium-228 (pCi/L)	52	2.6*	+/-1.9	-0.66*	+/-1.3	0.69	0.094	0.69	8.8E-03
Strontium-89/90 (pCi/L)	52	6.4	+/-3.9	-3.1*	+/-7.2	0.74	0.28	e	9.4E-03
Total Radium Alpha (pCi/L)	52	1.7	+/-.59	-0.087*	+/-.25	0.29	0.035	e	3.7E-03
Technetium-99 (pCi/L)	52	13.0	+/-8.1	-14.0*	+/-9.3	1.11	0.791	0.00110	1.42E-02
Thorium-228 (pCi/L)	52	1.6	+/-.56	-1.0*	+/-.2	0.044	0.049	0.011	5.6E-04
Thorium-230 (pCi/L)	52	3.4	+/-.87	-0.35*	+/-.25	0.22	0.078	0.073	2.8E-03
Thorium-232 (pCi/L)	52	0.15	+/-.18	-0.093*	+/-.13	0.0030	0.0062	0.0060	3.8E-05
Thorium-234 (pCi/L)	52	14.0	+/-1.8	0.32	+/-.27	3.4	0.39	0.034	4.3E-02
Tritium (pCi/L)	52	1600.0	+/-550	-430.0*	+/-510	90.25	45.65	0.004500	1.150E+00
Uranium-234 (pCi/L)	52	3.4	+/-.67	0.43	+/-.25	1.4	0.11	0.29	1.8E-02
Uranium-235 (pCi/L)	52	0.23	+/-.16	-0.042*	+/-.093	0.077	0.0095	0.013	9.8E-04
Uranium-236 (pCi/L)	43	0.12*	+/-.12	-0.028*	+/-0	0.018	0.0055	0.0035	2.2E-04
Uranium-238 (pCi/L)	52	14.0	+/-1.8	0.32	+/-.27	3.4	0.39	0.57	4.3E-02

(e) Not applicable
* Provisional Result

Table 4.25. Y-12 Complex Category I Outfalls
From: 2002/01/01 To: 2002/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
003	Flow, mgd	2	0.34245	0.001902	0.1722	d	d
	pH, Standard Units	2	7.9	7.7	d	9/ 4(e)	0
006	Flow, mgd	2	0.22827	0.00057	0.11	d	d
	pH, Standard Units	2	7.6	7.5	d	9/ 4(e)	0
007	Flow, mgd	2	0.22827	0.017	0.12	d	d
	pH, Standard Units	2	8.1	7.8	d	9/ 4(e)	0
008	Flow, mgd	2	0.04565	0.00144	0.0235	d	d
	pH, Standard Units	2	7.9	7.1	d	9/ 4(e)	0
009	Flow, mgd	2	0.09131	0.0043	0.048	d	d
	pH, Standard Units	2	8.3	7.7	d	9/ 4(e)	0
011	Flow, mgd	2	0.0137	0.00152	0.00761	d	d
	pH, Standard Units	2	7.8	7.5	d	9/ 4(e)	0
015	Outfall closed						
018	Outfall closed						
032	Outfall was eliminated						
033	Flow, mgd	2	0.06848	0.00072	0.035	d	d
	pH, Standard Units	2	8.0	7.6	d	9/ 4(e)	0

Table 4.25 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
045	Flow, mgd	2	0.01712	0.000095	0.0086	d	d
	pH, Standard Units	2	7.8	7.5	d	9/ 4(e)	0
046	Flow, mgd	2	0.02283	0.000095	0.011	d	d
	pH, Standard Units	2	7.8	7.5	d	9/ 4(e)	0
058	Flow, mgd	2	0.06848	0.003044	0.03576	d	d
	pH, Standard Units	2	8.3	7.9	d	9/ 4(e)	0
062	Flow, mgd	3	0.09131	0.00851	0.0397	d	d
	pH, Standard Units	3	8.0	7.7	d	9/ 4(e)	0
086	Flow, mgd	2	0.01141	0.0026	0.0070	d	d
	pH, Standard Units	2	8.1	7.8	d	9/ 4(e)	0
087	Flow, mgd	2	0.0432	0.03805	0.04062	d	d
	pH, Standard Units	2	8.6	8.2	d	9/ 4(e)	0
098	Flow, mgd	2	0.00951	0.000063	0.0048	d	d
	pH, Standard Units	2	8.4	7.9	d	9/ 4(e)	0
110	Flow, mgd	2	0.06848	0.00025	0.0344	d	d
	pH, Standard Units	2	8.2	7.8	d	9/ 4(e)	0
134	Flow, mgd	2	0.01141	0.004566	0.00799	d	d
	pH, Standard Units	2	8.2	8.2	d	9/ 4(e)	0

Table 4.25 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
213	Flow, mgd	2	0.03234	0.003805	0.01807	d	d
	pH, Standard Units	2	8.7	7.8	d	9/ 4(e)	0
S01	Flow, mgd	3	0.24733	0.004566	0.1596	d	d
	pH, Standard Units	3	7.5	7.0	d	9/ 4(e)	0
S03	Flow, mgd	2	0.22827	0.068481	0.14838	d	d
	pH, Standard Units	2	7.8	6.2	d	9/ 4(e)	0
S04	Flow, mgd	2	0.13698	0.002283	0.06963	d	d
	pH, Standard Units	2	8.0	6.4	d	9/ 4(e)	0
S06	Flow, mgd	366	12.28	0.0002	0.3	d	d
	pH, Standard Units	14	7.94	6.3	d	9/ 4(e)	0
S07	Flow, mgd	311	3.33	0.00002	0.3	d	d
	pH, Standard Units	12	8.32	6.35	d	9/ 4(e)	0
S09	Flow, mgd	2	0.00457	0.00288	0.00372	d	d
	pH, Standard Units	2	7.3	7.2	d	9/ 4(e)	0
S15	Flow, mgd	2	0.02283	0.00457	0.0137	d	d
	pH, Standard Units	2	7.6	7.3	d	10/ 6(e)	0
S16	Flow, mgd	2	0.22827	0.003805	0.1160	d	d
	pH, Standard Units	2	7.8	7.4	d	10/ 6(e)	0

Table 4.25 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
S18	Flow, mgd	3	0.144	0.00144	0.0865	d	d
	pH, Standard Units	3	8.1	7.8	d	9/ 4(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 4.26. Y-12 Complex Category II Outfalls
From: 2002/01/01 To: 2002/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
004	Flow, mgd	4	0.038	0.00038	0.015	d	d
	pH, Standard Units	4	7.8	7.4	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
010	Flow, mgd	5	0.396	0.0057	0.11	d	d
	pH, Standard Units	5	7.6	7.4	d	9/ 4(e)	0
	Total Residual Chlorine	4	0.12	<0.05	<0.07	0.5	0
014	Flow, mgd	5	0.2635	0.0114	0.0749	d	d
	pH, Standard Units	5	8.0	7.2	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
016	Flow, mgd	4	0.0155	0.00228	0.0090	d	d
	pH, Standard Units	4	7.8	7.5	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
019	Flow, mgd	4	0.01141	0.00038	0.0067	d	d
	pH, Standard Units	4	7.7	7.1	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
020	Flow, mgd	5	0.288	0.00038	0.074	d	d
	pH, Standard Units	6	8.1	6.8	d	9/ 4(e)	0
	Total Residual Chlorine	6	<0.05	<0.05	<0.05	0.5	0
041	Flow, mgd	4	0.0114	0.00018	0.0047	d	d
	pH, Standard Units	4	7.5	6.9	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0

Table 4.26 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
044	Flow, mgd	5	0.046	0.00114	0.025	d	d
	pH, Standard Units	5	8.4	7.5	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
057	Flow, mgd	4	0.02283	0.00019	0.012	d	d
	pH, Standard Units	4	7.9	7.3	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
063	Flow, mgd	4	0.144	0.00009	0.04	d	d
	pH, Standard Units	4	7.7	7.1	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
064	Flow, mgd	4	0.00038	0.00009	0.0003	d	d
	pH, Standard Units	4	8.0	7.4	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
067	Flow, mgd	4	0.144	0.00038	0.067	d	d
	pH, Standard Units	4	7.9	7.6	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
083	Flow, mgd	4	0.0144	0.00019	0.0049	d	d
	pH, Standard Units	4	8.2	7.7	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
088	Flow, mgd	5	0.5802	0.00019	0.12	d	d
	pH, Standard Units	5	8.1	6.8	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0

Table 4.26 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
099	Flow, mgd	4	0.0432	0.0114	0.0194	d	d
	pH, Standard Units	4	7.6	7.1	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
102	Flow, mgd	5	0.12	0.019	0.068	d	d
	pH, Standard Units	5	8.0	7.2	d	9/ 4(e)	0
	Total Residual Chlorine	5	<0.05	<0.05	<0.05	0.5	0
126	Flow, mgd	4	0.038	0.00019	0.017	d	d
	pH, Standard Units	4	8.0	7.6	d	9/ 4(e)	0
	Total Residual Chlorine	4	<0.05	<0.05	<0.05	0.5	0
S02	Flow, mgd	367	0.858	0.00002	0.03	d	d
	pH, Standard Units	17	8.13	6.8	d	9/ 4(e)	0
	Total Residual Chlorine	4	0.1	<0.05	<0.06	0.5	0
S08	Flow, mgd	280	4.36	0.00007	0.2	d	d
	pH, Standard Units	12	8.51	7.04	d	9/ 4(e)	0
S10	Flow, mgd	4	0.48154	0.00666	0.202	d	d
	pH, Standard Units	4	7.7	7.1	d	9/ 4(e)	0
S11	Flow, mgd	4	0.35669	0.0009	0.1	d	d
	pH, Standard Units	4	7.8	7.1	d	9/ 4(e)	0
S12	Flow, mgd	4	0.098	0.0072	0.050	d	d
	pH, Standard Units	4	7.4	6.9	d	9/ 4(e)	0

Table 4.26 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
S13	Flow, mgd	4	0.3289	0.00323	0.145	d	d
	pH, Standard Units	5	8.14	7.3	d	9/ 4(e)	0
S17	Flow, mgd	4	2.0362	0.2016	0.9386	d	d
	pH, Standard Units	4	7.6	6.9	d	9/ 4(e)	0
S20	Flow, mgd	5	1.152	0.0288	0.421	d	d
	pH, Standard Units	5	7.7	7.1	d	9/ 4(e)	0
S21	Outfall eliminated						
S22	Flow, mgd	4	0.0864	0.00152	0.0342	d	d
	pH, Standard Units	4	7.9	7.6	d	10/ 6(e)	0
S24	Flow, mgd	328	81.1	0.00002	2	d	d
	pH, Standard Units	6	8.5	7.6	d	9/ 4(e)	0
S25	Flow, mgd	4	0.72	0.00019	0.20	d	d
	pH, Standard Units	4	8.2	7.0	d	10/ 6(e)	0
S26	Flow, mgd	4	0.216	0.0114	0.0856	d	d
	pH, Standard Units	4	7.8	6.9	d	10/ 6(e)	0
S27	Flow, mgd	4	0.0288	0.0076	0.015	d	d
	pH, Standard Units	4	7.6	7.1	d	10/ 6(e)	0
S28	Flow, mgd	5	0.072	0.0019	0.036	d	d
	pH, Standard Units	5	7.8	6.9	d	10/ 6(e)	0

Table 4.26 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
S29	Flow, mgd	4	0.432	0.00114	0.144	d	d
	pH, Standard Units	4	7.9	7.0	d	10/ 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 4.27. Y-12 Complex Category III Outfalls
From: 2002/01/01 To: 2002/12/31

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
002	Flow, mgd	12	0.27392	0.11414	0.13696	d	d
	pH, Standard Units	12	7.8	7.4	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.061	<0.05	<0.05	0.5	0
034	Flow, mgd	13	0.2592	0.083699	0.1607	d	d
	pH, Standard Units	13	7.7	7.3	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.45	<0.05	<0.11	0.5	0
042	Flow, mgd	12	0.04565	0.000013	0.012	d	d
	pH, Standard Units	12	8.3	7.4	d	9/ 4(e)	0
	Total Residual Chlorine	12	<0.05	<0.05	<0.05	0.5	0
047	Flow, mgd	12	0.04565	0.022827	0.04375	d	d
	pH, Standard Units	12	7.7	7.2	d	9/ 4(e)	0
	Total Residual Chlorine	12	<0.05	<0.05	<0.05	0.5	0
048	Flow, mgd	12	0.091308	0.00038	0.020	d	d
	pH, Standard Units	12	8.0	7.0	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.25	<0.05	<0.07	0.5	0
054	Flow, mgd	13	0.024	0.000038	0.0030	d	d
	pH, Standard Units	13	8.3	5.9	d	9/ 4(e)	0
	Total Residual Chlorine	12	<0.05	<0.05	<0.05	0.5	0
071	Flow, mgd	12	0.01826	0.011414	0.01350	d	d
	pH, Standard Units	12	7.9	7.5	d	9/ 4(e)	0
	Total Residual Chlorine	12	<0.05	<0.05	<0.05	0.5	0

Table 4.27 (continued)

Outfall	Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
109	Flow, mgd	13	0.342405	0.07609	0.1556	d	d
	pH, Standard Units	13	8.0	7.6	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.157	<0.05	<0.09	0.5	0
113	Flow, mgd	13	0.045654	0.00038	0.0076	d	d
	pH, Standard Units	13	8.2	7.5	d	9/ 4(e)	0
	Total Residual Chlorine	12	<0.05	<0.05	<0.05	0.5	0
114	Flow, mgd	12	0.02511	0.006848	0.0151	d	d
	pH, Standard Units	12	8.2	7.6	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.258	<0.05	<0.1	0.5	0
S05	Flow, mgd	11	0.205443	0.00038	0.056	d	d
	pH, Standard Units	24	7.88	5.6	d	9/ 4(e)	0
	Total Residual Chlorine	12	0.13	<0.05	<0.06	0.5	0
S14	Flow, mgd	12	0.295	0.00144	0.0983	d	d
	pH, Standard Units	13	8.9	7.2	d	9/ 4(e)	0
	Total Residual Chlorine	11	<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 4.28. Y-12 Complex Discharge Point S17, UNNAMED TRIBUTARY TO THE CLINCH RIVER
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	12	7.4	+/-3	0.77*	+/-2.2	2.5	0.55	e	3.3E-03
Americium-241 (pCi/L)	12	0.37	+/-.21	-0.12*	+/-.12	0.070	0.040	0.23	9.1E-05
Beta activity (pCi/L)	12	40.0	+/-32	-6.7*	+/-5.7	2.9	3.5	e	3.8E-03
Cobalt-60 (pCi/L)	12	2.5*	+/-2.1	-2.6*	+/-2.2	0.42	0.39	0.0084	5.5E-04
Cesium-137 (pCi/L)	12	1.8*	+/-2.1	-1.4*	+/-2.3	0.31	0.25	0.010	4.0E-04
Gamma Activity (pCi/L)	12	7.1*	+/-16	-4.9*	+/-15	-0.38	1.2	e	-5.0E-04
Neptunium-237 (pCi/L)	12	0.15*	+/-.15	-0.048*	+/-.061	0.012	0.017	0.041	1.6E-05
Plutonium-238 (pCi/L)	12	0.18*	+/-.15	-0.091*	+/-.11	0.019	0.020	0.047	2.4E-05
Plutonium-239/240 (pCi/L)	12	0.057*	+/-.097	-0.061*	+/-.1	-0.0076	0.012	-0.025	-9.8E-06
Radium-226 (pCi/L)	12	0.43*	+/-.45	-0.15*	+/-.13	0.12	0.058	0.12	1.6E-04
Radium-228 (pCi/L)	12	3.9	+/-1.7	-0.57*	+/-1.6	0.71	0.34	0.71	9.3E-04
Strontium-89/90 (pCi/L)	12	4.3	+/-2.6	-2.5*	+/-2.1	-0.37	0.56	e	-4.8E-04
Total Radium Alpha (pCi/L)	12	0.9	+/-.44	-0.022*	+/-.23	0.3	0.07	e	4E-04
Technetium-99 (pCi/L)	12	6.9*	+/-7.3	-7.7*	+/-8.4	0.83	1.1	0.00080	1.1E-03
Thorium-228 (pCi/L)	12	1.7	+/-.49	-0.68*	+/-.14	0.39	0.22	0.098	5.1E-04
Thorium-230 (pCi/L)	12	0.6	+/-.27	-0.22*	+/-.3	0.02	0.06	0.006	2E-05
Thorium-232 (pCi/L)	12	0.057*	+/-.08	-0.023*	+/-.046	0.0081	0.0072	0.016	1.1E-05
Thorium-234 (pCi/L)	12	0.67	+/-.28	0.081*	+/-.18	0.28	0.047	0.0028	3.7E-04
Tritium (pCi/L)	12	690.0*	+/-560	-250.0*	+/-490	96.50	75.97	0.004800	1.250E-01
Uranium-234 (pCi/L)	12	4.1	+/-.79	0.2	+/-.16	2	0.4	0.3	2E-03
Uranium-235 (pCi/L)	12	0.2*	+/-.16	-0.14*	+/-.049	0.04	0.03	0.007	5E-05
Uranium-236 (pCi/L)	10	0.027*	+/-.054	-0.077*	+/-0	-0.013	0.0090	-0.0026	-1.6E-05
Uranium-238 (pCi/L)	12	0.67	+/-.28	0.081*	+/-.18	0.28	0.047	0.047	3.7E-04

(e) Not applicable
* Provisional Result

Table 4.29. Y-12 Complex Discharge Point S19, S19, ROGER'S QUARRY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	2.916	0.001	0.2	d	d
pH, Standard Unit	12	8.6	7.5	d	9/ 6(e)	0
Silver	12	<0.02	<0.02	<0.02	d	d
Aluminum	12	0.289	<0.2	<0.2	d	d
Arsenic	12	<0.2	<0.2	<0.2	d	d
Boron	12	<0.1	<0.1	<0.1	d	d
Barium	12	0.0584	0.0468	0.0516	d	d
Beryllium	12	<0.0005	<0.0005	<0.0005	d	d
Calcium	12	41.0	25.9	33.0	d	d
Cadmium	12	<0.01	<0.01	<0.01	d	d
Cobalt	12	<0.02	<0.02	<0.02	d	d
Chromium	12	<0.02	<0.02	<0.02	d	d
Copper	12	<0.02	<0.02	<0.02	d	d
Iron	12	0.236	<0.05	<0.08	d	d
Potassium	12	2.18	<2.0	<2.0	d	d
Lithium	12	0.015	0.0108	0.012	d	d
Magnesium	12	12.0	9.54	10.5	d	d
Manganese	12	0.224	<0.005	<0.06	d	d
Molybdenum	12	<0.05	<0.05	<0.05	d	d
Sodium	12	2.15	1.23	1.55	d	d
Nickel	12	<0.05	<0.05	<0.05	d	d
Lead	12	<0.1	<0.1	<0.1	d	d
Antimony	12	<0.2	<0.2	<0.2	d	d
Strontium	12	0.233	0.189	0.204	d	d
Thallium	12	<0.2	<0.2	<0.2	d	d
Vanadium	12	<0.02	<0.02	<0.02	d	d
Zinc	12	<0.05	<0.05	<0.05	d	d

(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 S19, S19, ROGER'S QUARRY
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	12	6.6	+/-3.4	-1.9*	+/-1.7	1.5	0.61	e	4.4E-04
Americium-241 (pCi/L)	12	0.3	+/-.18	-0.17*	+/-.095	0.05	0.04	0.2	1E-05
Beta activity (pCi/L)	12	3.9*	+/-4.3	-2.2*	+/-4.3	1.0	0.49	e	3.1E-04
Cobalt-60 (pCi/L)	12	1.6*	+/-2.2	-1.2*	+/-2.2	0.46	0.26	0.0093	1.4E-04
Cesium-137 (pCi/L)	12	1.6*	+/-2.1	-1.8*	+/-2	0.11	0.26	0.0036	3.2E-05
Gamma Activity (pCi/L)	12	17.0*	+/-15	-8.1*	+/-16	2.8	2.2	e	8.4E-04
Neptunium-237 (pCi/L)	12	0.055*	+/-.071	-0.056*	+/-0	-0.0044	0.0093	-0.014	-1.3E-06
Plutonium-238 (pCi/L)	12	0.23	+/-.16	-0.057*	+/-.07	0.036	0.023	0.089	1.0E-05
Plutonium-239/240 (pCi/L)	12	0.22	+/-.14	-0.16*	+/-.081	0.00070	0.026	0.0022	2.0E-07
Radium-226 (pCi/L)	12	0.96	+/-1.2	0.01*	+/-.016	0.3	0.09	0.3	8E-05
Radium-228 (pCi/L)	12	2.7*	+/-1.8	-0.14*	+/-1.1	1.1	0.27	1.1	3.2E-04
Strontium-89/90 (pCi/L)	12	2.6*	+/-2	-2.0*	+/-1.7	0.24	0.31	e	7.2E-05
Total Radium Alpha (pCi/L)	12	0.63	+/-.35	0.059*	+/-.24	0.30	0.044	e	8.9E-05
Technetium-99 (pCi/L)	12	20.0	+/-8.6	-6.4*	+/-8	2.5	2.0	0.0025	7.4E-04
Thorium-228 (pCi/L)	12	1.2	+/-.5	-0.64*	+/-.096	0.13	0.14	0.032	3.8E-05
Thorium-230 (pCi/L)	12	0.87	+/-.36	-0.47*	+/-.21	0.23	0.11	0.076	6.8E-05
Thorium-232 (pCi/L)	12	0.077*	+/-.11	-0.064*	+/-.091	0.0012	0.012	0.0024	3.6E-07
Thorium-234 (pCi/L)	12	0.19	+/-.14	-0.049*	+/-.15	0.073	0.023	0.00070	2.2E-05
Tritium (pCi/L)	12	950.0	+/-550	-360.0*	+/-510	196.0	95.18	0.009800	5.820E-02
Uranium-234 (pCi/L)	12	0.37	+/-.21	0.065*	+/-.11	0.21	0.026	0.041	6.1E-05
Uranium-235 (pCi/L)	12	0.077*	+/-.18	-0.082*	+/-.042	-0.0042	0.016	-0.00070	-1.2E-06
Uranium-236 (pCi/L)	9	0.0*	+/-0	-0.077*	+/-0	-0.016	0.0087	-0.0032	-4.7E-06
Uranium-238 (pCi/L)	12	0.19	+/-.14	-0.049*	+/-.15	0.073	0.023	0.012	2.2E-05

(e) Not applicable
* Provisional Result

Table 4.31. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, gpd	365	2097000.0	383000.0	681443.8	d	d
pH, Standard Unit	53	7.8	6.9	d	9/ 6(e)	0
Silver	53	0.0525	<0.0004	<0.005	0.1	0
Arsenic	53	0.0128	<0.002	<0.002	0.015	0
Boron	53	0.129	<0.1	<0.1	d	d
Beryllium	53	<0.0005	<0.0002	<0.0003	d	d
Benzene	12	0.005U	0.005U	0.005U	0.015	0
Biochemical Oxygen Demand	53	105.0	6.45	41.4	300	0
Cadmium	53	<0.001	<0.001	<0.001	0.005	0
CARBON MONOXIDE	39	0.0095	0.0004	0.002	d	d
Chromium	53	0.0045	<0.004	<0.004	0.075	0
Copper	53	0.315	0.0137	0.0322	0.21	0
Cyanide	12	<0.05	<0.005	<0.01	0.062	0
Iron	53	11.8	0.176	1.74	15	0
Mercury	53	0.003	<0.0002	<0.0007	0.035	0
Kjeldahl Nitrogen	53	23.5	<2.0	<12	90	0
Methylene chloride	12	0.005U	0.005U	0.005U	0.041	0
Manganese	53	0.162	0.0159	0.0390	d	d
Nickel	53	0.0362	<0.002	<0.005	0.032	0
Nitrate/Nitrite as Nitrogen	53	1.48	0.181	<0.745	10	0
Oil and Grease	53	13.6	<5.7	<7.0	50	0
Lead	53	0.0113	0.0003	0.002	0.074	0
Phenols - Total Recoverable	53	0.0232	<0.005	<0.009	0.5	0
Selenium	53	<0.2	<0.004	<0.02	d	d
Suspended Solids	53	114.0	12.2	49.1	300	0
Toluene	12	0.005U	0.005U	0.005U	0.02	0
Trichloroethene	12	0.005U	0.005U	0.005U	0.027	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. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Zinc	53	0.335	<0.05	<0.09	0.75	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 4.33. Y-12 Complex Discharge Point SS6, SANITARY SEWER STATION 6
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	53	16.0*	+/-16	-12.0*	+/-15	4.33	0.701	e	4.08E-03
Beta activity (pCi/L)	53	32.0	+/-11	-9.9*	+/-43	7.0	0.87	e	6.6E-03
Cobalt-60 (pCi/L)	1	2.3*	+/-1.7	2.3*	+/-1.7	2.3		0.046	2.2E-03
Cesium-137 (pCi/L)	1	0.93*	+/-1.8	0.93*	+/-1.8	0.93		0.031	8.8E-04
Gamma Activity (pCi/L)	53	41.0	+/-17	-21.0*	+/-17	3.89	1.51	e	3.66E-03
Plutonium-238 (pCi/L)	1	-0.5*	+/-.19	-0.5*	+/-.19	-0.5		-1	-5E-04
Plutonium-239/240 (pCi/L)	1	-0.7*	+/-.042	-0.7*	+/-.042	-0.7		-2	-7E-04
Radium-228 (pCi/L)	1	3.1*	+/-11	3.1*	+/-11	3.1		3.1	2.9E-03
Uranium-234 (pCi/L)	53	5.1	+/-.88	0.84	+/-.32	2.6	0.15	0.52	2.5E-03
Uranium-235 (pCi/L)	53	0.29	+/-.2	-0.071*	+/-.11	0.078	0.010	0.013	7.3E-05
Uranium-236 (pCi/L)	44	0.11*	+/-.13	-0.062*	+/-.075	0.026	0.0054	0.0052	2.4E-05
Uranium-238 (pCi/L)	53	3.9	+/-.79	0.39	+/-.27	1.8	0.14	0.31	1.7E-03

(e) Not applicable
* Provisional Result

Table 4.34. Y-12 Complex Discharge Point STA304, STATION 304, BEAR CREEK AT HIGHWAY 95
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Flow, mgd	365	56.082	0.121	5.1275	d	d
pH, Standard Unit	23	7.8	6.7	d	9/ 6(e)	0
Silver	12	<0.02	<0.02	<0.02	0.0041	0
Aluminum	12	4.98	<0.2	<0.8	d	d
Arsenic	12	<0.2	<0.2	<0.2	0.0014	0
Boron	12	<0.1	<0.1	<0.1	d	d
Barium	12	0.0743	0.0492	0.0597	d	d
Beryllium	12	<0.0005	<0.0005	<0.0005	0.0013	0
Calcium	12	66.9	36.0	44.7	d	d
Cadmium	12	<0.01	<0.01	<0.01	0.0039	0
Chloride	12	11.5	2.44	5.74	d	d
Cobalt	12	<0.02	<0.02	<0.02	d	d
Chromium	12	<0.02	<0.02	<0.02	0.016	0
Copper	12	<0.02	<0.02	<0.02	0.0177	0
Iron	12	2.84	0.116	0.504	d	d
Mercury	12	<0.0002	<0.0002	<0.0002	0.00015	0
Potassium	12	2.58	<2.0	<2.0	d	d
Lithium	12	0.0128	<0.01	<0.01	d	d
Magnesium	12	18.1	9.33	13.5	d	d
Manganese	12	0.0563	0.0158	0.0314	d	d
Molybdenum	12	<0.05	<0.05	<0.05	d	d
Sodium	12	6.22	1.3	3.4	d	d
Nickel	12	<0.05	<0.05	<0.05	1.418	0
Nitrite as Nitrogen	12	<0.38	<0.076	<0.13	d	d
Nitrate as Nitrogen	12	7.83	0.174	2.32	d	d
Lead	12	<0.1	<0.1	<0.1	0.0817	0
Phenols - Total Recoverable	12	<0.005	<0.005	<0.005	d	d

(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 4.35. Y-12 Complex Discharge Point STA304, STATION 304, BEAR CREEK AT HIGHWAY 95
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration(a) Max	Min	Avg	Reference Value(b)	Number of Values Exceeding Reference
Antimony	12	<0.2	<0.2	<0.2	4.31	0
Selenium	12	<0.2	<0.2	<0.2	0.02	0
Strontium	12	0.121	0.0435	0.0717	d	d
Sulfate	12	17.4	2.78	9.20	d	d
Suspended Solids	12	16.0	1.0	4.2	d	d
Thorium	12	<0.2	<0.2	<0.2	d	d
Titanium	12	0.0935	<0.05	<0.05	d	d
Thallium	12	<0.2	<0.2	<0.2	0.0063	0
Vanadium	12	<0.02	<0.02	<0.02	d	d
Zinc	12	<0.05	<0.05	<0.05	0.117	0
Zirconium	12	<0.2	<0.2	<0.2	d	d

(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 4.36. Y-12 Complex Discharge Point STA304, STATION 304, BEAR CREEK AT HIGHWAY 95
From: 2002/01/01 To: 2002/12/31

Parameter	Number of Samples	Concentration Max	+/-	Min	+/-	Average	Percentage of Standard Error	DCG	Total Curies
Alpha activity (pCi/L)	12	34.0	+/-6.5	1.7*	+/-2.6	12	2.7	e	8.4E-02
Americium-241 (pCi/L)	12	0.3	+/-.15	-0.17*	+/-.15	0.1	0.05	0.3	7E-04
Beta activity (pCi/L)	12	40.0	+/-8.1	-1.4*	+/-4.4	12	3.2	e	8.5E-02
Cobalt-60 (pCi/L)	12	3.9*	+/-2.2	-1.6*	+/-2.2	0.90	0.47	0.018	6.4E-03
Cesium-137 (pCi/L)	12	1.9*	+/-2.1	-1.2*	+/-2	0.022	0.23	0.00070	1.6E-04
Gamma Activity (pCi/L)	12	12.0*	+/-15	-11.0*	+/-16	0.377	2.06	e	2.67E-03
Neptunium-237 (pCi/L)	12	0.15	+/-.12	-0.052*	+/-.06	0.010	0.019	0.034	7.1E-05
Plutonium-238 (pCi/L)	12	1.4	+/-.4	-0.11*	+/-.18	0.10	0.12	0.25	7.2E-04
Plutonium-239/240 (pCi/L)	12	0.043*	+/-.07	-0.12*	+/-.04	-0.017	0.014	-0.056	-1.2E-04
Radium-226 (pCi/L)	12	0.7	+/-1	-0.13*	+/-.16	0.2	0.07	0.2	2E-03
Radium-228 (pCi/L)	12	1.2*	+/-.51	-0.031*	+/-.52	0.77	0.12	0.77	5.5E-03
Strontium-89/90 (pCi/L)	12	3.8*	+/-2.6	-1.3*	+/-1.7	0.41	0.40	e	2.9E-03
Total Radium Alpha (pCi/L)	12	0.81	+/-.32	0.064*	+/-.13	0.41	0.066	e	2.9E-03
Technetium-99 (pCi/L)	12	23.0	+/-8.3	-4.2*	+/-8.2	7.5	2.6	0.0075	5.3E-02
Thorium-228 (pCi/L)	12	1.4	+/-.41	-0.2*	+/-.24	0.2	0.1	0.04	1E-03
Thorium-230 (pCi/L)	12	28.0	+/-4.1	-0.24*	+/-.31	4.5	3.0	1.5	3.2E-02
Thorium-232 (pCi/L)	12	0.33	+/-.19	-0.087*	+/-.1	0.028	0.030	0.057	2.0E-04
Thorium-234 (pCi/L)	12	18.0	+/-2.2	0.67	+/-.37	6.5	1.5	0.065	4.6E-02
Tritium (pCi/L)	12	400.0*	+/-550	-490.0*	+/-500	-4.833	78.60	-0.0002000	-3.420E-02
Uranium-234 (pCi/L)	12	8.0	+/-1.2	0.52	+/-.35	3.2	0.69	0.64	2.3E-02
Uranium-235 (pCi/L)	12	0.47	+/-.24	-0.04*	+/-.08	0.2	0.05	0.03	1E-03
Uranium-236 (pCi/L)	10	0.12	+/-.1	-0.02*	+/-.068	0.04	0.01	0.008	3E-04
Uranium-238 (pCi/L)	12	18.0	+/-2.2	0.67	+/-.37	6.5	1.5	1.1	4.6E-02

(e) Not applicable
* Provisional Result

Table 4.37. Storm Water Data Above Screening Levels

Location (Outfall) *010*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Zinc	10/15/02 5:55:00 PM	.315	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	10/15/02 10:30:00	.175	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *014*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Dieldrin	9/25/02 9:10:00 AM	.00018	mg/L	0.0000014	mg/L	TN Water Quality Criteria/Recreation
Dieldrin	9/25/02 4:36:00 PM	.00038	mg/L	0.0000014	mg/L	TN Water Quality Criteria/Recreation
Mercury	9/25/02 9:10:00 AM	.00111	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Mercury	9/25/02 4:36:00 PM	.000742	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Zinc	9/25/02 9:10:00 AM	.174	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *020*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
PCB	11/15/02 8:50:00 PM	.00068	mg/L	0.00044	ug/L	TN Water Quality Criteria/Recreation
Zinc	11/15/02 3:25:00 PM	.309	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	11/15/02 8:50:00 PM	.122	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *021*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Fecal Coliform Bacteria	11/15/02 3:55:00 PM	16000.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation

Location (Outfall) *044*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Fecal Coliform Bacteria	5/13/02 9:15:00 AM	5000.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation

Table 4.37 (continued)

Location (Outfall) *054*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Copper	2/20/02 12:45:00 PM	.126	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	2/20/02 7:20:00 AM	.288	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *062*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Fecal Coliform Bacteria	10/28/02 8:35:00 AM	136000.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Fecal Coliform Bacteria	5/1/02 2:25:00 AM	36000.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Mercury	10/28/02 12:30:00	.000235	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Total Suspended Solids	10/28/02 8:35:00 AM	71.5	mg/L	60	mg/L	Effluent Guideline 40 CFR 433

Location (Outfall) *086*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Chromium	10/28/02 2:45:00 PM	.023	mg/L	0.016	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	10/28/02 7:35:00 AM	.0595	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	10/28/02 2:45:00 PM	.0959	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Mercury	10/28/02 7:35:00 AM	.00137	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Mercury	10/28/02 2:45:00 PM	.00163	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Total Suspended Solids	10/28/02 7:35:00 AM	262.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Total Suspended Solids	10/28/02 2:45:00 PM	456.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Zinc	10/28/02 7:35:00 AM	.286	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	10/28/02 2:45:00 PM	.671	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *088*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Zinc	10/28/02 10:25:00	.446	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	10/28/02 7:20:00 AM	.342	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Table 4.37 (continued)

Location (Outfall) *102*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Fecal Coliform Bacteria	10/15/02 6:40:00 PM	2200.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Zinc	10/15/02 6:40:00 PM	.136	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *113*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Chromium	10/10/02 3:30:00 PM	.0348	mg/L	0.016	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	10/10/02 8:15:00 PM	.0652	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	10/10/02 3:30:00 PM	.3	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Dieldrin	10/10/02 8:15:00 PM	.00004	mg/L	0.0000014	mg/L	TN Water Quality Criteria/Recreation
Fecal Coliform Bacteria	10/10/02 3:30:00 PM	2400.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Iron	10/10/02 3:30:00 PM	20.8	mg/L	10	mg/L	TN Rule Chapter 1200-4-5-.03(2)
Lead	10/10/02 3:30:00 PM	.207	mg/L	0.0871	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Manganese	10/10/02 3:30:00 PM	.629	mg/L	0.5	mg/L	NPDES Permit, Part III-A (Toxic Pollutants)
Mercury	10/10/02 8:15:00 PM	.000264	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Mercury	10/10/02 3:30:00 PM	.000881	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
PCB	10/10/02 8:15:00 PM	.00086	mg/L	0.00044	ug/L	TN Water Quality Criteria/Recreation
PCB	10/10/02 3:30:00 PM	.0055	mg/L	0.00044	ug/L	TN Water Quality Criteria/Recreation
Titanium	10/10/02 3:30:00 PM	.429	mg/L	0.3	mg/L	10 times monitoring history maximum at OF 501
Total Suspended Solids	10/10/02 3:30:00 PM	338.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Zinc	10/10/02 8:15:00 PM	.223	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	10/10/02 3:30:00 PM	1.01	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *135*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Copper	4/9/02 8:00:00 AM	.035	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Phosphorus	4/10/02 6:45:00 AM	.226	mg/L	0.1	mg/L	EPA Ambient Water Quality Criteria Guideline
Zinc	4/10/02 6:45:00 AM	.185	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	4/9/02 8:00:00 AM	.576	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Table 4.37 (continued)

Location (Outfall) *200*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Copper	3/26/02 9:55:00 AM	.0364	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Fecal Coliform Bacteria	3/26/02 9:55:00 AM	1910.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Mercury	3/26/02 1:00:00 PM	.000952	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Mercury	3/26/02 9:55:00 AM	.000788	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Phosphorus	3/26/02 1:00:00 PM	.192	mg/L	0.1	mg/L	EPA Ambient Water Quality Criteria Guideline
Total Suspended Solids	3/26/02 9:55:00 AM	101.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Zinc	3/26/02 9:55:00 AM	.315	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	3/26/02 1:00:00 PM	.17	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *S01*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Fecal Coliform Bacteria	8/19/02 2:20:00 PM	1910.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation

Location (Outfall) *S02*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Alpha activity	5/13/02 9:20:00 AM	120.	pCi/L	15	pCi/L	SDWA MCL 40 CFR 141.15
Total Suspended Solids	5/13/02 9:20:00 AM	117.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Uranium-234	5/13/02 9:20:00 AM	52.	pCi/L	25	pCi/L	5% Derived Concentration Guideline
Uranium-238	5/13/02 9:20:00 AM	110.	pCi/L	30	pCi/L	5% Derived Concentration Guideline

Location (Outfall) *S14*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Alpha activity	12/10/02 8:35:00 PM	110.	pCi/L	15	pCi/L	SDWA MCL 40 CFR 141.15
Uranium-238	12/10/02 8:35:00 PM	96.	pCi/L	30	pCi/L	5% Derived Concentration Guideline

Location (Outfall) *S18*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Total Suspended Solids	11/15/02 9:10:00 PM	136.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Total Suspended Solids	11/15/02 6:10:00 PM	97.6	mg/L	60	mg/L	Effluent Guideline 40 CFR 433

Table 4.37 (continued)

Location (Outfall) *S20*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Alpha activity	9/14/02 11:30:00 PM	31.	pCi/L	15	pCi/L	SDWA MCL 40 CFR 141.15
Chromium	9/14/02 8:30:00 PM	.0952	mg/L	0.016	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Chromium	9/14/02 11:30:00 PM	.0485	mg/L	0.016	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	9/14/02 8:30:00 PM	.0596	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Copper	9/14/02 11:30:00 PM	.0393	mg/L	0.0177	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Fecal Coliform Bacteria	9/14/02 8:30:00 PM	13000.	col/100ml	1000	col/100mL	TN Water Quality Criteria/Recreation
Iron	9/14/02 11:30:00 PM	26.	mg/L	10	mg/L	TN Rule Chapter 1200-4-5-.03(2)
Iron	9/14/02 8:30:00 PM	51.3	mg/L	10	mg/L	TN Rule Chapter 1200-4-5-.03(2)
Magnesium	9/14/02 11:30:00 PM	102.	mg/L	58.3	mg/L	10 times monitoring history maximum at OF 503
Magnesium	9/14/02 8:30:00 PM	208.	mg/L	58.3	mg/L	10 times monitoring history maximum at OF 503
Manganese	9/14/02 8:30:00 PM	1.64	mg/L	0.5	mg/L	NPDES Permit, Part III-A (Toxic Pollutants)
Manganese	9/14/02 11:30:00 PM	.879	mg/L	0.5	mg/L	NPDES Permit, Part III-A (Toxic Pollutants)
Mercury	9/14/02 8:30:00 PM	.00026	mg/L	0.000051	mg/L	TN Water Quality Criteria/Recreation
Phosphorus	9/14/02 8:30:00 PM	.87	mg/L	0.1	mg/L	EPA Ambient Water Quality Criteria Guideline
Titanium	9/14/02 8:30:00 PM	.808	mg/L	0.3	mg/L	10 times monitoring history maximum at OF 501
Titanium	9/14/02 11:30:00 PM	.478	mg/L	0.3	mg/L	10 times monitoring history maximum at OF 501
Total Suspended Solids	9/14/02 8:30:00 PM	3130.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Total Suspended Solids	9/14/02 11:30:00 PM	1540.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Zinc	9/14/02 11:30:00 PM	.205	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Zinc	9/14/02 8:30:00 PM	.385	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Location (Outfall) *S24*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Alpha activity	12/10/02 10:20:00	110.	pCi/L	15	pCi/L	SDWA MCL 40 CFR 141.15
Uranium-238	12/10/02 10:20:00	100.	pCi/L	30	pCi/L	5% Derived Concentration Guideline

Location (Outfall) *S28*

Parameter	Taken Date	Result	Result Units	Screening Level	Units	Rationale
Chromium	11/15/02 6:40:00 PM	.0279	mg/L	0.016	mg/L	TN Water Quality Criteria/Fish and Aquatic Life
Iron	11/15/02 6:40:00 PM	13.4	mg/L	10	mg/L	TN Rule Chapter 1200-4-5-.03(2)
Total Suspended Solids	11/15/02 6:40:00 PM	323.	mg/L	60	mg/L	Effluent Guideline 40 CFR 433
Zinc	11/15/02 6:40:00 PM	.132	mg/L	0.117	mg/L	TN Water Quality Criteria/Fish and Aquatic Life

Table 4.38. REGIME=Bear Creek AREA NAME=Bear Creek Burial Grounds WMA

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		10	10	185	40	122.25	NR	NA
Chloride	(mg/L)		36	36	147	0.95	22.52083	250	0
Fluoride	(mg/L)		36	13	6.02	0.107	1.800077	4	4
Nitrate Nitrogen	(mg/L)		26	13	13.2	0.0281	1.789769	10	1
Nitrate/Nitrite	(mg/L)		10	9	1.2	0.034	0.221778	NR	NA
Sulfate (mg/L)			36	36	37.2	1.32	10.26917	250	0
"Aluminum, ICAP"	(mg/L)		36	8	22.3	0.067	4.46875	0.2	7
"Arsenic, PMS"	(mg/L)		26	3	0.0139	0.00654	0.010247	0.05	0
"Barium, ICAP"	(mg/L)		36	36	1.2	0.0286	0.256417	2	0
"Beryllium, ICAP"	(mg/L)		36	1	0.00107	0.00107	0.00107	0.004	0
"Boron, ICAP"	(mg/L)		36	22	19.6 w	0.0115	2.217118	NR	NA
"Cadmium, PMS"	(mg/L)		26	4	0.00297	0.000531	0.001373	0.005	0
"Calcium, ICAP"	(mg/L)		36	36	172	1.21	45.96139	NR	NA
"Chromium, PMS"	(mg/L)		26	8	0.0359	0.00271	0.009994	NR	NA
"Chromium, ICAP"	(mg/L)		36	3	0.14 z	0.0266	0.065467	0.1	1
"Cobalt, ICAP"	(mg/L)		36	4	0.0239	0.0064	0.01325	NR	NA
"Copper, ICAP"	(mg/L)		36	3	0.152	0.0064	0.0704	1.3	0
"Iron, ICAP"	(mg/L)		36	25	17.8	0.054	2.084364	0.3	12
"Lead, PMS"	(mg/L)		26	20	0.126	0.000562	0.010365	0.015 c	2
"Lead, ICAP"	(mg/L)		10	2	0.004	0.0038	0.0039	0.015 c	0
"Lithium, ICAP"	(mg/L)		36	26	0.508 w	0.0106	0.0677	NR	NA
"Magnesium, ICAP"	(mg/L)		36	34	19.3	0.237	7.759353	NR	NA
"Manganese, ICAP"	(mg/L)		36	24	8.91	0.009	0.9724	0.05	16
"Nickel, PMS"	(mg/L)		26	12	0.119	0.00608	0.027271	NR	NA
"Nickel, ICAP"	(mg/L)		36	4	0.108 z	0.0153	0.0508	0.1 d	1
"Potassium, ICAP"	(mg/L)		36	18	7.67	1.12	3.127778	NR	NA
"Selenium, PMS"	(mg/L)		26	5	0.0266	0.0121	0.01752	0.05	0

Table 4.38 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Silicon, ICAP"	(mg/L)		13	13	15.9 ewz	2.17 ewz	8.835385	NR	NA
"Sodium, ICAP"	(mg/L)		36	36	403	1.68	55.09667	NR	NA
"Strontium, ICAP"	(mg/L)		36	36	1.24	0.0172 w	0.265603	NR	NA
"Thallium, PMS"	(mg/L)		26	1	0.000645	0.000645	0.000645	0.002	0
"Uranium, PMS"	(mg/L)		26	6	0.0642	0.00247	0.024137	0.03	2
"Vanadium, ICAP"	(mg/L)		36	1	0.0254	0.0254	0.0254	NR	NA
"Zinc, ICAP"	(mg/L)		36	1	0.0575	0.0575	0.0575	5	0
Static Water Level	(ft - toc)		35	NA	24.16	-27.78	-8.78314	NR	NA
Alkalinity as CO3	(mg/L)		26	8	784	17.2	252.3875	NR	NA
Alkalinity as HCO3	(mg/L)		26	24	482	12.4	192.85	NR	NA
Conductivity	(umho/cm)		26	26	1997	31.8	632.4846	NR	NA
Dissolved Solids	(mg/L)		36	36	970	40	319.1667	500	6
pH	(pH)		26	26	11.21 L	5.64 L	7.794231	6.5/8.5	12
Total Suspended Solids	(mg/L)		36	11	248	2	31.69091	NR	NA
Turbidity (NTU)		26	26	271	0.11	16.05173	1	14	
Uranium-233/234	(pCi/L)		10	6	0.38	0.21	0.288333	NR	NA
Neptunium-237	(pCi/L)		2	1	0.23	0.23	0.23	1.2	0
Uranium-238	(pCi/L)		10	1	0.18	0.18	0.18	24	0
Gross Alpha	(pCi/L)		36	28	42	-3.1	4.908429	15 f	3
Gross Beta	(pCi/L)		36	32	73	-15	4.405625	50 a	2
Radium - Total Alpha	(pCi/L)		2	1	3.53	3.53	3.53	5 g	0
"1,1,1-Trichloroethane"	(ug/L)		36	9	120	2 J	34.66667	200	0
"1,1,2-Trichloroethane"	(ug/L)		36	1	2 J	2 J	2	5	0
"1,1-Dichloroethane"	(ug/L)		36	17	1780 D	2 J	411.9412	NR	NA
"1,1-Dichloroethene"	(ug/L)		36	16	120	2 J	34.0625	7	12
"1,2-Dichloroethane"	(ug/L)		36	4	32	2 J	10.75	5	2

Table 4.38 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"1,2-Dichloroethene (Total)"	(ug/L)		30	17	7200 D	3 J	748.7059	NR b	NA
"1,2-Dimethylbenzene"	(ug/L)		2	2	2 Jz	1 Jz	1.5	NR	NA
"1,3- and 1,4-Dimethylbenzene"	(ug/L)		2	2	7 Jz	6 Jz	6.5	NR	NA
Acetone	(ug/L)		36	1	48	48	48	NR	NA
Benzene	(ug/L)		36	9	820 D	2 J	205.7778	5	7
Carbon tetrachloride	(ug/L)		36	1	8	8	8	5	1
Chloroethane	(ug/L)		36	8	25	4 J	11	NR	NA
Chloroform	(ug/L)		36	4	100	1 J	31.75	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		36	21	7200 D	2 J	824.4762	70	10
Dichlorodifluoromethane	(ug/L)		26	1	3 J	3 J	3	NR	NA
Ethylbenzene	(ug/L)		36	2	2 J	2 J	2	700	0
Methylene chloride	(ug/L)		36	1	6	6	6	5	1
Tetrachloroethene	(ug/L)		36	19	990	3 J	373.3158	5	18
Toluene	(ug/L)		36	2	10	10	10	1000	0
"trans-1,2-Dichloroethene"	(ug/L)		36	10	13	2 J	6.2	100	0
Trichloroethene	(ug/L)		36	18	1000	6	215.7778	5	18
Trichlorofluoromethane	(ug/L)		26	3	5 J	3 J	4.333333	NR	NA
Vinyl chloride	(ug/L)		36	17	1200 D	2 J	143.4706	2	12
Xylenes	(ug/L)		36	3	9	2 J	6	10000	0

Table 4.39. REGIME=Bear Creek AREA NAME=EMWMF

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Antimony, ICAP"	(mg/L)		42	3	0.00082 J	0.0001 J	0.000427	0.006	0
"Barium, ICAP"	(mg/L)		42	42	0.75	0.06	0.211667	2	0
"Chromium, ICAP"	(mg/L)		42	26	0.0077	0.0004 J	0.00263	0.1	0
"Lead, ICAP"	(mg/L)		42	3	0.0042	0.003	0.0038	0.015 c	0
"Selenium, ICAP"	(mg/L)		42	20	0.0007 J	0.00019 J	0.000368	0.05	0
"Strontium, ICAP"	(mg/L)		42	42	1.3	0.04	0.342857	NR	NA
"Tin, ICAP"	(mg/L)		42	1	0.0046 J	0.0046 J	0.0046	NR	NA
"Vanadium, ICAP"	(mg/L)		42	14	0.0073 J	0.0019 J	0.003693	NR	NA
Static Water Level	(ft - toc)		42	NA	31.15	1.2	9.977857	NR	NA
Cesium-137	(pCi/L)		28	4	1.44	1.3	1.37	120	0
Uranium-233/234	(pCi/L)		42	29	0.69	0.02	0.200345	NR	NA
Uranium-235/236	(pCi/L)		42	1	0.03	0.03	0.03	NR	NA
Uranium-238	(pCi/L)		42	22	0.24	0.03	0.114091	24	0
Americium-241	(pCi/L)		57	15	1.7 J	0.12	0.540667	1.2	2
Cobalt-60 (pCi/L)		28	10	3.8	1.36	2.214	200	0	
Strontium-89/90	(pCi/L)		43	6	0.63	0.49	0.563333	NR h	NA
Technetium-99	(pCi/L)		42	8	13.3	4.71	8.9475	4000	0
Gross Alpha	(pCi/L)		15	8	4.86 J	1.42	2.64625	15 f	0
Gross Beta	(pCi/L)		15	10	38.82 J	2.24 J	8.384	50 a	0
Tritium	(pCi/L)		42	2	97.2	97.2	97.2	20000	0

Table 4.40. REGIME=Bear Creek AREA NAME=Exit Pathway Monitoring Location A

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		4	4	24.2	5.41	15.4775	250	0
Fluoride	(mg/L)		4	4	0.17	0.112	0.142	4	0
Nitrate Nitrogen	(mg/L)		4	4	13.3	2.65	7.565	10	1
Sulfate	(mg/L)		4	4	29.4	10.3	20.325	250	0
"Aluminum, ICAP"	(mg/L)		4	1	0.609	0.609	0.609	0.2	1
"Barium, ICAP"	(mg/L)		4	4	0.134	0.0826	0.1119	2	0
"Calcium, ICAP"	(mg/L)		4	4	79.7	53.2	68.175	NR	NA
"Chromium, PMS"	(mg/L)		4	1	0.00645	0.00645	0.00645	NR	NA
"Iron, ICAP"	(mg/L)		4	3	0.49	0.0904	0.241133	0.3	1
"Lead, PMS"	(mg/L)		4	1	0.00094	0.00094	0.00094	0.015 c	0
"Lithium, ICAP"	(mg/L)		4	2	0.0326 w	0.0252 w	0.0289	NR	NA
"Magnesium, ICAP"	(mg/L)		4	4	23.8	19.1 k	20.725	NR	NA
"Manganese, ICAP"	(mg/L)		4	3	0.0976	0.0116	0.042067	0.05	1
"Nickel, PMS"	(mg/L)		4	2	0.0141	0.00941	0.011755	NR	NA
"Potassium, ICAP"	(mg/L)		4	2	6.65	4.82	5.735	NR	NA
"Silicon, ICAP"	(mg/L)		2	2	4.06 ewz	3.85 ewz	3.955	NR	NA
"Sodium, ICAP"	(mg/L)		4	4	8.67 k	2.99	6.37	NR	NA
"Strontium, ICAP"	(mg/L)		4	4	0.171 w	0.124 w	0.1495	NR	NA
"Uranium, PMS"	(mg/L)		4	4	0.0485	0.0231	0.035975	0.03	2
Static Water Level	(ft - toc)		4	NA	-15.72	-89.12	-52.425	NR	NA
Alkalinity as HCO3	(mg/L)		4	4	226	191	209	NR	NA
Conductivity	(umho/cm)		4	4	581	423	512.75	NR	NA
Dissolved Solids	(mg/L)		4	4	315	256	292.5	500	0
pH	(pH)		4	4	7.95 L	7.53 L	7.7575	6.5/8.5	0
Total Suspended Solids	(mg/L)		4	1	2	2	2	NR	NA
Turbidity (NTU)		4	4	10.7	0.807	3.66925	1	3	
Gross Alpha	(pCi/L)		4	4	23	15	18.75	15 f	3
Gross Beta	(pCi/L)		4	4	49	20	36.5	50 a	0

Table 4.41. REGIME=Bear Creek AREA NAME=Exit Pathway Monitoring Location B

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		10	10	45	13	23.67	250	0
Fluoride	(mg/L)		10	9	0.298	0.109	0.216556	4	0
Nitrate Nitrogen	(mg/L)		10	10	36.8	3.69	15.178	10	8
Sulfate	(mg/L)		10	10	33.9	13	22.27	250	0
"Barium, ICAP"	(mg/L)		10	10	0.181	0.0443	0.09788	2	0
"Boron, ICAP"	(mg/L)		10	2	0.145 w	0.137 w	0.141	NR	NA
"Cadmium, PMS"	(mg/L)		10	1	0.000617	0.000617	0.000617	0.005	0
"Calcium, ICAP"	(mg/L)		10	10	136	54.4	76.7	NR	NA
"Chromium, PMS"	(mg/L)		10	1	0.014	0.014	0.014	NR	NA
"Iron, ICAP"	(mg/L)		10	9	0.841	0.324	0.526333	0.3	9
"Lead, PMS"	(mg/L)		10	6	0.000922	0.000523	0.000635	0.015 c	0
"Lithium, ICAP"	(mg/L)		10	9	0.0246 w	0.011 w	0.0171	NR	NA
"Magnesium, ICAP"	(mg/L)		10	10	33.1	15.1	25.46	NR	NA
"Manganese, ICAP"	(mg/L)		10	9	0.121	0.00537	0.039706	0.05	3
"Nickel, PMS"	(mg/L)		10	1	0.00691	0.00691	0.00691	NR	NA
"Potassium, ICAP"	(mg/L)		10	10	7	2.16	4.2	NR	NA
"Silicon, ICAP"	(mg/L)		5	5	4.74 ewz	2 ewz	3.862	NR	NA
"Sodium, ICAP"	(mg/L)		10	10	20.7	6.87	12.016	NR	NA
"Strontium, ICAP"	(mg/L)		10	10	0.433 w	0.092 w	0.22704	NR	NA
"Thallium, PMS"	(mg/L)		10	1	0.000554	0.000554	0.000554	0.002	0
"Uranium, PMS"	(mg/L)		10	10	0.132	0.00589	0.036232	0.03	4
Static Water Level	(ft - toc)		10	NA	-17.69	-44.94	-30.985	NR	NA
Alkalinity as HCO3	(mg/L)		10	10	270	157	211.9	NR	NA
Conductivity	(umho/cm)		10	10	956	439	636.1	NR	NA
Dissolved Solids	(mg/L)		10	10	562	240	360.7	500	1
pH	(pH)		10	10	7.99 L	7.36 L	7.675	6.5/8.5	0
Total Suspended Solids	(mg/L)		10	2	3	2	2.5	NR	NA
Turbidity (NTU)		10	10	28.8	0.606	6.631	1	8	

Table 4.41 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Technetium-99	(pCi/L)		10	10	160	-2.2	50.31	4000	0
Gross Alpha	(pCi/L)		10	10	58	4.1	17.74	15 f	3
Gross Beta	(pCi/L)		10	10	140	14	52.9	50 a	4
"1,1-Dichloroethene"	(ug/L)		10	2	4 J	3 J	3.5	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		10	7	14	3 J	7.142857	NR b	NA
"cis-1,2-Dichloroethene"	(ug/L)		10	8	14	2 J	6.5	70	0
Trichloroethene	(ug/L)		10	9	45	3 J	18.11111	5	6

Table 4.42. REGIME=Bear Creek AREA NAME=Exit Pathway Monitoring Location C

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		16	16	96.3	5.93	46.54125	250	0
Fluoride	(mg/L)		16	14	0.406	0.103	0.250714	4	0
Nitrate Nitrogen	(mg/L)		16	14	48.2	1.33	14.53286	10	10
Sulfate	(mg/L)		16	16	43.5	11.8	31.1625	250	0
"Aluminum, ICAP"	(mg/L)		16	2	30.7	9.35	20.025	0.2	2
"Arsenic, PMS"	(mg/L)		16	1	0.00764	0.00764	0.00764	0.05	0
"Barium, ICAP"	(mg/L)		16	16	0.327	0.0326	0.13865	2	0
"Beryllium, ICAP"	(mg/L)		16	1	0.0009	0.0009	0.0009	0.004	0
"Calcium, ICAP"	(mg/L)		16	16	179	15.4 k	105.1375	NR	NA
"Chromium, PMS"	(mg/L)		16	1	0.0182	0.0182	0.0182	NR	NA
"Chromium, ICAP"	(mg/L)		16	1	0.047	0.047	0.047	0.1	0
"Copper, ICAP"	(mg/L)		16	1	0.0488	0.0488	0.0488	1.3	0
"Iron, ICAP"	(mg/L)		16	13	20.7	0.0513	2.871715	0.3	10
"Lead, PMS"	(mg/L)		16	7	0.0282	0.000672	0.009891	0.015 c	2
"Lithium, ICAP"	(mg/L)		16	10	0.0355 w	0.0109 w	0.01747	NR	NA
"Magnesium, ICAP"	(mg/L)		16	16	40.8	22.2	29.20625	NR	NA
"Manganese, ICAP"	(mg/L)		16	12	1.1	0.00997	0.428964	0.05	8
"Nickel, PMS"	(mg/L)		16	4	0.0292	0.00592	0.014105	NR	NA
"Potassium, ICAP"	(mg/L)		16	14	10.5	2.22	3.535714	NR	NA
"Silicon, ICAP"	(mg/L)		8	8	49 ewz	1.14 ewz	9.98625	NR	NA
"Sodium, ICAP"	(mg/L)		16	16	40.2 k	1.85	18.665	NR	NA
"Strontium, ICAP"	(mg/L)		16	16	1.32 w	0.0534 w	0.373238	NR	NA
"Thallium, PMS"	(mg/L)		16	5	0.00735	0.000706	0.002576	0.002	2
"Uranium, PMS"	(mg/L)		16	12	0.0298	0.000503	0.008924	0.03	0
"Vanadium, ICAP"	(mg/L)		16	1	0.0253	0.0253	0.0253	NR	NA
"Zinc, ICAP"	(mg/L)		16	1	0.0823	0.0823	0.0823	5	0
Static Water Level	(ft - toc)		16	NA	-7.26	-75.83	-37.8819	NR	NA
Alkalinity as HCO3	(mg/L)		16	16	364	131	276.1875	NR	NA

Table 4.42 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Conductivity	(umho/cm)		16	16	1210	347	817.0625	NR	NA
Dissolved Solids	(mg/L)		16	16	956	170	494.375	500	6
pH	(pH)		16	16	8.11 L	7.06 L	7.496875	6.5/8.5	0
Total Suspended Solids	(mg/L)		16	5	91	2	21.6	NR	NA
Turbidity (NTU)		16	16	184	0.322	19.85731	1	13	
Gross Alpha	(pCi/L)		16	16	24	-0.058	4.72925	15 f	1
Gross Beta	(pCi/L)		16	16	68	-4.7	21.7195	50 a	3
"1,1,1-Trichloroethane"	(ug/L)		16	2	3 J	2 J	2.5	200	0
"1,1-Dichloroethene"	(ug/L)		16	1	5	5	5	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		16	3	4 J	3 J	3.333333	NR b	NA
Acetone	(ug/L)		16	1	6 J	6 J	6	NR	NA
Carbon tetrachloride	(ug/L)		16	2	7	2 J	4.5	5	1
Chloroform	(ug/L)		16	1	2 J	2 J	2	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		16	10	4 J	2 J	2.5	70	0
Tetrachloroethene	(ug/L)		16	6	3 J	2 J	2.5	5	0
Trichloroethene	(ug/L)		16	16	200	5	44.625	5	15

Table 4.43. REGIME=Bear Creek AREA NAME=Exit Pathway Monitoring Location W

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		8	8	190	157	178.25	NR	NA
Chloride	(mg/L)		8	8	24.5	9.7	14.175	250	0
Fluoride	(mg/L)		8	6	0.44	0.26	0.353333	4	0
Nitrate/Nitrite	(mg/L)		8	5	4.2	0.034	1.7668	NR	NA
Sulfate	(mg/L)		8	8	90.6	13.4	53.675	250	0
"Aluminum, ICAP"	(mg/L)		8	2	0.093	0.0523	0.07265	0.2	0
"Barium, ICAP"	(mg/L)		8	8	0.0724	0.034	0.05175	2	0
"Boron, ICAP"	(mg/L)		8	8	0.0847	0.0226	0.059213	NR	NA
"Calcium, ICAP"	(mg/L)		8	8	69.1	50	59.7375	NR	NA
"Chromium, ICAP"	(mg/L)		8	2	0.0576	0.019	0.0383	0.1	0
"Iron, ICAP"	(mg/L)		8	8	6.21	0.223	2.6685	0.3	7
"Lithium, ICAP"	(mg/L)		8	5	0.0154	0.0108	0.0129	NR	NA
"Magnesium, ICAP"	(mg/L)		8	8	33.2	11.1	25.85	NR	NA
"Manganese, ICAP"	(mg/L)		8	8	0.18	0.0141	0.093575	0.05	5
"Nickel, ICAP"	(mg/L)		8	2	0.134	0.0281	0.08105	0.1 d	1
"Potassium, ICAP"	(mg/L)		8	8	3.03	1.39	2.105	NR	NA
"Sodium, ICAP"	(mg/L)		8	8	16.3	5.08	9.4875	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	1.27	0.0717	0.560088	NR	NA
Static Water Level	(ft - toc)		8	NA	39.03	28.95	33.51	NR	NA
Dissolved Solids	(mg/L)		8	8	367	263	302.5	500	0
Total Suspended Solids	(mg/L)		8	2	10.3	6.4	8.35	NR	NA
Uranium-233/234	(pCi/L)		8	5	4.77	0.4	1.842	NR	NA
Neptunium-237	(pCi/L)		8	1	0.43	0.43	0.43	1.2	0
Uranium-238	(pCi/L)		8	4	10.15	0.61	3.805	24	0
Technetium-99	(pCi/L)		8	2	21.34	17.33	19.335	4000	0
Gross Alpha	(pCi/L)		8	7	17.96	1.66	6.914286	15 f	2
Gross Beta	(pCi/L)		8	8	39.92	2.3	13.905	50 a	0
Radium - Total Alpha	(pCi/L)		8	4	6.01	0.98	3.625	5 g	1

Table 4.44. REGIME=Bear Creek AREA NAME=Exit Pathway Spring/Surface Water

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		17	17	190	39.4	143.8412	NR	NA
Chloride	(mg/L)		35	35	130	1.6	26.2	250	0
Fluoride	(mg/L)		35	25	4.16	0.11	0.527	4	1
Nitrate Nitrogen	(mg/L)		18	18	1180	0.042	119.9384	10	10
Nitrate/Nitrite	(mg/L)		17	17	88.8	0.02	15.74971	NR	NA
Sulfate	(mg/L)		35	35	69.9	2.3	22.06343	250	0
"Aluminum, ICAP"	(mg/L)		33	22	2.97	0.051	0.453173	0.2	12
"Barium, ICAP"	(mg/L)		33	33	3.7	0.0383	0.248727	2	1
"Beryllium, ICAP"	(mg/L)		33	1	0.00086	0.00086	0.00086	0.004	0
"Boron, ICAP"	(mg/L)		33	17	2.12 w	0.0241	0.487788	NR	NA
"Cadmium, PMS"	(mg/L)		18	4	0.24	0.000573	0.075468	0.005	3
"Cadmium, ICAP"	(mg/L)		15	2	0.0049	0.0018	0.00335	0.005	0
"Calcium, ICAP"	(mg/L)		33	33	1450	14.9	140.2939	NR	NA
"Cobalt, ICAP"	(mg/L)		33	1	0.0227	0.0227	0.0227	NR	NA
"Iron, ICAP"	(mg/L)		33	32	1.6	0.0339	0.295306	0.3	7
"Lead, PMS"	(mg/L)		18	9	0.00259	0.000512	0.001331	0.015 c	0
"Lithium, ICAP"	(mg/L)		33	16	0.566	0.0107	0.089538	NR	NA
"Magnesium, ICAP"	(mg/L)		33	33	186	3.06	23.13939	NR	NA
"Manganese, ICAP"	(mg/L)		33	31	46.1	0.0062	1.957203	0.05	14
"Nickel, PMS"	(mg/L)		18	6	0.997	0.00563	0.2167	NR	NA
"Nickel, ICAP"	(mg/L)		33	4	0.971 z	0.0107	0.300175	0.1 d	2
"Potassium, ICAP"	(mg/L)		33	26	27	0.91	3.629308	NR	NA
"Selenium, PMS"	(mg/L)		18	1	0.015	0.015	0.015	0.05	0
"Silicon, ICAP"	(mg/L)		9	9	6.13 ewz	3.4 ewz	3.951111	NR	NA
"Sodium, ICAP"	(mg/L)		33	33	212	0.68	19.49545	NR	NA
"Strontium, ICAP"	(mg/L)		33	33	3.68 w	0.0404	0.354015	NR	NA
"Uranium, PMS"	(mg/L)		18	18	0.204	0.00916	0.091431	0.03	14
Alkalinity as HCO3	(mg/L)		18	18	376	137	214.7222	NR	NA

Table 4.44 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Conductivity	(umho/cm)		18	18	9440	339	1369.667	NR	NA
Dissolved Solids	(mg/L)		33	33	7540	83	841.5758	500	9
pH	(pH)		18	18	8.22 L	6.58 X	7.650556	6.5/8.5	0
Total Suspended Solids	(mg/L)		33	11	27	2	7.427273	NR	NA
Turbidity (NTU)		18	18	34.8	0.609	5.396611	1	17	
Iodine-129	(pCi/L)		2	2	2.6	0.5	1.55	NR	NA
Thorium-228	(pCi/L)		2	2	0.0092	-0.025	-0.0079	16	0
Thorium-230	(pCi/L)		2	2	0.26	0.16	0.21	12	0
Thorium-231+234	(pCi/L)		2	2	46	43	44.5	400	0
Thorium-232	(pCi/L)		2	2	0.032	0.023	0.0275	2	0
Uranium-233/234	(pCi/L)		16	16	50.25 Q	0.27	10.2575	NR	NA
Uranium-234	(wt %)		2	1	0.0025	0.0025	0.0025	NR	NA
Uranium-234	(pCi/L)		6	6	26	1.2	10.83333	20	2
Uranium-235	(wt %)		2	2	0.414	0.386	0.4	NR	NA
Uranium-235	(pCi/L)		22	14	9.27	-0.037	1.287	24	0
Uranium-236	(wt %)		2	2	0.023	0.004	0.0135	NR	NA
Uranium-236	(pCi/L)		19	8	8.33	0.023	1.43575	NR	NA
Neptunium-237	(pCi/L)		2	2	2.1	0.53	1.315	1.2	1
Plutonium-238	(pCi/L)		2	2	0.11	0.026	0.068	1.6	0
Uranium-238	(wt %)		2	2	99.59	99.58	99.585	NR	NA
Uranium-238	(pCi/L)		22	20	223.2 Q	0.36	30.807	24	8
Americium-241	(pCi/L)		1	1	0.2	0.2	0.2	1.2	0
Strontium-89/90	(pCi/L)		6	6	5.3	0.86	2.576667	NR h	NA
Technetium-99	(pCi/L)		21	17	1500	3.2	188.9018	4000	0
Gross Alpha	(pCi/L)		18	18	150	5.3	48.27778	15 f	15
Gross Beta	(pCi/L)		29	28	6000	2.71	341.8296	50 a	15
Radium - Total Alpha	(pCi/L)		2	2	0.25	-0.17	0.04	5 g	0
Tritium	(pCi/L)		6	6	370	-15	174.5	20000	0

Table 4.44 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"1,1,1-Trichloroethane"	(ug/L)		35	1	2 J	2 J	2	200	0
"1,1-Dichloroethane"	(ug/L)		35	2	8	4 J	6	NR	NA
"1,1-Dichloroethene"	(ug/L)		35	3	3 J	1 J	2	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		18	4	21	3 J	11.25	NR b	NA
Chloroform	(ug/L)		35	2	2 J	1 J	1.5	100 i	0
Chloromethane	(ug/L)		35	2	2 J	2 J	2	NR	NA
"cis-1,2-Dichloroethene"	(ug/L)		35	12	85	2 J	18.33333	70	1
Methylene chloride	(ug/L)		35	2	4 J	3 J	3.5	5	0
Tetrachloroethene	(ug/L)		35	6	62	2 J	27.16667	5	4
Trichloroethene	(ug/L)		35	7	23	1 J	8.857143	5	4
Vinyl chloride	(ug/L)		35	2	3	1 J	2	2	1

Table 4.45. REGIME=Bear Creek AREA NAME=Oil Landfarm WMA

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	40	37.6	38.8	NR	NA
Chloride	(mg/L)		16	16	125	4.89	39.09438	250	0
Fluoride	(mg/L)		16	5	0.594	0.2	0.3538	4	0
Nitrate Nitrogen	(mg/L)		14	10	669	2.47	185.604	10	8
Nitrate/Nitrite	(mg/L)		2	2	0.89	0.11	0.5	NR	NA
Sulfate	(mg/L)		16	16	120	1.9	33.19313	250	0
"Aluminum, ICAP"	(mg/L)		16	4	2.03	0.0695	0.779625	0.2	3
"Arsenic, PMS"	(mg/L)		14	2	0.00866	0.00801	0.008335	0.05	0
"Barium, ICAP"	(mg/L)		16	16	2.38	0.0754	0.662181	2	2
"Boron, ICAP"	(mg/L)		16	7	3.41 w	0.115 w	1.081286	NR	NA
"Calcium, ICAP"	(mg/L)		16	16	973	9.54	235.7275	NR	NA
"Chromium, PMS"	(mg/L)		14	1	0.0259	0.0259	0.0259	NR	NA
"Chromium, ICAP"	(mg/L)		16	1	0.0256	0.0256	0.0256	0.1	0
"Cobalt, ICAP"	(mg/L)		16	2	0.0162	0.016	0.0161	NR	NA
"Iron, ICAP"	(mg/L)		16	13	25.8	0.0973	5.070485	0.3	10
"Lead, PMS"	(mg/L)		14	12	0.00691	0.000586	0.001694	0.015 c	0
"Lithium, ICAP"	(mg/L)		16	13	0.148 w	0.012 w	0.0419	NR	NA
"Magnesium, ICAP"	(mg/L)		16	16	71.6	5.59	31.215	NR	NA
"Manganese, ICAP"	(mg/L)		16	12	5	0.00766	1.290863	0.05	7
"Nickel, PMS"	(mg/L)		14	11	0.0487	0.00561	0.017514	NR	NA
"Nickel, ICAP"	(mg/L)		16	2	0.0237	0.0217	0.0227	0.1 d	0
"Potassium, ICAP"	(mg/L)		16	14	11.5	1.04	4.696429	NR	NA
"Silicon, ICAP"	(mg/L)		8	8	11.6 ewz	4.49 ewz	7.425	NR	NA
"Sodium, ICAP"	(mg/L)		16	16	69.9	2.37	26.19063	NR	NA
"Strontium, ICAP"	(mg/L)		16	16	2.71 w	0.0237	0.943588	NR	NA
"Thallium, PMS"	(mg/L)		14	4	0.00116	0.000805	0.001029	0.002	0
"Uranium, PMS"	(mg/L)		14	12	0.266	0.000616	0.048468	0.03	2
"Zinc, ICAP"	(mg/L)		16	1	0.0101	0.0101	0.0101	5	0

Table 4.45 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Static Water Level	(ft - toc)		16	NA	17.56	-28.51	-9.21813	NR	NA
Alkalinity as HCO3	(mg/L)		14	14	542	148	294.8571	NR	NA
Conductivity	(umho/cm)		14	14	5380	377	1744.429	NR	NA
Dissolved Solids	(mg/L)		16	16	4390	75.8	1081.425	500	10
pH	(pH)		14	14	8.16 L	6.36 L	7.065714	6.5/8.5	1
Total Suspended Solids	(mg/L)		16	6	32	2	12	NR	NA
Turbidity (NTU)		14	14	255	0.795	41.66607	1	13	
Gross Alpha	(pCi/L)		16	14	110	-3.1	17.39579	15 f	3
Gross Beta	(pCi/L)		16	15	640	-2.1	127.2547	50 a	6
Radium - Total Alpha	(pCi/L)		2	1	1.73	1.73	1.73	5 g	0
"1,1-Dichloroethane"	(ug/L)		16	4	14	6	9.25	NR	NA
"1,1-Dichloroethene"	(ug/L)		16	5	11	2 J	7.2	7	2
"1,2-Dichloroethene (Total)"	(ug/L)		14	5	110	3 J	55.6	NR b	NA
"1,2-Dichloropropane"	(ug/L)		16	1	1 J	1 J	1	5	0
"1,4-Dichlorobenzene"	(ug/L)		14	1	3 J	3 J	3	75	0
Acetone	(ug/L)		16	2	7 J	4 J	5.5	NR	NA
Benzene	(ug/L)		16	5	8	1 J	3.6	5	2
Carbon tetrachloride	(ug/L)		16	2	4 J	2 J	3	5	0
Chlorobenzene	(ug/L)		16	2	8	7	7.5	100	0
Chloroethane	(ug/L)		16	2	2 J	2 J	2	NR	NA
Chloroform	(ug/L)		16	1	2 J	2 J	2	100 i	0
Chloromethane	(ug/L)		16	1	3 J	3 J	3	NR	NA
"cis-1,2-Dichloroethene"	(ug/L)		16	10	110	2 J	33.3	70	2
Dichlorodifluoromethane	(ug/L)		14	1	12	12	12	NR	NA
Tetrachloroethene	(ug/L)		16	5	89	6	33	5	5
Trichloroethene	(ug/L)		16	9	190	4 J	69.44444	5	7
Vinyl chloride	(ug/L)		16	2	40	37	38.5	2	2

Table 4.46. REGIME=Bear Creek AREA NAME=Rust Spoil Area

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	2.24	2.22	2.23	250	0
Nitrate Nitrogen	(mg/L)		2	2	0.331	0.276	0.3035	10	0
Sulfate	(mg/L)		2	2	3.34	2.85	3.095	250	0
"Barium, ICAP"	(mg/L)		2	2	0.0199	0.0185	0.0192	2	0
"Calcium, ICAP"	(mg/L)		2	2	84	78.4	81.2	NR	NA
"Chromium, PMS"	(mg/L)		2	2	0.00565	0.00403	0.00484	NR	NA
"Lead, PMS"	(mg/L)		2	1	0.00585	0.00585	0.00585	0.015 c	0
"Magnesium, ICAP"	(mg/L)		2	2	5.69	5.1	5.395	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	5.33 ewz	5.33 ewz	5.33	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	3.19	3.17	3.18	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.0745 w	0.069 w	0.07175	NR	NA
Static Water Level	(ft - toc)		2	NA	-33.55	-39.47	-36.51	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	242	216	229	NR	NA
Conductivity	(umho/cm)		2	2	451	431	441	NR	NA
Dissolved Solids	(mg/L)		2	2	262	243	252.5	500	0
pH	(pH)		2	2	7.44 L	7.38 L	7.41	6.5/8.5	0
Turbidity (NTU)		2	2	0.342	0.325	0.3335	1	0	
Gross Alpha	(pCi/L)		2	2	4.6	2.2	3.4	15 f	0
Gross Beta	(pCi/L)		2	2	4.4	-0.13	2.135	50 a	0
Trichloroethene	(ug/L)		2	2	4 J	3 J	3.5	5	0

Table 4.47. REGIME=Bear Creek AREA NAME=S-3 Site

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		10	10	362	5	192.27	NR	NA
Chloride	(mg/L)		12	12	384	16.1	109.1833	250	2
Fluoride	(mg/L)		12	8	5.21	0.5	1.555	4	1
Nitrate Nitrogen	(mg/L)		2	2	8480	7240	7860	10	2
Nitrate/Nitrite	(mg/L)		10	9	1300	0.1	304.2222	NR	NA
Sulfate	(mg/L)		12	11	228	2.7	59.84273	250	0
"Aluminum, ICAP"	(mg/L)		12	5	2.93	0.0084 J	1.05732	0.2	2
"Barium, ICAP"	(mg/L)		12	12	55	0.0717	11.74667	2	4
"Beryllium, ICAP"	(mg/L)		12	2	0.0041	0.0033	0.0037	0.004	1
"Boron, ICAP"	(mg/L)		12	10	0.225	0.0155	0.07996	NR	NA
"Cadmium, PMS"	(mg/L)		2	2	2.37	1.92	2.145	0.005	2
"Cadmium, ICAP"	(mg/L)		10	6	0.0214	0.0021	0.009483	0.005	4
"Calcium, ICAP"	(mg/L)		12	12	9270	86.4	1631.35	NR	NA
"Chromium, PMS"	(mg/L)		2	1	0.0113	0.0113	0.0113	NR	NA
"Chromium, ICAP"	(mg/L)		12	2	0.0127	0.00075 J	0.006725	0.1	0
"Cobalt, ICAP"	(mg/L)		12	3	0.0898	0.0013	0.048433	NR	NA
"Copper, ICAP"	(mg/L)		12	1	0.006	0.006	0.006	1.3	0
"Iron, ICAP"	(mg/L)		12	10	7.55	0.015	0.99138	0.3	4
"Lead, PMS"	(mg/L)		2	2	0.00434	0.00219	0.003265	0.015 c	0
"Lithium, ICAP"	(mg/L)		12	10	1.39	0.0133	0.2582	NR	NA
"Magnesium, ICAP"	(mg/L)		12	12	1230	14.8	223.3083	NR	NA
"Manganese, ICAP"	(mg/L)		12	12	276	0.0345	46.19653	0.05	10
"Mercury, CVAA"	(mg/L)		2	2	0.00384	0.00272	0.00328	0.002	2
"Nickel, PMS"	(mg/L)		2	2	4.41	3.27	3.84	NR	NA
"Nickel, ICAP"	(mg/L)		12	4	3.28 z	0.0014 J	0.9396	0.1 d	3
"Potassium, ICAP"	(mg/L)		12	10	27.4	2.14	10.539	NR	NA
"Sodium, ICAP"	(mg/L)		12	12	1780	12.1	399.3667	NR	NA

Table 4.47 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Strontium, ICAP"	(mg/L)		12	12	24.9 w	0.16	7.485083	NR	NA
"Thallium, PMS"	(mg/L)		2	2	0.00276	0.001	0.00188	0.002	1
"Thallium, ICAP"	(mg/L)		10	1	0.002	0.002	0.002	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.839	0.653	0.746	0.03	2
"Zinc, ICAP"	(mg/L)		12	2	0.0599	0.0304	0.04515	5	0
Static Water Level	(ft - toc)		12	NA	15.52	-17.6	8.125833	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	774	728	751	NR	NA
Conductivity	(umho/cm)		2	2	47000	46000	46500	NR	NA
Dissolved Solids	(mg/L)		8	8	51300	341	14778.25	500	6
pH	(pH)		2	2	5.66 L	5.64 L	5.65	6.5/8.5	2
Total Suspended Solids	(mg/L)		8	4	136	8	64.775	NR	NA
Turbidity (NTU)		2	2	150	11	80.5	1	2	
Iodine-129	(pCi/L)		2	2	16	2.1	9.05	NR	NA
Thorium-228	(pCi/L)		2	2	0.89	0.75	0.82	16	0
Thorium-230	(pCi/L)		2	2	5.6	2.9	4.25	12	0
Thorium-231+234	(pCi/L)		2	2	270	270	270	400	0
Thorium-232	(pCi/L)		2	2	0.48	0	0.24	2	0
Uranium-233/234	(pCi/L)		10	8	173.8	0.29	99.28625	NR	NA
Uranium-234	(wt %)		2	2	0.003	0.002	0.0025	NR	NA
Uranium-234	(pCi/L)		2	2	110	110	110	20	2
Uranium-235	(wt %)		2	2	0.325	0.317	0.321	NR	NA
Uranium-235	(pCi/L)		12	9	12.69	0.28	7.153333	24	0
Uranium-236	(wt %)		2	2	0.006	0.002	0.004	NR	NA
Uranium-236	(pCi/L)		10	5	12.01	2.46	7.218	NR	NA
Neptunium-237	(pCi/L)		6	4	32	9.64	21.8275	1.2	4
Plutonium-238	(pCi/L)		2	2	0.35	-0.48	-0.065	1.6	0
Uranium-238	(wt %)		2	2	99.68	99.67	99.675	NR	NA
Uranium-238	(pCi/L)		12	8	407.7	182.3	309.975	24	8

Table 4.47 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Americium-241	(pCi/L)		6	3	4.36 Q	0.029	1.556333	1.2	1
Strontium-89/90	(pCi/L)		2	2	32	4.1	18.05	NR h	NA
Technetium-99	(pCi/L)		6	4	14000	501.01	5826.745	4000	2
Gross Alpha	(pCi/L)		8	4	540	210.7	364.8375	15 f	4
Gross Beta	(pCi/L)		8	6	17000	2.29	5126.267	50 a	4
Radium - Total Alpha	(pCi/L)		6	6	53	1.87	17.34	5 g	2
Tritium	(pCi/L)		2	2	2200	2200	2200	20000	0
"1,1,1-Trichloroethane"	(ug/L)		12	2	12	8	10	200	0
"1,1-Dichloroethene"	(ug/L)		12	2	6	4 J	5	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		4	2	19	12	15.5	NR b	NA
2-Butanone	(ug/L)		12	2	25	15	20	NR	NA
Acetone	(ug/L)		12	2	700 D	280 D	490	NR	NA
Bromoform	(ug/L)	12	2	3 J	3 J	3	100 i	0	
Chloroform	(ug/L)		12	3	39	2 J	23.33333	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		12	3	19	0.9	10.63333	70	0
Dichlorodifluoromethane	(ug/L)		2	1	4 J	4 J	4	NR	NA
Methylene chloride	(ug/L)		12	2	120	100	110	5	2
Naphthalene	(ug/L)		2	2	8 Jz	6 Jz	7	NR	NA
Tetrachloroethene	(ug/L)		12	8	4400 D	3 J	1004	5	4
Toluene	(ug/L)		12	2	4 J	4 J	4	1000	0
Trichloroethene	(ug/L)		12	3	20	1	12.66667	5	2

Table 4.48. REGIME=Bear Creek AREA NAME=Spoil Area I

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	13	12.3	12.65	250	0
Nitrate Nitrogen	(mg/L)		2	2	7.84	7.77	7.805	10	0
Sulfate	(mg/L)		2	2	65.6	64.9	65.25	250	0
"Barium, ICAP"	(mg/L)		2	2	0.0637	0.0606	0.06215	2	0
"Calcium, ICAP"	(mg/L)		2	2	126	123	124.5	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.0563	0.0563	0.0563	0.3	0
"Lead, PMS"	(mg/L)		2	2	0.0066	0.00105	0.003825	0.015 c	0
"Magnesium, ICAP"	(mg/L)		2	2	15.1	14.1	14.6	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.11	0.0124	0.0612	0.05	1
"Potassium, ICAP"	(mg/L)		2	2	3.48	3.48	3.48	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	4.54 ewz	4.54 ewz	4.54	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	8	7.4	7.7	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.208 w	0.205 w	0.2065	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.00259	0.00236	0.002475	0.03	0
Static Water Level	(ft - toc)		2	NA	-53.45	-59.9	-56.675	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	300	270	285	NR	NA
Conductivity	(umho/cm)		2	2	746	733	739.5	NR	NA
Dissolved Solids	(mg/L)		2	2	462	449	455.5	500	0
pH	(pH)		2	2	7.35 L	7.32 L	7.335	6.5/8.5	0
Turbidity (NTU)		2	2	2	0.405	0.125	0.265	1	0
Gross Alpha	(pCi/L)		2	2	1.3	-2.1	-0.4	15 f	0
Gross Beta	(pCi/L)		2	2	38	27	32.5	50 a	0
"cis-1,2-Dichloroethene"	(ug/L)		2	2	2 J	2 J	2	70	0
Tetrachloroethene	(ug/L)		2	2	11	9	10	5	2
Trichloroethene	(ug/L)		2	2	5 J	4 J	4.5	5	0

Table 4.49. REGIME=Chestnut Ridge AREA NAME=C. Ridge Borrow Area Waste Pile

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Barium, ICAP"	(mg/L)		2	2	0.0249	0.0215	0.0232	2	0
"Calcium, ICAP"	(mg/L)		2	2	44.3	37.6	40.95	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	27.9	26.2	27.05	NR	NA
"Potassium, ICAP"	(mg/L)		2	2	0.773	0.697	0.735	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	1.03	0.837	0.9335	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.0225	0.0221	0.0223	NR	NA
Static Water Level	(ft - toc)		2	NA	137	134.86	135.93	NR	NA
Dissolved Solids	(mg/L)		2	2	230	206	218	500	0
Gross Beta	(pCi/L)		2	1	2.55	2.55	2.55	50 a	0

Table 4.50. REGIME=Chestnut Ridge AREA NAME=C. Ridge Security Pits

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		2	2	135 J	134	134.5	NR	NA
Chloride	(mg/L)		2	2	1.7 J	1.6 J	1.65	250	0
Fluoride	(mg/L)		2	2	0.19 J	0.13 J	0.16	4	0
Nitrate/Nitrite	(mg/L)		2	2	0.76	0.74	0.75	NR	NA
Sulfate	(mg/L)		2	2	3.1 J	2.8 J	2.95	250	0
"Arsenic, ICAP"	(mg/L)		8	2	0.00063 J	0.00051 J	0.00057	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.0211	0.01	0.015338	2	0
"Calcium, ICAP"	(mg/L)		8	8	48.1	27.5	36.0625	NR	NA
"Chromium, ICAP"	(mg/L)		8	2	0.0129	0.0095	0.0112	0.1	0
"Cobalt, ICAP"	(mg/L)		8	1	0.00005 J	0.00005 J	0.00005	NR	NA
"Iron, ICAP"	(mg/L)		8	5	0.0932	0.0051 J	0.04404	0.3	0
"Magnesium, ICAP"	(mg/L)		8	8	29.2	15.7	21.85	NR	NA
"Manganese, ICAP"	(mg/L)		8	3	0.0295	0.0025 J	0.0193	0.05	0
"Molybdenum, ICAP"	(mg/L)		2	2	0.0023	0.0017 J	0.002	NR	NA
"Potassium, ICAP"	(mg/L)		8	8	3.63	1.1 J	2.0425	NR	NA
"Silver, ICAP"	(mg/L)		8	2	0.00007 J	0.00006 J	0.000065	0.1	0
"Sodium, ICAP"	(mg/L)		8	6	1.65	0.461	0.845833	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	0.0263	0.0166	0.019775	NR	NA
"Thallium, ICAP"	(mg/L)		8	1	0.00002 J	0.00002 J	0.00002	NR	NA
"Zinc, ICAP"	(mg/L)		8	2	0.0325	0.026	0.02925	5	0
Static Water Level	(ft - toc)		8	NA	134	80.16	104.5163	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	135	134	134.5	NR	NA
Conductivity	(umho/cm)		2	2	246 J	232 J	239	NR	NA
Dissolved Solids	(mg/L)		8	8	268	128	190.75	500	0
pH	(pH)		2	2	7.8	7.6	7.7	6.5/8.5	0
Total Suspended Solids	(mg/L)		8	1	2.6 J	2.6 J	2.6	NR	NA
Turbidity (NTU)		2	1	0.06 J	0.06 J	0.06	1	0	

Table 4.50 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Gross Alpha	(pCi/L)		8	1	4.56	4.56	4.56	15 f	0
Gross Beta	(pCi/L)		8	7	6.66	1.96	3.467143	50 a	0
"1,1,1-Trichloroethane"	(ug/L)		8	6	16	2.6	6.8	200	0
"1,1-Dichloroethane"	(ug/L)		8	6	25	2 J	8.983333	NR	NA
"1,1-Dichloroethene"	(ug/L)		8	5	8	2.3	4.56	7	1
"cis-1,2-Dichloroethene"	(ug/L)		8	4	7	3 J	5.275	70	0
Tetrachloroethene	(ug/L)		8	4	7.1	5 J	6.05	5	3
"trans-1,2-Dichloroethene"	(ug/L)		8	1	0.39 J	0.39 J	0.39	100	0
Trichloroethene	(ug/L)		8	2	0.78 J	0.55 J	0.665	5	0
Trichlorofluoromethane	(ug/L)		2	2	11	10	10.5	NR	NA

Table 4.51. REGIME=Chestnut Ridge AREA NAME=C. Ridge Sediment Disposal Basin

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Aluminum, ICAP"	(mg/L)		8	5	0.36	0.068	0.20512	0.2	3
"Antimony, ICAP"	(mg/L)		8	2	0.0021 J	0.0013 J	0.0017	0.006	0
"Arsenic, ICAP"	(mg/L)		8	4	0.0015 J	0.001 J	0.0013	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.0423	0.0078	0.018713	2	0
"Boron, ICAP"	(mg/L)		8	4	0.4	0.0059 J	0.193125	NR	NA
"Calcium, ICAP"	(mg/L)		8	8	67	25.3	40.325	NR	NA
"Chromium, ICAP"	(mg/L)		8	5	0.0096	0.00061 J	0.003924	0.1	0
"Cobalt, ICAP"	(mg/L)		8	2	0.00043 J	0.00036 J	0.000395	NR	NA
"Copper, ICAP"	(mg/L)		8	4	0.0038 J	0.0011 J	0.002325	1.3	0
"Iron, ICAP"	(mg/L)		8	7	0.3	0.0144	0.122957	0.3	0
"Lead, ICAP"	(mg/L)		8	4	0.0025 J	0.0012 J	0.0019	0.015 c	0
"Lithium, ICAP"	(mg/L)		8	2	0.017	0.0018 J	0.0094	NR	NA
"Magnesium, ICAP"	(mg/L)		8	8	42.9	14.3	25.075	NR	NA
"Manganese, ICAP"	(mg/L)		8	4	0.015	0.00029 J	0.005223	0.05	0
"Nickel, ICAP"	(mg/L)		8	4	0.0084 J	0.0015 J	0.003775	0.1 d	0
"Potassium, ICAP"	(mg/L)		8	8	29.7	0.93	7.20625	NR	NA
"Silver, ICAP"	(mg/L)		8	1	0.00058 J	0.00058 J	0.00058	0.1	0
"Sodium, ICAP"	(mg/L)		8	8	7.51	0.494	2.565375	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	0.033	0.0147	0.0239	NR	NA
"Thallium, ICAP"	(mg/L)		8	1	0.0013 J	0.0013 J	0.0013	NR	NA
"Vanadium, ICAP"	(mg/L)		8	4	0.00099 J	0.00028 J	0.000493	NR	NA
"Zinc, ICAP"	(mg/L)		8	4	0.041	0.0024 J	0.0135	5	0
Static Water Level	(ft - toc)		8	NA	157.9	116.83	136.0075	NR	NA
Dissolved Solids	(mg/L)		8	8	387 R	111	203.75	500	0
Total Suspended Solids	(mg/L)		8	1	4	4	4	NR	NA

Table 4.52. REGIME=Chestnut Ridge AREA NAME=Const./Debris Landfill VI

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		8	8	265	90.1	192.0125	NR	NA
Chloride	(mg/L)		8	8	9.7 J	1.6 J	4.2625	250	0
Fluoride	(mg/L)		8	4	0.19 J	0.16 J	0.1775	4	0
Nitrate/Nitrite	(mg/L)		8	8	0.63	0.19 J	0.39625	NR	NA
Sulfate	(mg/L)		8	8	25.2	2 J	10.8375	250	0
"Aluminum, ICAP"	(mg/L)		8	1	0.036 J	0.036 J	0.036	0.2	0
"Antimony, ICAP"	(mg/L)		8	1	0.00033 J	0.00033 J	0.00033	0.006	0
"Arsenic, ICAP"	(mg/L)		8	6	0.0012 J	0.0002 J	0.000527	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.016	0.0086 J	0.0131	2	0
"Boron, ICAP"	(mg/L)		8	2	0.031 J	0.029 J	0.03	NR	NA
"Cadmium, ICAP"	(mg/L)		8	1	0.00002 J	0.00002 J	0.00002	0.005	0
"Calcium, ICAP"	(mg/L)		8	8	58.3	21.5	41.05	NR	NA
"Chromium, ICAP"	(mg/L)		8	1	0.0026 J	0.0026 J	0.0026	0.1	0
"Cobalt, ICAP"	(mg/L)		8	5	0.00022 J	0.00005 J	0.000102	NR	NA
"Iron, ICAP"	(mg/L)		8	4	0.042 J	0.019 J	0.0305	0.3	0
"Lead, ICAP"	(mg/L)		8	3	0.00043 J	0.00021 J	0.000303	0.015 c	0
"Magnesium, ICAP"	(mg/L)		8	8	34.1	8	23.2875	NR	NA
"Manganese, ICAP"	(mg/L)		8	7	0.026 J	0.001 J	0.007357	0.05	0
"Molybdenum, ICAP"	(mg/L)		8	7	0.0015 J	0.00011 J	0.00066	NR	NA
"Potassium, ICAP"	(mg/L)		8	8	2.4 J	0.65 J	1.5375	NR	NA
"Selenium, ICAP"	(mg/L)		8	5	0.001 J	0.00022 J	0.000492	0.05	0
"Silver, ICAP"	(mg/L)		8	5	0.00018 J	0.00002 J	0.000058	0.1	0
"Sodium, ICAP"	(mg/L)		8	4	5.8	1.6 J	4.25	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	0.037	0.018	0.02525	NR	NA
"Thallium, ICAP"	(mg/L)		8	4	0.00003 J	0.00002 J	0.000025	NR	NA
"Zinc, ICAP"	(mg/L)		8	7	0.022	0.0048 J	0.010414	5	0
Static Water Level	(ft - toc)		8	NA	72.14	43.66	61.39875	NR	NA
Alkalinity as HCO3	(mg/L)		8	8	265	90.1	192.0125	NR	NA

Table 4.52 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Conductivity	(umho/cm)		8	8	480 J	153 J	329.125	NR	NA
Dissolved Solids	(mg/L)		8	8	286	104 J	205	500	0
pH	(pH)		8	8	7.9	6.9	7.4625	6.5/8.5	0
Total Suspended Solids	(mg/L)		8	1	7.2	7.2	7.2	NR	NA
Turbidity (NTU)		8	7	2.9	0.06 J	0.975714	1	2	
Gross Beta	(pCi/L)		8	6	4.5	2	3.066667	50 a	0
Bromoform (ug/L)		8	1	0.48 J	0.48 J	0.48	100 i	0	
Chloroform	(ug/L)		8	2	2.4	1.4	1.9	100 i	0

Table 4.53. REGIME=Chestnut Ridge AREA NAME=Const./Debris Landfill VII

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		5	5	192	107 J	152.4	NR	NA
Chloride	(mg/L)		6	6	4.4 J	2 J	2.65	250	0
Fluoride	(mg/L)		6	5	0.21 J	0.13 J	0.164	4	0
Nitrate/Nitrite	(mg/L)		6	6	1.6	0.29 J	0.576667	NR	NA
Sulfate	(mg/L)		6	6	16	1.9 J	5.4	250	0
"Aluminum, ICAP"	(mg/L)		8	4	0.332	0.068 J	0.19825	0.2	2
"Antimony, ICAP"	(mg/L)		8	2	0.00006 J	0.00004 J	0.00005	0.006	0
"Arsenic, ICAP"	(mg/L)		8	3	0.00027 J	0.00015 J	0.0002	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.25	0.0094 J	0.071338	2	0
"Boron, ICAP"	(mg/L)		8	1	0.006 J	0.006 J	0.006	NR	NA
"Cadmium, ICAP"	(mg/L)		8	4	0.0002 J	0.00008 J	0.00012	0.005	0
"Calcium, ICAP"	(mg/L)		8	8	41.4	29.9	36.1375	NR	NA
"Cobalt, ICAP"	(mg/L)		8	3	0.00012 J	0.00007 J	0.0001	NR	NA
"Iron, ICAP"	(mg/L)		8	6	0.41	0.0091 J	0.147683	0.3	1
"Lead, ICAP"	(mg/L)		8	3	0.00041 J	0.00021 J	0.000323	0.015 c	0
"Magnesium, ICAP"	(mg/L)		8	8	24	11.4	18.1375	NR	NA
"Manganese, ICAP"	(mg/L)		8	4	0.0093 J	0.0026 J	0.006525	0.05	0
"Molybdenum, ICAP"	(mg/L)		6	3	0.00019 J	0.00007 J	0.000113	NR	NA
"Potassium, ICAP"	(mg/L)		8	7	1.7 J	0.609	0.960571	NR	NA
"Silver, ICAP"	(mg/L)		8	4	0.00009 J	0.00004 J	0.000058	0.1	0
"Sodium, ICAP"	(mg/L)		8	4	2.81	2.5 J	2.6475	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	0.072	0.017	0.029938	NR	NA
"Thallium, ICAP"	(mg/L)		8	1	0.00007 J	0.00007 J	0.00007	NR	NA
"Zinc, ICAP"	(mg/L)		8	4	0.018 J	0.0099 J	0.013725	5	0
Static Water Level	(ft - toc)		9	NA	48.99	8.64	18.89778	NR	NA
Alkalinity as HCO3	(mg/L)		6	6	196	107	159.6667	NR	NA
Conductivity	(umho/cm)		6	6	319 J	223 J	271.8333	NR	NA
Dissolved Solids	(mg/L)		8	8	214	131	179.125	500	0

Table 4.53 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
pH	(pH)		6	6	7.7	6.8	7.416667	6.5/8.5	0
Turbidity (NTU)		6	6	5.2	0.17	1.661667	1	2	
Gross Alpha	(pCi/L)		8	1	1.25	1.25	1.25	15 f	0
Gross Beta	(pCi/L)		8	2	2.37	2.1	2.235	50 a	0
Chloroform	(ug/L)		8	1	0.3 J	0.3 J	0.3	100 i	0

Table 4.54. REGIME=Chestnut Ridge AREA NAME=Exit Pathway Spring/Surface Water

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		2	2	158	115	136.5	NR	NA
Bicarbonate	(mg/L)		8	7	178	114	155.4286	NR	NA
Chloride	(mg/L)		18	18	4.59	1.6	2.490556	250	0
Fluoride	(mg/L)		18	6	0.22 J	0.11	0.146667	4	0
Nitrate Nitrogen	(mg/L)		8	8	5.53	0.0715	1.363938	10	0
Nitrate/Nitrite	(mg/L)		2	2	1.7	0.84	1.27	NR	NA
Sulfate	(mg/L)		18	18	42	4.7	17.85778	250	0
"Aluminum, ICAP"	(mg/L)		18	12	7.78	0.057 J	0.981808	0.2	7
"Antimony, ICAP"	(mg/L)		10	1	0.00006 J	0.00006 J	0.00006	0.006	0
"Arsenic, ICAP"	(mg/L)		10	5	0.0559	0.00051 J	0.026462	0.05	2
"Barium, ICAP"	(mg/L)		18	18	0.15	0.0207	0.072906	2	0
"Boron, ICAP"	(mg/L)		18	10	0.251	0.01 J	0.11616	NR	NA
"Cadmium, PMS"	(mg/L)		8	1	0.00089	0.00089	0.00089	0.005	0
"Cadmium, ICAP"	(mg/L)		10	2	0.00004 J	0.00003 J	0.000035	0.005	0
"Calcium, ICAP"	(mg/L)		18	18	63.8	19.1	42.4	NR	NA
"Cobalt, ICAP"	(mg/L)		18	3	0.0044	0.00031 J	0.00267	NR	NA
"Iron, ICAP"	(mg/L)		18	16	4.22	0.04 J	0.673144	0.3	9
"Lead, PMS"	(mg/L)		8	4	0.0028	0.000688	0.001812	0.015 c	0
"Lead, ICAP"	(mg/L)		10	1	0.00053 J	0.00053 J	0.00053	0.015 c	0
"Lithium, ICAP"	(mg/L)		16	6	0.0908	0.0207	0.063983	NR	NA
"Magnesium, ICAP"	(mg/L)		18	18	19.6	6.53	14.54667	NR	NA
"Manganese, ICAP"	(mg/L)		18	14	1.5	0.0022 J	0.244711	0.05	6
"Molybdenum, ICAP"	(mg/L)		18	1	0.00026 J	0.00026 J	0.00026	NR	NA
"Nickel, ICAP"	(mg/L)		18	1	0.0175	0.0175	0.0175	0.1 d	0
"Potassium, ICAP"	(mg/L)		18	11	4.64	0.843	2.867545	NR	NA
"Selenium, ICAP"	(mg/L)		10	1	0.00021 J	0.00021 J	0.00021	0.05	0
"Silicon, ICAP"	(mg/L)		4	4	4.42 ewz	3.54 ewz	3.8425	NR	NA
"Silver, ICAP"	(mg/L)		18	1	0.00006 J	0.00006 J	0.00006	0.1	0

Table 4.54 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Sodium, ICAP"	(mg/L)		18	17	2.92	1	1.784118	NR	NA
"Strontium, ICAP"	(mg/L)		18	18	1	0.0298 w	0.301761	NR	NA
"Thallium, PMS"	(mg/L)		8	1	0.000799	0.000799	0.000799	0.002	0
"Thallium, ICAP"	(mg/L)		10	1	0.00002 J	0.00002 J	0.00002	NR	NA
"Uranium, PMS"	(mg/L)		8	6	0.00678	0.00055	0.00285	0.03	0
"Zinc, ICAP"	(mg/L)		18	4	0.0356	0.0077 J	0.017975	5	0
Alkalinity as HCO3	(mg/L)		10	10	226	71.2	140.32	NR	NA
Conductivity	(umho/cm)		10	10	465	166.3	298.73	NR	NA
Dissolved Solids	(mg/L)		18	18	477	91	210.6111	500	0
pH	(pH)		10	10	8.16 L	7	7.671	6.5/8.5	0
Total Suspended Solids	(mg/L)		18	4	59.9	7.2	21.8	NR	NA
Turbidity (NTU)		10	10	148	0.941	21.8551	1	9	
Gross Alpha	(pCi/L)		18	10	11	-1.2	2.4626	15 f	0
Gross Beta	(pCi/L)		18	16	7.2	-5.9	2.455625	50 a	0
Carbon disulfide	(ug/L)		14	1	0.39 J	0.39 J	0.39	NR	NA

Table 4.55. REGIME=Chestnut Ridge AREA NAME=Industrial Landfill II

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		8	8	218	112	159.875	NR	NA
Chloride	(mg/L)		8	8	6.3	1.8 J	3.1875	250	0
Fluoride	(mg/L)		8	4	1.7	0.19 J	0.9475	4	0
Nitrate/Nitrite	(mg/L)		8	5	0.52	0.17 J	0.368	NR	NA
Sulfate	(mg/L)		8	8	14.6	4.9 J	8.7625	250	0
"Aluminum, ICAP"	(mg/L)		8	3	0.045 J	0.028 J	0.034	0.2	0
"Antimony, ICAP"	(mg/L)		8	5	0.00092 J	0.00004 J	0.000434	0.006	0
"Arsenic, ICAP"	(mg/L)		8	5	0.0035 J	0.00017 J	0.001482	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.47	0.0073 J	0.1387	2	0
"Beryllium, ICAP"	(mg/L)		8	1	0.00071 J	0.00071 J	0.00071	0.004	0
"Boron, ICAP"	(mg/L)		8	2	0.012 J	0.011 J	0.0115	NR	NA
"Cadmium, ICAP"	(mg/L)		8	2	0.00004 J	0.00003 J	0.000035	0.005	0
"Calcium, ICAP"	(mg/L)		8	8	38.5	2.9	23.45	NR	NA
"Chromium, ICAP"	(mg/L)		8	3	0.0069	0.0026 J	0.005067	0.1	0
"Cobalt, ICAP"	(mg/L)		8	4	0.00014 J	0.00005 J	0.000095	NR	NA
"Iron, ICAP"	(mg/L)		8	5	0.086 J	0.01 J	0.0304	0.3	0
"Lead, ICAP"	(mg/L)		8	1	0.00041 J	0.00041 J	0.00041	0.015 c	0
"Magnesium, ICAP"	(mg/L)		8	8	27.3	3.3	18.675	NR	NA
"Manganese, ICAP"	(mg/L)		8	4	0.076 J	0.0027 J	0.027075	0.05	1
"Molybdenum, ICAP"	(mg/L)		8	8	0.015	0.002 J	0.0058	NR	NA
"Nickel, ICAP"	(mg/L)		8	3	0.022	0.0066 J	0.016867	0.1 d	0
"Potassium, ICAP"	(mg/L)		8	8	17.7	0.98 J	5.52125	NR	NA
"Selenium, ICAP"	(mg/L)		8	3	0.00025 J	0.00018 J	0.000207	0.05	0
"Silver, ICAP"	(mg/L)		8	6	0.00005 J	0.00002 J	0.00004	0.1	0
"Sodium, ICAP"	(mg/L)		8	6	41.3	3 J	19.56667	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	0.18	0.019	0.0655	NR	NA
"Thallium, ICAP"	(mg/L)		8	2	0.00002 J	0.00002 J	0.00002	NR	NA
"Vanadium, ICAP"	(mg/L)		8	2	0.011	0.011	0.011	NR	NA

Table 4.55 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Zinc, ICAP"	(mg/L)		8	5	0.019 J	0.0055 J	0.01222	5	0
Static Water Level	(ft - toc)		8	NA	113.58	29.79	77.935	NR	NA
Alkalinity as CO3	(mg/L)		8	3	85.7	6.5	54.3	NR	NA
Alkalinity as HCO3	(mg/L)		8	8	218	26.7	139.5375	NR	NA
Conductivity	(umho/cm)		8	8	375 J	228 J	283.75	NR	NA
Dissolved Solids	(mg/L)		8	8	221 J	133	170.5	500	0
pH	(pH)		8	8	10	7.8	8.475	6.5/8.5	2
Total Suspended Solids	(mg/L)		8	4	8.2	2 J	4.8	NR	NA
Turbidity (NTU)		8	8	2.5	0.06 J	0.82375	1	3	
Gross Alpha	(pCi/L)		8	2	4.1	2.1	3.1	15 f	0
Gross Beta	(pCi/L)		8	4	17.8	2	9.6	50 a	0
"1,1-Dichloroethene"	(ug/L)		8	1	0.37 J	0.37 J	0.37	7	0
Ethanol	(ug/L)		8	1	280 Q	280 Q	280	NR	NA

Table 4.56. REGIME=Chestnut Ridge AREA NAME=Industrial Landfill IV

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		9	9	215	153	175	NR	NA
Chloride	(mg/L)		12	12	5.4	1.9 J	3.033333	250	0
Fluoride	(mg/L)		12	3	0.16 J	0.11 J	0.136667	4	0
Nitrate/Nitrite	(mg/L)		12	12	0.58	0.3 J	0.4425	NR	NA
Sulfate	(mg/L)		12	12	7.7	1.3 J	2.833333	250	0
"Aluminum, ICAP"	(mg/L)		12	2	0.06 J	0.025 J	0.0425	0.2	0
"Antimony, ICAP"	(mg/L)		12	7	0.001 J	0.00005 J	0.000303	0.006	0
"Arsenic, ICAP"	(mg/L)		12	10	0.00041 J	0.00022 J	0.0003	0.05	0
"Barium, ICAP"	(mg/L)		12	12	0.033	0.0079 J	0.014225	2	0
"Beryllium, ICAP"	(mg/L)		12	1	0.0026 J	0.0026 J	0.0026	0.004	0
"Boron, ICAP"	(mg/L)		12	8	0.075 J	0.0052 J	0.030925	NR	NA
"Cadmium, ICAP"	(mg/L)		12	9	0.00018 J	0.00003 J	0.000068	0.005	0
"Calcium, ICAP"	(mg/L)		12	12	42.1	26.9	32.05	NR	NA
"Chromium, ICAP"	(mg/L)		12	1	0.0056	0.0056	0.0056	0.1	0
"Cobalt, ICAP"	(mg/L)		12	6	0.0016	0.00005 J	0.000628	NR	NA
"Copper, ICAP"	(mg/L)		12	1	0.0029 J	0.0029 J	0.0029	1.3	0
"Iron, ICAP"	(mg/L)		12	6	0.06 J	0.0062 J	0.028417	0.3	0
"Lead, ICAP"	(mg/L)		12	5	0.00079 J	0.00024 J	0.00048	0.015 c	0
"Magnesium, ICAP"	(mg/L)		12	12	26.4	17.3	20.46667	NR	NA
"Manganese, ICAP"	(mg/L)		12	6	0.012	0.00098 J	0.00588	0.05	0
"Molybdenum, ICAP"	(mg/L)		12	8	0.002	0.0001 J	0.000699	NR	NA
"Nickel, ICAP"	(mg/L)		12	4	0.76	0.25	0.4275	0.1 d	4
"Potassium, ICAP"	(mg/L)		12	10	1.6 J	0.55 J	0.876	NR	NA
"Selenium, ICAP"	(mg/L)		12	1	0.00024 J	0.00024 J	0.00024	0.05	0
"Silver, ICAP"	(mg/L)		12	7	0.00017 J	0.00002 J	0.000096	0.1	0
"Sodium, ICAP"	(mg/L)		12	7	5.7	1.6 J	3.371429	NR	NA
"Strontium, ICAP"	(mg/L)		12	12	0.024	0.011	0.015	NR	NA

Table 4.56 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Thallium, ICAP"	(mg/L)		12	6	0.00013 J	0.00002 J	0.000045	NR	NA
"Zinc, ICAP"	(mg/L)		12	6	0.023	0.0044 J	0.0124	5	0
Static Water Level	(ft - toc)		15	NA	125.4	85.19	107.6733	NR	NA
Alkalinity as HCO3	(mg/L)		12	12	215	153	174.0833	NR	NA
Conductivity	(umho/cm)		12	12	410 J	234 J	302.0833	NR	NA
Dissolved Solids	(mg/L)		12	12	214	150	177.5	500	0
pH	(pH)		12	12	8.2	7.3	7.85	6.5/8.5	0
Total Suspended Solids	(mg/L)		12	1	2.2 J	2.2 J	2.2	NR	NA
Turbidity (NTU)		12	11	4.5	0.08 J	0.908182	1	4	
Gross Beta	(pCi/L)		12	2	2.4	2.3	2.35	50 a	0
"1,1,1-Trichloroethane"	(ug/L)		12	4	22	17	18.75	200	0
"1,1,2,2-Tetrachloroethane"	(ug/L)		12	1	0.57 J	0.57 J	0.57	NR	NA
"1,1-Dichloroethane"	(ug/L)		12	4	15	12	13.25	NR	NA
"1,1-Dichloroethene"	(ug/L)		12	3	4.3	3.7	4.033333	7	0
Tetrachloroethene	(ug/L)		12	1	0.43 J	0.43 J	0.43	5	0

Table 4.57. REGIME=Chestnut Ridge AREA NAME=Industrial Landfill V

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity	(mg/L)		10	10	177	123	151.7	NR	NA
Chloride	(mg/L)		10	10	5.3	1.3 J	2.46	250	0
Fluoride	(mg/L)		10	7	0.23 J	0.13 J	0.162857	4	0
Nitrate/Nitrite	(mg/L)		10	10	1.1	0.19 J	0.569	NR	NA
Sulfate	(mg/L)		10	10	25.2	1.2 J	6.76	250	0
"Aluminum, ICAP"	(mg/L)		10	4	0.095 J	0.025 J	0.055	0.2	0
"Antimony, ICAP"	(mg/L)		10	5	0.00087 J	0.00007 J	0.0003	0.006	0
"Arsenic, ICAP"	(mg/L)		10	8	0.00066 J	0.0002 J	0.000361	0.05	0
"Barium, ICAP"	(mg/L)		10	10	0.013	0.0019 J	0.00749	2	0
"Boron, ICAP"	(mg/L)		10	1	0.0058 J	0.0058 J	0.0058	NR	NA
"Cadmium, ICAP"	(mg/L)		10	4	0.00008 J	0.00002 J	0.000043	0.005	0
"Calcium, ICAP"	(mg/L)		10	10	41.4	22.1	32.02	NR	NA
"Chromium, ICAP"	(mg/L)		10	4	0.061	0.0036 J	0.030225	0.1	0
"Cobalt, ICAP"	(mg/L)		10	6	0.00031 J	0.00006 J	0.000117	NR	NA
"Iron, ICAP"	(mg/L)		10	8	0.089 J	0.008 J	0.041625	0.3	0
"Lead, ICAP"	(mg/L)		10	5	0.00075 J	0.00019 J	0.000442	0.015 c	0
"Magnesium, ICAP"	(mg/L)		10	10	24.1	13.7	18.51	NR	NA
"Manganese, ICAP"	(mg/L)		10	7	0.0024 J	0.00091 J	0.001416	0.05	0
"Molybdenum, ICAP"	(mg/L)		10	8	0.004	0.00017 J	0.001253	NR	NA
"Potassium, ICAP"	(mg/L)		10	9	1.8 J	0.67 J	1.017778	NR	NA
"Selenium, ICAP"	(mg/L)		10	5	0.00039 J	0.0002 J	0.00027	0.05	0
"Silver, ICAP"	(mg/L)		10	5	0.00009 J	0.00002 J	0.000058	0.1	0
"Sodium, ICAP"	(mg/L)		10	2	4.1 J	4.1 J	4.1	NR	NA
"Strontium, ICAP"	(mg/L)		10	10	0.026	0.013	0.0189	NR	NA
"Thallium, ICAP"	(mg/L)		10	2	0.00003 J	0.00002 J	0.000025	NR	NA
"Zinc, ICAP"	(mg/L)		10	4	0.013 J	0.0038 J	0.00885	5	0
Static Water Level	(ft - toc)		10	NA	125.2	18.4	84.66	NR	NA

Table 4.57 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Alkalinity as CO3	(mg/L)		10	1	3.4 J	3.4 J	3.4	NR	NA
Alkalinity as HCO3	(mg/L)		10	10	177	123	151.4	NR	NA
Conductivity	(umho/cm)		10	10	369 J	201 J	266.2	NR	NA
Dissolved Solids	(mg/L)		10	10	215 J	119	159.6	500	0
pH	(pH)		10	10	8.3	7.6	7.89	6.5/8.5	0
Total Suspended Solids	(mg/L)		10	2	3 J	2 J	2.5	NR	NA
Turbidity (NTU)		10	10	5.3	0.13	1.519	1	3	
Gross Alpha	(pCi/L)		10	1	3.3	3.3	3.3	15 f	0
"1,1,1-Trichloroethane"	(ug/L)		10	2	0.8 J	0.64 J	0.72	200	0
Chloromethane	(ug/L)		10	1	0.42 J	0.42 J	0.42	NR	NA

Table 4.58. REGIME=Chestnut Ridge AREA NAME=Kerr Hollow Quarry

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Aluminum, ICAP"	(mg/L)		10	5	0.04 J	0.0085 J	0.0199	0.2	0
"Antimony, ICAP"	(mg/L)		10	1	0.0017 J	0.0017 J	0.0017	0.006	0
"Arsenic, ICAP"	(mg/L)		10	5	0.0027 J	0.00072 J	0.001554	0.05	0
"Barium, ICAP"	(mg/L)		10	10	0.41	0.045	0.13019	2	0
"Boron, ICAP"	(mg/L)		10	9	0.866	0.011	0.254122	NR	NA
"Calcium, ICAP"	(mg/L)		10	10	53.1	27.7	36.43	NR	NA
"Chromium, ICAP"	(mg/L)		10	4	0.00072 J	0.00029 J	0.000508	0.1	0
"Cobalt, ICAP"	(mg/L)		10	2	0.00037 J	0.00033 J	0.00035	NR	NA
"Copper, ICAP"	(mg/L)		10	2	0.0055	0.002 J	0.00375	1.3	0
"Iron, ICAP"	(mg/L)		10	10	5.6	0.011	1.08531	0.3	4
"Lead, ICAP"	(mg/L)		10	3	0.0029	0.00075 J	0.00155	0.015 c	0
"Lithium, ICAP"	(mg/L)		10	8	0.4	0.0235	0.135088	NR	NA
"Magnesium, ICAP"	(mg/L)		10	10	36.1	14.9	24.64	NR	NA
"Manganese, ICAP"	(mg/L)		10	7	0.054	0.00052 J	0.01986	0.05	1
"Nickel, ICAP"	(mg/L)		10	2	0.0055 J	0.0029 J	0.0042	0.1 d	0
"Potassium, ICAP"	(mg/L)		10	10	18.6	1.03	7.471	NR	NA
"Selenium, ICAP"	(mg/L)		10	1	0.00086 J	0.00086 J	0.00086	0.05	0
"Sodium, ICAP"	(mg/L)		10	10	23.2	0.679	5.9486	NR	NA
"Strontium, ICAP"	(mg/L)		10	10	7.5	0.0299	2.17987	NR	NA
"Thallium, ICAP"	(mg/L)		10	2	0.0011 J	0.0011 J	0.0011	NR	NA
"Vanadium, ICAP"	(mg/L)		10	2	0.00034 J	0.00031 J	0.000325	NR	NA
"Zinc, ICAP"	(mg/L)		10	3	0.005 J	0.0029 J	0.003867	5	0
Static Water Level	(ft - toc)		15	NA	138.4	3.5	63.08333	NR	NA
Dissolved Solids	(mg/L)		10	10	316	144	222	500	0
Total Suspended Solids	(mg/L)		10	3	15	8.3	11.1	NR	NA
Gross Alpha	(pCi/L)		10	5	9.69	2.26	5.412	15 f	0
Gross Beta	(pCi/L)		10	8	17.37	1.7	8.865	50 a	0

Table 4.58 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Acetone	(ug/L)		15	1	1 J	1 J	1	NR	NA
Methylene chloride	(ug/L)		15	1	0.2 J	0.2 J	0.2	5	0
Tetrachloroethene	(ug/L)		15	1	0.4 J	0.4 J	0.4	5	0

Table 4.59. REGIME=Chestnut Ridge AREA NAME=United Nuclear Corporation Site

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		12	12	384	52	200.8	NR	NA
Carbonate (mg/L)		12	2	128	95.6	111.8	NR	NA	
Chloride	(mg/L)		12	12	28.4	1.1	12.01667	250	0
Nitrate/Nitrite	(mg/L)		12	12	1.4	0.058	0.713167	NR	NA
Sulfate	(mg/L)		12	12	4.2	1.3	2.825	250	0
"Aluminum, ICAP"	(mg/L)		12	2	0.0601	0.0537	0.0569	0.2	0
"Barium, ICAP"	(mg/L)		12	11	0.0292	0.005	0.017264	2	0
"Calcium, ICAP"	(mg/L)		12	12	64.6	1.36	39.945	NR	NA
"Chromium, ICAP"	(mg/L)		12	3	0.0769	0.0117	0.0437	0.1	0
"Iron, ICAP"	(mg/L)		12	9	1.69	0.0112	0.266422	0.3	2
"Lithium, ICAP"	(mg/L)		12	2	0.154	0.114	0.134	NR	NA
"Magnesium, ICAP"	(mg/L)		12	12	37	10.3	24.74167	NR	NA
"Manganese, ICAP"	(mg/L)		12	3	0.0489	0.0054	0.020733	0.05	0
"Nickel, ICAP"	(mg/L)		12	4	0.32	0.0548	0.18395	0.1 d	3
"Potassium, ICAP"	(mg/L)		12	12	78	0.82	12.87783	NR	NA
"Sodium, ICAP"	(mg/L)		12	12	12.4	0.456	7.2555	NR	NA
"Strontium, ICAP"	(mg/L)		12	11	0.0269	0.0057	0.017	NR	NA
Static Water Level	(ft - toc)		12	NA	104.82	40.95	78.35917	NR	NA
Dissolved Solids	(mg/L)		12	12	341	138	238.1667	500	0
Total Suspended Solids	(mg/L)		12	1	10.9	10.9	10.9	NR	NA
Uranium-233/234	(pCi/L)		12	9	0.64	0.22	0.452222	NR	NA
Uranium-238	(pCi/L)		12	6	0.29	0.12	0.213333	24	0
Potassium-40	(pCi/L)		2	2	89.36	52.22	70.79	280	0
Technetium-99	(pCi/L)		2	1	10.59	10.59	10.59	4000	0
Gross Alpha	(pCi/L)		12	9	10.77	0.95	3.5	15 f	0
Gross Beta	(pCi/L)		12	11	84.85	2.59	15.81455	50 a	1

Table 4.60. REGIME=Upper East Fork Poplar Creek AREA NAME=B8110

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	20.6	16.3	18.45	250	0
Nitrate Nitrogen	(mg/L)		2	2	145	48	96.5	10	2
Sulfate	(mg/L)		2	2	68.3	55.2	61.75	250	0
"Aluminum, ICAP"	(mg/L)		2	1	0.205	0.205	0.205	0.2	1
"Barium, ICAP"	(mg/L)		2	2	0.226	0.139	0.1825	2	0
"Boron, ICAP"	(mg/L)		2	1	0.1 w	0.1 w	0.1	NR	NA
"Calcium, ICAP"	(mg/L)		2	2	229	142	185.5	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.183	0.183	0.183	0.3	0
"Magnesium, ICAP"	(mg/L)		2	2	70.9	34.4	52.65	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.106	0.0974	0.1017	0.05	2
"Mercury, CVAA"	(mg/L)		2	2	0.0011	0.000427	0.000764	0.002	0
"Potassium, ICAP"	(mg/L)		2	2	3.56	2.53	3.045	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	4.27 ewz	4.27 ewz	4.27	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	25.6	17.4	21.5	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.672 w	0.387 w	0.5295	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.00182	0.00141	0.001615	0.03	0
Static Water Level	(ft - toc)		2	NA	-27.48	-35.8	-31.64	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	268	260	264	NR	NA
Conductivity	(umho/cm)		2	2	1820	1008	1414	NR	NA
Dissolved Solids	(mg/L)		2	2	1280	623	951.5	500	2
pH	(pH)		2	2	7.1 L	7.06 L	7.08	6.5/8.5	0
Total Suspended Solids	(mg/L)		2	1	2	2	2	NR	NA
Turbidity (NTU)		2	2	4.25	2.07	3.16	1	2	
Uranium-234	(pCi/L)		2	2	1.2	0.82	1.01	20	0
Uranium-235	(pCi/L)		2	2	0.037	0.031	0.034	24	0
Uranium-238	(pCi/L)		2	2	0.72	0.34	0.53	24	0
Gross Alpha	(pCi/L)		2	2	2.8	-4.8	-1	15 f	0

Table 4.60 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Gross Beta	(pCi/L)		2	2	7.3	-0.21	3.545	50 a	0
"1,2-Dichloroethene (Total)"	(ug/L)		2	2	43	21	32	NR b	NA
Carbon tetrachloride	(ug/L)		2	2	11	3 J	7	5	1
Chloroform	(ug/L)		2	2	16	5	10.5	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		2	2	43	21	32	70	0
Tetrachloroethene	(ug/L)		2	2	150	130 B	140	5	2
Trichloroethene	(ug/L)		2	2	340 D	180	260	5	2

Table 4.61. REGIME=Upper East Fork Poplar Creek AREA NAME=CPT

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		3	3	31.4	14.7	23.2	250	0
Sulfate	(mg/L)		3	3	6660	169	3039.667	250	2
"Aluminum, ICAP"	(mg/L)		3	3	262	13.6	98.13333	0.2	3
"Arsenic, PMS"	(mg/L)		3	2	0.0434	0.01	0.0267	0.05	0
"Barium, ICAP"	(mg/L)		3	2	0.2	0.145	0.1725	2	0
"Beryllium, ICAP"	(mg/L)		3	3	0.0711	0.00052	0.02426	0.004	1
"Boron, ICAP"	(mg/L)		3	2	1.22 w	0.15 w	0.685	NR	NA
"Cadmium, PMS"	(mg/L)		3	3	0.0642	0.00589	0.02555	0.005	3
"Calcium, ICAP"	(mg/L)		3	3	600	170	420	NR	NA
"Chromium, PMS"	(mg/L)		3	3	0.0706	0.0236	0.0397	NR	NA
"Chromium, ICAP"	(mg/L)		3	3	0.165 z	0.0283 z	0.075033	0.1	1
"Cobalt, ICAP"	(mg/L)		3	1	1.14	1.14	1.14	NR	NA
"Copper, ICAP"	(mg/L)		3	3	6.31	0.0343	2.137033	1.3	1
"Iron, ICAP"	(mg/L)		3	3	1190	19	409.6667	0.3	3
"Lead, PMS"	(mg/L)		3	3	0.0786	0.043	0.058133	0.015 c	3
"Lithium, ICAP"	(mg/L)		3	3	0.502 w	0.0122 w	0.189767	NR	NA
"Magnesium, ICAP"	(mg/L)		3	3	343	24.1	182.0333	NR	NA
"Manganese, ICAP"	(mg/L)		3	3	39.5	3.98	16.36667	0.05	3
"Nickel, PMS"	(mg/L)		3	3	1.97	0.0179	0.6768	NR	NA
"Nickel, ICAP"	(mg/L)		3	1	2.41 z	2.41 z	2.41	0.1 d	1
"Phosphorus, ICAP"	(mg/L)		3	3	6.4 wz	0.501 wz	2.577	NR	NA
"Potassium, ICAP"	(mg/L)		3	2	11.4	5.06	8.23	NR	NA
"Silicon, ICAP"	(mg/L)		3	3	64.5 ewz	21.5 ewz	38.4	NR	NA
"Sodium, ICAP"	(mg/L)		3	3	93.9	13.3	63.1	NR	NA
"Strontium, ICAP"	(mg/L)		3	3	1.34 w	0.389 w	0.814	NR	NA
"Thallium, PMS"	(mg/L)		3	1	0.00127	0.00127	0.00127	0.002	0
"Titanium, ICAP"	(mg/L)		3	2	0.423 wz	0.32 wz	0.3715	NR	NA

Table 4.61 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Uranium, PMS"	(mg/L)		3	3	0.058	0.00119	0.022307	0.03	1
"Vanadium, ICAP"	(mg/L)		3	1	0.0248	0.0248	0.0248	NR	NA
"Zinc, ICAP"	(mg/L)		3	3	9.79	0.0824	3.324067	5	1
Static Water Level	(ft - toc)		3	NA	-8.76	-12.35	-10.4067	NR	NA
Alkalinity as HCO3	(mg/L)		3	2	520	340	430	NR	NA
Conductivity	(umho/cm)		3	3	7150	949	4019.667	NR	NA
Dissolved Solids	(mg/L)		3	3	10200	611	4940.333	500	3
pH	(pH)		3	3	7.27 L	2.5 L	5.65	6.5/8.5	1
Total Suspended Solids	(mg/L)		3	3	324	46	195	NR	NA
Turbidity (NTU)		3	3	421	47.6	248.5333	1	3	
Technetium-99	(pCi/L)		3	3	3.6	-6	-1.33333	4000	0
Gross Alpha	(pCi/L)		3	3	100	16	44.66667	15 f	3
Gross Beta	(pCi/L)		3	3	60	18	46	50 a	2
"1,2,4-Trichlorobenzene"	(ug/L)		1	1	10 z	10 z	10	70	0
"1,2-Dichloroethene (Total)"	(ug/L)		3	1	36	36	36	NR b	NA
"1,3-Dichlorobenzene"	(ug/L)		1	1	2 Jz	2 Jz	2	NR	NA
"cis-1,2-Dichloroethene"	(ug/L)		3	1	36	36	36	70	0
Naphthalene	(ug/L)		1	1	3 Jz	3 Jz	3	NR	NA
Vinyl chloride	(ug/L)		3	1	11	11	11	2	1

Table 4.62. REGIME=Upper East Fork Poplar Creek AREA NAME=East End Fuel Facility

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	17.1	14.6	15.85	250	0
Fluoride	(mg/L)		2	1	0.109	0.109	0.109	4	0
"Arsenic, PMS"	(mg/L)		2	1	0.00712	0.00712	0.00712	0.05	0
"Barium, ICAP"	(mg/L)		2	2	0.173	0.141	0.157	2	0
"Calcium, ICAP"	(mg/L)		2	2	50.1	44.4	47.25	NR	NA
"Iron, ICAP"	(mg/L)		2	2	20.4	15.9	18.15	0.3	2
"Lead, PMS"	(mg/L)		2	1	0.00467	0.00467	0.00467	0.015 c	0
"Magnesium, ICAP"	(mg/L)		2	2	14.4	13.3	13.85	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	20.4	17.1	18.75	0.05	2
"Nickel, PMS"	(mg/L)		2	2	0.00794	0.00519	0.006565	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	13.5	13.2	13.35	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.15 w	0.14 w	0.145	NR	NA
Static Water Level	(ft - toc)		2	NA	-11.08	-11.43	-11.255	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	236	204	220	NR	NA
Conductivity	(umho/cm)		2	2	519	463	491	NR	NA
Dissolved Solids	(mg/L)		2	2	299	238	268.5	500	0
pH	(pH)		2	2	6.53 L	6.5 L	6.515	6.5/8.5	0
Total Suspended Solids	(mg/L)		2	2	17	9	13	NR	NA
Turbidity (NTU)		2	2	40.4	17.6	29	1	2	
Gross Alpha	(pCi/L)		2	2	1.5	0.61	1.055	15 f	0
Gross Beta	(pCi/L)		2	2	1.3	-0.46	0.42	50 a	0
"1,2-Dibromoethane"	(ug/L)		2	1	77	77	77	NR	NA
"1,2-Dichloroethane"	(ug/L)		2	1	570	570	570	5	1
"1,2-Dimethylbenzene"	(ug/L)		2	2	3000 z	370 Dz	1685	NR	NA
"1,3- and 1,4-Dimethylbenzene"	(ug/L)		2	2	5800 z	230 Dz	3015	NR	NA
4-Methyl-2-pentanone	(ug/L)		2	1	200	200	200	NR	NA

Table 4.62 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Benzene	(ug/L)		2	2	8700 D	7800	8250	5	2
Ethylbenzene	(ug/L)		2	2	1400 D	920	1160	700	2
Naphthalene	(ug/L)		2	2	610 Dz	550 Jz	580	NR	NA
Toluene	(ug/L)		2	2	4900 D	4800	4850	1000	2
Xylenes	(ug/L)		2	2	8800	8800	8800	10000	0

Table 4.63. REGIME=Upper East Fork Poplar Creek AREA NAME=Exit Pathway Monitoring Location E

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	333	119 Q	226	NR	NA
Chloride	(mg/L)		2	2	12.1	10.9	11.5	250	0
Fluoride	(mg/L)		2	2	0.3	0.21	0.255	4	0
Nitrate/Nitrite	(mg/L)		2	2	2490 Q	0.18	1245.09	NR	NA
Sulfate	(mg/L)		2	2	20.3	19	19.65	250	0
"Aluminum, ICAP"	(mg/L)		2	1	0.0066 J	0.0066 J	0.0066	0.2	0
"Barium, ICAP"	(mg/L)		2	2	0.0532	0.05	0.0516	2	0
"Boron, ICAP"	(mg/L)		2	2	0.12	0.105	0.1125	NR	NA
"Cadmium, ICAP"	(mg/L)		2	2	0.0046	0.0032	0.0039	0.005	0
"Calcium, ICAP"	(mg/L)		2	2	101	88.6	94.8	NR	NA
"Chromium, ICAP"	(mg/L)		2	2	0.144 Q	0.00036 J	0.07218	0.1	1
"Cobalt, ICAP"	(mg/L)		2	1	0.00036 J	0.00036 J	0.00036	NR	NA
"Copper, ICAP"	(mg/L)		2	1	0.00087 J	0.00087 J	0.00087	1.3	0
"Iron, ICAP"	(mg/L)		2	2	0.775	0.14	0.4575	0.3	1
"Magnesium, ICAP"	(mg/L)		2	2	8.72	7.5	8.11	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	1.2	0.9	1.05	0.05	2
"Nickel, ICAP"	(mg/L)		2	2	0.0621 Q	0.0044	0.03325	0.1 d	0
"Potassium, ICAP"	(mg/L)		2	2	4.38	4.1	4.24	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	16.7	16.4	16.55	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.198	0.18	0.189	NR	NA
"Zinc, ICAP"	(mg/L)		2	1	0.0034	0.0034	0.0034	5	0
Static Water Level	(ft - toc)		2	NA	12.79	12.63	12.71	NR	NA
Dissolved Solids	(mg/L)		2	2	364	360	362	500	0
Uranium-238	(pCi/L)		1	1	0.28	0.28	0.28	24	0
Gross Beta	(pCi/L)		2	1	7.98	7.98	7.98	50 a	0
"cis-1,2-Dichloroethene"	(ug/L)		2	2	31	17	24	70	0
Methane	(ug/L)		2	2	14	9	11.5	NR	NA

Table 4.63 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Tetrachloroethene	(ug/L)		2	2	7	4 J	5.5	5	1
"trans-1,2-Dichloroethene"	(ug/L)		2	1	0.5	0.5	0.5	100	0
Trichloroethene	(ug/L)		2	2	16	11	13.5	5	2
Vinyl chloride	(ug/L)		2	1	3	3	3	2	1

Table 4.64. REGIME=Upper East Fork Poplar Creek AREA NAME=Exit Pathway Monitoring Location I

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		4	4	244	2 Q	165	NR	NA
Carbonate (mg/L)		4	1	4 Q	4 Q	4	NR	NA	
Chloride	(mg/L)		4	4	36.3	21.8	28.775	250	0
Fluoride	(mg/L)		4	3	0.14	0.1	0.116667	4	0
Nitrate/Nitrite	(mg/L)		4	4	12	0.14	4.535	NR	NA
Sulfate	(mg/L)		4	4	83.7	28.4	46.8	250	0
"Aluminum, ICAP"	(mg/L)		4	2	0.106	0.0512	0.0786	0.2	0
"Barium, ICAP"	(mg/L)		4	4	0.173	0.0447	0.09255	2	0
"Boron, ICAP"	(mg/L)		4	4	0.0998	0.0197	0.05945	NR	NA
"Calcium, ICAP"	(mg/L)		4	4	80.2	41.9	63.525	NR	NA
"Chromium, ICAP"	(mg/L)		4	1	0.0056	0.0056	0.0056	0.1	0
"Iron, ICAP"	(mg/L)		4	2	0.0989	0.0986	0.09875	0.3	0
"Lithium, ICAP"	(mg/L)		4	2	0.0502	0.0136	0.0319	NR	NA
"Magnesium, ICAP"	(mg/L)		4	4	38.3	6.16	20.29	NR	NA
"Manganese, ICAP"	(mg/L)		4	3	0.306	0.0057	0.1699	0.05	2
"Potassium, ICAP"	(mg/L)		4	4	12.1	2.44	5.425	NR	NA
"Sodium, ICAP"	(mg/L)		4	4	13	6.94	9.825	NR	NA
"Strontium, ICAP"	(mg/L)		4	4	1.52	0.153	0.61125	NR	NA
Static Water Level	(ft - toc)		4	NA	14.44	11.25	12.7725	NR	NA
Dissolved Solids	(mg/L)		4	4	393	225	332.75	500	0
Total Suspended Solids	(mg/L)		4	1	9.9	9.9	9.9	NR	NA
Gross Alpha	(pCi/L)		4	3	51.84	5.63	35.29667	15 f	2
Gross Beta	(pCi/L)		4	4	21.23	9.83	16.15	50 a	0
Carbon tetrachloride	(ug/L)		4	4	180	19	90.5	5	4
Chloroform	(ug/L)		4	4	230	11	98.25	100 i	2
"cis-1,2-Dichloroethene"	(ug/L)		4	2	140	50	95	70	1
Tetrachloroethene	(ug/L)		4	4	76	5	30.25	5	3

Table 4.64 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"trans-1,2- Dichloroethene"	(ug/L)		4	1	1 J	1 J	1	100	0
Trichloroethene	(ug/L)		4	2	82	33	57.5	5	2

Table 4.65. REGIME=Upper East Fork Poplar Creek AREA NAME=Exit Pathway Monitoring Location J

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		22	22	255	144	211.8182	NR	NA
Chloride	(mg/L)		46	46	135	2.1	29.1463	250	0
Fluoride	(mg/L)		46	34	1.31	0.1	0.537147	4	0
Nitrate Nitrogen	(mg/L)		24	15	1.18	0.116	0.5796	10	0
Nitrate/Nitrite	(mg/L)		22	20	1.2	0.041	0.50115	NR	NA
Sulfate	(mg/L)		46	46	68.1	0.24	22.70257	250	0
"Aluminum, ICAP"	(mg/L)		46	7	2.02	0.0056 J	0.349957	0.2	2
"Antimony, ICAP"	(mg/L)		24	1	0.0043	0.0043	0.0043	0.006	0
"Arsenic, ICAP"	(mg/L)		24	4	0.0009 J	0.00058 J	0.00073	0.05	0
"Barium, ICAP"	(mg/L)		46	46	0.772	0.0231	0.112324	2	0
"Boron, ICAP"	(mg/L)		46	27	0.703 w	0.0075	0.240285	NR	NA
"Cadmium, ICAP"	(mg/L)		24	2	0.0031 R	0.0024	0.00275	0.005	0
"Calcium, ICAP"	(mg/L)		46	46	134	14.5	52.76739	NR	NA
"Chromium, PMS"	(mg/L)		24	4	0.00554	0.00251	0.003758	NR	NA
"Chromium, ICAP"	(mg/L)		46	9	0.0057	0.0002 R	0.001407	0.1	0
"Copper, ICAP"	(mg/L)		46	6	0.0017	0.00095 J	0.001355	1.3	0
"Iron, ICAP"	(mg/L)		46	41	2	0.0129	0.221251	0.3	7
"Lead, PMS"	(mg/L)		24	5	0.00427	0.000582	0.001941	0.015 c	0
"Lead, ICAP"	(mg/L)		24	5	0.0015	0.0011	0.00128	0.015 c	0
"Lithium, ICAP"	(mg/L)		46	29	0.17	0.0054	0.048007	NR	NA
"Magnesium, ICAP"	(mg/L)		46	46	29.8	9 J	18.92326	NR	NA
"Manganese, ICAP"	(mg/L)		46	23	0.112	0.00033 J	0.028224	0.05	6
"Molybdenum, ICAP"	(mg/L)		44	2	0.0018 J	0.0014 J	0.0016	NR	NA
"Nickel, ICAP"	(mg/L)		46	6	0.0109	0.00091 J	0.004102	0.1 d	0
"Potassium, ICAP"	(mg/L)		46	34	6.8	0.98	2.93	NR	NA
"Selenium, ICAP"	(mg/L)		24	3	0.00082 J	0.00068 J	0.00074	0.05	0
"Silicon, ICAP"	(mg/L)		12	12	9.14 ewz	3.73 ewz	5.140833	NR	NA

Table 4.65 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Sodium, ICAP"	(mg/L)		46	46	176	0.723	33.50815	NR	NA
"Strontium, ICAP"	(mg/L)		46	46	4.2 w	0.054 J	1.073715	NR	NA
"Thallium, PMS"	(mg/L)		24	1	0.000577	0.000577	0.000577	0.002	0
"Uranium, PMS"	(mg/L)		24	3	0.000571	0.000536	0.000559	0.03	0
"Vanadium, ICAP"	(mg/L)		46	4	0.0005 J	0.00034 J	0.000413	NR	NA
"Zinc, ICAP"	(mg/L)		46	28	1.9	0.0053 R	0.141396	5	0
Static Water Level	(ft - toc)		26	NA	59.87	-79.36	-57.625	NR	NA
Alkalinity as HCO3	(mg/L)		24	24	346	144	231.9167	NR	NA
Conductivity	(umho/cm)		24	24	1005	282	571.5417	NR	NA
Dissolved Solids	(mg/L)		46	46	592	82	307.0217	500	4
pH	(pH)		24	24	8.19 L	7.27 L	7.8025	6.5/8.5	0
Total Suspended Solids	(mg/L)		46	3	5	4	4.333333	NR	NA
Turbidity (NTU)		24	24	24	21.7	0.401	3.229917	1	19
Gross Alpha	(pCi/L)		46	29	44.16 Q	0	3.510345	15 f	1
Gross Beta	(pCi/L)		46	38	28.4	-3.2	5.008684	50 a	0
"1,1,1-Trichloroethane"	(ug/L)		50	1	1	1	1	200	0
"1,1-Dichloroethane"	(ug/L)		50	1	0.6	0.6	0.6	NR	NA
"1,1-Dichloroethene"	(ug/L)		50	1	1	1	1	7	0
Acetone	(ug/L)		50	1	5 J	5 J	5	NR	NA
Benzene	(ug/L)		50	3	1	0.2 J	0.666667	5	0
Carbon disulfide	(ug/L)		50	1	1	1	1	NR	NA
Carbon tetrachloride	(ug/L)		50	18	390	0.4 J	105.7444	5	15
Chloroform	(ug/L)		50	20	72	0.4 J	15.515	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		50	6	4	0.3 J	1.766667	70	0
Ethylbenzene	(ug/L)		50	7	4	1 J	2.571429	700	0
Styrene	(ug/L)		50	6	4 J	0.3 J	1.7	100	0
Tetrachloroethene	(ug/L)		50	18	77	0.2 J	13.08333	5	12
Toluene	(ug/L)		50	6	3 J	0.4 J	2.233333	1000	0

Table 4.65 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Trichloroethene	(ug/L)		50	14	6	0.5	2.378571	5	1
Trichlorofluoromethane	(ug/L)		24	1	3 J	3 J	3	NR	NA
Xylenes	(ug/L)		50	3	2	1 J	1.666667	10000	0

Table 4.66. REGIME=Upper East Fork Poplar Creek AREA NAME=Exit Pathway Scarboro Road/Pine Ridge

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		6	6	20.7	1.33	6.733333	250	0
Fluoride	(mg/L)		6	5	0.275	0.106	0.2042	4	0
Sulfate	(mg/L)		6	6	116	15.6	63.66667	250	0
"Barium, ICAP"	(mg/L)		6	6	0.144	0.0386	0.076917	2	0
"Boron, ICAP"	(mg/L)		6	4	0.253 w	0.119 w	0.181	NR	NA
"Calcium, ICAP"	(mg/L)		6	6	76.2	59.8	65.36667	NR	NA
"Iron, ICAP"	(mg/L)		6	6	28.5	0.524	7.5785	0.3	6
"Lead, PMS"	(mg/L)		6	5	0.0162	0.00145	0.009292	0.015 c	1
"Lithium, ICAP"	(mg/L)		6	4	0.0364 w	0.0321 w	0.033775	NR	NA
"Magnesium, ICAP"	(mg/L)		6	6	40.6	17.2	28.38333	NR	NA
"Manganese, ICAP"	(mg/L)		6	6	0.812	0.0132	0.271633	0.05	2
"Potassium, ICAP"	(mg/L)		6	6	4.85	3.11	3.868333	NR	NA
"Silicon, ICAP"	(mg/L)		3	3	12.3 ewz	3.34 ewz	6.65	NR	NA
"Sodium, ICAP"	(mg/L)		6	6	18	7.02	11.76667	NR	NA
"Strontium, ICAP"	(mg/L)		6	6	1.33 w	0.0907 w	0.651817	NR	NA
"Zinc, ICAP"	(mg/L)		6	2	1.77	1.73	1.75	5	0
Static Water Level	(ft - toc)		6	NA	-1.36	-12.4	-5.78	NR	NA
Alkalinity as HCO3	(mg/L)		6	6	288	192	231.6667	NR	NA
Conductivity	(umho/cm)		6	6	609	483	562.3333	NR	NA
Dissolved Solids	(mg/L)		6	6	383	276	342.3333	500	0
pH	(pH)		6	6	8.06 L	6.58 L	7.498333	6.5/8.5	0
Total Suspended Solids	(mg/L)		6	4	45	2.8	15.7	NR	NA
Turbidity (NTU)		6	6	171	3.28	43.86333	1	6	
Gross Alpha	(pCi/L)		6	6	3.6	-0.068	1.555333	15 f	0
Gross Beta	(pCi/L)		6	6	8.7	4.8	6.933333	50 a	0

Table 4.67. REGIME=Upper East Fork Poplar Creek AREA NAME=Exit Pathway Spring/Surface Water

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		18	18	242	105	142.2778	NR	NA
Chloride	(mg/L)		20	20	18.5	5.6	11.6415	250	0
Fluoride	(mg/L)		20	16	1.1	0.15	0.488125	4	0
Nitrate Nitrogen	(mg/L)		2	2	1.49	1.45	1.47	10	0
Nitrate/Nitrite	(mg/L)		18	18	7.7	0.38	2.963889	NR	NA
Sulfate	(mg/L)		20	20	36.2	9.9	26.96	250	0
"Aluminum, ICAP"	(mg/L)		16	12	0.325	0.0546	0.159992	0.2	3
"Barium, ICAP"	(mg/L)		16	16	0.0804	0.039	0.050894	2	0
"Boron, ICAP"	(mg/L)		16	14	0.365	0.0149	0.057464	NR	NA
"Calcium, ICAP"	(mg/L)		16	16	59.8 k	38.3	47.31875	NR	NA
"Copper, ICAP"	(mg/L)		16	7	0.0209	0.0053	0.009714	1.3	0
"Iron, ICAP"	(mg/L)		16	16	0.394	0.0477	0.171144	0.3	2
"Lead, PMS"	(mg/L)		2	2	0.00368	0.00157	0.002625	0.015 c	0
"Lithium, ICAP"	(mg/L)		16	12	0.126	0.0113	0.033992	NR	NA
"Magnesium, ICAP"	(mg/L)		16	16	25.3	9.76	12.2625	NR	NA
"Manganese, ICAP"	(mg/L)		16	16	0.0892	0.00553	0.046689	0.05	7
"Mercury, CVAA"	(mg/L)		2	1	0.000383	0.000383	0.000383	0.002	0
"Molybdenum, ICAP"	(mg/L)		16	4	0.0382	0.0108	0.02625	NR	NA
"Potassium, ICAP"	(mg/L)		16	16	2.72	1.62	2.264375	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	3.22 ewz	3.22 ewz	3.22	NR	NA
"Sodium, ICAP"	(mg/L)		16	16	10.8	5.81	8.815	NR	NA
"Strontium, ICAP"	(mg/L)		16	16	0.155	0.0893	0.128769	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.0119	0.00805	0.009975	0.03	0
"Zinc, ICAP"	(mg/L)		16	11	0.0481	0.0114	0.024664	5	0
Alkalinity as HCO3	(mg/L)		2	2	170	163	166.5	NR	NA
Conductivity	(umho/cm)		2	2	410	401	405.5	NR	NA
Dissolved Solids	(mg/L)		20	20	282	139	221.8	500	0

Table 4.67 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
pH	(pH)		2	2	7.97 L	7.42 L	7.695	6.5/8.5	0
Total Suspended Solids	(mg/L)		20	2	10	6.9	8.45	NR	NA
Turbidity (NTU)		2	2	4.41	1.17	2.79	1	2	
Uranium-233/234	(pCi/L)		6	6	3.49	1.17	1.836667	NR	NA
Uranium-235	(pCi/L)		6	2	0.96	0.33	0.645	24	0
Uranium-236	(pCi/L)		6	2	0.5	0.19	0.345	NR	NA
Uranium-238	(pCi/L)		6	6	8.97	1.79	3.74	24	0
Gross Alpha	(pCi/L)		12	9	16.72	1.85	6.21	15 f	1
Gross Beta	(pCi/L)		12	12	10	2.39	5.615	50 a	0
"1,1,1-Trichloroethane"	(ug/L)		20	1	1 J	1 J	1	200	0
"1,1-Dichloroethane"	(ug/L)		20	1	1 J	1 J	1	NR	NA
Benzoic acid	(ug/L)		14	1	6 J	6 J	6	NR	NA
Bis(2-ethylhexyl)phthalate	(ug/L)		14	1	0.5 J	0.5 J	0.5	NR	NA
Bromodichloromethane	(ug/L)		20	8	2 J	1 J	1.875	100 i	0
Bromoform (ug/L)		20	4	4 J	1 J	2.25	100 i	0	
Carbon tetrachloride	(ug/L)		20	3	14	1 J	6.666667	5	1
Chlorodibromomethane	(ug/L)		20	2	1 J	1 J	1	100 i	0
Chloroform	(ug/L)		20	16	9	2 J	5.1875	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		20	3	12	1 J	6	70	0
Tetrachloroethene	(ug/L)		20	7	24	1 J	7.142857	5	2
Trichloroethene	(ug/L)		20	3	10	1 J	5.333333	5	1

Table 4.68. REGIME=Upper East Fork Poplar Creek AREA NAME=Fire Training Facility

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	2.12	1.82	1.97	250	0
Fluoride	(mg/L)		2	2	0.156	0.154	0.155	4	0
Nitrate Nitrogen	(mg/L)		2	2	1.14	1.13	1.135	10	0
Sulfate	(mg/L)		2	2	6.1	5.61	5.855	250	0
"Aluminum, ICAP"	(mg/L)		2	2	1.26	1.02	1.14	0.2	2
"Barium, ICAP"	(mg/L)		2	2	0.0334	0.0333	0.03335	2	0
"Cadmium, PMS"	(mg/L)		2	1	0.000857	0.000857	0.000857	0.005	0
"Calcium, ICAP"	(mg/L)		2	2	113	95.7	104.35	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.135	0.135	0.135	0.3	0
"Lead, PMS"	(mg/L)		2	1	0.00133	0.00133	0.00133	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.0257 w	0.0242 w	0.02495	NR	NA
"Potassium, ICAP"	(mg/L)		2	2	14.1	13.2	13.65	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	2.34	2.23	2.285	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.391 w	0.385 w	0.388	NR	NA
Static Water Level	(ft - toc)		2	NA	-25.33	-25.49	-25.41	NR	NA
Alkalinity as CO3	(mg/L)		2	2	32	32	32	NR	NA
Conductivity	(umho/cm)		2	2	1327	1165	1246	NR	NA
Dissolved Solids	(mg/L)		2	2	320	288	304	500	0
pH	(pH)		2	2	11.71 L	11.62 L	11.665	6.5/8.5	2
Turbidity (NTU)		2	2	1.1	1.02	1.06	1	2	
Gross Alpha	(pCi/L)		2	2	0.64	-0.42	0.11	15 f	0
Gross Beta	(pCi/L)		2	2	6.8	-2.9	1.95	50 a	0
"1,2-Dichloroethene (Total)"	(ug/L)		2	2	17	13	15	NR b	NA
"1,3- and 1,4-Dimethylbenzene"	(ug/L)		1	1	3 Jz	3 Jz	3	NR	NA
"cis-1,2-Dichloroethene"	(ug/L)		2	2	17	13	15	70	0

Table 4.68 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Tetrachloroethene	(ug/L)		2	2	17	15	16	5	2
Toluene	(ug/L)		2	2	2 J	1 J	1.5	1000	0
Trichloroethene	(ug/L)		2	2	7	7	7	5	2
Xylenes	(ug/L)		2	1	4 J	4 J	4	10000	0

Table 4.69. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location B2

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	341	278	309.5	250	2
Nitrate Nitrogen	(mg/L)		2	2	0.159	0.0847	0.12185	10	0
Sulfate	(mg/L)		2	2	48.6	42.9	45.75	250	0
"Barium, ICAP"	(mg/L)		2	2	0.254	0.24	0.247	2	0
"Cadmium, PMS"	(mg/L)		2	1	0.000787	0.000787	0.000787	0.005	0
"Calcium, ICAP"	(mg/L)		2	2	182	178 k	180	NR	NA
"Chromium, PMS"	(mg/L)		2	2	0.381	0.141	0.261	NR	NA
"Chromium, ICAP"	(mg/L)		2	2	0.343 z	0.119 z	0.231	0.1	2
"Iron, ICAP"	(mg/L)		2	2	1.86	0.575	1.2175	0.3	2
"Lead, PMS"	(mg/L)		2	1	0.000653	0.000653	0.000653	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.0313 w	0.0292 w	0.03025	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	25.4	22.8 k	24.1	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.363	0.131	0.247	0.05	2
"Nickel, PMS"	(mg/L)		2	2	0.705 k	0.301	0.503	NR	NA
"Nickel, ICAP"	(mg/L)		2	2	0.739 z	0.25 z	0.4945	0.1 d	2
"Potassium, ICAP"	(mg/L)		2	2	3.32	3.09	3.205	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	28	26.5 k	27.25	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.816 w	0.736 w	0.776	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.000914	0.000742	0.000828	0.03	0
Static Water Level	(ft - toc)		2	NA	-10.9	-11.18	-11.04	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	160	122	141	NR	NA
Conductivity	(umho/cm)		2	2	1346	1289	1317.5	NR	NA
Dissolved Solids	(mg/L)		2	2	771	730	750.5	500	2
pH	(pH)		2	2	7.41 L	7.36 L	7.385	6.5/8.5	0
Turbidity (NTU)		2	2	2	14.9	5.74	10.32	1	2
Gross Alpha	(pCi/L)		2	2	6.4	0.46	3.43	15 f	0
Gross Beta	(pCi/L)		2	2	1.3	0.61	0.955	50 a	0

Table 4.70. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location D2

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	7.73	7.6	7.665	250	0
Sulfate	(mg/L)		2	2	12.5	12.1	12.3	250	0
"Barium, ICAP"	(mg/L)		2	2	0.249	0.247	0.248	2	0
"Calcium, ICAP"	(mg/L)		2	2	70.2	67	68.6	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.063	0.063	0.063	0.3	0
"Lead, PMS"	(mg/L)		2	1	0.00151	0.00151	0.00151	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.0132 w	0.0128 w	0.013	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	14.5	13.9	14.2	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.0186	0.0154	0.017	0.05	0
"Potassium, ICAP"	(mg/L)		2	1	2.01	2.01	2.01	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	13.1 ewz	13.1 ewz	13.1	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	7.11	7.11	7.11	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.407 w	0.392 w	0.3995	NR	NA
Static Water Level	(ft - toc)		2	NA	-23.09	-23.59	-23.34	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	222	216	219	NR	NA
Conductivity	(umho/cm)		2	2	460	457	458.5	NR	NA
Dissolved Solids	(mg/L)		2	2	274	268	271	500	0
pH	(pH)		2	2	7.7 L	7.53 L	7.615	6.5/8.5	0
Turbidity (NTU)		2	2	2	0.324	0.157	0.2405	1	0
Gross Alpha	(pCi/L)		2	2	2.6	-5.5	-1.45	15 f	0
Gross Beta	(pCi/L)		2	2	6	-1.9	2.05	50 a	0
Tetrachloroethene	(ug/L)		2	2	650 D	260 D	455	5	2
Trichloroethene	(ug/L)		2	2	3 J	2 J	2.5	5	0

Table 4.71. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location E3

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	12.8	11.6	12.2	250	0
Sulfate	(mg/L)		2	2	16.8	15.4	16.1	250	0
"Barium, ICAP"	(mg/L)		2	2	0.549	0.544	0.5465	2	0
"Boron, ICAP"	(mg/L)		2	2	0.139 w	0.13 w	0.1345	NR	NA
"Calcium, ICAP"	(mg/L)		2	2	77.8	77.2	77.5	NR	NA
"Iron, ICAP"	(mg/L)		2	2	1.35	1.08	1.215	0.3	2
"Lead, PMS"	(mg/L)		2	1	0.00243	0.00243	0.00243	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.0201 w	0.019 w	0.01955	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	17.2	16.7	16.95	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.0482	0.0434	0.0458	0.05	0
"Potassium, ICAP"	(mg/L)		2	2	5.46	5.28	5.37	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	8.63 ewz	8.63 ewz	8.63	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	9.38	9.25	9.315	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	1.17 w	1.16 w	1.165	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.00169	0.00124	0.001465	0.03	0
Static Water Level	(ft - toc)		2	NA	-8.55	-9.24	-8.895	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	242	242	242	NR	NA
Conductivity	(umho/cm)		2	2	529	521	525	NR	NA
Dissolved Solids	(mg/L)		2	2	299	296	297.5	500	0
pH	(pH)		2	2	7.48 L	7.43 L	7.455	6.5/8.5	0
Total Suspended Solids	(mg/L)		2	2	2	2	2	NR	NA
Turbidity (NTU)		2	2	2	7.58	6.91	7.245	1	2
Uranium-234	(pCi/L)		2	2	49	44	46.5	20	2
Uranium-235	(pCi/L)		2	2	0.33	0.16	0.245	24	0
Uranium-238	(pCi/L)		2	2	0.53	0.47	0.5	24	0
Gross Alpha	(pCi/L)		2	2	45	38	41.5	15 f	2
Gross Beta	(pCi/L)		2	2	11	9	10	50 a	0

Table 4.71 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"1,1,1-Trichloroethane"	(ug/L)		2	2	9	3 J	6	200	0
"1,1-Dichloroethane"	(ug/L)		2	2	180	130	155	NR	NA
"1,1-Dichloroethene"	(ug/L)		2	2	48	32	40	7	2
"1,2-Dichloroethene (Total)"	(ug/L)		2	2	16	15	15.5	NR b	NA
Chloroethane	(ug/L)		2	2	12	7	9.5	NR	NA
"cis-1,2-Dichloroethene"	(ug/L)		2	2	13	13	13	70	0
Tetrachloroethene	(ug/L)		2	2	170	160	165	5	2
"trans-1,2-Dichloroethene"	(ug/L)		2	2	2 J	2 J	2	100	0
Trichloroethene	(ug/L)		2	2	60	56	58	5	2
Vinyl chloride	(ug/L)		2	1	2	2	2	2	0

Table 4.72. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location G3

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		4	4	15	5.89	11.3975	250	0
Fluoride	(mg/L)		4	2	0.219	0.2	0.2095	4	0
Nitrate Nitrogen	(mg/L)		4	4	0.716	0.1	0.3935	10	0
Sulfate	(mg/L)		4	4	27.6	20.8	23.4	250	0
"Barium, ICAP"	(mg/L)		4	4	0.384	0.0584	0.22175	2	0
"Calcium, ICAP"	(mg/L)		4	4	80.4	55	67.525	NR	NA
"Chromium, PMS"	(mg/L)		4	2	0.278	0.0314	0.1547	NR	NA
"Chromium, ICAP"	(mg/L)		4	2	0.31 z	0.0262 z	0.1681	0.1	1
"Iron, ICAP"	(mg/L)		4	2	3.42	0.244	1.832	0.3	1
"Lithium, ICAP"	(mg/L)		4	2	0.0153 w	0.0152 w	0.01525	NR	NA
"Magnesium, ICAP"	(mg/L)		4	4	9.68	4.65	7.2	NR	NA
"Manganese, ICAP"	(mg/L)		4	4	0.0481	0.00806	0.018213	0.05	0
"Nickel, PMS"	(mg/L)		4	2	0.148	0.115	0.1315	NR	NA
"Nickel, ICAP"	(mg/L)		4	2	0.146 z	0.109 z	0.1275	0.1 d	2
"Potassium, ICAP"	(mg/L)		4	4	2.57	2.2	2.45	NR	NA
"Silicon, ICAP"	(mg/L)		2	2	7.4 ewz	3.39 ewz	5.395	NR	NA
"Sodium, ICAP"	(mg/L)		4	4	8	7.28	7.56	NR	NA
"Strontium, ICAP"	(mg/L)		4	4	0.377 w	0.077 w	0.228925	NR	NA
"Uranium, PMS"	(mg/L)		4	2	0.00133	0.000732	0.001031	0.03	0
Static Water Level	(ft - toc)		4	NA	-8.41	-13.72	-10.805	NR	NA
Alkalinity as HCO3	(mg/L)		4	4	216	132	176	NR	NA
Conductivity	(umho/cm)		4	4	502	340	421	NR	NA
Dissolved Solids	(mg/L)		4	4	291	201	244.25	500	0
pH	(pH)		4	4	7.4 L	7.05 L	7.165	6.5/8.5	0
Total Suspended Solids	(mg/L)		4	1	2	2	2	NR	NA
Turbidity (NTU)		4	4	8.4	0.369	2.884	1	2	
Gross Alpha	(pCi/L)		4	4	2.9	-5.9	-1.725	15 f	0

Table 4.72 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Gross Beta	(pCi/L)		4	4	6	-2	2.2525	50 a	0
"1,2-Dichloroethene (Total)"	(ug/L)		4	2	6	3 J	4.5	NR b	NA
Carbon tetrachloride	(ug/L)		4	4	160	3 J	57	5	3
Chloroform	(ug/L)		4	4	6	3 J	4.25	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		4	2	6	3 J	4.5	70	0
Methylene chloride	(ug/L)		4	1	7	7	7	5	1
Tetrachloroethene	(ug/L)		4	2	22	11	16.5	5	2
Trichloroethene	(ug/L)		4	2	6	3 J	4.5	5	1

Table 4.73. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location H3

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		4	4	32	30.6	31.025	250	0
Nitrate Nitrogen	(mg/L)		4	4	2.91	0.383	1.3125	10	0
Sulfate	(mg/L)		4	4	37.9	30.4	34.675	250	0
"Barium, ICAP"	(mg/L)		4	4	0.203	0.0814	0.14165	2	0
"Calcium, ICAP"	(mg/L)		4	4	101	94	96.125	NR	NA
"Chromium, PMS"	(mg/L)		4	2	0.0952	0.0432	0.0692	NR	NA
"Chromium, ICAP"	(mg/L)		4	2	0.0816 z	0.0408 z	0.0612	0.1	0
"Iron, ICAP"	(mg/L)		4	2	0.877	0.264	0.5705	0.3	1
"Lead, PMS"	(mg/L)		4	2	0.0105	0.000837	0.005669	0.015 c	0
"Lithium, ICAP"	(mg/L)		4	2	0.0114 w	0.0101 w	0.01075	NR	NA
"Magnesium, ICAP"	(mg/L)		4	4	8.04	4.74	6.4825	NR	NA
"Manganese, ICAP"	(mg/L)		4	2	0.0107	0.00952	0.01011	0.05	0
"Nickel, PMS"	(mg/L)		4	2	0.546	0.204	0.375	NR	NA
"Nickel, ICAP"	(mg/L)		4	2	0.534 z	0.195 z	0.3645	0.1 d	2
"Potassium, ICAP"	(mg/L)		4	4	3.59	2.41	2.845	NR	NA
"Silicon, ICAP"	(mg/L)		2	2	6.49 ewz	4.76 ewz	5.625	NR	NA
"Sodium, ICAP"	(mg/L)		4	4	13.6	4.86	9.0725	NR	NA
"Strontium, ICAP"	(mg/L)		4	4	0.244 w	0.158 w	0.201	NR	NA
Static Water Level	(ft - toc)		4	NA	-9.97	-14.39	-12.2	NR	NA
Alkalinity as HCO3	(mg/L)		4	4	206	190	199.25	NR	NA
Conductivity	(umho/cm)		4	4	581	553	561	NR	NA
Dissolved Solids	(mg/L)		4	4	337	316	324.25	500	0
pH	(pH)		4	4	7.44 L	7.17 L	7.3075	6.5/8.5	0
Turbidity (NTU)		4	4	4	8.31	0.292	2.732	1	2
Gross Alpha	(pCi/L)		4	4	1.2	-4.3	-1.5475	15 f	0
Gross Beta	(pCi/L)		4	4	7.5	0.93	3.1825	50 a	0
Trichloroethene	(ug/L)		4	3	6	2 J	4	5	1

Table 4.74. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location J3

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	308	256	282	NR	NA
Chloride	(mg/L)		2	2	42.6	34.9	38.75	250	0
Nitrate/Nitrite	(mg/L)		2	2	0.23	0.069	0.1495	NR	NA
Sulfate	(mg/L)		2	2	15.5	14.9	15.2	250	0
"Aluminum, ICAP"	(mg/L)		2	1	0.0741	0.0741	0.0741	0.2	0
"Barium, ICAP"	(mg/L)		2	2	0.527	0.515	0.521	2	0
"Boron, ICAP"	(mg/L)		2	2	0.0773	0.0723	0.0748	NR	NA
"Calcium, ICAP"	(mg/L)		2	2	83.5	81.4	82.45	NR	NA
"Iron, ICAP"	(mg/L)		2	2	0.0473	0.0253	0.0363	0.3	0
"Lithium, ICAP"	(mg/L)		2	2	0.016	0.0156	0.0158	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	24.6	24	24.3	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.057	0.0503	0.05365	0.05	2
"Potassium, ICAP"	(mg/L)		2	2	3.92	3.91	3.915	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	10.6	10.4	10.5	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.743	0.736	0.7395	NR	NA
Static Water Level	(ft - toc)		2	NA	14.02	13.42	13.72	NR	NA
Dissolved Solids	(mg/L)		2	2	378	309	343.5	500	0
Gross Beta	(pCi/L)		2	2	5.4	3.84	4.62	50 a	0
"1,1,1-Trichloroethane"	(ug/L)		2	2	6	4 J	5	200	0
"1,1-Dichloroethane"	(ug/L)		2	2	15	10	12.5	NR	NA
"1,1-Dichloroethene"	(ug/L)		2	1	44	44	44	7	1
"1,2-Dichloroethene (Total)"	(ug/L)		1	1	70	70	70	NR b	NA
"cis-1,2-Dichloroethene"	(ug/L)		2	2	70	50	60	70	0
Ethylene	(ug/L)		2	1	8 J	8 J	8	NR	NA
Methane	(ug/L)		2	2	46	46	46	NR	NA
Tetrachloroethene	(ug/L)		2	2	3700 J	2400	3050	5	2

Table 4.74 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"trans-1,2- Dichloroethene"	(ug/L)		2	2	2 J	2 J	2	100	0
Trichloroethene	(ug/L)		2	2	200 J	150	175	5	2
Vinyl chloride	(ug/L)		2	2	4	4	4	2	2

Table 4.75. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location K1

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	9.64	8.3	8.97	250	0
Sulfate	(mg/L)		2	2	20	13	16.5	250	0
"Barium, ICAP"	(mg/L)		2	2	0.282	0.259	0.2705	2	0
"Calcium, ICAP"	(mg/L)		2	2	57.5	45.1	51.3	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.282	0.282	0.282	0.3	0
"Lead, PMS"	(mg/L)		2	1	0.0144	0.0144	0.0144	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.0274 w	0.0272 w	0.0273	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	11.2	10.9	11.05	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.132	0.0395	0.08575	0.05	1
"Potassium, ICAP"	(mg/L)		2	2	3.39	3.15	3.27	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	10.7 ewz	10.7 ewz	10.7	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	35.7	34.2	34.95	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	1.29 w	1.24 w	1.265	NR	NA
Static Water Level	(ft - toc)		2	NA	-5.4	-5.79	-5.595	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	228	218	223	NR	NA
Conductivity	(umho/cm)		2	2	502	456	479	NR	NA
Dissolved Solids	(mg/L)		2	2	317	293	305	500	0
pH	(pH)		2	2	7.57 L	7.54 L	7.555	6.5/8.5	0
Turbidity (NTU)		2	2	2.51	0.436	1.473	1	1	
Gross Alpha	(pCi/L)		2	2	4.9	1.4	3.15	15 f	0
Gross Beta	(pCi/L)		2	2	6.3	6.2	6.25	50 a	0

Table 4.76. REGIME=Upper East Fork Poplar Creek AREA NAME=GW Monitoring Plan Grid Location K2

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	2.13	1.79	1.96	250	0
Fluoride	(mg/L)		2	2	0.164	0.137	0.1505	4	0
Sulfate	(mg/L)		2	2	17.1	15.8	16.45	250	0
"Barium, ICAP"	(mg/L)		2	2	0.153	0.153	0.153	2	0
"Calcium, ICAP"	(mg/L)		2	2	46.7	45	45.85	NR	NA
"Lithium, ICAP"	(mg/L)		2	2	0.015 w	0.0144 w	0.0147	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	10.7	10.6	10.65	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.0144	0.014	0.0142	0.05	0
"Potassium, ICAP"	(mg/L)		2	1	2.05	2.05	2.05	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	7.79 ewz	7.79 ewz	7.79	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	27	26.8	26.9	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.615 w	0.613 w	0.614	NR	NA
Static Water Level	(ft - toc)		2	NA	-3.43	-3.62	-3.525	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	200	196	198	NR	NA
Conductivity	(umho/cm)		2	2	415	402	408.5	NR	NA
Dissolved Solids	(mg/L)		2	2	269	244	256.5	500	0
pH	(pH)		2	2	7.95 L	7.92 L	7.935	6.5/8.5	0
Turbidity (NTU)		2	2	2	0.219	0.166	0.1925	1	0
Gross Alpha	(pCi/L)		2	2	1.2	0	0.6	15 f	0
Gross Beta	(pCi/L)		2	2	4.4	3.2	3.8	50 a	0

Table 4.77. REGIME=Upper East Fork Poplar Creek AREA NAME=Grid J Primary

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	72.9	70.4	71.65	250	0
Fluoride	(mg/L)		2	2	0.245	0.216	0.2305	4	0
Sulfate	(mg/L)		2	2	2.73	1.58	2.155	250	0
"Barium, ICAP"	(mg/L)		2	2	0.0823	0.0569	0.0696	2	0
"Calcium, ICAP"	(mg/L)		2	2	120	111	115.5	NR	NA
"Iron, ICAP"	(mg/L)		2	2	22.7	13.1	17.9	0.3	2
"Lead, PMS"	(mg/L)		2	1	0.000638	0.000638	0.000638	0.015 c	0
"Magnesium, ICAP"	(mg/L)		2	2	15	14.8	14.9	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.893	0.842	0.8675	0.05	2
"Sodium, ICAP"	(mg/L)		2	2	16.3	14.9	15.6	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.259 w	0.24 w	0.2495	NR	NA
Static Water Level	(ft - toc)		3	NA	-9.69	-9.93	-9.77	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	306	280	293	NR	NA
Conductivity	(umho/cm)		2	2	777	545	661	NR	NA
Dissolved Solids	(mg/L)		2	2	430	413	421.5	500	0
pH	(pH)		2	2	6.83 L	6.78 L	6.805	6.5/8.5	0
Total Suspended Solids	(mg/L)		2	2	33	17	25	NR	NA
Turbidity (NTU)		2	2	137	110	123.5	1	2	
Gross Alpha	(pCi/L)		2	2	0.42	0	0.21	15 f	0
Gross Beta	(pCi/L)		2	2	1.8	-0.39	0.705	50 a	0
"1,1-Dichloroethene"	(ug/L)		2	2	4 J	3 J	3.5	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		2	2	130	79	104.5	NR b	NA
"cis-1,2-Dichloroethene"	(ug/L)		2	2	130	79	104.5	70	2
Tetrachloroethene	(ug/L)		2	2	43	32	37.5	5	2
Trichloroethene	(ug/L)		2	2	10	8	9	5	2
Vinyl chloride	(ug/L)		2	2	10	5	7.5	2	2

Table 4.78. REGIME=Upper East Fork Poplar Creek AREA NAME=New Hope Pond

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		12	12	360	125	242.6667	NR	NA
Chloride	(mg/L)		20	20	143	7.5	36.115	250	0
Fluoride	(mg/L)		20	9	0.49	0.1	0.203556	4	0
Nitrate Nitrogen	(mg/L)		8	5	0.968	0.0283	0.66906	10	0
Nitrate/Nitrite	(mg/L)		12	10	1.8	0.02	1.0228	NR	NA
Sulfate	(mg/L)		20	20	101	1.5	24.7695	250	0
"Aluminum, ICAP"	(mg/L)		20	4	0.45	0.12	0.26925	0.2	2
"Barium, ICAP"	(mg/L)		20	20	0.661	0.0304	0.234405	2	0
"Boron, ICAP"	(mg/L)		20	13	0.131	0.0197	0.0592	NR	NA
"Calcium, ICAP"	(mg/L)		20	20	146	35.5	77.395	NR	NA
"Chromium, PMS"	(mg/L)		8	4	0.00458	0.00283	0.003865	NR	NA
"Chromium, ICAP"	(mg/L)		20	2	0.405	0.186	0.2955	0.1	2
"Cobalt, ICAP"	(mg/L)		20	2	0.0043	0.0039	0.0041	NR	NA
"Copper, ICAP"	(mg/L)		20	1	0.0077	0.0077	0.0077	1.3	0
"Iron, ICAP"	(mg/L)		20	17	8.89	0.0393	1.913	0.3	12
"Lead, PMS"	(mg/L)		8	1	0.000753	0.000753	0.000753	0.015 c	0
"Lead, ICAP"	(mg/L)		13	1	0.0049	0.0049	0.0049	0.015 c	0
"Lithium, ICAP"	(mg/L)		20	3	0.016 w	0.0108	0.014067	NR	NA
"Magnesium, ICAP"	(mg/L)		20	20	27.6	10.6	19.515	NR	NA
"Manganese, ICAP"	(mg/L)		20	13	2.43	0.012	0.460362	0.05	9
"Nickel, PMS"	(mg/L)		8	1	0.0239	0.0239	0.0239	NR	NA
"Nickel, ICAP"	(mg/L)		20	2	0.338	0.153	0.2455	0.1 d	2
"Potassium, ICAP"	(mg/L)		20	19	8.13	1.39	3.205789	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	7.07 ewz	7.07 ewz	7.07	NR	NA
"Sodium, ICAP"	(mg/L)		20	20	74.4	4.92	15.986	NR	NA
"Strontium, ICAP"	(mg/L)		20	20	0.552	0.0425	0.30262	NR	NA
"Uranium, PMS"	(mg/L)		8	2	0.00138	0.0013	0.00134	0.03	0

Table 4.78 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Zinc, ICAP"	(mg/L)		20	3	0.0602 J	0.0121	0.029233	5	0
Static Water Level	(ft - toc)		21	NA	16.04	-20.63	0.122857	NR	NA
Alkalinity as HCO3	(mg/L)		8	8	288	159	221.75	NR	NA
Conductivity	(umho/cm)		8	8	764	395	557.375	NR	NA
Dissolved Solids	(mg/L)		20	20	568	206	347.2	500	1
pH	(pH)		8	8	7.8 L	7.16 L	7.57375	6.5/8.5	0
Total Suspended Solids	(mg/L)		20	7	16.1	8	10.47143	NR	NA
Turbidity (NTU)		8	8	119	1.54	28.1225	1	8	
Uranium-233/234	(pCi/L)		8	7	392.7	0.48	100.1143	NR	NA
Uranium-235	(pCi/L)		8	3	14.9	0.66	8.85	24	0
Uranium-236	(pCi/L)		8	2	11.42	9.1	10.26	NR	NA
Uranium-238	(pCi/L)		8	6	251	1.66	87.07	24	2
Gross Alpha	(pCi/L)		20	17	1270.56	-0.25	122.4135	15 f	2
Gross Beta	(pCi/L)		20	20	275.92	-3.1	22.568	50 a	2
"1,1-Dichloroethene"	(ug/L)		20	2	3 J	3 J	3	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		14	8	140	2 J	49.5	NR b	NA
Carbon disulfide	(ug/L)		20	2	63 Q	9 J	36	NR	NA
Carbon tetrachloride	(ug/L)		20	12	2600 J	6	657.0833	5	12
Chloroform	(ug/L)		20	13	620 D	2 J	134.5385	100 i	3
"cis-1,2-Dichloroethene"	(ug/L)		20	11	140	2 J	45.09091	70	2
Methane	(ug/L)		8	6	120	10	39.5	NR	NA
Methylene chloride	(ug/L)		20	3	120	11	58	5	3
Tetrachloroethene	(ug/L)		20	15	600 J	2 J	172.0667	5	10
Trichloroethene	(ug/L)		20	9	200	2 J	84.33333	5	8
Vinyl chloride	(ug/L)		20	2	2 J	2 J	2	2	0

Table 4.79. REGIME=Upper East Fork Poplar Creek AREA NAME=Rust Garage Area

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	52.2	51.4	51.8	250	0
Nitrate Nitrogen	(mg/L)		2	2	1520	1510	1515	10	2
Sulfate	(mg/L)		2	2	5.74	3.15	4.445	250	0
"Barium, ICAP"	(mg/L)		2	2	10	9.56	9.78	2	2
"Cadmium, PMS"	(mg/L)		2	2	0.00191	0.000757	0.001334	0.005	0
"Calcium, ICAP"	(mg/L)		2	2	2170	1980	2075	NR	NA
"Lead, PMS"	(mg/L)		2	2	0.000548	0.000509	0.000529	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.177 w	0.15 w	0.1635	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	194	189	191.5	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	5.95	4.13	5.04	0.05	2
"Nickel, PMS"	(mg/L)		2	2	0.297	0.293	0.295	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	91.3	87	89.15	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	5.37 w	4.98 w	5.175	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.00191	0.00156	0.001735	0.03	0
Static Water Level	(ft - toc)		2	NA	-2.44	-3.14	-2.79	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	314	298	306	NR	NA
Conductivity	(umho/cm)		2	2	11170	10810	10990	NR	NA
Dissolved Solids	(mg/L)		2	2	9270	9050	9160	500	2
pH	(pH)		2	2	5.7 L	5.69 L	5.695	6.5/8.5	2
Total Suspended Solids	(mg/L)		2	1	2	2	2	NR	NA
Turbidity (NTU)		2	2	0.855	0.723	0.789	1	0	
Gross Alpha	(pCi/L)		2	2	11	8.2	9.6	15 f	0
Gross Beta	(pCi/L)		2	2	3700	3000	3350	50 a	2
"1,1-Dichloroethene"	(ug/L)		2	1	3 J	3 J	3	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		2	2	10	10	10	NR b	NA
"1,2-Dimethylbenzene"	(ug/L)		2	2	68 z	66 z	67	NR	NA

Table 4.79 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"1,3- and 1,4-Dimethylbenzene"	(ug/L)		2	2	44 z	29 z	36.5	NR	NA
Benzene	(ug/L)		2	2	850 D	840 D	845	5	2
Bromoform (ug/L)		2	2	4 J	3 J	3.5	100 i	0	
Chloroform	(ug/L)		2	2	20	17	18.5	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		2	2	10	10	10	70	0
Ethylbenzene	(ug/L)		2	2	20	8	14	700	0
Methylene chloride	(ug/L)		2	2	36	27	31.5	5	2
Naphthalene	(ug/L)		2	2	12 z	11 z	11.5	NR	NA
Tetrachloroethene	(ug/L)		2	2	180	170	175	5	2
Toluene	(ug/L)		2	2	4 J	2 J	3	1000	0
Trichloroethene	(ug/L)		2	2	8	6	7	5	2
Xylenes	(ug/L)		2	2	110	95	102.5	10000	0

Table 4.80. REGIME=Upper East Fork Poplar Creek AREA NAME=S-2 Site

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	71	62.9	66.95	NR	NA
Chloride	(mg/L)		8	8	127	5.58	36.935	250	0
Fluoride	(mg/L)		8	4	4.7	0.89	1.95	4	1
Nitrate Nitrogen	(mg/L)		6	2	62.4	41.2	51.8	10	2
Nitrate/Nitrite	(mg/L)		2	2	3100 Q	852	1976	NR	NA
Sulfate	(mg/L)		8	8	76.5	9.02	27.1525	250	0
"Aluminum, ICAP"	(mg/L)		8	4	4.2	0.345	2.35025	0.2	4
"Antimony, ICAP"	(mg/L)		2	1	0.0021	0.0021	0.0021	0.006	0
"Arsenic, ICAP"	(mg/L)		2	1	0.0062	0.0062	0.0062	0.05	0
"Barium, ICAP"	(mg/L)		8	8	0.325	0.0377	0.135625	2	0
"Beryllium, ICAP"	(mg/L)		8	2	0.0122	0.011	0.0116	0.004	2
"Boron, ICAP"	(mg/L)		8	2	0.331	0.3	0.3155	NR	NA
"Cadmium, PMS"	(mg/L)		6	5	0.116	0.00063	0.038649	0.005	2
"Cadmium, ICAP"	(mg/L)		2	2	4.8	4.35	4.575	0.005	2
"Calcium, ICAP"	(mg/L)		8	8	585	73.5	214.8625	NR	NA
"Chromium, PMS"	(mg/L)		6	1	0.00282	0.00282	0.00282	NR	NA
"Cobalt, ICAP"	(mg/L)		8	2	0.309	0.26	0.2845	NR	NA
"Copper, ICAP"	(mg/L)		8	4	77.4	0.155	36.6225	1.3	2
"Iron, ICAP"	(mg/L)		8	6	0.571	0.221	0.4665	0.3	5
"Lead, PMS"	(mg/L)		6	4	0.00482	0.000782	0.002203	0.015 c	0
"Lead, ICAP"	(mg/L)		2	2	0.13	0.031	0.0805	0.015 c	2
"Lithium, ICAP"	(mg/L)		8	2	0.085	0.0745	0.07975	NR	NA
"Magnesium, ICAP"	(mg/L)		8	8	133	7.22	36.6925	NR	NA
"Manganese, ICAP"	(mg/L)		8	8	54	0.471	14.7235	0.05	8
"Nickel, PMS"	(mg/L)		6	2	0.0312	0.015	0.0231	NR	NA
"Nickel, ICAP"	(mg/L)		8	2	2.46	2.1	2.28	0.1 d	2
"Potassium, ICAP"	(mg/L)		8	8	14	2.62	5.0275	NR	NA

Table 4.80 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
"Silver, ICAP"	(mg/L)		8	1	0.0091	0.0091	0.0091	0.1	0
"Sodium, ICAP"	(mg/L)		8	8	150	3.95	42.27375	NR	NA
"Strontium, ICAP"	(mg/L)		8	8	1.1	0.102 w	0.37425	NR	NA
"Thallium, PMS"	(mg/L)		6	2	0.00183	0.00149	0.00166	0.002	0
"Thallium, ICAP"	(mg/L)		2	2	0.04	0.0172	0.0286	NR	NA
"Uranium, PMS"	(mg/L)		6	2	0.00395	0.00385	0.0039	0.03	0
"Zinc, ICAP"	(mg/L)		8	3	7	0.0576	4.4492	5	2
Static Water Level	(ft - toc)		8	NA	4.42	-16.1	-5.31875	NR	NA
Alkalinity as HCO3	(mg/L)		6	6	290	164	223.8333	NR	NA
Conductivity	(umho/cm)		6	6	857	430	598.8333	NR	NA
Dissolved Solids	(mg/L)		8	8	4990	241	1389.25	500	3
pH	(pH)		6	6	7.06 L	6.53 L	6.813333	6.5/8.5	0
Total Suspended Solids	(mg/L)		8	2	5	2	3.5	NR	NA
Turbidity (NTU)		6	6	10.8	2.29	5.11	1	6	
Uranium-233/234	(pCi/L)		1	1	7.15	7.15	7.15	NR	NA
Uranium-238	(pCi/L)		1	1	1.36	1.36	1.36	24	0
Gross Alpha	(pCi/L)		8	8	45.1	-1.3	12.535	15 f	2
Gross Beta	(pCi/L)		8	8	25.44	-1.3	7.31125	50 a	0
"1,1-Dichloroethene"	(ug/L)		8	1	2 J	2 J	2	7	0
"1,2-Dichloroethene (Total)"	(ug/L)		6	1	11	11	11	NR b	NA
Carbon tetrachloride	(ug/L)		8	3	35	6	20	5	3
Chloroform	(ug/L)		8	4	46	7	24	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		8	4	260	2 J	105.75	70	2
Ethylene	(ug/L)		2	1	0.8 J	0.8 J	0.8	NR	NA
Methane	(ug/L)		2	2	5	4	4.5	NR	NA
Tetrachloroethene	(ug/L)		8	4	680	81	392.75	5	4
Toluene	(ug/L)		8	1	1 J	1 J	1	1000	0

Table 4.80 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Trichloroethene	(ug/L)		8	6	610	2 J	230.3333	5	4
Vinyl chloride	(ug/L)		8	2	63	39	51	2	2

Table 4.81. REGIME=Upper East Fork Poplar Creek AREA NAME=S-3 Site

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	689	280	484.5	NR	NA
Chloride	(mg/L)		2	2	193	77.9	135.45	250	0
Nitrate/Nitrite	(mg/L)		2	2	9360	9280	9320	NR	NA
"Barium, ICAP"	(mg/L)		2	2	86.9	86.8	86.85	2	2
"Calcium, ICAP"	(mg/L)		2	2	11800	11600	11700	NR	NA
"Cobalt, ICAP"	(mg/L)		2	2	0.156	0.13	0.143	NR	NA
"Lithium, ICAP"	(mg/L)		2	1	0.553	0.553	0.553	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	1160	999	1079.5	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	150	107	128.5	0.05	2
"Nickel, ICAP"	(mg/L)		2	2	0.176	0.172	0.174	0.1 d	2
"Potassium, ICAP"	(mg/L)		2	2	30.5	23.9	27.2	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	554	479	516.5	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	31	30.8	30.9	NR	NA
Static Water Level	(ft - toc)		2	NA	8.05	7.91	7.98	NR	NA
Dissolved Solids	(mg/L)		2	2	69200	57700	63450	500	2
Total Suspended Solids	(mg/L)		2	2	34.9	18.3	26.6	NR	NA
Uranium-233/234	(pCi/L)		2	2	15	12.91	13.955	NR	NA
Uranium-235	(pCi/L)		2	1	0.38	0.38	0.38	24	0
Uranium-238	(pCi/L)		2	2	6.04	5.23	5.635	24	0
Technetium-99	(pCi/L)		2	2	29525.35	26872.71	28199.03	4000	2
Gross Alpha	(pCi/L)		2	1	146.63	146.63	146.63	15 f	1
Gross Beta	(pCi/L)		2	2	11532.61	7954.49	9743.55	50 a	2
Acetone	(ug/L)		2	1	18	18	18	NR	NA
Bromoform (ug/L)		2	2	5 J	4 J	4.5	100 i	0	
Bromomethane	(ug/L)		2	1	14	14	14	NR	NA
Chloroform	(ug/L)		2	2	32	29	30.5	100 i	0
Methylene chloride	(ug/L)		2	1	69	69	69	5	1

Table 4.81 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Tetrachloroethene	(ug/L)		2	2	2 J	1 J	1.5	5	0
Trichloroethene	(ug/L)		2	2	3 J	3 J	3	5	0

Table 4.82. REGIME=Upper East Fork Poplar Creek AREA NAME=Tank 2331-U, near Building 9201-1

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		2	2	236	181	208.5	NR	NA
Chloride	(mg/L)		2	2	4.5	3.7	4.1	250	0
Fluoride	(mg/L)		2	2	0.8	0.54	0.67	4	0
Sulfate	(mg/L)		2	2	243	61.5	152.25	250	0
"Barium, ICAP"	(mg/L)		2	2	0.121	0.0854	0.1032	2	0
"Boron, ICAP"	(mg/L)		2	2	0.0875	0.0813	0.0844	NR	NA
"Calcium, ICAP"	(mg/L)		2	2	104	81.1	92.55	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	34.1	22.7	28.4	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.292	0.213	0.2525	0.05	2
"Potassium, ICAP"	(mg/L)		2	2	8.9	8.07	8.485	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	5.41	4.82	5.115	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.629	0.454	0.5415	NR	NA
Dissolved Solids	(mg/L)		2	2	551	363	457	500	1
Gross Beta	(pCi/L)		2	2	9.13	7.29	8.21	50 a	0
Benzene	(ug/L)		2	1	25	25	25	5	1

Table 4.83. REGIME=Upper East Fork Poplar Creek AREA NAME=Underground Tank T0134-U

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	2.41	0.937	1.6735	250	0
Fluoride	(mg/L)		2	2	0.946	0.682	0.814	4	0
Nitrate Nitrogen	(mg/L)		2	1	0.577	0.577	0.577	10	0
Sulfate	(mg/L)		2	2	32.7	4.22	18.46	250	0
"Barium, ICAP"	(mg/L)		2	2	0.0713	0.0594	0.06535	2	0
"Calcium, ICAP"	(mg/L)		2	2	50.8 k	46.5	48.65	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.752	0.752	0.752	0.3	1
"Lead, PMS"	(mg/L)		2	1	0.000533	0.000533	0.000533	0.015 c	0
"Lithium, ICAP"	(mg/L)		2	2	0.121 w	0.052 w	0.0865	NR	NA
"Magnesium, ICAP"	(mg/L)		2	2	8.86 k	6.55	7.705	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	2.86	0.0463	1.45315	0.05	1
"Potassium, ICAP"	(mg/L)		2	1	2.33	2.33	2.33	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	3.92 ewz	3.92 ewz	3.92	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	3.34	1.64	2.49	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.13 w	0.119 w	0.1245	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.0439	0.0336	0.03875	0.03	2
Static Water Level	(ft - toc)		2	NA	-8.36	-8.53	-8.445	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	142	135	138.5	NR	NA
Conductivity	(umho/cm)		2	2	337	287	312	NR	NA
Dissolved Solids	(mg/L)		2	2	191	159	175	500	0
pH	(pH)		2	2	7.77 L	7.65 L	7.71	6.5/8.5	0
Total Suspended Solids	(mg/L)		2	1	4	4	4	NR	NA
Turbidity (NTU)		2	2	3.58	0.434	2.007	1	1	
Uranium-234	(pCi/L)		2	2	21	13	17	20	1
Uranium-235	(pCi/L)		2	2	0.84	0.45	0.645	24	0
Uranium-238	(pCi/L)		2	2	16	10	13	24	0
Gross Alpha	(pCi/L)		2	2	35	22	28.5	15 f	2

Table 4.83 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Gross Beta	(pCi/L)		2	2	16	7.5	11.75	50 a	0
Acetone	(ug/L)		2	1	59	59	59	NR	NA

Table 4.84. REGIME=Upper East Fork Poplar Creek AREA NAME=Union Valley - Exit Pathway

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Bicarbonate	(mg/L)		18	14	479 Q	105	282.3571	NR	NA
Carbonate (mg/L)		18	8	192	10	98.75	NR	NA	
Chloride	(mg/L)		18	18	112	1	20.87778	250	0
Fluoride	(mg/L)		18	6	2.7	0.1	1.436667	4	0
Nitrate/Nitrite	(mg/L)		18	13	1	0.024	0.333846	NR	NA
Sulfate	(mg/L)		18	18	10.8	1	4.516667	250	0
"Aluminum, ICAP"	(mg/L)		12	9	0.7	0.017 J	0.2348	0.2	4
"Barium, ICAP"	(mg/L)		12	12	0.057	0.013	0.030725	2	0
"Boron, ICAP"	(mg/L)		12	9	1.33	0.02	0.574422	NR	NA
"Cadmium, ICAP"	(mg/L)		12	3	0.0065	0.00052 J	0.004407	0.005	2
"Calcium, ICAP"	(mg/L)		12	12	73.1	1.1	34.87667	NR	NA
"Chromium, ICAP"	(mg/L)		12	5	0.101 Q	0.00024 J	0.035196	0.1	1
"Copper, ICAP"	(mg/L)		12	1	0.0022 J	0.0022 J	0.0022	1.3	0
"Iron, ICAP"	(mg/L)		12	12	1.23	0.0263	0.485275	0.3	8
"Lead, ICAP"	(mg/L)		12	2	0.0051	0.00077 J	0.002935	0.015 c	0
"Lithium, ICAP"	(mg/L)		12	9	0.201	0.0017 J	0.094511	NR	NA
"Magnesium, ICAP"	(mg/L)		12	12	3.84	0.574	1.450167	NR	NA
"Manganese, ICAP"	(mg/L)		12	8	0.0131	0.0024 J	0.007225	0.05	0
"Molybdenum, ICAP"	(mg/L)		12	1	0.001 J	0.001 J	0.001	NR	NA
"Nickel, ICAP"	(mg/L)		12	3	0.0359 Q	0.0018 J	0.022567	0.1 d	0
"Potassium, ICAP"	(mg/L)		12	12	13.2	2.2	6.225833	NR	NA
"Sodium, ICAP"	(mg/L)		12	12	222	1.14	71.085	NR	NA
"Strontium, ICAP"	(mg/L)		12	12	0.411	0.052	0.2379	NR	NA
"Vanadium, ICAP"	(mg/L)		12	2	0.0011 J	0.00035 J	0.000725	NR	NA
"Zinc, ICAP"	(mg/L)		12	3	0.0098 J	0.0023 J	0.005667	5	0
Static Water Level	(ft - toc)		18	NA	36.82	3.25	25.76944	NR	NA
Dissolved Solids	(mg/L)		18	18	641	105	328.3333	500	6

Table 4.84 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Total Suspended Solids	(mg/L)		18	5	30.8	5	18.26	NR	NA
Gross Alpha	(pCi/L)		18	5	46.34 Q	1.89	10.92	15 f	1
Gross Beta	(pCi/L)		18	15	2560.37 Q	1.9	176.6453	50 a	1
Benzene	(ug/L)		18	3	5 R	3 J	4	5	0
Carbon tetrachloride	(ug/L)		18	4	5	2 J	3	5	0
Chlorobenzene	(ug/L)		18	1	1 J	1 J	1	100	0
Chloroform	(ug/L)		18	4	8	6 R	7.25	100 i	0
"cis-1,2-Dichloroethene"	(ug/L)		18	3	13	0.3 J	7.766667	70	0
Tetrachloroethene	(ug/L)		18	8	3 J	1	2.125	5	0
Toluene	(ug/L)		18	2	0.6	0.4 J	0.5	1000	0
Trichloroethene	(ug/L)		18	4	2 J	1 J	1.75	5	0
Vinyl chloride	(ug/L)		18	1	4	4	4	2	1

Table 4.85. REGIME=Upper East Fork Poplar Creek AREA NAME=Uranium Oxide Vault

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		2	2	3.76	3.13	3.445	250	0
Fluoride	(mg/L)		2	1	0.12	0.12	0.12	4	0
Nitrate Nitrogen	(mg/L)		2	1	0.426	0.426	0.426	10	0
Sulfate	(mg/L)		2	2	37.7	21.1	29.4	250	0
"Barium, ICAP"	(mg/L)		2	2	0.0904	0.0574	0.0739	2	0
"Calcium, ICAP"	(mg/L)		2	2	107	71.5	89.25	NR	NA
"Chromium, PMS"	(mg/L)		2	2	0.00411	0.00271	0.00341	NR	NA
"Iron, ICAP"	(mg/L)		2	1	0.053	0.053	0.053	0.3	0
"Lead, PMS"	(mg/L)		2	1	0.000537	0.000537	0.000537	0.015 c	0
"Magnesium, ICAP"	(mg/L)		2	2	12	8.97	10.485	NR	NA
"Manganese, ICAP"	(mg/L)		2	2	0.0117	0.00969	0.010695	0.05	0
"Nickel, PMS"	(mg/L)		2	1	0.0707	0.0707	0.0707	NR	NA
"Nickel, ICAP"	(mg/L)		2	1	0.0555 z	0.0555 z	0.0555	0.1 d	0
"Potassium, ICAP"	(mg/L)		2	2	4.8	4.01	4.405	NR	NA
"Silicon, ICAP"	(mg/L)		1	1	2.89 ewz	2.89 ewz	2.89	NR	NA
"Sodium, ICAP"	(mg/L)		2	2	15.4	11.2	13.3	NR	NA
"Strontium, ICAP"	(mg/L)		2	2	0.215 w	0.157 w	0.186	NR	NA
"Uranium, PMS"	(mg/L)		2	2	0.594	0.359	0.4765	0.03	2
Static Water Level	(ft - toc)		2	NA	-9.37	-9.48	-9.425	NR	NA
Alkalinity as HCO3	(mg/L)		2	2	298	218	258	NR	NA
Conductivity	(umho/cm)		2	2	630	450	540	NR	NA
Dissolved Solids	(mg/L)		2	2	369	277	323	500	0
pH	(pH)		2	2	7.27 L	7.16 L	7.215	6.5/8.5	0
Turbidity (NTU)		2	2	1.62	0.794	1.207	1	1	
Uranium-234	(pCi/L)		2	2	27	18	22.5	20	1
Uranium-235	(pCi/L)		2	2	2.8	1.4	2.1	24	0
Uranium-238	(pCi/L)		2	2	190	120	155	24	2

Table 4.85 (continued)

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Gross Alpha	(pCi/L)		2	2	170	120	145	15 f	2
Gross Beta	(pCi/L)		2	2	91	77	84	50 a	2

Table 4.86. REGIME=Pine Ridge AREA NAME=Surface water sampling station location

COMPOUND	UNITS	FILTERED STATUS	# SAMPLES	# DETECTED	MAXIMUM DETECTED MMT.	MINIMUM DETECTED MMT.	AVERAGE DETECTED MMTS.	REFERENCE VALUE	# MMTS. > REF
Chloride	(mg/L)		10	10	1.31	0.82	1.082	250	0
Nitrate Nitrogen	(mg/L)		10	4	0.15	0.0549	0.083075	10	0
Sulfate	(mg/L)		10	10	17.3	5.52	11.59	250	0
"Aluminum, ICAP"	(mg/L)		10	9	1.74	0.412	1.018222	0.2	9
"Barium, ICAP"	(mg/L)		10	10	0.0742	0.0293	0.05032	2	0
"Calcium, ICAP"	(mg/L)		10	10	62.6	5.52	20.276	NR	NA
"Chromium, PMS"	(mg/L)		10	6	0.00338	0.00253	0.002833	NR	NA
"Iron, ICAP"	(mg/L)		10	10	1.03	0.152	0.6787	0.3	8
"Lead, PMS"	(mg/L)		10	6	0.00156	0.00064	0.001002	0.015 c	0
"Magnesium, ICAP"	(mg/L)		10	10	6.95	2.95	4.177	NR	NA
"Manganese, ICAP"	(mg/L)		10	10	0.127	0.0112	0.05766	0.05	4
"Potassium, ICAP"	(mg/L)		10	9	3.51	2.07	2.76	NR	NA
"Sodium, ICAP"	(mg/L)		10	10	3.85	0.678	1.9187	NR	NA
"Strontium, ICAP"	(mg/L)		10	10	0.0949 w	0.023 w	0.05124	NR	NA
Alkalinity as HCO3	(mg/L)		10	10	160	23.2	62.28	NR	NA
Conductivity	(umho/cm)		10	10	332	71.9	152.85	NR	NA
Dissolved Solids	(mg/L)		10	10	213	62	105.2	500	0
pH	(pH)		10	10	7.62 L	7 L	7.35	6.5/8.5	0
Total Suspended Solids	(mg/L)		10	9	122	2.8	25.73333	NR	NA
Turbidity (NTU)		10	10	17.6	1.89	8.958	1	10	
Gross Alpha	(pCi/L)		10	10	6.8	-1	2.104	15 f	0
Gross Beta	(pCi/L)		10	10	11	1.9	6.18	50 a	0

Table 4.87. Footnote and Qualifier Definitions

Footnotes

a- Regulatory guide for assessing compliance without further analysis.
b- See cis-Dichloroethene and trans-Dichloroethene.
c- Action level, which is applicable to community water systems and non-transient, non-community water systems.
d- EPA has deleted the MCL for nickel from the Code of Federal Regulations. The state of Tennessee retains a nickel MCL of 0.1 mg/L in its currently effective drinking water regulations.
f- Excludes radon and naturally occurring uranium.
g- Applies to combined 226Ra and 228Ra.
h- Minimum of uranium isotopes
i- Limit for total trihalomethanes (bromodichloromethane + bromoform + chloroform + dibromochloromethane).

Qualifiers

e- Results should be considered estimated.
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
B- Analyte found in blank as well as sample
D- Compounds identified in an analysis at a secondary dilution factor
J- Indicates an estimated value (VOA)
J- Chemical tracer recovery is less than 50% or exceeds 125% (RAD)
L- Sample received by ACD with expired holding time
Q- Inconsistent with historical measurements or other reported results
R- Rejected value
X- Sample received by ACD with expired holding time