TABLE 2.3-3
MONITORED NATURAL ATTENUATION SAMPLE RESULTS
Former York Naval Ordnance Plant
1425 Eden Road, Springettsbury Township, York, PA

Area	Conduits in CPA				Codorus Creek Levee Area																
Location	CW-8	CW-8	MW-137A	MW-137A	MW-98S	MW-98S	MW-98I	MW-98I	MW-99S	MW-99S	MW-99S	MW-99D	MW-99D	MW-100S	MW-100S	MW-100D	MW-100D	MW-146	MW-146	MW-147A	MW-147A	MW-147A
Open Interval FBGS	(99-128)	(99-128)	(295.5-296)	(295.5-296)	(58-68)	(58-68)	(98-105)	(98-105)	(57.8-74.3)	(57.8-74.3)	(57.8-74.3)	(125.5-142)	(125.5-142)	(45-51)	(45-51)	(93-114)	(93-114)	(13-25)	(13-25)	(200-250)	(200-250)	(200-250)
Sample Type											Duplicate											Duplicate
Parameter Sample Date	9/16/13	10/30/14	10/8/13	10/21/14	9/18/13	10/29/14	9/18/13	10/29/14	9/16/13	10/30/14	10/30/14	9/16/13	10/30/14	9/17/13	10/28/14	9/17/13	10/28/14	9/17/13	10/14/14	9/17/13	10/28/14	9/17/13
SITE VOC CONSTITUENTS OF CONCERN (ug/L)																						
Tetrachloroethene	38	120	< 25	160	3.3	48	3.4	34	4.9	24	24	5.5	20	71	12	18	43	44	52	3.2	1.3	3.8
Trichloroethene	140	100	170	750	5.1	41	6.7	32	37	31	32	44	130	100	16	26	52	58	34	4.7	2.2	5.2
cis-1,2-Dichloroethene	160	250	640	1100	3.1	42	5.8	34	9.6	35	35	8.7	53	39	7.1	9.3	42	25	33	1.6	2.5	1.7
trans-1,2-Dichloroethene	< 13	6.6 J	< 25	< 50	< 1	< 2	< 1	< 1	< 1	0.24 J	< 1	< 3	< 5	< 5	< 1	< 1	< 4	0.76 J	< 3	< 1	< 1	< 1
Vinyl Chloride	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	< 5	< 1	< 1	< 4	< 3	< 3	< 1	< 1	< 1
1,1,1-Trichloroethane	22	38	< 25	250	< 1	9.1	< 1	7.1	< 1	5.8	5.8	< 3	15	1.9 J	< 1	0.51 J	3.2 J	< 3	1.7 J	< 1	< 1	< 1
1,1-Dichloroethene	7.3 J	12 J	< 25	74	< 1	3.1	< 1	2.6	0.83 J	2.7	2.7	1.4 J	11	3 J	< 1	0.93 J	3.6 J	1.4 J	1.5 J	< 1	< 1	< 1
1,1-Dichloroethane	5 J	14	13 J	15 J	0.28 J	1.1 J	0.28 J	0.98 J	< 1	1.8	1.8	< 3	< 5	1.2 J	< 1	0.34 J	< 4	0.99 J	1 J	< 1	< 1	< 1
Chloroethane	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	< 5	< 1	< 1	< 4	< 3	< 3	< 1	< 1	< 1
OTHER VOCs (ug/L)																						
Carbon Disulfide	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	< 5	< 1	< 1	< 4	< 3	< 3	< 1	< 1	< 1
Chloroform	3.3 J	< 13	7.9 J B	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	0.9 J	< 1	0.28 J	< 4	0.64 J	< 3	0.23 J	< 1	0.22 J
Ethylbenzene	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	< 5	< 1	< 1	< 4	< 3	< 3	< 1	< 1	< 1
Methyl tert-butyl ether	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	< 5	< 1	< 1	< 4	< 3	< 3	< 1	< 1	< 1
Methylene chloride	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 3	< 5	4.2 J	< 1	< 1	< 4	2.2 J	< 1	< 1	< 1	< 1
Toluene	< 13	< 13	< 25	< 50	< 1	< 2	< 1	< 1	0.35 J	< 1	< 1	< 3	< 5	< 5	< 1	0.16 J	< 4	< 3	< 3	0.16 J	< 1	< 1
Xylenes (Total)	< 38	< 38	< 75	< 150	< 3	< 6	< 3	< 3	< 3	< 3	< 3	< 9	< 15	< 15	< 3	< 3	< 12	< 9	< 9	< 3	< 3	< 3
TRANSFORMATION INDICATORS AND INORGANICS (ug/L)																						
ALKALINITY, TOTAL	200000 B	180000 B	220000 B	260000 B	290000 B	300000 B	290000 B	290000 B	240000 B	260000 B	260000 B	230000 B	250000 B	220000 B	240000 B	230000 B	230000 B	233000	270000 B	230000 B	210000 B	220000 B
Chloride	190000	160000 B	95000	160000	43000	65000 B	38000	36000 B	83000	55000 B	51000 B	80000	53000 B	76000	100000	77000	110000	79000	100000	76000	120000	76000
Dissolved Organic Carbon	630 J B	850 J	1100	1700	1600 B	1100	1500 B	1100	810 J B	510 J	620 J	940 J B	710 J	680 J B	1100	780 J B	18000	890 J B	1000	810 J B	1200	890 J B
Ferric Iron	100	< 100	50 J	< 100	100	< 100	100	< 100	100	< 100	< 100	100	< 100	100	< 100	100	< 100	< 100	< 100	110	< 100	96 J
FERROUS IRON	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 250	75 HF	< 50	64 HF	< 50	44 J HF
Iron	< 100	76	< 100	< 50	< 100	< 50	< 100	< 50	< 100	< 50	< 50	< 100	< 50	< 100	< 50	< 100	< 50	< 100	< 50	170	24 J	140
Manganese	0.99 J B	130 B	36 B	21	2.4 J	0.17 J B	33	24 B	28 B	4.3 J B	4.4 J B	1.2 J B	0.79 J B	39	36 B	49	35 B	4.1 J	6.7 B	39	2.8 J B	35
Nitrate As N	3900	4200 B	1000	2400	2800	2100 B	2700	1300 B	3600	1900 B	1800 B	3500	2000 B	3600	3500	3600	3400	3900	4700	3100	3600	3100
Sodium	96000	55000 B	27000 B	76000 B	24000 B	24000	22000 B	20000	39000	19000 B	18000 B	42000	17000 B	37000 B	42000 B	39000 B	44000 B	37000 B	44000 B	39000	46000 B	40000 B
Sulfate	20000	21000 B	13000 B	60000	42000	46000 B	40000	28000 B	42000	24000 B	22000 B	40000	24000 B	35000	35000	37000	37000	37000	40000	36000	37000	35000
Sulfide, Total	R	< 3000	< 3000	< 3000	R	< 3000	3000	< 3000	R	< 3000	< 3000	R	< 3000	R	< 3000	R	< 3000	R	R	R	< 3000	R
MICROBIAL ANALYSES (cells/mL)																						
Dehalococcoides	3.8	68.1	< 0.3	15.8	< 0.3	10.6	1.5	8.6	0.8	8.2	< 0.5	12.6	1.9	0.8	1.05	2.7	0.3	< 0.3	< 0.5	1.1	0.55	0.8
tceA Reductase	0.9	0.4	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	0.1	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3
BAV1 Vinyl Chloride Reductase	< 0.3	5.6	< 0.3	6.9	< 0.3	< 0.5	1.04	< 0.5	< 0.3	0.6	< 0.5	6	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3
Vinyl Chloride Reductase	< 0.3	0.9	< 0.3	< 0.5	< 0.3	< 0.5	0.1	< 0.5	< 0.3	< 0.5	< 0.5	2.6	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3
Dehalobacter spp.	0.4	433	0.1	4.1	0.2	6.2	14.3	1	< 1.5	< 4.6	< 4.7	< 1.5	1.3	0.3	1.5	2	5.5	< 1.5	< 4.7	1030	17.7	1190
GASES(ug/L)																						
Ethane		2.4		0.27 J		< 0.5		< 0.5		< 0.5	< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5	
Ethene		< 0.5		0.42 J		< 0.5		< 0.5		< 0.5	< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5	
Methane		3.2 B		0.45 J B		0.085 J		0.14 J		0.1 J B	0.099 J B		0.12 J B		0.38 J		0.41 J		0.15 J		0.27 J	
Carbon Dioxide		4200		6100		14000 J		12000 J		6300	6900		6100		5300		5400		13000		6800	
FIELD SCREENING PARAMETERS																						
Dissolved Oxygen (mg/L)	4.07	0	0.52	0.51	0	1.56	0	0.09	0	2.13	2.13	0	0.6	0	0	0	0		1.36	0	0	0
Oxidation Reduction Potential (mV)	109	-28	52	125	112	91	19	124	82	134	134	79	92	82	168	85	172	115	129	-71	8	8
pH	7.49	7.3	7.43	6.15	7.02	6.9	7.08	6.86	7.3	6.7	6.7	7.04	7.24	7.4	7.13	7.29	7.04	7.04	6.58	7.1	7.02	7.02
Specific Conductance (mS/cm)	1.41	0.99	0.751	0	0.929	0.9	0.896	0.969	0.905	0.881	0.881	0.9	0.841	0.931	0.794	0.968	0.92	0.978	0.897	0.787	0.819	0.819
Temperature (°C)	15.5	13.4	18.5	20.72	14.87	12.99	13.97	13.27	15.72	13.43	13.43	14.2	14.06	15.11	14.5	14.59	13.9	15.34	15.09	13.45	13.9	13.9
Turbidity (NTU)	25.3	38.9	38.5	4.4	20.2	19.6	3.3	22.7	25.1	85.2	85.2	5.2	0	0	8.1	0	3.1	0	9.8	38	0	0

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated.
E = Inorganics: matrix interference. HF = Hold time exceedence as analysis is a field method. NA = Not available. R = Rejected data.

TABLE 2.3-3
MONITORED NATURAL ATTENUATION SAMPLE RESULTS
Former York Naval Ordnance Plant
1425 Eden Road, Springettsbury Township, York, PA

Area	Source/Plume in Central Plant Area												North Property Boundary Area													
Location	CW-13	CW-13	CW-15A	CW-15A	MW-7	MW-7	MW-49D	MW-51D	MW-51D	MW-51S	MW-51S	MW-139A	CW-4	CW-4	MW-3	MW-3	MW-9	MW-9	MW-12	MW-12	MW-18D	MW-18D	MW-18S	MW-18S	RW-2	RW-2
Open Interval FBGS	(59.6-70)	(59.6-70)	(18-68)	(18-68)	(13-35)	(13-35)	(202-212)	(88-120)	(88-120)	(34-51)	(34-51)	(421.5-422)	(63-150)	(63-150)	(50-102)	(50-102)	(59-97)	(59-97)	(30-100)	(30-100)	(130-140)	(130-140)	(45-65)	(45-65)	NA	NA
Sample Type																										
Parameter Sample Date	9/16/13	10/30/14	9/16/13	10/30/14	9/19/13	10/29/14	10/23/14	9/18/13	10/30/14	9/12/13	10/29/14	10/16/14	9/16/13	10/14/14	9/11/13	10/14/14	9/12/13	10/16/14	9/12/13	10/17/14	9/10/13	10/23/14	9/9/13	10/23/14	9/10/13	10/20/14
SITE VOC CONSTITUENTS OF CONCERN																										
Tetrachloroethene	160	380	1600	2200	240	130	380	11 J	53	410	700	0.43 J	3.5	1.2	0.47 J	0.33 J	< 5	0.22 J	4.7 J	5.4 J	< 5	< 1	< 5	< 1	< 1	< 1
Trichloroethene	220	410	6700	1900	430	160	2800	200	840	860	920	< 1	19	5.6	32	31	44	41 J	130	90 J	42	8.1	45	5.5	1.9	3.1
cis-1,2-Dichloroethene	330	1100	8700	15000	320	150	4800	140	470	780	990	1.6	40	36	0.66 J	0.75 J	32	30 J	42	47 J	66	14	71	7	< 1	< 1
trans-1,2-Dichloroethene	< 25	4.8 J	< 1000	< 500	< 25	< 10	5.9	2.1 J	< 25	< 50	< 50	< 1	< 2	< 1	< 1	< 1	< 5	< 1	2.3 J	< 1	< 5	< 1	< 5	< 1	< 1	< 1
Vinyl Chloride	< 25	30	< 1000	< 500	< 25	< 10	30	7.3 J	< 25	< 50	< 50	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	1.6 J	0.58 J	1.7 J	0.34 J	< 1	< 1
1,1,1-Trichloroethane	< 25	22 J	12000	13000	23 J	10	1300	< 13	30	< 50	310	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethene	8.8 J	15 J	2000	2600	24 J	9.9 J	240	16	120	31 J	100	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
1,1-Dichloroethane	< 25	< 25	< 1000	180 J	11 J	< 10	930	6.4 J	62	14 J	21 J	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
Chloroethane	< 25	< 25	< 1000	< 500	< 25	< 10	3.3	< 13	< 25	< 50	< 50	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
OTHER VOCs (ug/L)																										
Carbon Disulfide	< 25	< 25	< 1000	< 500	< 25	< 10	0.48 J	< 13	< 25	< 50	< 50	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
Chloroform	< 25	< 25	< 1000	< 500	< 25	< 10	< 1	< 13	< 25	< 50	< 50	< 1	< 2	< 1	2.9	2.6	< 5	< 1	< 5	< 1	1.2 J	< 1	< 5	< 1	< 1	0.17 J
Ethylbenzene	< 25	< 25	< 1000	< 500	< 25	< 10	< 1	< 13	< 25	< 50	< 50	< 1	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
Methyl tert-butyl ether	< 25	< 25	< 1000	< 500	< 25	< 10	< 1	< 13	< 25	< 50	< 50	< 1	< 2	< 1	0.26 J	0.23 J	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 1	< 1
Methylene chloride	< 25	15 J	360 J	210 J	< 25	< 10	0.17 J	< 13	18 J	11 J	< 50	< 1	< 2	< 1	< 1	< 1	< 1	< 1	< 5	< 1	2.1 J	< 1	2 J	< 1	< 1	< 1
Toluene	< 25	< 25	< 1000	< 500	< 25	< 10	0.15 J	< 13	< 25	< 50	< 50	0.59 J	< 2	< 1	< 1	< 1	< 5	< 1	< 5	< 1	< 5	< 1	< 5	< 1	0.26 J	< 1
Xylenes (Total)	< 75	< 75	< 3000	< 1500	< 75	< 30	< 3	< 38	< 75	< 150	< 150	< 3	< 6	< 3	< 3	< 3	< 15	< 3	< 15	< 3	< 15	< 3	< 15	< 3	< 3	< 3
TRANSFORMATION INDICATORS AND I																										
ALKALINITY, TOTAL	250000 B	260000 B	250000 B	180000 B	230000 B	270000 B	280000 B	110000 B	270000 B	210000 B	240000 B	120000 B	86000 B	110000 B	13000 B	10000 B	66000 B	80000 B	50000 B	32000 B	120000 B	150000 B	130000 B	160000 B	11000 B	8000 B
Chloride	120000	330000 B	290000	130000 B	130000	260000 B	95000	990000	220000 B	150000 B	200000 B	940 J	29000	28000	26000 B	28000	91000 B	89000	2900 B	3000	7900	9500	8000	9900	9000	11000
Dissolved Organic Carbon	830 J B	2500	3900 B	2500	1300 B	1500	1000	4100 B	1200	1600 B	1600	3300	190 J B	320 J	670 J B	600 J	600 J B	710 J	490 J B	480 J	570 J B	580 J	670 J B	1200	700 J B	490 J
Ferric Iron	100	< 100	100	130	77 J	< 100	280	100	< 100	100	< 100	< 100	6200	2800	140	< 100	7100	1000	900	730	3200	900	450	90 J	100	< 100
FERROUS IRON	< 50	< 50	< 50	< 50	23 J HF	< 50	330 HF	< 50	< 50	< 50	< 50	230 HF	1100 HF	2700 HF	23 J HF	< 50	6900 HF	12000 HF	1000 HF	370 HF	810 HF	2800 HF	< 50	110 HF	< 50	150 HF
Iron	< 100	12 J	< 100	130	< 100	< 50	610	< 100	< 50	< 100	< 50	130	7300	5500 B	160	< 50	14000	13000	1900	1100	4000	3700	450	200	< 100	88
Manganese	98 B	310 B	540 B	690 B	48	140 B	42 B	4.8 J	18 B	44 B	75 B	58 B	690 B	570 B	6.8 J B	5.9 B	1400 B	1300 B	950 B	510	880 B	370 B	840 B	390 B	23 B	140
Nitrate As N	3000	7300 B	4200	1000 B	4000	6700 B	< 100	180 J	1000 B	2600	3000 B	< 100	< 100	< 100	5200	5500	< 100	6.3 J	< 100	570	< 100	< 100	62 J	< 100	5200	4200
Sodium	49000	79000 B	100000	49000 B	43000	62000	32000 B	77000 B	86000 B	50000	51000	15000 B	13000	10000 B	12000	11000 B	26000	23000 B	6400	5200 B	7200	10000 B	9600	14000 B	4900 J	5800 B
Sulfate	34000	39000 B	140000	35000 B	30000	39000 B	160000	27000	72000 B	52000	68000 B	4300	29000	29000	1800	1200	12000	13000	16000	13000	18000	18000	17000	20000	2700	2200
Sulfide, Total	R	< 3000	R	< 3000	R	< 3000	< 3000	R	< 3000	< 3000	< 3000	6600	R	R	< 3000	R	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000
MICROBIAL ANALYSES (cells/mL)																										
Dehalococcoides	< 0.3	42.9	31.5	1120	< 0.3	959	51.9	2.7	2.25	< 0.3	5.6	< 0.5	0.3	3.4	< 0.3	< 0.5	630	< 0.3	< 0.3	23.3	5.4	21.5	3950	1280	< 0.4	1
tceA Reductase	< 0.3	< 0.5	< 0.2	< 0.5	< 0.3	< 0.5	0.8	1.91	< 0.9	< 0.3	< 0.5	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.5	< 0.3	< 0.3	< 0.5	< 0.5	< 0.5	< 0.3	< 0.5	< 0.4	< 0.5
BAV1 Vinyl Chloride Reductase	< 0.3	5	21.7	537	< 0.3	291	28.8	< 0.3	< 0.9	< 0.3	0.7	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	273	< 0.3	< 0.3	8.4	2.9	14.4	678	710	< 0.4	< 0.5
Vinyl Chloride Reductase	< 0.3	1.1	< 0.2	< 0.5	< 0.3	< 0.5	6.4	< 0.3	< 0.9	< 0.3	< 0.5	< 0.5	< 0.3	< 0.5	< 0.3	< 0.5	0.7	< 0.3	< 0.3	< 0.5	< 0.5	1.1	9.8	418	< 0.4	< 0.5
Dehalobacter spp.	< 1.5	5.9	< 1.1	47.6	0.4	5.8	29.7	989	25.9	1.5	4.2	< 4.5	39	465	< 1.5	0.8	1.7	2.9	3.4	0.6	< 3	11.8	11.7	160	0.2	17.7
GASES(ug/L)																										
Ethane		1.8		0.74		< 0.5	0.33 J		< 0.5		< 0.5	0.6		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5
Ethene		0.5		0.3 J		< 0.5	2.1		0.34 J		0.63	1.1		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5
Methane		5.4 B		1 B		0.16 J	1.3		0.66 B		1	1000		1.6		0.11 J		23		0.93		1.3		3.5		0.95
Carbon Dioxide		9800		7200		9100 J	11000		2300		14000 J	6300		14000		22000		9700		8400		5500		1400		16000
FIELD SCREENING PARAMETERS																										
Dissolved Oxygen (mg/L)	3.7	4.87	1.36	6.34	0	0	0.27	0.31	0	0.36	0	0.17	6.39	4.52	6.44	5.6	6.11	0	0	1.66	0	0	0	0	0	0.05
Oxidation Reduction Potential (mV)	136	230	28	86	87	290	-76	57	98	122	151	-274	-61	-5	309	209	8	-110	35	-36	-111	-87	-133	-91	165	80
pH	7.24	7.08	7.05	7.17	7.01	6.83	7.03	7.9	7.61	6.87	6.97	6.84	6.78	6.64	4.93	4.86	6.05	6.64	5.94	6.24	7.05	6.83	7.43	7.22	5.95	5.7
Specific Conductance (mS/cm)	1.18	1.65	2.04	0.825	1	1.39	16.03	0.544	1.21	1	1.24	19.42	0.421	0.404	0.215	0.167	0.49	0.584	0.189	0.187	0.351	0.346	0.389	0.393	0.171	0.276
Temperature (°C)	15.2	13.31	18.8	14.82	18.2	15.84	1.055	18.8	19.1	19.6	18.3	0.214	17.5	15.58	13.76	14.16	14.41	15.5	16.7	13.71	15.99	11.3	14.7	12.27	16.6	13.7
Turbidity (NTU)	16.3	0	34.1	2.7	37.8	4.1	24.7	0	0	22.3		3.5	269	840	37	14	78	10.2	37	103	0	46.8	9.8	180	31.7	18.7

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated.
E = Inorganics: matrix interference. HF = Hold time exceedence as analysis is a field method. NA = Not available. R = Rejected data.

TABLE 2.3-3
MONITORED NATURAL ATTENUATION SAMPLE RESULTS
Former York Naval Ordnance Plant
1425 Eden Road, Springettsbury Township, York, PA

Area	Southern Property Boundary Area									West Parking Lot Area			
Location	Cole F	Cole F	MW-64D	MW-64D	MW-64S	MW-110	MW-110	MW-141A	MW-141A	MW-136A	MW-136A	MW-136A	MW-136A
Open Interval FBGS	(17-35)	(17-35)	(68-77)	(68-77)	(33-42)	(31.5-44)	(31.5-44)	(200-300)	(200-300)	(356-356.5)	(356-356.5)	(434-443.5)	(434-443.5)
Sample Type													
Parameter Sample Date	9/19/13	10/28/14	9/11/13	10/22/14	9/12/13	9/12/13	10/22/14	9/5/13	10/21/14	10/2/13	10/23/14	10/1/13	10/22/14
SITE VOC CONSTITUENTS OF CONCERN													
Tetrachloroethene	12	2.6	480	19	63	56	55	14	6.8	8300	410	2400	100
Trichloroethene	0.95 J	0.33 J	230	7.4	110	1.2 J	1.3	8	3.4	20000	1400	15000	2400
cis-1,2-Dichloroethene	< 1	< 1	< 25	< 1	< 10	< 5	< 1	0.8 J	1.4	660 J	1100	2100	14000
trans-1,2-Dichloroethene	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	14 J	< 1500	< 100
Vinyl Chloride	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
1,1,1-Trichloroethane	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	210	< 1500	< 100
1,1-Dichloroethene	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	52	< 1500	< 100
1,1-Dichloroethane	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	58	< 1500	< 100
Chloroethane	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
OTHER VOCs (ug/L)													
Carbon Disulfide	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
Chloroform	< 1	< 1	5.7 J	< 1	4 J	< 5	0.65 J	< 1	< 1	170 J	< 50	< 1500	< 100
Ethylbenzene	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
Methyl tert-butyl ether	< 1	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
Methylene chloride	< 1	< 1	24 J	< 1	< 1.9	< 1	< 1	< 1	< 1	660 J	< 50	720 J B	< 100
Toluene	0.48 J	< 1	< 25	< 1	< 10	< 5	< 1	< 1	< 1	< 1000	< 50	< 1500	< 100
Xylenes (Total)	0.53 J	< 3	< 75	< 3	< 30	< 15	< 3	< 3	< 3	< 3000	< 150	< 4500	< 300
TRANSFORMATION INDICATORS AND I													
ALKALINITY, TOTAL	200000 B	240000 B	170000 B	190000 B	11000 B	170000 B	180000 B	110000 B	130000 B	200000 B		170000 B	
Chloride	41000	63000	5800 B	6000	3600 B	30000 B	35000	12000	9100	56000		36000	
Dissolved Organic Carbon	1000 B	770 J	550 J B	340 J	920 J B	540 J B	590 J	620 J B	570 J	600 J		720 J B	
Ferric Iron	100	< 100	100	< 100	< 100	100	< 100	56 J	< 100	140		< 100	
FERROUS IRON	< 50	< 50	< 50	< 50	810 HF	< 50	< 50	44 J HF	< 50	< 50		260 HF	
Iron	< 100	< 50	< 100	7.8 J	< 100	< 100	< 50	< 100	17 J	140		< 100	
Manganese	0.64 J	0.57 J B	0.59 J B	1 J	20 B	< 15	0.52 J	220 B	190	51		190	
Nitrate As N	2400	3000	3500	3800	3500	5800	5900	680	560	1800		< 100	
Sodium	26000	31000 B	4500 J	7700 B	6200	12000	19000 B	7600	11000 B	28000 B		16000 B	
Sulfate	11000	12000	2100	1400	2200	5000	5600	11000	11000	29000 B		24000 B	
Sulfide, Total	R	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000	< 3000		< 3000	
MICROBIAL ANALYSES (cells/mL)													
Dehalococcoides	1	0.1	< 0.3	1.3	< 5	< 0.3	0.3	< 0.3	10.7	0.1		< 0.5	
tceA Reductase	0.952	< 0.5	< 0.3	< 0.5	< 5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3		< 0.5	
BAV1 Vinyl Chloride Reductase	< 0.3	< 0.5	< 0.3	< 0.5	< 5	< 0.3	< 0.5	< 0.3	4.5	< 0.3		< 0.5	
Vinyl Chloride Reductase	< 0.3	< 0.5	< 0.3	< 0.5	< 5	< 0.3	< 0.5	< 0.3	< 0.5	< 0.3		< 0.5	
Dehalobacter spp.	0.3	7.3	< 1.5	1	< 30	< 1.5	< 4.7	232	1300	< 1.5		< 3	
GASES(ug/L)													
Ethane		< 0.5		< 0.5			< 0.5		< 0.5				
Ethene		< 0.5		< 0.5			< 0.5		< 0.5				
Methane		< 0.5		< 0.5			< 0.5		14 B				
Carbon Dioxide		6900		2700			5100		< 1000				
FIELD SCREENING PARAMETERS													
Dissolved Oxygen (mg/L)	2.67	2.67	8.17	7.65	6.7	5.94	6.24	3.8	2.15	0	0	0	0
Oxidation Reduction Potential (mV)	140	88	228	53	308	122	263	-150	-130		-122		-181
pH	7.03	7.09	7.14	7.49	5.08	7.29	6.67	7.59	6.91	7.47	7.53	6.72	7.61
Specific Conductance (mS/cm)	0.92	0.858	0.447	0.352	0.121	0.593	0.501	0.332	0.288	0.611	0.95	0.658	0.62
Temperature (°C)	17	15	14.83	15.1	18.06	16.8	14.22	14.06	13.53	16.89	14.72	18.25	13.94
Turbidity (NTU)	6.2	0	42.8	0.5	131	43.7	5	3.9	0	0	2.1	-5	145

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated.
E = Inorganics: matrix interference. HF = Hold time exceedence as analysis is a field method. NA = Not available. R = Rejected data.