Table H-18
Area 7B Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (in bgs)[3] / Sample Date / Units	MPSB-196 0-10 11/17/2003	MPSB-196 29-36 11/17/2003	MPSB-196 48-52 11/17/2003	MPSB-197 0-10 11/17/2003	MPSB-197 46-58 11/17/2003	MPSB-197 94-104 11/17/2003
Volatile Organic Compounds[4]										
Acetone	10,000,000	370,000	41,000	µg/kg[5]	140	810	36	150	41	23
Benzene	41,000	500	130	µg/kg	<6.3	650	<5	<5.3	<7.4	<5
Bromodichloromethane	8,600	10,000	3,400	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Bromoform	290,000	10,000	4,400	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Bromomethane	95,000	1,000	540	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
2-Butanone	--[8]	--	--	µg/kg	12[7]	160[7]	<10	13	<15	<10
Carbon disulfide	10,000,000	190,000	160,000	µg/kg	15	<260	<5	13	<7.4	<5
Carbon tetrachloride	21,000	500	260	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Chlorobenzene	4,400,000	10,000	6,100	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Chloroethane	6,200,000	23,000	5,000	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Chloroform	6,000	10,000	2,500	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Chloromethane	180,000	300	38	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
1,1-Dichloroethane	200,000	2,700	650	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
1,2-Dichloroethane	12,000	500	100	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
1,1-Dichloroethene	6,400	700	190	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
cis-1,2-Dichloroethene	670,000	7,000	1,600	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
trans-1,2-Dichloroethene	1,300,000	10,000	2,300	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
1,2-Dichloropropane	31,000	500	110	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
cis-1,3-Dichloropropene	--	--	--	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
trans-1,3-Dichloropropene	--	--	--	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Dibromochloromethane	12,000	10,000	3,200	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Ethyl benzene	10,000,000	70,000	46,000	µg/kg	<6.3	520	<5	<5.3	<7.4	<5
2-Hexanone	10,000,000	280,000	54,000	µg/kg	<13	<530	<10	<11	<15	<10
Methylene chloride	680,000	500	76	µg/kg	<6.3	360	<5	<5.3	<7.4	<5
4-Methyl-2-pentanone	1,500,000	19,000	2,900	µg/kg	<13	<530	<10	<11	<15	<10
Styrene	10,000,000	10,000	24,000	µg/kg	<6.3	420	<5	<5.3	<7.4	<5
1,1,2,2-Tetrachloroethane	5,500	300	9.3	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Tetrachloroethene	340,000	500	430	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Toluene	7,600,000	100,000	44,000	µg/kg	<6.3	1,300	<5	<5.3	<7.4	<5
1,1,1-Trichloroethane	10,000,000	20,000	7,200	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
1,1,2-Trichloroethane	20,000	500	150	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Trichloroethene	190,000	500	170	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Vinyl chloride	12,000	200	27	µg/kg	<6.3	<260	<5	<5.3	<7.4	<5
Xylene, m & p-	--	--	--	µg/kg	<6.3	2,300	<5	<5.3	<7.4	<5
Xylene, o-	--	--	--	µg/kg	<6.3	1,300	<5	<5.3	<7.4	<5
Xylenes, Total	8,000,000	1,000,000	990,000	µg/kg	<13	3,600	<10	<11	<15	<10
Semi-Volatile Organic Compounds[9]										
Acenaphthene	13,000,000	220,000	2,700,000	µg/kg	<99	140,000	84	61[7]	430[7]	<44
Acenaphthylene	13,000,000	220,000	2,500,000	µg/kg	<99	760,000	290	270	550	<44
Anthracene	66,000,000	6,600	350,000	µg/kg	87[7]	640,000	280	330	1,100	28[7]

Table H-18
Area 7B Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	MPSB-196	MPSB-196	MPSB-196	MPSB-197	MPSB-197	MPSB-197
				Sample Depth (in bgs)[3]	0-10	29-36	48-52	0-10	46-58	94-104
				Sample Date	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003
				Units						
Benzo(a)anthracene	25,000	90	79,000	µg/kg	420	430,000	150	1,000	1,700	53
Benzo(a)pyrene	2,500	20	46,000	µg/kg	410	230,000	120	850	1,200	35[7]
Benzo(b)fluoranthene	25,000	90	120,000	µg/kg	620	350,000	270	1,300	2,400	53
Benzo(k)fluoranthene	250,000	26	180,000	µg/kg	210	130,000	280	410	2,500	<44
Benzo(g,h,i)perylene	13,000,000	55	610,000	µg/kg	320	85,000	50	490	600	<44
Bis(2-chloroethoxy)methane	--	--	--	µg/kg	<99	<2,000	<40	<91	<510	<44
Bis(2-chloroethyl)ether	960	13	3.9	µg/kg	<99	<2,000	<40	<91	<510	<44
Bis(2-chloroisopropyl)ether	32,000	30,000	8,000	µg/kg	<99	<2,000	<40	<91	<510	<44
Bis(2-ethylhexyl)phthalate	1,300,000	600	130,000	µg/kg	55[7]	1,600[7]	<40	67[7]	<510	<44
4-Bromophenyl-phenylether	--	--	--	µg/kg	<99	<2,000	<40	<91	<510	<44
Butylbenzylphthalate	10,000,000	270,000	10,000,000	µg/kg	<99	<2,000	<40	<91	<510	<44
Carbazole	900,000	3,300	21,000	µg/kg	62[7]	200,000	95	95	<510	<44
4-Chloroaniline	880,000	15,000	19,000	µg/kg	<99	<2,000	<40	<91	<510	<44
4-Chloro-3-methylphenol	1,100,000	18,000	37,000	µg/kg	<99	<2,000	<40	<91	<510	<44
2-Chloronaphthalene	18,000,000	290,000	6,200,000	µg/kg	<99	<2,000	<40	<91	<510	<44
2-Chlorophenol	330,000	4,000	4,400	µg/kg	<99	<2,000	<40	<91	<510	<44
4-Chlorophenyl-phenylether	--	--	--	µg/kg	<99	<2,000	<40	<91	<510	<44
Chrysene	2,500,000	190	230,000	µg/kg	460	290,000	160	940	1,500	46
o-Cresol (2-Methylphenol)	10,000,000	180,000	64,000	µg/kg	<99	20,000	<2,000	<40	<91	<510
p-Cresol (4-Methylphenol)	1,100,000	18,000	4,200	µg/kg	<99	81,000	33[7]	<40	<91	<510
Dibenz(a,h)anthracene	2,500	9	41,000	µg/kg	85[7]	25,000	<40	160	<510	<44
Dibenzofuran	--	--	--	µg/kg	<99	520,000	190	100	340	<44
1,2-Dichlorobenzene	3,800,000	60,000	59,000	µg/kg	<99	<2,000	<40	<91	<510	<44
1,3-Dichlorobenzene	6,600,000	60,000	61,000	µg/kg	<99	<2,000	<40	<91	<510	<44
1,4-Dichlorobenzene	750,000	7,500	10,000	µg/kg	<99	<2,000	<40	<91	<510	<44
3,3'-Dichlorobenzidine	40,000	150	8,300	µg/kg	<99	<2,000	<40	<91	<510	<44
2,4-Dichlorophenol	660,000	2,000	1,000	µg/kg	<99	<2,000	<40	<91	<510	<44
Diethylphthalate	10,000,000	500,000	160,000	µg/kg	<99	<2,000	<40	<91	<510	<44
2,4-Dimethylphenol	4,400,000	73,000	32,000	µg/kg	<99	62,000	27[7]	<91	<510	<44
Dimethylphthalate	--	--	--	µg/kg	<99	<2,000	<40	<91	<510	<44
Di-n-butylphthalate	--	--	--	µg/kg	<99	<2,000	<40	<91	<510	<44
4,6-Dinitro-2-methylphenol	--	--	--	µg/kg	<200	<3,900	<83	<180	<1,000	<88
2,4-Dinitrophenol	440,000	1,900	210	µg/kg	<200	<3,900	<83	<180	<1,000	<88
2,4-Dinitrotoluene	58,000	210	50	µg/kg	<99	<2,000	<40	<91	<510	<44
2,6-Dinitrotoluene	220,000	3,700	1,100	µg/kg	<99	<2,000	<40	<91	<510	<44
Di-n-octylphthalate	--	--	--	µg/kg	<99	<2,000	20[7]	<91	<510	<44
Fluoranthene	8,800,000	26,000	3,200,000	µg/kg	1,100	1,200,000	630	1,900	3,900	120
Fluorene	8,800,000	150,000	3,000,000	µg/kg	<99	640,000	300	180	710	<44
Hexachlorobenzene	11,000	100	960	µg/kg	<99	<2,000	<40	<91	<510	<44
Hexachlorobutadiene	44,000	100	1,200	µg/kg	<99	<2,000	<40	<91	<510	<44

Table H-18
Area 7B Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	MPSB-196	MPSB-196	MPSB-196	MPSB-197	MPSB-197	MPSB-197
				Sample Depth (in bgs)[3]	0-10	29-36	48-52	0-10	46-58	94-104
				Sample Date	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003
				Units						
Hexachlorocyclopentadiene	1,300,000	5,000	91,000	µg/kg	<99	<2,000	<40	<91	<510	<44
Hexachloroethane	220,000	100	560	µg/kg	<99	2,000	<40	<91	<510	<44
Indeno(1,2,3-cd)pyrene	25,000	90	7,000,000	µg/kg	280	110,000	67	480	620	<44
Isophorone	10,000,000	10,000	1,900	µg/kg	<99	<2,000	<40	<91	<510	<44
2-Methylnaphthalene	4,400,000	73,000	2,900,000	µg/kg	<99	330,000	160	51	<510	<44
Naphthalene	4,400,000	10,000	25,000	µg/kg	<99	440,000	210	<91	<510	<44
Nitrobenzene	110,000	1,800	790	µg/kg	<99	<2,000	<40	<91	<510	<44
2-Nitroaniline	13,000	210	38	µg/kg	<200	<3,900	<83	<180	<1,000	<88
3-Nitroaniline	13,000	210	33	µg/kg	<200	<3,900	<83	<180	<1,000	<88
4-Nitroaniline	13,000	210	31	µg/kg	<200	<3,900	31[7]	<180	<1,000	<88
2-Nitrophenol	1,800,000	29,000	5,900	µg/kg	<99	<2,000	<40	<91	<510	<44
4-Nitrophenol	1,800,000	6,000	4,100	µg/kg	<200	<3,900	<83	<180	<1,000	<88
N-nitrosodi-n-propylamine	2,600	9.4	1.3	µg/kg	<99	<2,000	<40	<91	<510	<44
N-nitrosodiphenylamine	3,700,000	13,000	20,000	µg/kg	<99	<2,000	41	<91	<510	<44
Pentachlorophenol	150,000	100	5,000	µg/kg	<99	<2,000	<83	<91	<510	<83
Phenanthrene	66,000,000	110,000	10,000,000	µg/kg	480	1,800,000	950	1,200	3,200	90
Phenol	130,000,000	400,000	66,000	µg/kg	<99	26,000	<40	<91	<510	<44
Pyrene	6,600,000	13,000	2,200,000	µg/kg	890	670,000	340	1,800	2,700	91
1,2,4-Trichlorobenzene	2,200,000	7,000	27,000	µg/kg	<99	<2,000	<40	<91	<510	<44
2,4,5-Trichlorophenol	22,000,000	370,000	2,300,000	µg/kg	<200	<3,900	<83	<180	<1,000	<88
2,4,6-Trichlorophenol	66,000	1,100	3,100	µg/kg	<99	<2,000	<40	<91	<510	<44
Total Metals[9]										
Aluminum	190,000	NA[10]	NA	mg/kg[11]	12,000	6,500	8,600	11,000	14,000	9,800
Antimony	88	0.6	27	mg/kg	0.17[7]	1.5	1.2	0.56	0.59	1.4
Arsenic	12	5	150	mg/kg	10	36	17	11	25	10
Barium	15,000	200	8,200	mg/kg	180	180	140	190	240	100
Beryllium	440	0.4	320	mg/kg	0.99	1	1.6	0.95	1.2	1.8
Boron	20,000	60	6.7	mg/kg	9.3	18	15	4.8[7]	11	4.3[7]
Cadmium	47	0.5	38	mg/kg	<0.29	<0.21	<0.22	<0.23	<0.2	<0.2
Chromium	190,000	10	190,000	mg/kg	22	14	20	23	19	19
Cobalt	4,400	73	8.1	mg/kg	13	14	21	13	14	22
Copper	8,200	100	36,000	mg/kg	29	24	18	29	43	19
Iron	66,000	NA	NA	mg/kg	27,000	46,000	61,000	26,000	25,000	81,000
Lead	500	0.5	450	mg/kg	64	32	17	79	58	18
Manganese	31,000	NA	NA	mg/kg	1,100	670	980	960	620	510
Mercury	66	0.2	10	mg/kg	0.073[7]	0.038[7]	0.038[7]	0.1	0.22	0.03[7]
Molybdenum	--	--	--	mg/kg	36	440	9.6	26	67	1.6
Nickel	4,400	10	650	mg/kg	26	24	33	27	27	33
Selenium	1,100	5	26	mg/kg	1.6	1.9	2.5	1.2	2.6	2.6
Silver	1,100	10	84	mg/kg	0.26[7]	0.22	<0.22	0.41	0.19[7]	0.24

Table H-18
Area 7B Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	MPSB-196	MPSB-196	MPSB-196	MPSB-197	MPSB-197	MPSB-197
				Sample Depth (in bgs)[3]	0-10	29-36	48-52	0-10	46-58	94-104
				Sample Date	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003	11/17/2003
				Units						
Thallium	15	0.2	14	mg/kg	<2.9	<2.1	<2.2	<2.3	<2	<2
Tin	130,000	2,200	240	mg/kg	6.4[7]	6[7]	3.9[7]	5.2[7]	8.7[7]	3.3[7]
Tungsten	--	--	--	mg/kg	5.1[7]	6.1[7]	1.1[7]	6[7]	21	1.2[7]
Vanadium	1,500	26	26,000	mg/kg	24	20	30	25	26	31
Zinc	66,000	200	12,000	mg/kg	130	96	64	120	170	76
Additional Parameters										
Cyanide, Free[12]	4,400	20	200	mg/kg	<1.5	<1.3	<1.2	<1.4	<1.5	<1.3
Cyanide, Total[13]	--	--	--	mg/kg	<1.5	4.1	<1.2	<1.4	<1.5	<1.3

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Direct Contact Numeric Values , 25 PA Code Chapter 250.
(2) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Soil to Groundwater Numeric Values, 25 PA Code Chapter 250.
(3) ft bgs - feet below ground surface
(4) Volatile Organic Compunds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(5) µg/kg - micrograms/kilograms
(6) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(7) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(7) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(8) Semi-Volatile Organic Compound were analyzed by US Environmental Protection Agency Method SW 846 8270C.
(9) Total Metals were analyzed by US Environmental Protection Agency Method SW 846 6010B and 7471B.
(10) NA - Not Applicable
(11) mg/kg - milligrams/kilogram
(12) Free Cyanide was analyzed by US Environmental Protection Agency Method 4500-1.
(13) Total Cyanide was analyzed by US Environmental Protection Agency Method 9012.

1.5 = Reported concentration exceeds MSC for Direct Contact.
1.5 = Reported concentration exceeds MSC for Soil-to-Groundwater Residential Use Aquifer.
1.5 = Reported concentration exceeds MSC for both Soil-toGroundwater Residential Used Aquifer and Direct Contact.

Table H-19
Area 8 Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MPSB-126 10-12 12/19/2003	MPSB-126 12-14 12/19/2003	MPSB-126 16-18 12/19/2003
Volatile Organic Compounds[4]							
Acetone	10,000,000	370,000	41,000	µg/kg[5]	9.4[6]	8.5[6]	11
Benzene	41,000	500	130	µg/kg	<5	<5.1	<5
Bromodichloromethane	8,600	10,000	3,400	µg/kg	<5	<5.1	<5
Bromoform	290,000	10,000	4,400	µg/kg	<5	<5.1	<5
Bromomethane	95,000	1,000	540	µg/kg	<5	<5.1	<5
2-Butanone	--[8]	--	--	µg/kg	<10	<10	<10
Carbon disulfide	10,000,000	190,000	160,000	µg/kg	<5	<5.1	<5
Carbon tetrachloride	21,000	500	260	µg/kg	<5	<5.1	<5
Chlorobenzene	4,400,000	10,000	6,100	µg/kg	<5	<5.1	<5
Chloroethane	6,200,000	23,000	5,000	µg/kg	<5	<5.1	<5
Chloroform	6,000	10,000	2,500	µg/kg	<5	<5.1	<5
Chloromethane	180,000	300	38	µg/kg	<5	<5.1	<5
1,1-Dichloroethane	200,000	2,700	650	µg/kg	<5	<5.1	<5
1,2-Dichloroethane	12,000	500	100	µg/kg	<5	<5.1	<5
1,1-Dichloroethene	6,400	700	190	µg/kg	<5	<5.1	<5
cis-1,2-Dichloroethene	670,000	7,000	1,600	µg/kg	<5	<5.1	<5
trans-1,2-Dichloroethene	1,300,000	10,000	2,300	µg/kg	<5	<5.1	<5
1,2-Dichloropropane	31,000	500	110	µg/kg	<5	<5.1	<5
cis-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5.1	<5
trans-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5.1	<5
Dibromochloromethane	12,000	10,000	3,200	µg/kg	<5	<5.1	<5
Ethyl benzene	10,000,000	70,000	46,000	µg/kg	<5	<5.1	<5
2-Hexanone	10,000,000	280,000	54,000	µg/kg	<10	<10	<10
Methylene chloride	680,000	500	76	µg/kg	<5	<5.1	<5
4-Methyl-2-pentanone	1,500,000	19,000	2,900	µg/kg	<10	<10	<10
Styrene	10,000,000	10,000	24,000	µg/kg	<5	<5.1	<5
1,1,2,2-Tetrachloroethane	5,500	300	9.3	µg/kg	<5	<5.1	<5
Tetrachloroethene	340,000	500	430	µg/kg	<5	<5.1	<5
Toluene	7,600,000	100,000	44,000	µg/kg	<5	<5.1	<5
1,1,1-Trichloroethane	10,000,000	20,000	7,200	µg/kg	<5	<5.1	<5
1,1,2-Trichloroethane	20,000	500	150	µg/kg	<5	<5.1	<5
Trichloroethene	190,000	500	170	µg/kg	<5	<5.1	<5
Vinyl chloride	12,000	200	27	µg/kg	<5	<5.1	<5
Xylene, m & p-	--	--	--	µg/kg	<5	<5.1	<5
Xylene, o-	--	--	--	µg/kg	<5	<5.1	<5
Xylenes, Total	8,000,000	1,000,000	990,000	µg/kg	<10	<10	<10
Semi-Volatile Organic Compounds[9]							
Acenaphthene	13,000,000	220,000	2,700,000	µg/kg	<37	<37	NS[9]
Acenaphthylene	13,000,000	220,000	2,500,000	µg/kg	<37	<37	NS
Anthracene	66,000,000	6,600	350,000	µg/kg	<37	<37	NS

Table H-19
Area 8 Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MPSB-126 10-12 12/19/2003	MPSB-126 12-14 12/19/2003	MPSB-126 16-18 12/19/2003
Benzo(a)anthracene	25,000	90	79,000	µg/kg	<37	<37	NS
Benzo(a)pyrene	2,500	20	46,000	µg/kg	<37	<37	NS
Benzo(b)fluoranthene	25,000	90	120,000	µg/kg	<37	<37	NS
Benzo(k)fluoranthene	250,000	26	180,000	µg/kg	<37	<37	NS
Benzo(g,h,i)perylene	13,000,000	55	610,000	µg/kg	<37	<37	NS
Bis(2-chloroethoxy)methane	--	--	--	µg/kg	<37	<37	NS
Bis(2-chloroethyl)ether	960	13	3.9	µg/kg	<37	<37	NS
Bis(2-chloroisopropyl)ether	32,000	30,000	8,000	µg/kg	<37	<37	NS
Bis(2-ethylhexyl)phthalate	1,300,000	600	130,000	µg/kg	<37	<37	NS
4-Bromophenyl-phenylether	--	--	--	µg/kg	<37	<37	NS
Butylbenzylphthalate	10,000,000	270,000	10,000,000	µg/kg	<37	<37	NS
Carbazole	900,000	3,300	21,000	µg/kg	<37	<37	NS
4-Chloroaniline	880,000	15,000	19,000	µg/kg	<37	<37	NS
4-Chloro-3-methylphenol	1,100,000	18,000	37,000	µg/kg	<37	<37	NS
2-Chloronaphthalene	18,000,000	290,000	6,200,000	µg/kg	<37	<37	NS
2-Chlorophenol	330,000	4,000	4,400	µg/kg	<37	<37	NS
4-Chlorophenyl-phenylether	--	--	--	µg/kg	<37	<37	NS
Chrysene	2,500,000	190	230,000	µg/kg	<37	<37	NS
o-Cresol (2-Methylphenol)	10,000,000	180,000	64,000	µg/kg	<37	<37	NS
p-Cresol (4-Methylphenol)	1,100,000	18,000	4,200	µg/kg	<37	<37	NS
Dibenz(a,h)anthracene	2,500	9	41,000	µg/kg	<37	<37	NS
Dibenzofuran	--	--	--	µg/kg	<37	<37	NS
1,2-Dichlorobenzene	3,800,000	60,000	59,000	µg/kg	<37	<37	NS
1,3-Dichlorobenzene	6,600,000	60,000	61,000	µg/kg	<37	<37	NS
1,4-Dichlorobenzene	750,000	7,500	10,000	µg/kg	<37	<37	NS
3,3'-Dichlorobenzidine	40,000	150	8,300	µg/kg	<37	<37	NS
2,4-Dichlorophenol	660,000	2,000	1,000	µg/kg	<37	<37	NS
Diethylphthalate	10,000,000	500,000	160,000	µg/kg	<37	<37	NS
2,4-Dimethylphenol	4,400,000	73,000	32,000	µg/kg	<37	<37	NS
Dimethylphthalate	--	--	--	µg/kg	<37	<37	NS
Di-n-butylphthalate	--	--	--	µg/kg	<37	<37	NS
4,6-Dinitro-2-methylphenol	--	--	--	µg/kg	<83	<83	NS
2,4-Dinitrophenol	440,000	1,900	210	µg/kg	<83	<83	NS
2,4-Dinitrotoluene	58,000	210	50	µg/kg	<37	<37	NS
2,6-Dinitrotoluene	220,000	3,700	1,100	µg/kg	<37	<37	NS
Di-n-octylphthalate	--	--	--	µg/kg	<37	<37	NS
Fluoranthene	8,800,000	26,000	3,200,000	µg/kg	<37	<37	NS
Fluorene	8,800,000	150,000	3,000,000	µg/kg	<37	<37	NS
Hexachlorobenzene	11,000	100	960	µg/kg	<37	<37	NS
Hexachlorobutadiene	44,000	100	1,200	µg/kg	<37	<37	NS
Hexachlorocyclopentadiene	1,300,000	5,000	91,000	µg/kg	<37	<37	NS
Hexachloroethane	220,000	100	560	µg/kg	<37	<37	NS

Table H-19
Area 8 Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MPSB-126 10-12 12/19/2003	MPSB-126 12-14 12/19/2003	MPSB-126 16-18 12/19/2003
Indeno(1,2,3-cd)pyrene	25,000	90	7,000,000	µg/kg	<37	<37	NS
Isophorone	10,000,000	10,000	1,900	µg/kg	<37	<37	NS
2-Methylnaphthalene	4,400,000	73,000	2,900,000	µg/kg	<37	<37	NS
Naphthalene	4,400,000	10,000	25,000	µg/kg	<37	<37	NS
Nitrobenzene	110,000	1,800	790	µg/kg	<37	<37	NS
2-Nitroaniline	13,000	210	38	µg/kg	<83	<83	NS
3-Nitroaniline	13,000	210	33	µg/kg	<83	<83	NS
4-Nitroaniline	13,000	210	31	µg/kg	<83	<83	NS
2-Nitrophenol	1,800,000	29,000	5,900	µg/kg	<37	<37	NS
4-Nitrophenol	1,800,000	6,000	4,100	µg/kg	<83	<83	NS
N-nitrosodi-n-propylamine	2,600	9.4	1.3	µg/kg	<37	<37	NS
N-nitrosodiphenylamine	3,700,000	13,000	20,000	µg/kg	<37	<37	NS
Pentachlorophenol	150,000	100	5,000	µg/kg	<83	<83	NS
Phenanthrene	66,000,000	110,000	10,000,000	µg/kg	<37	<37	NS
Phenol	130,000,000	400,000	66,000	µg/kg	<37	<37	NS
Pyrene	6,600,000	13,000	2,200,000	µg/kg	<37	<37	NS
1,2,4-Trichlorobenzene	2,200,000	7,000	27,000	µg/kg	<37	<37	NS
2,4,5-Trichlorophenol	22,000,000	370,000	2,300,000	µg/kg	<83	<83	NS
2,4,6-Trichlorophenol	66,000	1,100	3,100	µg/kg	<37	<37	NS
Total Metals[10]							
Aluminum	190,000	NA[11]	NA	mg/kg[12]	NS	16,000	NS
Antimony	88	0.6	27	mg/kg	NS	<0.51	NS
Arsenic	12	5	150	mg/kg	NS	1.5	NS
Barium	15,000	200	8,200	mg/kg	NS	170	NS
Beryllium	440	0.4	320	mg/kg	NS	1.2	NS
Boron	20,000	60	6.7	mg/kg	NS	4.2[6]	NS
Cadmium	47	0.5	38	mg/kg	NS	<0.2	NS
Chromium	190,000	10	190,000	mg/kg	NS	24	NS
Cobalt	4,400	73	8.1	mg/kg	NS	16	NS
Copper	8,200	100	36,000	mg/kg	NS	35	NS
Iron	66,000	NA	NA	mg/kg	NS	33,000	NS
Lead	500	0.5	450	mg/kg	NS	17	NS
Manganese	31,000	NA	NA	mg/kg	NS	670	NS
Mercury	66	0.2	10	mg/kg	NS	0.013[6]	NS
Molybdenum	--	--	--	mg/kg	NS	0.29[6]	NS
Nickel	4,400	10	650	mg/kg	NS	37	NS
Selenium	1,100	5	26	mg/kg	NS	0.6	NS
Silver	1,100	10	84	mg/kg	NS	0.44	NS
Thallium	15	0.2	14	mg/kg	NS	<2	NS
Tin	130,000	2,200	240	mg/kg	NS	3.1[6]	NS

Table H-19
Area 8 Soil Boring Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	MPSB-126	MPSB-126	MPSB-126
				Sample Depth (ft bgs)[3]	10-12	12-14	16-18
				Sample Date	12/19/2003	12/19/2003	12/19/2003
				Units			
Tungsten	--	--	--	mg/kg	NS	1.3[6]	NS
Vanadium	1,500	26	26,000	mg/kg	NS	23	NS
Zinc	66,000	200	12,000	mg/kg	NS	95	NS

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Direct Contact Numeric Values , 25 PA Code Chapter 250.
(2) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Soil to Groundwater Numeric Values, 25 PA Code Chapter 250.
(3) ft bgs - feet below ground surface
(4) Volatile Organic Compunds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(5) µg/kg - micrograms/kilograms
(6) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(7) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(8) Semi-Volatile Organic Compound were analyzed by US Environmental Protection Agency Method SW 846 8270C.
(9) NS - A sample was not collected from this interval for laboratory analysis.
(10) Total Metals were analyzed by US Environmental Protection Agency Method SW 846 6010B and 7471B.
(11) NA - Not Applicable
(12) mg/kg - milligrams/kilogram

1.5 = Reported concentration exceeds MSC for Direct Contact.
1.5 = Reported concentration exceeds MSC for Soil-to-Groundwater Residential Use Aquifer.
1.5 = Reported concentration exceeds MSC for both Soil-toGroundwater Residential Used Aquifer and Direct Contact.

Table H-20
Area 8 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	BR-4 10-11 9/24/2003	BR-4 12-13 9/24/2003
Volatile Organic Compounds[4]						
Acetone	10,000,000	370,000	41,000	µg/kg[5]	81	6.6[6]
Benzene	41,000	500	130	µg/kg	<5	10
Bromodichloromethane	9,000	10,000	3,400	µg/kg	<5	<5
Bromoform	290,000	10,000	4,400	µg/kg	<5	<5
Bromomethane	95,000	1,000	540	µg/kg	<5	<5
2-Butanone	--[7]	--	--	µg/kg	26	<10
Carbon disulfide	10,000,000	190,000	160,000	µg/kg	18	<5
Carbon tetrachloride	21,000	500	260	µg/kg	<5	<5
Chlorobenzene	4,400,000	10,000	6,100	µg/kg	<5	<5
Chloroethane	6,200,000	23,000	5,000	µg/kg	<5	<5
Chloroform	6,000	10,000	2,500	µg/kg	<5	<5
Chloromethane	180,000	300	38	µg/kg	<5	<5
1,1-Dichloroethane	200,000	2,700	650	µg/kg	<5	<5
1,2-Dichloroethane	6,000	700	190	µg/kg	<5	<5
1,1-Dichloroethene	12,000	500	100	µg/kg	<5	<5
cis-1,2-Dichloroethene	670,000	7,000	1,600	µg/kg	<5	<5
trans-1,2-Dichloroethene	1,300,000	10,000	2,300	µg/kg	<5	<5
1,2-Dichloropropane	31,000	500	110	µg/kg	<5	<5
cis-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5
trans-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5
Dibromochloromethane	12,000	10,000	3,200	µg/kg	<5	<5
Ethyl benzene	10,000,000	70,000	46,000	µg/kg	<5	1.9[6]
2-Hexanone	10,000,000	280,000	54,000	µg/kg	<10	<10
Methylene chloride	680,000	500	76	µg/kg	<5	<5
4-Methyl-2-pentanone	1,500,000	19,000	2,900	µg/kg	<10	<10
Styrene	10,000,000	10,000	24,000	µg/kg	<5	<5
1,1,2,2-Tetrachloroethane	6,000	300	9.3	µg/kg	<5	<5
Tetrachloroethene	340,000	500	430	µg/kg	<5	<5
Toluene	7,600,000	100,000	44,000	µg/kg	<5	13
1,1,1-Trichloroethane	10,000,000	20,000	7,200	µg/kg	<5	<5
1,1,2-Trichloroethane	20,000	500	150	µg/kg	<5	5
Trichloroethene	190,000	500	170	µg/kg	<5	<5
Vinyl chloride	12,000	200	27	µg/kg	<5	<5
Xylene, m & p-	--	--	--	µg/kg	<5	4.6[6]
Xylene, o-	--	--	--	µg/kg	<5	1.4[6]
Xylenes, Total	8,000,000	1,000,000	990,000	µg/kg	<10	6[6]
Semi-Volatile Organic Compounds[8]						
Acenaphthene	13,000,000	220,000	2,700,000	µg/kg	<50	NS[9]
Acenaphthylene	13,000,000	220,000	2,500,000	µg/kg	<50	NS

Table H-20
Area 8 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	BR-4 10-11 9/24/2003	BR-4 12-13 9/24/2003
Anthracene	66,000,000	6,600	350,000	µg/kg	<50	NS
Benzo(a)anthracene	25,000	90	79,000	µg/kg	<50	NS
Benzo(a)pyrene	2,500	20	46,000	µg/kg	<50	NS
Benzo(b)fluoranthene	25,000	90	120,000	µg/kg	<50	NS
Benzo(k)fluoranthene	13,000,000	26	180,000	µg/kg	<50	NS
Benzo(g,h,i)perylene	250,000	55	610,000	µg/kg	<50	NS
Bis(2-chloroethoxy)methane	--	--	--	µg/kg	<50	NS
Bis(2-chloroethyl)ether	960	13	3.9	µg/kg	<50	NS
Bis(2-chloroisopropyl)ether	32,000	30,000	8,000	µg/kg	<50	NS
Bis(2-ethylhexyl)phthalate	1,300,000	600	130,000	µg/kg	<50	NS
4-Bromophenyl-phenylether	--	--	--	µg/kg	<50	NS
Butylbenzylphthalate	10,000,000	270,000	10,000,000	µg/kg	<50	NS
Carbazole	900,000	3,300	21,000	µg/kg	<50	NS
4-Chloroaniline	880,000	15,000	19,000	µg/kg	<50	NS
4-Chloro-3-methylphenol	1,100,000	18,000	37,000	µg/kg	<50	NS
2-Chloronaphthalene	18,000,000	290,000	6,200,000	µg/kg	<50	NS
2-Chlorophenol	330,000	4,000	4,400	µg/kg	<50	NS
4-Chlorophenyl-phenylether	--	--	--	µg/kg	<50	NS
Chrysene	2,500,000	190	230,000	µg/kg	<50	NS
o-Cresol (2-Methylphenol)	10,000,000	180,000	64,000	µg/kg	<50	NS
p-Cresol (4-Methylphenol)	1,100,000	18,000	4,200	µg/kg	<50	NS
Dibenz(a,h)anthracene	2,500	9	41,000	µg/kg	<50	NS
Dibenzofuran	--	--	--	µg/kg	<50	NS
1,2-Dichlorobenzene	3,800,000	60,000	59,000	µg/kg	<50	NS
1,3-Dichlorobenzene	6,600,000	60,000	61,000	µg/kg	<50	NS
1,4-Dichlorobenzene	750,000	7,500	10,000	µg/kg	<50	NS
3,3'-Dichlorobenzidine	40,000	150	8,300	µg/kg	<50	NS
2,4-Dichlorophenol	660,000	2,000	1,000	µg/kg	<50	NS
Diethylphthalate	10,000,000	500,000	160,000	µg/kg	<50	NS
2,4-Dimethylphenol	4,400,000	73,000	32,000	µg/kg	<50	NS
Dimethylphthalate	--	--	--	µg/kg	<50	NS
Di-n-butylphthalate	--	--	--	µg/kg	<50	NS
4,6-Dinitro-2-methylphenol	--	--	--	µg/kg	<100	NS
2,4-Dinitrophenol	440,000	1,900	210	µg/kg	<100	NS
2,4-Dinitrotoluene	58,000	210	50	µg/kg	<50	NS
2,6-Dinitrotoluene	220,000	3,700	1,100	µg/kg	<50	NS
Di-n-octylphthalate	--	--	--	µg/kg	<50	NS
Fluoranthene	8,800,000	26,000	3,200,000	µg/kg	<50	NS
Fluorene	8,800,000	150,000	3,000,000	µg/kg	<50	NS
Hexachlorobenzene	11,000	100	960	µg/kg	<50	NS
Hexachlorobutadiene	44,000	100	1,200	µg/kg	<50	NS
Hexachlorocyclopentadiene	1,300,000	5,000	91,000	µg/kg	<50	NS

Table H-20
Area 8 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	BR-4 10-11 9/24/2003	BR-4 12-13 9/24/2003
Hexachloroethane	220,000	100	560	µg/kg	<50	NS
Indeno(1,2,3-cd)pyrene	25,000	90	7,000,000	µg/kg	<50	NS
Isophorone	10,000,000	10,000	1,900	µg/kg	<50	NS
2-Methylnaphthalene	4,400,000	73,000	2,900,000	µg/kg	<50	NS
Naphthalene	4,400,000	10,000	25,000	µg/kg	<50	NS
Nitrobenzene	110,000	1,800	790	µg/kg	<50	NS
2-Nitroaniline	13,000	210	38	µg/kg	<100	NS
3-Nitroaniline	13,000	210	33	µg/kg	<100	NS
4-Nitroaniline	13,000	210	31	µg/kg	<100	NS
2-Nitrophenol	1,800,000	29,000	5,900	µg/kg	<50	NS
4-Nitrophenol	1,800,000	6,000	4,100	µg/kg	<100	NS
N-nitrosodi-n-propylamine	2,600	9.4	1.3	µg/kg	<50	NS
N-nitrosodiphenylamine	3,700,000	13,000	20,000	µg/kg	<50	NS
Pentachlorophenol	150,000	100	5,000	µg/kg	<83	NS
Phenanthrene	66,000,000	110,000	10,000,000	µg/kg	<50	NS
Phenol	130,000,000	400,000	66,000	µg/kg	<50	NS
Pyrene	6,600,000	13,000	2,200,000	µg/kg	<50	NS
1,2,4-Trichlorobenzene	2,200,000	7,000	27,000	µg/kg	<50	NS
2,4,5-Trichlorophenol	22,000,000	370,000	2,300,000	µg/kg	<100	NS
2,4,6-Trichlorophenol	66,000	1,100	3,100	µg/kg	<50	NS
Total Metals[10]						
Aluminum	190,000	NA[11]	NA	mg/kg[12]	9,300	NS
Antimony	88	0.6	27	mg/kg	2.6	NS
Arsenic	12	5	150	mg/kg	14	NS
Barium	15,000	200	8,200	mg/kg	140	NS
Beryllium	440	0.4	320	mg/kg	1.4	NS
Boron	20,000	60	6.7	mg/kg	5.4	NS
Cadmium	47	0.5	38	mg/kg	0.86	NS
Chromium	190,000	10	190,000	mg/kg	17	NS
Cobalt	4,400	73	8.1	mg/kg	19	NS
Copper	8,200	100	36,000	mg/kg	19	NS
Iron	66,000	NA	NA	mg/kg	59,000	NS
Lead	500	0.5	450	mg/kg	13	NS
Manganese	31,000	NA	NA	mg/kg	940	NS
Mercury	66	0.2	10	mg/kg	0.022[6]	NS
Molybdenum	--	--	--	mg/kg	140	NS
Nickel	4,400	10	650	mg/kg	26	NS
Selenium	1,100	5	26	mg/kg	1.8	NS
Silver	1,100	10	84	mg/kg	0.95	NS
Thallium	15	0.2	14	mg/kg	<2.3	NS
Tin	130,000	2,200	240	mg/kg	3.7	NS

Table H-20
Area 8 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	BR-4	BR-4
				Sample Depth (ft bgs)[3]	10-11	12-13
				Sample Date	9/24/2003	9/24/2003
				Units		
Tungsten	--	--	--	mg/kg	26	NS
Vanadium	1,500	26	26,000	mg/kg	30	NS
Zinc	66,000	200	12,000	mg/kg	70	NS

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Direct Contact Numeric Values , 25 PA Code Chapter 250.
(2) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Soil to Groundwater Numeric Values, 25 PA Code Chapter 250.
(3) ft bgs - feet below ground surface
(4) Volatile Organic Compunds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(5) µg/kg - micrograms/kilograms
(6) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(7) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(8) Semi-Volatile Organic Compound were analyzed by US Environmental Protection Agency Method SW 846 8270C.
(9) NS - A sample was not collected from this interval for laboratory analysis.
(10) Total Metals were analyzed by US Environmental Protection Agency Method SW 846 6010B and 7471B.
(11) NA - Not Applicable
(12) mg/kg - milligrams/kilogram

1.5 = Reported concentration exceeds MSC for Direct Contact.
1.5 = Reported concentration exceeds MSC for Soil-to-Groundwater Residential Use
1.5 = Reported concentration exceeds MSC for both Soil-toGroundwater Residential

Table H-21
Area 9 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-41 17-18 9/24/2003	MW-41 18-19 9/24/2003	MW-41 20-21 9/24/2003	MW-41 21-22 9/24/2003
Volatile Organic Compounds[4]								
Acetone	10,000,000	370,000	41,000	µg/kg[5]	7.1[6]	NS[7]	3.7[6]	7.7[6]
Benzene	41,000	500	130	µg/kg	<5	NS	<5	3.6[6]
Bromodichloromethane	9,000	10,000	3,400	µg/kg	<5	NS	<5	<5
Bromoform	290,000	10,000	4,400	µg/kg	<5	NS	<5	<5
Bromomethane	95,000	1,000	540	µg/kg	<5	NS	<5	<5
2-Butanone	--[8]	--	--	µg/kg	<10	NS	<10	1.7[6]
Carbon disulfide	10,000,000	190,000	160,000	µg/kg	<5	NS	<5	<5
Carbon tetrachloride	21,000	500	260	µg/kg	<5	NS	<5	<5
Chlorobenzene	4,400,000	10,000	6,100	µg/kg	<5	NS	<5	<5
Chloroethane	6,200,000	23,000	5,000	µg/kg	<5	NS	<5	<5
Chloroform	6,000	10,000	2,500	µg/kg	<5	NS	<5	<5
Chloromethane	180,000	300	38	µg/kg	<5	NS	<5	<5
1,1-Dichloroethane	200,000	2,700	650	µg/kg	<5	NS	<5	<5
1,2-Dichloroethane	6,000	700	190	µg/kg	<5	NS	<5	<5
1,1-Dichloroethene	12,000	500	100	µg/kg	<5	NS	<5	<5
cis-1,2-Dichloroethene	670,000	7,000	1,600	µg/kg	<5	NS	<5	<5
trans-1,2-Dichloroethene	1,300,000	10,000	2,300	µg/kg	<5	NS	<5	<5
1,2-Dichloropropane	31,000	500	110	µg/kg	<5	NS	<5	<5
cis-1,3-Dichloropropene	--	--	--	µg/kg	<5	NS	<5	<5
trans-1,3-Dichloropropene	--	--	--	µg/kg	<5	NS	<5	<5
Dibromochloromethane	12,000	10,000	3,200	µg/kg	<5	NS	<5	<5
Ethyl benzene	10,000,000	70,000	46,000	µg/kg	<5	NS	<5	<5
2-Hexanone	10,000,000	280,000	54,000	µg/kg	<10	NS	<10	<10
Methylene chloride	680,000	500	76	µg/kg	<5	NS	<5	<5
4-Methyl-2-pentanone	1,500,000	19,000	2,900	µg/kg	<10	NS	<10	<10
Styrene	10,000,000	10,000	24,000	µg/kg	<5	NS	<5	<5
1,1,2,2-Tetrachloroethane	6,000	300	9.3	µg/kg	<5	NS	<5	<5
Tetrachloroethene	340,000	500	430	µg/kg	<5	NS	<5	<5
Toluene	7,600,000	100,000	44,000	µg/kg	<5	NS	<5	<5
1,1,1-Trichloroethane	10,000,000	20,000	7,200	µg/kg	<5	NS	<5	<5
1,1,2-Trichloroethane	20,000	500	150	µg/kg	<5	NS	<5	<5
Trichloroethene	190,000	500	170	µg/kg	<5	NS	<5	<5
Vinyl chloride	12,000	200	27	µg/kg	<5	NS	<5	<5
Xylene, m & p-	--	--	--	µg/kg	<5	NS	<5	<5
Xylene, o-	--	--	--	µg/kg	<5	NS	<5	<5
Xylenes, Total	8,000,000	1,000,000	990,000	µg/kg	<10	NS	<10	<10
Semi-Volatile Organic Compounds[9]								
Acenaphthene	13,000,000	220,000	2,700,000	µg/kg	<43	NS	NS	NS
Acenaphthylene	13,000,000	220,000	2,500,000	µg/kg	<43	NS	NS	NS
Anthracene	66,000,000	6,600	350,000	µg/kg	<43	NS	NS	NS

Table H-21
Area 9 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-41 17-18 9/24/2003	MW-41 18-19 9/24/2003	MW-41 20-21 9/24/2003	MW-41 21-22 9/24/2003
Benzo(a)anthracene	25,000	90	79,000	µg/kg	<43	NS	NS	NS
Benzo(a)pyrene	2,500	20	46,000	µg/kg	<43	NS	NS	NS
Benzo(b)fluoranthene	25,000	90	120,000	µg/kg	<43	NS	NS	NS
Benzo(k)fluoranthene	13,000,000	26	180,000	µg/kg	<43	NS	NS	NS
Benzo(g,h,i)perylene	250,000	55	610,000	µg/kg	<43	NS	NS	NS
Bis(2-chloroethoxy)methane	--	--	--	µg/kg	<43	NS	NS	NS
Bis(2-chloroethyl)ether	960	13	3.9	µg/kg	<43	NS	NS	NS
Bis(2-chloroisopropyl)ether	32,000	30,000	8,000	µg/kg	<43	NS	NS	NS
Bis(2-ethylhexyl)phthalate	1,300,000	600	130,000	µg/kg	<43	NS	NS	NS
4-Bromophenyl-phenylether	--	--	--	µg/kg	<43	NS	NS	NS
Butylbenzylphthalate	10,000,000	270,000	10,000,000	µg/kg	<43	NS	NS	NS
Carbazole	900,000	3,300	21,000	µg/kg	<43	NS	NS	NS
4-Chloroaniline	880,000	15,000	19,000	µg/kg	<43	NS	NS	NS
4-Chloro-3-methylphenol	1,100,000	18,000	37,000	µg/kg	<43	NS	NS	NS
2-Chloronaphthalene	18,000,000	290,000	6,200,000	µg/kg	<43	NS	NS	NS
2-Chlorophenol	330,000	4,000	4,400	µg/kg	<43	NS	NS	NS
4-Chlorophenyl-phenylether	--	--	--	µg/kg	<43	NS	NS	NS
Chrysene	2,500,000	190	230,000	µg/kg	<43	NS	NS	NS
o-Cresol (2-Methylphenol)	10,000,000	180,000	64,000	µg/kg	<43	NS	NS	NS
p-Cresol (4-Methylphenol)	1,100,000	18,000	4,200	µg/kg	<43	NS	NS	NS
Dibenz(a,h)anthracene	2,500	9	41,000	µg/kg	<43	NS	NS	NS
Dibenzofuran	--	--	--	µg/kg	<43	NS	NS	NS
1,2-Dichlorobenzene	3,800,000	60,000	59,000	µg/kg	<43	NS	NS	NS
1,3-Dichlorobenzene	6,600,000	60,000	61,000	µg/kg	<43	NS	NS	NS
1,4-Dichlorobenzene	750,000	7,500	10,000	µg/kg	<43	NS	NS	NS
3,3'-Dichlorobenzidine	40,000	150	8,300	µg/kg	<43	NS	NS	NS
2,4-Dichlorophenol	660,000	2,000	1,000	µg/kg	<43	NS	NS	NS
Diethylphthalate	10,000,000	500,000	160,000	µg/kg	<43	NS	NS	NS
2,4-Dimethylphenol	4,400,000	73,000	32,000	µg/kg	<43	NS	NS	NS
Dimethylphthalate	--	--	--	µg/kg	<43	NS	NS	NS
Di-n-butylphthalate	--	--	--	µg/kg	<43	NS	NS	NS
4,6-Dinitro-2-methylphenol	--	--	--	µg/kg	<86	NS	NS	NS
2,4-Dinitrophenol	440,000	1,900	210	µg/kg	<86	NS	NS	NS
2,4-Dinitrotoluene	58,000	210	50	µg/kg	<43	NS	NS	NS
2,6-Dinitrotoluene	220,000	3,700	1,100	µg/kg	<43	NS	NS	NS
Di-n-octylphthalate	--	--	--	µg/kg	<43	NS	NS	NS
Fluoranthene	8,800,000	26,000	3,200,000	µg/kg	<43	NS	NS	NS
Fluorene	8,800,000	150,000	3,000,000	µg/kg	<43	NS	NS	NS
Hexachlorobenzene	11,000	100	960	µg/kg	<43	NS	NS	NS
Hexachlorobutadiene	44,000	100	1,200	µg/kg	<43	NS	NS	NS
Hexachlorocyclopentadiene	1,300,000	5,000	91,000	µg/kg	<43	NS	NS	NS
Hexachloroethane	220,000	100	560	µg/kg	<43	NS	NS	NS

Table H-21
Area 9 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-41 17-18 9/24/2003	MW-41 18-19 9/24/2003	MW-41 20-21 9/24/2003	MW-41 21-22 9/24/2003
Indeno(1,2,3-cd)pyrene	25,000	90	7,000,000	µg/kg	<43	NS	NS	NS
Isophorone	10,000,000	10,000	1,900	µg/kg	<43	NS	NS	NS
2-Methylnaphthalene	4,400,000	73,000	2,900,000	µg/kg	<43	NS	NS	NS
Naphthalene	4,400,000	10,000	25,000	µg/kg	<43	NS	NS	NS
Nitrobenzene	110,000	1,800	790	µg/kg	<43	NS	NS	NS
2-Nitroaniline	13,000	210	38	µg/kg	<86	NS	NS	NS
3-Nitroaniline	13,000	210	33	µg/kg	<86	NS	NS	NS
4-Nitroaniline	13,000	210	31	µg/kg	<86	NS	NS	NS
2-Nitrophenol	1,800,000	29,000	5,900	µg/kg	<43	NS	NS	NS
4-Nitrophenol	1,800,000	6,000	4,100	µg/kg	<86	NS	NS	NS
N-nitrosodi-n-propylamine	2,600	9.4	1.3	µg/kg	<43	NS	NS	NS
N-nitrosodiphenylamine	3,700,000	13,000	20,000	µg/kg	<43	NS	NS	NS
Pentachlorophenol	150,000	100	5,000	µg/kg	<83	NS	NS	NS
Phenanthrene	66,000,000	110,000	10,000,000	µg/kg	<43	NS	NS	NS
Phenol	130,000,000	400,000	66,000	µg/kg	<43	NS	NS	NS
Pyrene	6,600,000	13,000	2,200,000	µg/kg	<43	NS	NS	NS
1,2,4-Trichlorobenzene	2,200,000	7,000	27,000	µg/kg	<43	NS	NS	NS
2,4,5-Trichlorophenol	22,000,000	370,000	2,300,000	µg/kg	<86	NS	NS	NS
2,4,6-Trichlorophenol	66,000	1,100	3,100	µg/kg	<43	NS	NS	NS
Total Metals[10]								
Aluminum	190,000	NA[11]	NA	mg/kg[12]	12,000	17,000	NS	NS
Antimony	88	0.6	27	mg/kg	4.2	1.4	NS	NS
Arsenic	12	5	150	mg/kg	64	2.5	NS	NS
Barium	15,000	200	8,200	mg/kg	140	120	NS	NS
Beryllium	440	0.4	320	mg/kg	1.6	1.3	NS	NS
Boron	20,000	60	6.7	mg/kg	3.1[6]	2.7[6]	NS	NS
Cadmium	47	0.5	38	mg/kg	1.2	<0.2	NS	NS
Chromium	190,000	10	190,000	mg/kg	30	27	NS	NS
Cobalt	4,400	73	8.1	mg/kg	26	45	NS	NS
Copper	8,200	100	36,000	mg/kg	24	35	NS	NS
Iron	66,000	NA	NA	mg/kg	82,000	27,000	NS	NS
Lead	500	0.5	450	mg/kg	23	23	NS	NS
Manganese	31,000	NA	NA	mg/kg	1,100	220	NS	NS
Mercury	66	0.2	10	mg/kg	0.048[6]	0.01[6]	NS	NS
Molybdenum	--	--	--	mg/kg	11	0.13[6]	NS	NS
Nickel	4,400	10	650	mg/kg	30	48	NS	NS
Selenium	1,100	5	26	mg/kg	1.1	0.26[6]	NS	NS
Silver	1,100	10	84	mg/kg	0.9	<0.2	NS	NS
Thallium	15	0.2	14	mg/kg	<2	0.33[6]	NS	NS
Tin	130,000	2,200	240	mg/kg	3.4[6]	3.9[6]	NS	NS

Table H-21
Area 9 Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification	MW-41	MW-41	MW-41	MW-41
				Sample Depth (ft bgs)[3]	17-18	18-19	20-21	21-22
				Sample Date	9/24/2003	9/24/2003	9/24/2003	9/24/2003
				Units				
Tungsten	--	--	--	mg/kg	2.2[6]	1.9[6]	NS	NS
Vanadium	1,500	26	26,000	mg/kg	34	22	NS	NS
Zinc	66,000	200	12,000	mg/kg	70	89	NS	NS

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Direct Contact Numeric Values , 25 PA Code Chapter 250.
(2) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Soil to Groundwater Numeric Values, 25 PA Code Chapter 250.
(3) ft bgs - feet below ground surface
(4) Volatile Organic Compunds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(5) µg/kg - micrograms/kilograms
(6) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(7) NS - A sample was not collected from this interval for laboratory analysis.
(8) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(9) Semi-Volatile Organic Compound were analyzed by US Environmental Protection Agency Method SW 846 8270C.
(10) Total Metals were analyzed by US Environmental Protection Agency Method SW 846 6010B and 7471B.
(11) NA - Not Applicable
(12) mg/kg - milligrams/kilogram

1.5 = Reported concentration exceeds MSC for Direct Contact.
1.5 = Reported concentration exceeds MSC for Soil-to-Groundwater Residential
1.5 = Reported concentration exceeds MSC for both Soil-toGroundwater Residential

Table H-22
Area 10A Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-49 0-2 9/23/2003	MW-49 8-10 9/23/2003
Volatile Organic Compounds[4]						
Acetone	10,000,000	370,000	41,000	µg/kg[5]	14	7.7[6]
Benzene	41,000	500	130	µg/kg	<5	<5
Bromodichloromethane	9,000	10,000	3,400	µg/kg	<5	<5
Bromoform	290,000	10,000	4,400	µg/kg	<5	<5
Bromomethane	95,000	1,000	540	µg/kg	<5	<5
2-Butanone	--[7]	--	--	µg/kg	<10	0.95[6]
Carbon disulfide	10,000,000	190,000	160,000	µg/kg	3.3[6]	<5
Carbon tetrachloride	21,000	500	260	µg/kg	<5	<5
Chlorobenzene	4,400,000	10,000	6,100	µg/kg	<5	<5
Chloroethane	6,200,000	23,000	5,000	µg/kg	<5	<5
Chloroform	6,000	10,000	2,500	µg/kg	<5	<5
Chloromethane	180,000	300	38	µg/kg	<5	<5
1,1-Dichloroethane	200,000	2,700	650	µg/kg	<5	<5
1,2-Dichloroethane	6,000	700	190	µg/kg	<5	<5
1,1-Dichloroethene	12,000	500	100	µg/kg	<5	<5
cis-1,2-Dichloroethene	670,000	7,000	1,600	µg/kg	<5	<5
trans-1,2-Dichloroethene	1,300,000	10,000	2,300	µg/kg	<5	<5
1,2-Dichloropropane	31,000	500	110	µg/kg	<5	<5
cis-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5
trans-1,3-Dichloropropene	--	--	--	µg/kg	<5	<5
Dibromochloromethane	12,000	10,000	3,200	µg/kg	<5	<5
Ethyl benzene	10,000,000	70,000	46,000	µg/kg	<5	<5
2-Hexanone	10,000,000	280,000	54,000	µg/kg	<10	<10
Methylene chloride	680,000	500	76	µg/kg	<5	<5
4-Methyl-2-pentanone	1,500,000	19,000	2,900	µg/kg	<10	<10
Styrene	10,000,000	10,000	24,000	µg/kg	<5	<5
1,1,2,2-Tetrachloroethane	6,000	300	9.3	µg/kg	<5	<5
Tetrachloroethene	340,000	500	430	µg/kg	<5	<5
Toluene	7,600,000	100,000	44,000	µg/kg	<5	<5
1,1,1-Trichloroethane	10,000,000	20,000	7,200	µg/kg	<5	<5
1,1,2-Trichloroethane	20,000	500	150	µg/kg	<5	<5
Trichloroethene	190,000	500	170	µg/kg	<5	<5
Vinyl chloride	12,000	200	27	µg/kg	<5	<5
Xylene, m & p-	--	--	--	µg/kg	1.5[6]	<5
Xylene, o-	--	--	--	µg/kg	<5	<5
Xylenes, Total	8,000,000	1,000,000	990,000	µg/kg	1.5[6]	<10
Semi-Volatile Organic Compounds[8]						
Acenaphthene	13,000,000	220,000	2,700,000	µg/kg	NS[9]	<37
Acenaphthylene	13,000,000	220,000	2,500,000	µg/kg	NS	<37

Table H-22
Area 10A Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-49 0-2 9/23/2003	MW-49 8-10 9/23/2003
Anthracene	66,000,000	6,600	350,000	µg/kg	NS	<37
Benzo(a)anthracene	25,000	90	79,000	µg/kg	NS	<37
Benzo(a)pyrene	2,500	20	46,000	µg/kg	NS	<37
Benzo(b)fluoranthene	25,000	90	120,000	µg/kg	NS	<37
Benzo(k)fluoranthene	13,000,000	26	180,000	µg/kg	NS	<37
Benzo(g,h,i)perylene	250,000	55	610,000	µg/kg	NS	<37
Bis(2-chloroethoxy)methane	--	--	--	µg/kg	NS	<37
Bis(2-chloroethyl)ether	960	13	3.9	µg/kg	NS	<37
Bis(2-chloroisopropyl)ether	32,000	30,000	8,000	µg/kg	NS	<37
Bis(2-ethylhexyl)phthalate	1,300,000	600	130,000	µg/kg	NS	<37
4-Bromophenyl-phenylether	--	--	--	µg/kg	NS	<37
Butylbenzylphthalate	10,000,000	270,000	10,000,000	µg/kg	NS	<37
Carbazole	900,000	3,300	21,000	µg/kg	NS	<37
4-Chloroaniline	880,000	15,000	19,000	µg/kg	NS	<37
4-Chloro-3-methylphenol	1,100,000	18,000	37,000	µg/kg	NS	<37
2-Chloronaphthalene	18,000,000	290,000	6,200,000	µg/kg	NS	<37
2-Chlorophenol	330,000	4,000	4,400	µg/kg	NS	<37
4-Chlorophenyl-phenylether	--	--	--	µg/kg	NS	<37
Chrysene	2,500,000	190	230,000	µg/kg	NS	<37
o-Cresol (2-Methylphenol)	10,000,000	180,000	64,000	µg/kg	NS	<37
p-Cresol (4-Methylphenol)	1,100,000	18,000	4,200	µg/kg	NS	<37
Dibenz(a,h)anthracene	2,500	9	41,000	µg/kg	NS	<37
Dibenzofuran	--	--	--	µg/kg	NS	<37
1,2-Dichlorobenzene	3,800,000	60,000	59,000	µg/kg	NS	<37
1,3-Dichlorobenzene	6,600,000	60,000	61,000	µg/kg	NS	<37
1,4-Dichlorobenzene	750,000	7,500	10,000	µg/kg	NS	<37
3,3'-Dichlorobenzidine	40,000	150	8,300	µg/kg	NS	<37
2,4-Dichlorophenol	660,000	2,000	1,000	µg/kg	NS	<37
Diethylphthalate	10,000,000	500,000	160,000	µg/kg	NS	<37
2,4-Dimethylphenol	4,400,000	73,000	32,000	µg/kg	NS	<37
Dimethylphthalate	--	--	--	µg/kg	NS	<37
Di-n-butylphthalate	--	--	--	µg/kg	NS	<37
4,6-Dinitro-2-methylphenol	--	--	--	µg/kg	NS	<83
2,4-Dinitrophenol	440,000	1,900	210	µg/kg	NS	<83
2,4-Dinitrotoluene	58,000	210	50	µg/kg	NS	<37
2,6-Dinitrotoluene	220,000	3,700	1,100	µg/kg	NS	<37
Di-n-octylphthalate	--	--	--	µg/kg	NS	<37
Fluoranthene	8,800,000	26,000	3,200,000	µg/kg	NS	<37
Fluorene	8,800,000	150,000	3,000,000	µg/kg	NS	<37
Hexachlorobenzene	11,000	100	960	µg/kg	NS	<37
Hexachlorobutadiene	44,000	100	1,200	µg/kg	NS	<37
Hexachlorocyclopentadiene	1,300,000	5,000	91,000	µg/kg	NS	<37

Table H-22
Area 10A Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-49 0-2 9/23/2003	MW-49 8-10 9/23/2003
Hexachloroethane	220,000	100	560	µg/kg	NS	<37
Indeno(1,2,3-cd)pyrene	25,000	90	7,000,000	µg/kg	NS	<37
Isophorone	10,000,000	10,000	1,900	µg/kg	NS	<37
2-Methylnaphthalene	4,400,000	73,000	2,900,000	µg/kg	NS	<37
Naphthalene	4,400,000	10,000	25,000	µg/kg	NS	<37
Nitrobenzene	110,000	1,800	790	µg/kg	NS	<37
2-Nitroaniline	13,000	210	38	µg/kg	NS	<83
3-Nitroaniline	13,000	210	33	µg/kg	NS	<83
4-Nitroaniline	13,000	210	31	µg/kg	NS	<83
2-Nitrophenol	1,800,000	29,000	5,900	µg/kg	NS	<37
4-Nitrophenol	1,800,000	6,000	4,100	µg/kg	NS	<83
N-nitrosodi-n-propylamine	2,600	9.4	1.3	µg/kg	NS	<37
N-nitrosodiphenylamine	3,700,000	13,000	20,000	µg/kg	NS	<37
Pentachlorophenol	150,000	100	5,000	µg/kg	NS	<83
Phenanthrene	66,000,000	110,000	10,000,000	µg/kg	NS	<37
Phenol	130,000,000	400,000	66,000	µg/kg	NS	<37
Pyrene	6,600,000	13,000	2,200,000	µg/kg	NS	<37
1,2,4-Trichlorobenzene	2,200,000	7,000	27,000	µg/kg	NS	<37
2,4,5-Trichlorophenol	22,000,000	370,000	2,300,000	µg/kg	NS	<83
2,4,6-Trichlorophenol	66,000	1,100	3,100	µg/kg	NS	<37
Total Metals[10]						
Aluminum	190,000	NA[11]	NA	mg/kg[12]	NS	13,000
Antimony	88	0.6	27	mg/kg	NS	2.4
Arsenic	12	5	150	mg/kg	NS	2.9
Barium	15,000	200	8,200	mg/kg	NS	140
Beryllium	440	0.4	320	mg/kg	NS	1.3
Boron	20,000	60	6.7	mg/kg	NS	3.1
Cadmium	47	0.5	38	mg/kg	NS	1
Chromium	190,000	10	190,000	mg/kg	NS	23
Cobalt	4,400	73	8.1	mg/kg	NS	18
Copper	8,200	100	36,000	mg/kg	NS	35
Iron	66,000	NA	NA	mg/kg	NS	51,000
Lead	500	0.5	450	mg/kg	NS	16
Manganese	31,000	NA	NA	mg/kg	NS	1,900
Mercury	66	0.2	10	mg/kg	NS	0.0053[6]
Molybdenum	--	--	--	mg/kg	NS	1.8
Nickel	4,400	10	650	mg/kg	NS	45
Selenium	1,100	5	26	mg/kg	NS	0.52
Silver	1,100	10	84	mg/kg	NS	0.73
Thallium	15	0.2	14	mg/kg	NS	<2
Tin	130,000	2,200	240	mg/kg	NS	3.2[6]

Table H-22
Area 10A Monitoring Well Soil Sample Analytical Results

Constituent	MSC[1] Residential 0-15 Feet	MSC[2] Soil-to-Groundwater Residential Used Aquifers 100 X GW MSC	Generic Value	Sample Identification / Sample Depth (ft bgs)[3] / Sample Date / Units	MW-49 0-2 9/23/2003	MW-49 8-10 9/23/2003
Tungsten	--	--	--	mg/kg	NS	1[6]
Vanadium	1,500	26	26,000	mg/kg	NS	25
Zinc	66,000	200	12,000	mg/kg	NS	100

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Direct Contact Numeric Values , 25 PA Code Chapter 250.
(2) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil, Appendix A, Tables 3 and 4 - Soil to Groundwater Numeric Values, 25 PA Code Chapter 250.
(3) ft bgs - feet below ground surface
(4) Volatile Organic Compunds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(5) µg/kg - micrograms/kilograms
(6) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(7) -- Medium specific concentration not yet established by Pennsylvania Department of Environmental Protection.
(8) Semi-Volatile Organic Compound were analyzed by US Environmental Protection Agency Method SW 846 8270C.
(9) NS - A sample was not collected from this interval for laboratory analysis.
(10) Total Metals were analyzed by US Environmental Protection Agency Method SW 846 6010B and 7471B.
(11) NA - Not Applicable
(12) mg/kg - milligrams/kilogram

1.5	= Reported concentration exceeds MSC for Direct Contact.
1.5	= Reported concentration exceeds MSC for Soil-to-Groundwater
1.5	= Reported concentration exceeds MSC for both Soil-toGroundwater

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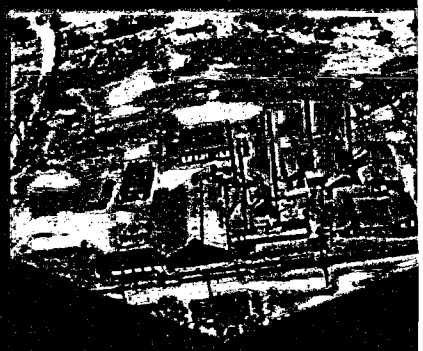
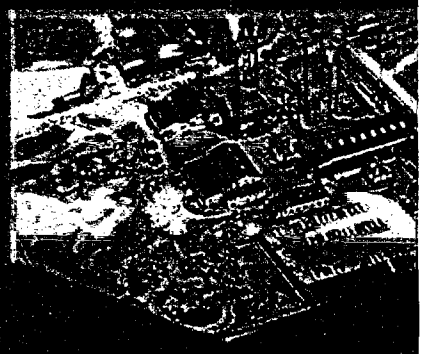
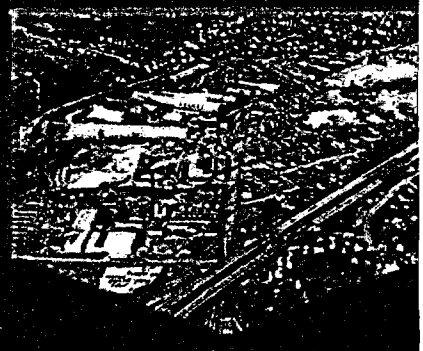
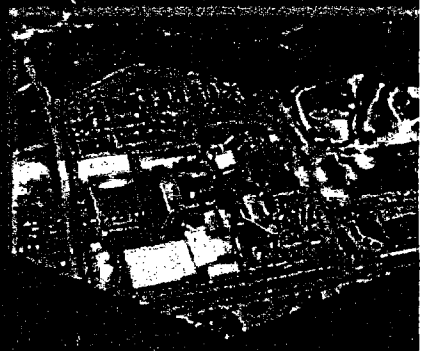
Supplemental Site Characterization Report for the Washington, Pennsylvania Site Appendices I - L









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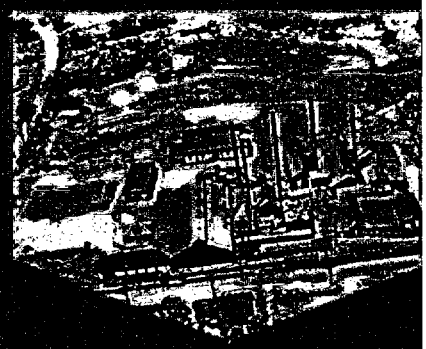
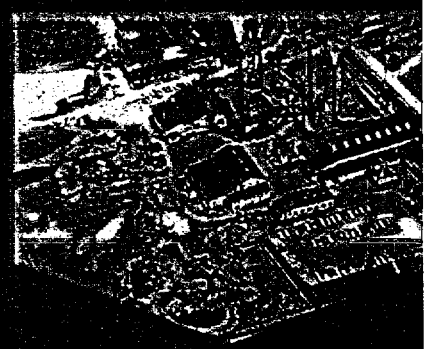
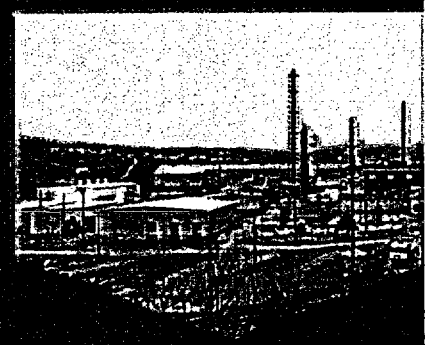
Supplemental Site Characterization Report for the Washington, Pennsylvania Site Appendix I

Well Development Data







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Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-6	Depth to Water (feet):	9.01
Casing Diameter (inches):	2	Well Volume (gallons):	1.92
Installed Depth (feet):		Total Gallons Removed:	12.00
Measured Depth (feet):	20.77	Well Volumes Removed:	6.26

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/15/2003	9.01	11:00	---	---	---	---	---	---	Begin development
	---	11:13	13.6	6.80				4.5	
	---	11:25	13.6	7.01				6.0	
	---	11:40	13.6	6.97				8.0	Pale blue color
	---	11:50	13.4	6.93				10.0	Pale blue color
	---	12:09	13.5	6.98				12.0	Pale blue color
	18.50	12:17	---	---	---	---	---	13.5	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-7	Depth to Water (feet):	8.79
Casing Diameter (inches):	2	Well Volume (gallons):	2.07
Installed Depth (feet):		Total Gallons Removed:	14.50
Measured Depth (feet):	21.50	Well Volumes Removed:	6.99

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/22/2003	8.79	10:03	---	---	---	---	---	---	Begin development
	---	10:09	13.6	6.17	1481	90.6	140	2.0	
	---	10:16	13.9	6.54	1512	154	144	4.0	
	---	10:26	14.0	6.53	1812	199	149	6.0	
	---	10:33	14.0	6.53	1995	644	152	8.0	
	20.85	10:46	13.9	6.58	1877	<1100	157	10.0	End development (dry)
11/29/2003	12.52	14:17	---	---	---	---	---	---	Begin development
	---	14:19	12.5	6.88	1937	68.7	227	1.5	
	---	14:24	16.7	6.92	1739	38.1	227	3.0	
	17.81	14:30	13.2	6.94	1791	8.92	228	4.5	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I

Monitoring Well Development Measurements

Monitoring Well ID:	MW-9	Depth to Water (feet):	3.67
Casing Diameter (inches):	2	Well Volume (gallons):	2.45
Installed Depth (feet):		Total Gallons Removed:	6.50
Measured Depth (feet):	18.68	Well Volumes Removed:	2.65

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/22/2003	3.67	13:40	---	---	---	---	---	---	Begin development
	---	13:46	17.0	6.80	1865	63.4	183	2.0	
	---	13:56	16.9	6.87	2036	<1100	186	5.0	
	17.96	14:03	---	---	---	---	---	6.5	End development (dry)
11/29/2003	3.11	12:38	---	---	---	---	---	---	Begin development
	---	12:50	14.2	7.07	1937	442	220	1.5	
	---	13:00	14.0	6.90	2268	52.4	224	5.0	
	18.02	13:15	---	---	---	---	---	7.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-10	Depth to Water (feet):	8.82
Casing Diameter (inches):	2	Well Volume (gallons):	1.29
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	16.71	Well Volumes Removed:	19.43

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/22/2003	8.82	16:11	---	---	---	---	---	---	Begin development
	---	16:15	15.5	7.11	650.7	341	196	1.5	
	---	16:21	15.0	7.17	687.2	832	197	3.0	
	---	16:27	14.7	7.23	773.8	684	198	4.5	
	---	16:34	14.5	7.24	849.0	481	197	6.0	
	---	16:41	14.4	7.23	893.7	485	197	7.5	
	---	16:46	14.4	7.23	886.8	565	196	9.0	
	---	16:55	14.1	7.24	879.6	405	193	10.5	
	---	17:01	14.2	7.23	918.2	634	193	12.0	
	---	17:06	14.1	7.22	938.2	668	192	13.5	
	9.40	17:12	13.9	7.23	949.0	657	191	15.0	End development
11/29/2003	9.03	16:12	---	---	---	---	---	---	Begin development
	---	16:14	12.7	7.47	678.7	180	224	1.25	
	---	16:16	13.3	7.43	734.1	45	225	1.50	
	---	16:18	13.5	7.41	749.4	23.3	226	3.75	
	10.05	16:20	13.5	7.40	811.6	15.4	227	5.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-16	Depth to Water (feet):	6.31
Casing Diameter (inches):	2	Well Volume (gallons):	2.42
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	21.12	Well Volumes Removed:	10.35

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/22/2003	6.31	11:17	---	---	---	---	---	---	Begin development
	---	11:22	16.0	6.69	2689	275	159	2.5	
	---	11:31	16.0	6.44	2808	240	164	5.0	
	---	11:37	15.8	6.50	2819	149	166	7.5	
	---	11:43	15.9	6.55	2830	82.9	167	10.0	
	---	11:50	16.0	6.57	2839	107	169	12.5	
	---	11:58	16.0	6.59	2851	83.8	170	15.0	
	---	12:04	15.9	6.64	2823	305	172	17.5	
	---	12:10	16.1	6.64	2817	141	173	20.0	
	---	12:17	16.1	6.64	2834	102.2	174	22.5	
	9.11	12:25	16.1	6.64	2819	106.3	176	25.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-18	Depth to Water (feet):	7.25
Casing Diameter (inches):	4	Well Volume (gallons):	6.19
Installed Depth (feet):		Total Gallons Removed:	65.00
Measured Depth (feet):	16.74	Well Volumes Removed:	10.50

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/16/2003	7.25	10:33	---	---	---	---	---	---	Begin development
	---	10:48	14.7	9.85	2359	5.08	-125	6.5	
	---	11:07	14.4	10.17	2408	2.49	-207	13.0	
	---	11:23	14.3	10.14	2475	2.49	-211	19.5	
	---	11:40	14.3	10.15	2570	2.78	-210	26.0	
	---	11:57	14.2	10.14	2663	15.0	-207	32.5	
	---	12:12	14.0	10.13	2718	1.86	-210	39.0	
	---	12:28	14.2	10.11	2763	2.14	-194	45.5	
	---	12:45	14.5	10.05	2774	2.21	-193	52.0	
	---	13:01	14.8	10.07	2821	1.63	-195	58.5	
	10.35	13:18	14.9	10.07	2851	2.45	-189	65.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-19	Depth to Water (feet):	6.11
Casing Diameter (inches):	2	Well Volume (gallons):	1.73
Installed Depth (feet):		Total Gallons Removed:	32.00
Measured Depth (feet):	16.74	Well Volumes Removed:	18.46

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/22/2003	8.82	14:32	---	---	---	---	---	---	Begin development
	---	14:39	17.7	7.18	1292	766	188	2.0	
	---	14:46	17.8	6.92	1094	<1100	189	4.0	
	---	14:53	17.9	6.80	1046	<1100	190	6.0	
	---	14:59	17.5	6.70	1108	<1100	191	8.0	
	---	15:08	17.3	6.67	1113	908	191	10.0	
	---	15:13	17.2	6.72	1056	890	191	12.0	
	---	15:24	17.3	6.67	1039	850	192	14.0	
	---	15:31	17.3	6.68	1043	861	193	16.0	
	---	15:42	17.3	6.64	1042	896	194	18.0	
	9.40	15:51	17.1	6.67	1066	911	194	20.0	End development
11/29/2003	6.71	12:00	---	---	---	---	---	---	Begin development
	---	12:05	---	---	---	120	---	5.0	
	---	12:08	---	---	---	21.1	---	7.0	
	---	12:13	---	---	---	13.0	---	9.0	
	---	12:19	---	---	---	4.66	---	11.0	
	10.05	12:20	---	---	---	---	---	12.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-21	Depth to Water (feet):	8.31
Casing Diameter (inches):	2	Well Volume (gallons):	1.89
Installed Depth (feet):		Total Gallons Removed:	20.00
Measured Depth (feet):	19.90	Well Volumes Removed:	10.58

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/22/2003	8.31	8:38	---	---	---	---	---	---	Begin development
	---	8:44	13.6	6.02	3620	56		2.0	
	---	8:50	13.5	6.11	4037	123		4.0	
	---	8:55	13.6	6.15	4567	161		6.0	dark blue color
	---	9:03	13.4	6.14	4935	160		8.0	dark blue color
	---	9:08	13.3	6.14	4972	201		10.0	dark blue color
	---	9:16	13.4	6.14	5095	230		12.0	dark blue color
	---	9:23	13.6	6.13	5251	230		14.0	dark blue color
	---	9:28	13.7	6.13	5211	240		16.0	dark blue color
	---	9:35	13.8	6.14	5165	246		18.0	dark blue color
	10.81	9:42	13.9	6.15	5235	248		20.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-24	Depth to Water (feet):	8.35
Casing Diameter (inches):	2	Well Volume (gallons):	1.49
Installed Depth (feet):		Total Gallons Removed:	15.00
Measured Depth (feet):	17.48	Well Volumes Removed:	10.07

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/15/2003	8.35	15:40	---	---	---	---	---	---	Begin development
	---	15:45	13.0	10.35	1455	646	-260	1.5	Heavy sheen
	---	15:51	13.8	10.50	1426	<1100	-274	3.0	Heavy sheen
	---	15:57	13.8	10.34	1423	<1100	-274	4.5	Heavy sheen
	---	16:03	13.8	10.32	1422	<1100	-277	6.0	Heavy sheen
	---	16:09	13.9	10.38	1421	<1100	-279	7.5	Heavy sheen
	---	16:15	13.9	10.11	1418	<1100	-265	9.0	Heavy sheen
	---	16:23	13.6	10.05	1419	<1100	-264	10.5	Heavy sheen
	---	16:30	13.8	9.90	1424	<1100	-260	12.0	Heavy sheen
	---	16:36	13.7	9.82	1426	<1100	-251	13.5	Heavy sheen
	13.65	16:42	13.2	9.78	1439	<1100	-247	15.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-25	Depth to Water (feet):	6.7
Casing Diameter (inches):	2	Well Volume (gallons):	1.35
Installed Depth (feet):		Total Gallons Removed:	6.25
Measured Depth (feet):	15.00	Well Volumes Removed:	4.62

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/15/2003	6.70	15:04	---	---	---	---	---	---	Begin development
	---	15:08	13.0	7.30	995.8	963	-106	1.5	
	---	15:15	13.5	7.21	971.5	<1100	-71	3.0	
	14.7	15:21	---	---	---	---	---	4.0	End development (dry)
11/16/2003	6.88	9:55	---	---	---	---	---	---	Begin development
	14.75	10:08	---	---	---	---	---	2.25	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-26	Depth to Water (feet):	1.94
Casing Diameter (inches):	2	Well Volume (gallons):	1.49
Installed Depth (feet):		Total Gallons Removed:	5.00
Measured Depth (feet):	11.08	Well Volumes Removed:	3.35

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/23/2003	1.94	14:22	---	---	---	---	---	---	Begin development
	---	14:26	16.9	8.12	540.3	22	202	1.5	
	---	14:31	15.9	7.37	568.4	19	202	3.0	
	---	14:36	16.2	7.11	644.3	17	202	4.5	
	10.47	14:39	---	---	---	---	---	5.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-27	Depth to Water (feet):	6.80
Casing Diameter (inches):	2	Well Volume (gallons):	1.31
Installed Depth (feet):		Total Gallons Removed:	15.00
Measured Depth (feet):	14.82	Well Volumes Removed:	11.47

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/23/2003	8.35	12:07	---	---	---	---	---	---	Begin development
	---	12:12	17.6	9.00	772.6	23	191	1.5	
	---	12:18	16.5	9.72	778.1	26	192	3.0	
	---	12:23	16.4	9.93	774.3	21	193	4.5	
	---	12:28	16.1	10.06	775.3	26	193	6.0	
	---	12:33	15.8	10.12	772.3	28	194	7.5	
	---	12:38	16.0	10.07	767.1	50	195	9.0	
	---	12:43	16.0	10.13	765.3	31	195	10.5	
	---	12:49	16.0	10.13	763.4	55	196	12.0	
	---	12:54	15.9	10.21	762.5	16	197	13.5	
	7.14	12:59	15.8	10.21	760.8	36	198	15.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-28	Depth to Water (feet):	9.92
Casing Diameter (inches):	2	Well Volume (gallons):	2.01
Installed Depth (feet):		Total Gallons Removed:	20.00
Measured Depth (feet):	22.27	Well Volumes Removed:	9.93

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/23/2003	8.35	10:48	---	---	---	---	---	---	Begin development
	---	10:55	14.2	6.78	1736	360	207	2.0	
	---	11:00	14.0	6.87	1665	240	208	4.0	
	---	11:06	13.9	6.94	1595	120	209	6.0	
	---	11:11	13.7	6.97	1547	65	209	8.0	
	---	11:16	13.8	6.97	1516	50	207	10.0	
	---	11:22	14.0	6.98	1502	50	205	12.0	
	---	11:29	14.1	6.98	1487	28	203	14.0	
	---	11:35	14.1	7.07	1470	21	199	16.0	
	---	11:41	14.1	7.01	1494	26	199	18.0	
	13.65	11:46	13.9	6.99	1474	25	198	20.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-29	Depth to Water (feet):	10.10
Casing Diameter (inches):	2	Well Volume (gallons):	1.24
Installed Depth (feet):		Total Gallons Removed:	3.00
Measured Depth (feet):	17.72	Well Volumes Removed:	2.41

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/23/2003	10.10	13:22	---	---	---	---	---	---	Begin development
	---	13:26	17.5	9.06	861.2	<1100	201	1.25	
	17.41	13:31	---	---	---	---	---	1.50	End development (dry)
11/29/2003	10.13	15:53	---	---	---	---	---	---	Begin development
	---	15:56	12.8	7.42	944.2	400	227	1.25	
	16.08	16:00	---	---	---	---	---	1.50	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-40	Depth to Water (feet):	18.02
Casing Diameter (inches):	2	Well Volume (gallons):	1.61
Installed Depth (feet):		Total Gallons Removed:	38.50
Measured Depth (feet):	27.88	Well Volumes Removed:	23.94

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/23/2003	18.02	9:20	---	---	---	---	---	---	Begin development
	---	9:27	12.2	6.54	1875	646	202	1.75	
	---	9:32	12.1	6.58	1870	<1100	203	3.50	
	---	9:39	12.0	6.57	1869	<1100	203	5.25	
	---	9:48	12.1	6.64	1874	<1100	204	7.00	
	---	9:53	12.2	6.67	1859	<1100	204	8.75	
	---	10:00	12.3	6.69	1873	<1100	204	10.50	
	---	10:07	12.4	6.76	1861	<1100	204	12.25	
	---	10:12	12.6	6.77	1859	<1100	204	14.00	
	---	10:19	12.6	6.78	1865	<1100	205	15.75	
	24.15	10:24	12.7	6.82	1863	<1100	204	17.50	End development
11/26/2003	18.37	16:33	---	---	---	---	---	---	Begin development
	---	16:52	---	---	---	298	---	10.0	
	---	17:02	---	---	---	416	---	15.0	
	---	17:05	---	---	---	124	---	17.0	
	---	17:09	---	---	---	125	---	19.0	
	24.21	17:15	---	---	---	17.6	---	21.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-41	Depth to Water (feet):	10.31
Casing Diameter (inches):	2	Well Volume (gallons):	2.10
Installed Depth (feet):		Total Gallons Removed:	47.50
Measured Depth (feet):	23.17	Well Volumes Removed:	22.65

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/24/2003	10.31	16:49	---	---	---	---	---	---	Begin development
	---	16:55	12.2	6.54	1875	646	202	2.50	
	---	17:01	12.1	6.58	1870	<1100	203	5.00	
	---	17:06	12.0	6.57	1869	<1100	203	7.50	
	---	17:12	12.1	6.64	1874	<1100	204	10.00	
	---	17:17	12.2	6.67	1859	<1100	204	12.50	
	---	17:22	12.3	6.69	1873	<1100	204	15.00	
	---	17:28	12.4	6.76	1861	<1100	204	17.50	
	---	17:35	12.6	6.77	1859	<1100	204	20.00	
	---	17:39	12.6	6.78	1865	<1100	205	22.50	
	---	17:41	---	---	---	---	---	---	End development (dry)
11/25/2003	10.91	8:33	---	---	---	---	---	---	Begin development
	18.54	9:42	11.3	6.08	3018	310	207	25.0	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-42	Depth to Water (feet):	16.34
Casing Diameter (inches):	2	Well Volume (gallons):	0.96
Installed Depth (feet):		Total Gallons Removed:	13.00
Measured Depth (feet):	22.24	Well Volumes Removed:	13.51

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/18/2003	16.34	11:07	---	---	---	---	---	---	Begin development
	---	11:12	15.6	7.2	2279	<1100	70	5.00	
	---	11:22	16.1	6.81	2533	534	87	8.00	
	---	11:26	16.1	6.81	2532	310	85	9.00	
	---	11:32	16.2	6.82	2532	182	84	10.00	
	---	11:37	16.2	6.89	2539	280	78	12.00	
	20.49	11:40	---	---	---	---	---	13.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-43	Depth to Water (feet):	15.67
Casing Diameter (inches):	2	Well Volume (gallons):	1.83
Installed Depth (feet):		Total Gallons Removed:	30.00
Measured Depth (feet):	26.90	Well Volumes Removed:	16.38

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/18/2003	15.67	13:30	---	---	---	---	---	---	Begin development
	---	13:34	16.6	8.67	1152	<1100	33		
	---	13:46	16.1	7.86	1137	<1100	27		
	---	14:00	16.1	7.18	1181	<1100	62		
	---	14:15	15.8	7.02	1187	340	84		
	---	14:19	16.0	7.09	1183	650	101		
	---	14:26	15.8	7.00	1187	800	95		
	---	14:31	15.8	7.01	1185	240	95		
	---	14:36	15.9	6.94	1182	210	99		
	---	14:41	---	---	---	---	---	30.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-44	Depth to Water (feet):	7.31
Casing Diameter (inches):	2	Well Volume (gallons):	1.75
Installed Depth (feet):		Total Gallons Removed:	20.00
Measured Depth (feet):	18.06	Well Volumes Removed:	11.41

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/18/2003	7.31	9:06	---	---	---	---	---	---	Begin development
	---	9:15	16.4	8.19	1720	896	-50	5.00	
	---	9:25	16.3	7.46	1731	<1100	-69	10.00	
	---	9:43	16.1	7.23	1730	289	19	15.00	
	---	9:54	16.7	7.11	1730	285	30	17.50	
	15.56	10:07	16.2	7.10	1728	200	49	20.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix 1
Monitoring Well Development Measurements

Monitoring Well ID:	MW-45	Depth to Water (feet):	9.41
Casing Diameter (inches):	2	Well Volume (gallons):	0.81
Installed Depth (feet):		Total Gallons Removed:	
Measured Depth (feet):	14.40	Well Volumes Removed:	0.00

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/19/2003	9.41	9:25	---	---	---	---	---	---	Begin development
	---	9:30	16.2	6.77	1075	<1100	62	5.00	
	---	10:32	14.8	6.89	1062	<1100	67	10.00	
	---	10:56	14.8	6.63	1092	<1100	57	12.00	
	---	11:03	---	---	---	---	---		End development (dry)
11/20/2003	9.29	9:50	---	---	---	---	---	---	Begin development
	---	9:58	12.9	6.73	1331	<1100	214	2.00	
	---	10:13	14.2	6.57	1015	<1100	215	4.00	
	---	10:20	14.6	6.61	998.3	<1100	215	6.00	
		10:27	15.0	6.58	1090	<1100	215	8.00	
	---	10:34	---	---	---	---	---	9.00	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-46	Depth to Water (feet):	12.80
Casing Diameter (inches):	2	Well Volume (gallons):	1.25
Installed Depth (feet):		Total Gallons Removed:	15.00
Measured Depth (feet):	20.48	Well Volumes Removed:	11.97

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/18/2003	12.80	15:15	---	---	---	---	---	---	Begin development
	---	15:22	17.7	7.07	2828	<1100	80	5.00	
	---	15:37	17.2	7.10	2831	240	67	10.00	
	---	15:45	17.2	7.09	2824	65	33	11.50	
	---	15:55	17.0	7.07	2833	34	14	13.00	
	19.82	16:07	---	---	---	---	---	15.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-47	Depth to Water (feet):	7.67
Casing Diameter (inches):	2	Well Volume (gallons):	1.51
Installed Depth (feet):		Total Gallons Removed:	65.00
Measured Depth (feet):	16.92	Well Volumes Removed:	43.08

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/16/2003	7.67	13:35	---	---	---	---	---	---	Begin development
	---	13:42	15.8	11.87	2225	<1100	-149	1.50	
	---	13:50	16.5	11.77	2134	<1100	-168	3.00	
	---	13:56	16.4	11.59	2079	<1100	-157	4.50	
	---	14:04	16.3	11.34	2132	<1100	-153	6.00	
	---	14:10	16.3	11.29	2134	<1100	-137	7.50	
	---	14:17	16.2	11.22	2147	<1100	-125	9.00	
	---	14:23	16.1	11.19	2130	<1100	-115	10.50	
	---	14:30	16.1	11.12	2133	<1100	-108	12.00	
	---	14:37	16.2	11.05	2149	<1100	-99	13.50	
	---	14:44	15.9	11.01	2142	<1100	-95	15.00	
	---	14:59	15.8	10.99	2160	<1100	-88	20.00	
	---	15:16	15.3	10.77	2178	<1100	-70	25.00	
	---	15:32	15.6	10.46	2182	<1100	-54	30.00	
	---	15:50	15.4	10.30	2195	<1100	-0	35.00	
	---	16:08	15.7	10.21	2189	<1100	-0	40.00	
	---	16:23	15.5	10.17	2189	<1100	-57	45.00	End development
11/19/2003	---	11:48	---	---	---	---	---	---	Begin development
	---	11:50	15.8	9.83	2242	1000	-98	2.00	
	---	11:53	16.4	9.77	2252	<1100	-114	4.00	
	---	12:00	16.0	8.58	2144	450	-83	10.00	
	---	12:03	16.3	8.75	2146	330	-119	12.00	
	---	12:07	16.4	8.72	2150	60	-125	14.00	
	---	12:10	16.4	8.78	2152	50	---	16.00	
	12.74	12:16	---	---	---	---	---	20.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-48	Depth to Water (feet):	10.52
Casing Diameter (inches):	2	Well Volume (gallons):	1.55
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	20.02	Well Volumes Removed:	16.13

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/19/2003	10.52	15:46	---	---	---	---	---	---	Begin development
	---	15:51	16.2	10.23	1698	110	-269	5.00	
	---	15:56	16.1	10.37	1732	30	-278	10.00	
	---	16:00	15.8	10.41	1742	12	-247	15.00	
	---	16:05	15.8	10.38	1739	6.9	-282	20.00	
	---	16:09	---	---	---	---	---	25.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-49	Depth to Water (feet):	15.31
Casing Diameter (inches):	2	Well Volume (gallons):	0.76
Installed Depth (feet):		Total Gallons Removed:	12.00
Measured Depth (feet):	20.00	Well Volumes Removed:	15.69

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/20/2003	15.31	8:36	---	---	---	---	---	---	Begin development
	---	8:46	13.1	6.29	1359	<1100	212	5.00	
	---	8:52	12.6	6.49	1542	949	212	7.50	
	---	8:56	12.8	6.57	1535	213	213	8.50	
	---	9:01	12.2	6.64	1531	52.4	213	9.50	
	---	9:08	12.5	6.67	1533	35.2	214	10.50	
	---	9:10	12.9	6.70	1514	15.5	214	11.50	
	---	9:13	---	---	---	---	---	12.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-50	Depth to Water (feet):	6.27
Casing Diameter (inches):	2	Well Volume (gallons):	1.58
Installed Depth (feet):		Total Gallons Removed:	
Measured Depth (feet):	15.93	Well Volumes Removed:	0.00

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/20/2003	6.27	11:55	---	---	---	---	---	---	Begin development
	---	12:00	15.4	7.44	847.5	<1100		5	
	---	12:10	16.0	7.20	909.6	<1100		10.00	
	---	12:21	16.1	7.21	917.4	840		15.00	
	---	12:25	15.9	7.06	924.7	528		17.00	
	---	12:29	15.2	7.07	928.3	883		19.00	
	---	12:34	15.2	7.03	927.3	450		21.00	
	---	12:38	15.1	7.02	930.7	265		23.00	
	---	12:42	15.0	7.00	931	847		25.00	
	---	12:46	15.0	7.00	932.2	815		27.00	
	8.15	12:52	---	---	---	---	---	30.00	End development
11/29/2003	6.27	11:55	---	---	---	---	---	---	Begin development
	---	12:00	15.4	7.44	847.5	<1100		5	
	---	12:10	16.0	7.20	909.6	<1100		10.00	
	---	12:21	16.1	7.21	917.4	840		15.00	
	---	12:25	15.9	7.06	924.7	528		17.00	
	---	12:29	15.2	7.07	928.3	883		19.00	
	---	12:34	15.2	7.03	927.3	450		21.00	
	---	12:38	15.1	7.02	930.7	265		23.00	
	---	12:42	15.0	7.00	931	847		25.00	
	---	12:46	15.0	7.00	932.2	815		27.00	
	8.15	12:52	---	---	---	---	---	30.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-51	Depth to Water (feet):	3.12
Casing Diameter (inches):	2	Well Volume (gallons):	1.94
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	15.02	Well Volumes Removed:	12.88

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/21/2003	3.12	14:05	---	---	---	---	---	---	Begin development
	---	14:12	14.3	7.46	1443	<1100	195	5.00	
	---	14:23	14.9	8.10	1768	<1100	198	10.00	
	---	14:27	14.5	7.78	1823	<1100	197	12.00	
	---	14:32	14.4	7.47	1858	<1100	194	14.00	
	---	14:36	14.6	7.48	1866	726	190	16.00	
	---	14:39	14.6	7.34	1922	242	187	18.00	
	---	14:43	15.1	7.24	2016	125	181	20.00	
	---	14:54	---	---	---	---	---	25.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-52	Depth to Water (feet):	6.27
Casing Diameter (inches):	2	Well Volume (gallons):	1.41
Installed Depth (feet):		Total Gallons Removed:	15.00
Measured Depth (feet):	14.93	Well Volumes Removed:	10.62

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/21/2003	6.27	15:25	---	---	---	---	---	---	Begin development
	---	15:37	13.4	7.16	1221	1049	177	5.00	
	---	15:40	13.2	6.88	1227	35.9	178	7.00	
	---	15:44	13.2	6.76	1237	13.6	177	9.00	
	---	15:50	13.2	6.71	1241	6.68	175	11.00	
	---	16:01	---	---	---	---	---	15.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-53	Depth to Water (feet):	6.82
Casing Diameter (inches):	2	Well Volume (gallons):	1.57
Installed Depth (feet):		Total Gallons Removed:	30.00
Measured Depth (feet):	16.45	Well Volumes Removed:	19.10

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/25/2003	6.82	13:18	---	---	---	---	---	---	Begin development
	---	13:21	14.0	7.25	798.6	1100	209	5.00	
	---	13:26	12.8	7.12	812.2	360	209	10.00	
	---	13:33	12.5	7.02	816.4	180	208	15.00	
	---	13:39	12.5	6.94	818.2	60	208	20.00	
	---	13:46	12.4	7.03	823.7	30	209	25.00	
	---	13:48	12.3	9.96	824.3	17	210	27.00	
	---	13:51	12.5	6.93	826	19	211	29.00	
	8.88	13:53	---	---	---	---	---	30.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-54	Depth to Water (feet):	4.12
Casing Diameter (inches):	2	Well Volume (gallons):	2.04
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	16.61	Well Volumes Removed:	12.27

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/25/2003	4.12	10:39	---	---	---	---	---	---	Begin development
	---	10:44	10.7	7.07	902.3	<1100	210	5.00	
	---	10:46	11.6	7.01	914.4	<1100	210	7.00	
	---	10:48	11.8	6.94	921.2	1000	211	9.00	
	---	10:54	11.7	6.99	950.6	130	211	15.00	
	---	10:59	11.5	6.98	966.7	50	212	20.00	
	---	11:01	11.7	6.96	978.4	55	212	22.00	
	---	11:03	11.8	6.96	987.0	27	212	24.00	
	7.07	11:04	---	---	---	---	---	25.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	MW-55	Depth to Water (feet):	4.02
Casing Diameter (inches):	2	Well Volume (gallons):	1.76
Installed Depth (feet):		Total Gallons Removed:	60.00
Measured Depth (feet):	14.81	Well Volumes Removed:	34.09

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/25/2003	4.02	14:23	---	---	---	---	---	---	Begin development
	---	14:27	12.0	9.35	803.4	<1100	207	5.00	
	---	14:33	12.0	10.03	770.9	<1100	207	10.00	
	---	14:38	12.1	9.99	770.6	<1100	207	15.00	
	---	14:43	12.2	9.78	781.1	<1100	207	20.00	
	---	14:48	12.3	9.52	797.0	<1100	207	25.00	
	---	14:54	12.2	9.33	811.4	950	207	30.00	
		15:00	12.2	9.27	812.3	<1100	207	35.00	
	13.62	15:03	---	---	---	---	---	40.00	End development (dry)
11/26/2003	4.11	13:59	---	---	---	---	---	---	Begin development
	---	14:01	10.6	11.84	918.8	260	235	2.00	
	---	14:06	11.6	11.78	794.3	190	237	4.00	
	---	14:12	11.9	11.36	775.8	180	239	6.00	
	---	14:18	12.1	10.96	780.1	60	240	8.00	
	---	14:26	12.1	10.65	785.0	28	241	10.00	
	---	14:31	12.2	10.48	791.1	26	241	12.00	
	---	14:36	12.2	10.32	796.2	19	242	14.00	
	---	14:44	12.1	10.21	801.4	16	242	16.00	
	---	14:48	12.2	10.14	812.3	8.5	242	18.00	
	---	14:53	12.2	10.10	799.4	4	242	20.00	
	7.81	14:55	---	---	---	---	---	<20.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	GW-3	Depth to Water (feet):	3.31
Casing Diameter (inches):	2	Well Volume (gallons):	1.98
Installed Depth (feet):		Total Gallons Removed:	25.00
Measured Depth (feet):	15.48	Well Volumes Removed:	12.59

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/25/2003	3.31	11:51	---	---	---	---	---	---	Begin development
	---	11:58	11.3	7.15	1030	650	209	5.00	
	---	12:04	11.7	6.90	1033	130	210	10.00	
	---	12:11	11.8	6.91	1034	70	211	15.00	
	---	12:20	11.9	6.83	1038	50	211	20.00	
	---	12:23	12.1	6.89	1036	24	211	22.00	
	---	12:26	12.1	6.93	1037	55	211	24.00	
	7.88	12:27	---	---	---	---	---	25.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	TB-01-1	Depth to Water (feet):	38.42
Casing Diameter (inches):	2	Well Volume (gallons):	0.49
Installed Depth (feet):		Total Gallons Removed:	2.75
Measured Depth (feet):	41.41	Well Volumes Removed:	5.64

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/30/2003	38.42	15:25	---	---	---	---	---	---	Begin development
	---	15:27	10.7	6.78	1386	65	201	0.50	
	---	15:30	11.0	6.66	1384	60	201	1.00	
	---	15:33	11.0	6.51	1400	50	201	1.50	
	---	15:36	11.0	6.43	1403	45	201	2.00	
	---	15:40	10.9	6.38	1401	41	201	2.50	
	40.41	15:44	---	---	---	---	---	2.75	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	TB-02	Depth to Water (feet):	17.87
Casing Diameter (inches):	2	Well Volume (gallons):	2.47
Installed Depth (feet):		Total Gallons Removed:	27.50
Measured Depth (feet):	33.00	Well Volumes Removed:	11.14

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/30/2003	17.87	16:02	---	---	---	---	---	---	Begin development
	---	16:07	11.1	6.87	719.9	<1100	199	2.50	
	---	16:17	11.8	6.93	734.7	<1100	199	5.00	
	---	16:20	12.3	6.92	734.5	<1100	200	7.50	
	---	16:24	12.1	6.95	737.0	<1100	200	10.00	
	---	16:27	12.5	6.96	735.2	700	200	12.50	
	---	16:31	12.3	6.98	735.8	400	200	15.00	
	---	16:35	12.4	7.00	734.9	270	200	17.50	
	---	16:38	12.4	6.99	740.3	152	200	20.00	
	---	16:41	12.3	7.00	738.7	86.9	200	22.50	
	---	16:45	12.3	7.00	740.7	48.5	200	25.00	
	23.40	16:49	12.3	7.01	725.5	55.0	200	27.50	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	TB-03	Depth to Water (feet):	11.53
Casing Diameter (inches):	2	Well Volume (gallons):	5.01
Installed Depth (feet):		Total Gallons Removed:	7.50
Measured Depth (feet):	42.25	Well Volumes Removed:	1.50

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/30/2003	11.53	14:43	---	---	---	---	---	---	Begin development
	---	14:51	10.6	6.88	679.2	27	200	5.00	
	42.13	14:56	---	---	---	---	---	7.50	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	TB-04	Depth to Water (feet):	6.13
Casing Diameter (inches):	2	Well Volume (gallons):	1.74
Installed Depth (feet):		Total Gallons Removed:	14.00
Measured Depth (feet):	16.79	Well Volumes Removed:	8.05

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/30/2003	6.13	13:27	---	---	---	---	---	---	Begin development
	---	13:34	10.9	7.02	627.5	50	197	1.75	
	---	13:39	11.4	6.86	621.3	25	198	3.50	
	---	13:44	11.5	6.77	620.4	17	198	5.25	
	---	13:50	11.4	6.75	619.5	12	199	7.00	
		13:55	11.4	6.75	618.4	8.2	199	8.75	
	---	14:00	11.4	6.76	619.1	8.4	199	10.50	
	---	14:06	11.4	6.76	618.7	7.5	199	12.25	
	---	14:10	11.4	6.74	619.2	8.2	200	14.00	
	---	14:12	---	---	---	---	---	14.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	TB-05	Depth to Water (feet):	8.59
Casing Diameter (inches):	2	Well Volume (gallons):	1.65
Installed Depth (feet):		Total Gallons Removed:	14.00
Measured Depth (feet):	18.73	Well Volumes Removed:	8.46

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/30/2003	8.59	12:31	---	---	---	---	---	---	Begin development
	---	12:37	11.6	8.82	587.3	130	193	1.75	
	---	12:42	12.0	7.81	581.9	50	194	3.50	
	---	12:47	12.0	7.20	589.9	45	195	5.25	
	---	12:53	11.9	6.94	603.1	21	196	7.00	
	---	12:57	11.9	6.89	588.5	40	196	8.75	
	---	13:02	12.0	6.82	599.7	29	197	10.50	
	---	13:08	12.0	6.77	606	24	197	12.25	
	---	13:12	12.0	6.74	592.7	---	197	14.00	
	9.32	13:13	---	---	---	---	---	14.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	UG-3	Depth to Water (feet):	3.17
Casing Diameter (inches):	2	Well Volume (gallons):	1.61
Installed Depth (feet):		Total Gallons Removed:	18.75
Measured Depth (feet):	13.05	Well Volumes Removed:	11.64

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/23/2003	3.17	16:05	---	---	---	---	---	---	Begin development
	---	16:11	13.8	7.37	880.5	750	201	1.75	
	---	16:14	13.0	6.96	883.4	<1100	202	3.50	
	---	16:21	13.1	6.86	895.1	<1100	202	5.25	
	---	16:26	13.2	6.87	875.9	<1100	202	7.00	
	---	16:33	13.1	6.87	867.7	<1100	202	8.75	
	12.41	16:40	---	---	---	---	---	8.75	End development (dry)
11/24/2003	3.17	8:23	---	---	---	---	---	---	Begin development
	---	8:41	12.5	6.87	869.3	120	201	5.00	
	7.06	8:59	---	---	---	---	---	10.00	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	UG-4	Depth to Water (feet):	7.08
Casing Diameter (inches):	2	Well Volume (gallons):	1.57
Installed Depth (feet):		Total Gallons Removed:	17.50
Measured Depth (feet):	16.71	Well Volumes Removed:	11.14

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/23/2003	7.08	15:01	---	---	---	---	---	---	Begin development
	---	15:06	16.6	7.02	1707	11	197	1.75	
	---	15:12	15.5	7.02	1696	13	196	3.50	
	---	15:17	15.3	6.97	1708	23	197	5.25	
	---	15:22	15.2	6.97	1692	33	197	7.00	
	---	15:27	15.2	6.98	1691	27	198	8.75	
	---	15:32	15.0	6.96	1700	50	198	10.50	
	---	15:36	15.1	6.97	1690	75	199	12.25	
	---	15:41	15.0	6.96	1689	65	199	14.00	
	---	15:45	14.9	6.97	1685	110	199	15.75	
	---	15:50	14.9	6.95	1681	190	200	17.50	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-1	Depth to Water (feet):	8.44
Casing Diameter (inches):	2	Well Volume (gallons):	4.38
Installed Depth (feet):		Total Gallons Removed:	45.00
Measured Depth (feet):	35.30	Well Volumes Removed:	10.27

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/15/2003	8.44	12:33	---	---	---	---	---	---	Begin development
	---	12:47	13.6	6.91	3260	106.9	-128	5.00	dark blue color to water
	---	13:02	13.4	7.01	3205	71.3	-129	10.00	dark blue color to water
	---	13:15	13.4	7.02	3200	83.0	-127	15.00	dark blue color to water
	---	13:27	13.2	7.03	3174	58.4	-126	20.00	dark blue color to water
	---	13:41	13.1	7.01	3149	51.2	-128	25.00	dark blue color to water
		13:55	13.3	7.00	3157	30.2	-124	30.00	dark blue color to water
	---	14:07	13.1	6.99	3142	38.3	-125	35.00	dark blue color to water
	---	14:20	13.0	6.99	3140	48.1	-124	40.00	dark blue color to water
	21.85	14:33	12.9	7.01	3183	59.9	-123	45.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-2	Depth to Water (feet):	1.87
Casing Diameter (inches):	2	Well Volume (gallons):	7.74
Installed Depth (feet):		Total Gallons Removed:	40.00
Measured Depth (feet):	49.30	Well Volumes Removed:	5.17

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/24/2003	1.87	11:10	---	---	---	---	---	---	Begin development
	---	11:18	12.0	8.45	2821	20	204	5.00	
	---	11:27	12.0	8.72	2831	10	204	10.00	
	---	11:37	12.0	8.79	2832	7.5	205	15.00	
	---	11:46	12.0	8.82	2835	6.7	206	20.00	
	---	11:55	12.0	8.82	2834	6.5	206	25.00	
	---	12:05	11.9	8.85	2835	5.5	206	30.00	
	---	12:14	11.6	8.85	2863	5.1	207	35.00	
	5.65	12:22	11.4	8.82	2846	4.3	207	40.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-3	Depth to Water (feet):	10.11
Casing Diameter (inches):	2	Well Volume (gallons):	3.92
Installed Depth (feet):		Total Gallons Removed:	40.00
Measured Depth (feet):	34.16	Well Volumes Removed:	10.20

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/24/2003	10.11	15:27	---	---	---	---	---	---	Begin development
	---	15:32	9.5	8.63	1780	1000	203	5.00	
	---	15:39	11.1	7.32	1821	120	204	10.00	
	---	15:45	11.1	6.96	1857	26	204	15.00	
	---	15:51	11.1	6.87	1884	19	204	20.00	
	---	15:58	11.0	6.64	1903	11	204	25.00	
	---	16:04	11.1	6.69	1906	12	204	30.00	
	---	16:11	11.0	6.67	1926	12	204	35.00	
	---	16:17	11.2	6.64	1912	8.1	204	40.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-4	Depth to Water (feet):	3.81
Casing Diameter (inches):	2	Well Volume (gallons):	6.42
Installed Depth (feet):		Total Gallons Removed:	25.50
Measured Depth (feet):	43.18	Well Volumes Removed:	3.97

Date	Groundwater Level (ft toc)[1]	Time	Temperature (°C)[2]	pH (su)[3]	Specific Conductance (µS)/cm[4]	Turbidity (NTU)[5]	ORP (mV)[6]	Volume Removed (gallons)	Notes
11/24/2003	3.81	9:47	---	---	---	---	---	---	Begin development
	---	9:53	12.8	7.16	2613	<1100	205	5.00	
	42.62	10:10	---	---	---	---	---	9.50	End development (dry)
11/25/2003	23.47	16:28	---	---	---	---	---	---	Begin development
	39.85	16:42	---	---	---	---	---	5.00	End development (dry)
11/26/2003	29.51	8:09	---	---	---	---	---	---	Begin development
	---	8:18	12.1	8.20	2733	1000	232	2.50	
	---	8:20	---	---	---	---	---	3.00	End development (dry)
11/29/2003	7.01	16:28	---	---	---	---	---	---	Begin development
	---	17:03	10.4	7.39	2668	169	226	6.00	
	40.31	17:15	---	---	---	---	---	8.00	End development (dry)

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-5	Depth to Water (feet):	8.60
Casing Diameter (inches):	2	Well Volume (gallons):	3.03
Installed Depth (feet):		Total Gallons Removed:	30.00
Measured Depth (feet):	27.15	Well Volumes Removed:	9.92

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/20/2003	8.60	13:38	---	---	---	---	---	---	Begin development
	---	13:46	13.8	7.37	1495	365	195	5.00	
	---	13:52	13.5	7.39	1436	52.9	193	10.00	
	---	14:00	13.4	7.33	1408	20.5	187	15.00	
	---	14:07	13.2	7.34	1394	11.8	182	20.00	
	---	14:15	13.4	7.30	1379	8.69	180	25.00	
	10.11	14:23	---	---	---	---	---	30.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-6	Depth to Water (feet):	3.94
Casing Diameter (inches):	2	Well Volume (gallons):	4.39
Installed Depth (feet):		Total Gallons Removed:	35.00
Measured Depth (feet):	30.83	Well Volumes Removed:	7.98

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/20/2003	3.94	15:13	---	---	---	---	---	---	Begin development
	---	15:19	12.7	7.28	1983	218	189	5.00	
	---	15:26	12.7	7.15	1948	25.7	189	10.00	
	---	15:33	12.9	7.13	1943	7.74	188	15.00	
	---	15:40	12.9	7.12	1938	7.63	185	20.00	
	---	15:48	12.6	7.12	1940	3.58	184	25.00	
	---	15:57	12.5	7.08	1938	6.66	183	30.00	
	4.11	16:06	---	---	---	---	---	35.00	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-7	Depth to Water (feet):	3.91
Casing Diameter (inches):	2	Well Volume (gallons):	4.81
Installed Depth (feet):		Total Gallons Removed:	55.30
Measured Depth (feet):	33.37	Well Volumes Removed:	11.51

Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/26/2003	3.91	11:57	---	---	---	---	---	---	Begin development
	---	12:04	10.8	9.80	992.3	<1100	235	5.00	
	---	12:18	11.0	10.06	967.7	<1100	237	10.00	
	---	12:32	11.5	10.07	953.8	<1100	237	15.00	
	---	12:54	11.5	10.12	954.7	<1100	238	20.00	
	---	13:15	11.5	10.02	958.7	850	241	25.00	
	27.31	13:19	---	---	---	---	---	25.25	End development (dry)
11/30/2003	3.57	10:07	---	---	---	---	---	---	Begin development
	---	10:18	11.5	7.71	949.3	903	185	5.00	
	---	10:38	11.2	8.61	946.4	339	187	10.00	
	---	10:59	11.5	8.61	944.1	202	190	15.00	
	---	11:23	11.8	8.65	945.3	139	193	20.00	
	---	11:41	11.8	8.61	950.0	122	194	25.00	
	---	12:04	11.5	8.67	953.7	95.9	196	30.00	
	17.87	12:06	---	---	---	---	---	30.50	End development

Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

Appendix I
Monitoring Well Development Measurements

Monitoring Well ID:	BR-8	Depth to Water (feet):	1.46
Casing Diameter (inches):	2	Well Volume (gallons):	4.86
Installed Depth (feet):		Total Gallons Removed:	40.00
Measured Depth (feet):	31.27	Well Volumes Removed:	8.23

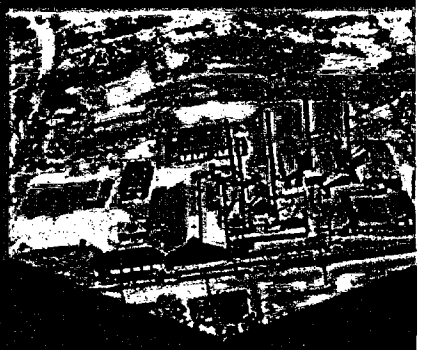
Date	Groundwater Level (ft toc)(1)	Time	Temperature (°C)(2)	pH (su)(3)	Specific Conductance (µS)/cm(4)	Turbidity (NTU)(5)	ORP (mV)(6)	Volume Removed (gallons)	Notes
11/26/2003	1.46	9:37	---	---	---	---	---	---	Begin development
	---	9:42	10.1	8.89	1912	<1100	234	5.00	
	---	9:56	10.6	8.44	2125	550	234	10.00	
	---	10:07	10.5	8.75	2197	900	234	15.00	
	---	10:18	10.3	8.93	2189	330	234	20.00	
	---	10:30	11.0	8.97	2166	280	236	25.00	
	---	10:44	10.9	8.99	2158	120	237	30.00	
	---	11:00	9.03	9.03	2144	120	238	35.00	
		11:14	9.08	9.08	2135	90	239	40.00	
	---	11:15	---	---	---	---	---	40.00	End development

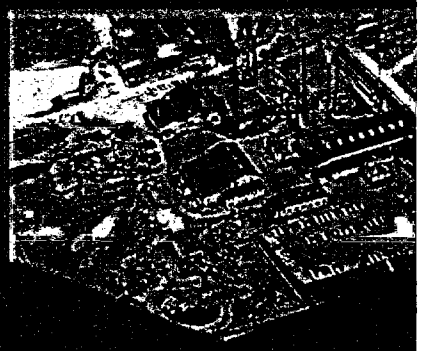
Footnotes:
(1) ft toc - feet top of casing
(2) °C - degrees Celsius
(3) su - standard units
(4) µS/cm - microsiemens per centimeter
(5) NTU - Nephelometric Turbidity Units
(6) mV- millivolts

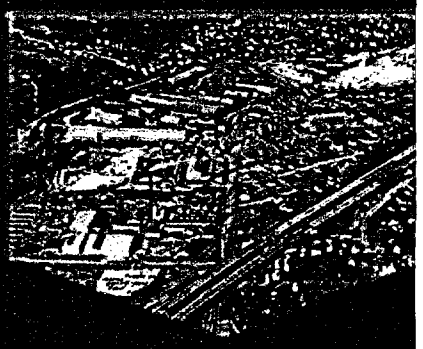
Molycorp

Supplemental Site Characterization Report for the Washington, Pennsylvania Site Appendix J

Groundwater Chemistry







April 2004
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Table J-1
Area 1A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-19 12/3/2003	MW-42 12/3/2003	MW-43 12/3/2003	MW-44 12/3/2003	MW-45 12/4/2003
Volatile Organic Compounds[2]								
Acetone	3,700	37,000	ug/L[3]	<10	6.2[4]	<10	<10	<10
Benzene	5	500	ug/L	<1	<1	<1	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1	<1	<1	<1
Bromoform	100	10,000	ug/L	<1	<1	<1	<1	<1
Bromomethane	10	1000	ug/L	<1	<1	<1	<1	<1
2-Butanone	--[5]	--	ug/L	<10	<10	<10	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1	<1	<1	<1
Carbon tetrachloride	5	50	ug/L	<1	<1	<1	<1	<1
Chlorobenzene	100	10,000	ug/L	<1	<1	<1	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1	<1	<1	<1
Chloroform	100	1,000	ug/L	<1	0.84[4]	<1	<1	0.55[4]
Chloromethane	3	300	ug/L	0.71[4]	<1	<1	0.56[4]	0.62[4]
1,1-Dichloroethane	27	270	ug/L	<1	<1	<1	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1	<1	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1	<1	<1	<1
2-Hexanone	--	--	ug/L	<10	<10	<10	<10	<10
Methylene chloride	5	500	ug/L	<1	<1	<1	<1	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<10	<10	<10	<10
Styrene	100	10,000	ug/L	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1	<1	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1	<1	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1	<1	<1	<1
Trichloroethene	5	50	ug/L	<1	<1	<1	<1	<1
Vinyl chloride	2	20	ug/L	<2	<2	<2	<2	<2
Xylene, m & p-	--	--	ug/L	<2	<2	<2	<2	<2
Xylene, o-	--	--	ug/L	<1	<1	<1	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3	<3	<3	<3

Table J-1
Area 1A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-19 12/3/2003	MW-42 12/3/2003	MW-43 12/3/2003	MW-44 12/3/2003	MW-45 12/4/2003
Semi-Volatile Organic Compounds[6]								
Acenaphthene	2,200	3,800	ug/L	<2.5	<0.26	<2.5	<2.5	<2.7
Acenaphthylene	2,200	16,000	ug/L	<2.5	<0.26	<2.5	<2.5	<2.7
Anthracene	66	66	ug/L	<0.2	<0.21	<0.2	<0.2	<0.21
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1	<1	<1	<1	<1.1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1	<1	<1	<1	<1.1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1	<1	<1	<1	<1.1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1	<1	<1	<1	<1.1
4-Bromophenyl-phenylether	--	--	ug/L	<1	<1	<1	<1	<1.1
Butylbenzylphthalate	2,700	2,700	ug/L	<1	<1	<1	<1	<1.1
Carbazole	33	1,200	ug/L	<1	<1	<1	<1	<1.1
4-Chloroaniline	150	150	ug/L	<1	<1	<1	<1	<1.1
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1	<1	<1	<1.1
2-Chloronaphthalene	2,900	2,900	ug/L	<1	<1	<1	<1	<1.1
2-Chlorophenol	40	40	ug/L	<1	<1	<1	<1	<1.1
4-Chlorophenyl-phenylether	--	--	ug/L	<1	<1	<1	<1	<1.1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1	<1	<1	<1.1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1	<1	<1	<1.1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1	<1	<1	<1	<1.1
1,2-Dichlorobenzene	600	60,000	ug/L	<1	<1	<1	<1	<1.1
1,3-Dichlorobenzene	600	60,000	ug/L	<1	<1	<1	<1	<1.1
1,4-Dichlorobenzene	75	7,500	ug/L	<1	<1	<1	<1	<1.1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1	<1	<1	<1	<1.1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1	<1	<1	<1.1
Diethylphthalate	5,000	1,100,000	ug/L	<1	<1	<1	<1	<1.1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1	<1	<1	<1.1
Dimethylphthalate	--	--	ug/L	<1	<1	<1	<1	<1.1
Di-n-butylphthalate	--	--	ug/L	0.9[4]	0.52[4]	0.72[4]	0.72[4]	0.79[4]
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5

Table J-1
Area 1A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-19 12/3/2003	MW-42 12/3/2003	MW-43 12/3/2003	MW-44 12/3/2003	MW-45 12/4/2003
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1	<1	<1	<1	<1.1
2,6-Dinitrotoluene	37	37,000	ug/L	<1	<1	<1	<1	<1.1
Di-n-octylphthalate	--	--	ug/L	<1	<1	<1	<1	<1.1
Fluoranthene	260	260	ug/L	<0.2	<0.21	<0.2	<0.2	<0.21
Fluorene	1,500	1,900	ug/L	<0.2	<0.21	<0.2	<0.2	<0.21
Hexachlorobenzene	1	6	ug/L	<1	<1	<1	<1	<1.1
Hexachlorobutadiene	1	1,000	ug/L	<1	<1	<1	<1	<1.1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1	<1	<1	<1	<1.1
Hexachloroethane	1	100	ug/L	<1	<1	<1	<1	<1.1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1	<1	<1	<1	<1.1
2-Methylnaphthalene	730	730	ug/L	<1	<1	<1	<1	<1.1
Naphthalene	100	30,000	ug/L	<2.5	<2.6	<2.5	<2.5	<2.7
Nitrobenzene	18	18,000	ug/L	<1	<1	<1	<1	<1.1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1	<1	<1	<1.1
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1	<1	<1	<1	<1.1
N-nitrosodiphenylamine	130	35,000	ug/L	<1	<1	<1	<1	<1.1
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5	12	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.2	<0.21	<0.2	<0.2	<0.21
Phenol	4,000	400,000	ug/L	<1	<1	<1	<1	<1.1
Pyrene	130	130	ug/L	<0.2	<0.21	<0.2	<0.2	<0.21
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1	<1	<1	<1	<1.1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1	<1	<1	<1.1
Polychlorinated Biphenyls[7]								
PCB 1016	2.6	2.6	ug/L	NA[8]	NA	<0.1	NA	<0.1
PCB 1221	1.3	1.3	ug/L	NA	NA	<0.1	NA	<0.1
PCB 1232	1.3	1.3	ug/L	NA	NA	<0.1	NA	<0.1
PCB 1242	1.3	1.3	ug/L	NA	NA	<0.1	NA	<0.1
PCB 1248	0.37	0.37	ug/L	NA	NA	<0.1	NA	<0.1
PCB 1254	0.37	0.37	ug/L	NA	NA	<0.1	NA	<0.1
PCB 1260	1.1	1.1	ug/L	NA	NA	<0.1	NA	<0.1

Table J-1
Area 1A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-19 12/3/2003	MW-42 12/3/2003	MW-43 12/3/2003	MW-44 12/3/2003	MW-45 12/4/2003
Dissolved Metals[9]								
Aluminum	200[10]	200[10]	ug/L	<50	<50	2[4]	14[4]	13[4]
Antimony	6	6,000	ug/L	1[4]	0.94[4]	0.28[4]	0.69[4]	0.7[4]
Arsenic	50	50,000	ug/L	3.4[4]	<5	<5	1.1	4.3[4]
Barium	2,000	2,000,000	ug/L	120	50	83	87	45
Beryllium	4	4,000	ug/L	<1	<1	<1	<1	<1
Boron	600	600,000	ug/L	51	140	**610**	130	**930**
Cadmium	5	5,000	ug/L	<1	<1	<1	<1	<1
Chromium	100	100,000	ug/L	1.5[4]	1.1[4]	0.67[4]	1.9[4]	2[4]
Cobalt	2,000	2,000,000	ug/L	1.6[4]	0.35[4]	1.2[4]	1.7[4]	13
Copper	730	730,000	ug/L	1.8[4]	2.2[4]	2[4]	1.8[4]	2.5[4]
Iron	300[10]	300[10]	ug/L	**1,200**	5.7[4]	4.3[4]	100	290
Lead	5	5,000	ug/L	<2	0.93[4]	0.77[4]	<2	<2
Manganese	50[10]	50[10]	ug/L	**1,100**	**230**	**1,400**	**5,700**	**3,000**
Mercury	2	2,000	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum	--	--	ug/L	65	30	30	20	880
Nickel	100	100,000	ug/L	5.6[4]	5.9[4]	3.5[4]	5.7[4]	9.5[4]
Selenium	50	50,000	ug/L	<5	<5	<5	0.04[4]	0.24[4]
Silver	100	100,000	ug/L	<1	0.02[4]	<1	0.51[4]	0.01[4]
Thallium	2	2,000	ug/L	<4	<4	<4	<4	<4
Tin	22,000	22,000,000	ug/L	1.1[4]	1.8[4]	1.6[4]	0.24[4]	3.6[4]
Tungsten	--	--	ug/L	44[4]	41[4]	7.7[4]	46[4]	83
Vanadium	260	260,000	ug/L	0.79[4]	<5	0.07[4]	<5	0.75[4]
Zinc	2,000	2,000,000	ug/L	9.7[4]	1.4[4]	1.8[4]	2[4]	4.6[4]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(8) NS - A sample was not collected from this location.
(9) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(10) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-2
Area 1B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-7 12/4/2003	MW-9 12/5/2003	MW-16 12/5/2003	MW-46 12/4/2003	MW-47 12/4/2003
Volatile Organic Compounds[2]								
Acetone	3,700	37,000	ug/L[3]	<10	<10	<10	<10	<10
Benzene	5	500	ug/L	<1	<1	<1	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1	<1	<1	<1
Bromoform	100	10,000	ug/L	<1	<1	<1	<1	<1
Bromomethane	10	1000	ug/L	<1	<1	<1	<1	4.7
2-Butanone	--[4]	--	ug/L	<10	<10	<10	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1	<1	<1	0.56[5]
Carbon tetrachloride	5	50	ug/L	<1	<1	<1	<1	<1
Chlorobenzene	100	10,000	ug/L	<1	<1	<1	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1	<1	<1	<1
Chloroform	100	1,000	ug/L	<1	<1	<1	<1	0.73[5]
Chloromethane	3	300	ug/L	<1	<1	0.59[5]	<1	1.1
1,1-Dichloroethane	27	270	ug/L	<1	<1	<1	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1	<1	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1	<1	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1	<1	<1	<1
2-Hexanone	--	--	ug/L	<10	<10	<10	<10	<10
Methylene chloride	5	500	ug/L	<1	<1	<1	<1	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<10	<10	<10	<10
Styrene	100	10,000	ug/L	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1	<1	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1	<1	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1	<1	<1	<1
Trichloroethene	5	50	ug/L	<1	<1	<1	<1	<1
Vinyl chloride	2	20	ug/L	**3.1**	<2	<2	<2	0.71[5]
Xylene, m & p-	--	--	ug/L	<2	<2	<2	<2	<2
Xylene, o-	--	--	ug/L	<1	<1	<1	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3	<3	<3	<3
Semi-Volatile Organic Compounds[6]								
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.7	<2.5	<2.7	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.7	<2.5	<2.7	<2.5
Anthracene	66	66	ug/L	<0.21	<2.7	<0.2	<0.21	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1.1	<1.2	<1	<1	<1

Table J-2
Area 1B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-7 12/4/2003	MW-9 12/5/2003	MW-16 12/5/2003	MW-46 12/4/2003	MW-47 12/4/2003
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1.1	<1.2	<1	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1.1	<1.2	<1	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	0.94[5]	<1.2	<1	<1	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1.1	<1.2	<1	<1	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1.1	<1.2	<1	<1	<1
Carbazole	33	1,200	ug/L	<1.1	<1.2	<1	<1	<1
4-Chloroaniline	150	150	ug/L	<1.1	<1.2	<1	<1	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1.1	<1.2	<1	<1	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1.1	<1.2	<1	<1	<1
2-Chlorophenol	40	40	ug/L	<1.1	<1.2	<1	<1	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1.1	<1.2	<1	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1.1	<1.2	<1	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1.1	<1.2	<1	<1	<1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1.1	<1.2	<1	<1	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1.1	<1.2	<1	<1	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1.1	<1.2	<1	<1	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1.1	<1.2	<1	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1.1	<1.2	<1	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1.1	<1.2	<1	<1	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1.1	<1.2	<1	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1.1	<1.2	<1	<1	<1
Dimethylphthalate	--	--	ug/L	<1.1	<1.2	<1	<1	<1
Di-n-butylphthalate	--	--	ug/L	0.92[5]	0.59[5]	0.65[5]	0.86[5]	0.56[5]
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1.1	<1.2	<1	<1	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1.1	<1.2	<1	<1	<1
Di-n-octylphthalate	--	--	ug/L	<1.1	<1.2	<1	<1	<1
Fluoranthene	260	260	ug/L	<0.21	<0.22	<0.2	0.23	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	<0.22	<0.2	<0.21	<0.2
Hexachlorobenzene	1	6	ug/L	<1.1	<1.2	<1	<1	<1
Hexachlorobutadiene	1	1,000	ug/L	<1.1	<1.2	<1	<1	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1.1	<1.2	<1	<1	<1
Hexachloroethane	1	100	ug/L	<1.1	<1.2	<1	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1.1	<1.2	<1	<1	<1
2-Methylnaphthalene	730	730	ug/L	<1.1	<1.2	<1	<1	<1
Naphthalene	100	30,000	ug/L	<2.6	<2.7	<2.5	<2.7	<2.5
Nitrobenzene	18	18,000	ug/L	<1.1	<1.2	<1	<1	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1.1	<1.2	<1	<1	0.89[5]
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5	<2.5	<2.5	1.3[5]
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1.1	<1.2	<1	<1	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1.1	<1.2	<1	<1	<1

Table J-2
Area 1B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-7 12/4/2003	MW-9 12/5/2003	MW-16 12/5/2003	MW-46 12/4/2003	MW-47 12/4/2003
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5	<2.5	<2.5	1.4[5]
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.22	<0.2	0.24	<0.2
Phenol	4,000	400,000	ug/L	<1.1	<1.2	<1	<1	<1
Pyrene	130	130	ug/L	<0.21	<0.22	<0.2	0.17[5]	<0.2
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1.1	<1.2	<1	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1.1	<1.2	<1	<1	<1
Dissolved Metals[7]								
Aluminum	200[8]	200[8]	ug/L	<50	0.59[5]	4.8[5]	<50	<50
Antimony	6	6,000	ug/L	0.82[5]	0.93[5]	2.6[5]	<5	<5
Arsenic	50	50,000	ug/L	7.9	1.7[5]	4.7[5]	3.8[5]	20
Barium	2,000	2,000,000	ug/L	110	45	61	35	240
Beryllium	4	4,000	ug/L	<1	<1	<1	<1	<1
Boron	600	600,000	ug/L	**11,000**	**1,400**	**9,900**	**1,800**	**11,000**
Cadmium	5	5,000	ug/L	<1	<1	<1	<1	<1
Chromium	100	100,000	ug/L	2.1[5]	0.88[5]	2.3[5]	1.9[5]	1.4[5]
Cobalt	2,000	2,000,000	ug/L	8	2.2[5]	5	16	0.7[5]
Copper	730	730,000	ug/L	2.5[5]	1.3[5]	2.3[5]	3[5]	14
Iron	300[8]	300[8]	ug/L	**1,700**	**350**	**4,800**	**710**	80
Lead	5	5,000	ug/L	0.25[5]	0.56[5]	3.3[5]	2.9	**9.8**
Manganese	50[8]	50[8]	ug/L	**8,300**	**4,600**	**15,000**	**13,000**	16
Mercury	2	2,000	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum	--	--	ug/L	1,400	17,000	2,400	3,300	31,000
Nickel	100	100,000	ug/L	12	5.1[5]	2.3[5]	5.5[5]	1.6[5]
Selenium	50	50,000	ug/L	0.98[5]	1.8[5]	2.7(5)	<5	37
Silver	100	100,000	ug/L	0.56[5]	<1	1.1	0.71[5]	<1
Thallium	2	2,000	ug/L	**2.4[5]**	<4	<4	<4	**3[5]**
Tin	22,000	22,000,000	ug/L	<50	<50	<50	1.5[5]	<50
Tungsten	--	--	ug/L	70	98	89	86	4,900
Vanadium	260	260,000	ug/L	2	0.57[5]	1.8[5]	3.4[5]	260
Zinc	2,000	2,000,000	ug/L	9.9[5]	5.6[5]	2.2[5]	3.5[5]	8.1[5]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(5) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-3
Area 2 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-1 12/10/2003	MW-1 12/8/2003	MW-2 12/8/2003	MW-3 12/9/2003	MW-4 12/9/2003	MW-5 12/12/2003	MW-6 12/10/2003	MW-18 12/8/2003	MW-21 12/9/2003	MW-24 12/8/2003	MW-25 12/10/2003	MW-48 12/8/2003
Volatile Organic Compounds[2]															
Acetone	3,700	37,000	µg/L[3]	<10	14	<10	<10	3[4]	7.5[4]	3.3[4]	<10	2.4[4]	<10	2.7[4]	<10
Benzene	5	500	µg/L	<1	<1	<1	<1	<1	0.59[4]	<1	2.4	<1	1.4	<1	<1
Bromodichloromethane	100	100	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	100	10,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	10	1000	µg/L	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1
2-Butanone	--[5]	--	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	1,900	1,900	µg/L	<1	<1	<1	<1	<1	0.78[4]	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	100	10,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	230	23,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	1,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	3	300	µg/L	0.67[4]	<1	0.64[4]	<1	<1	<1	<1	1	0.65[4]	<1	<1	<1
1,1-Dichloroethane	27	270	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.5	<1	<1
1,2-Dichloroethane	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	7	70	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	70	700	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,2-Dichloroethene	100	1,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	--	--	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	--	--	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	100	10,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethyl benzene	700	70,000	µg/L	<1	<1	<1	<1	<1	<1	<1	2.5	<1	2.8	<1	<1
2-Hexanone	--	--	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	5	500	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Methyl-2-pentanone	190	19,000	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	100	10,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1,000	100,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	2,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	50	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	2	20	µg/L	<2	0.66[4]	<2	<2	1.4[4]	1.9[4]	<2	<2	0.52[4]	<2	<2	<2
Xylene, m & p-	--	--	µg/L	<2	<2	<2	<2	<2	<2	<2	22	<2	15	<2	<2
Xylene, o-	--	--	µg/L	<1	<1	<1	<1	<1	<1	<1	15	<1	11	<1	<1
Xylenes, Total	10,000	180,000	µg/L	<3	<3	<3	<3	<3	<3	<3	37	<3	26	<3	<3
Semi-Volatile Organic Compounds[6]															
Acenaphthene	2,200	3,800	µg/L	<2.5	<1	<2.6	<2.7	<2.6	<2.5	<2.5	<2.5	<2.8	<2.6	<2.5	<2.6
Acenaphthylene	2,200	16,000	µg/L	<2.5	<1	<2.6	<2.7	<2.6	<2.5	<2.5	<2.5	<2.8	<2.6	<2.5	<2.6
Anthracene	66	66	µg/L	<0.2	<1	<0.21	<0.21	<0.21	<0.2	<0.2	0.11[4]	<0.22	<0.21	<0.2	<0.21
Benzo(a)anthracene	0.9	11	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table J-3
Area 2 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-1 12/10/2003	MW-1 12/8/2003	MW-2 12/8/2003	MW-3 12/9/2003	MW-4 12/9/2003	MW-5 12/12/2003	MW-6 12/10/2003	MW-18 12/8/2003	MW-21 12/9/2003	MW-24 12/8/2003	MW-25 12/10/2003	MW-48 12/8/2003
Benzo(k)fluoranthene	0.55	0.55	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Bis(2-chloroethyl)ether	0.13	13	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
4-Bromophenyl-phenylether	--	--	µg/L	<1	<1	<1.	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Butylbenzylphthalate	2,700	2,700	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Carbazole	33	1,200	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	1.5	<1.1	0.85[4]	<1	<1
4-Chloroaniline	150	150	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
4-Chloro-3-methylphenol	180	180	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
2-Chloronaphthalene	2,900	2,900	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
2-Chlorophenol	40	40	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
4-Chlorophenyl-phenylether	--	--	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Chrysene	1.9	1.9	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Dibenz(a,h)anthracene	0.09	0.6	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzofuran	--	--	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	0.7[4]	<1.1	<1.1	<1	<1
1,2-Dichlorobenzene	600	60,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
1,3-Dichlorobenzene	600	60,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
1,4-Dichlorobenzene	75	7,500	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
2,4-Dichlorophenol	20	20,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Diethylphthalate	5,000	1,100,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
2,4-Dimethylphenol	730	730,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Dimethylphthalate	--	--	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Di-n-butylphthalate	--	--	µg/L	<1	<1	<1	<1.1	0.54[4]	<1	0.51[4]	<1	<1.1	<1.1	0.54[4]	<1
4,6-Dinitro-2-methylphenol	--	--	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<2.5	<1.1	<1	<1
2,6-Dinitrotoluene	37	37,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Di-n-octylphthalate	--	--	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Fluoranthene	260	260	µg/L	<0.2	<1	<0.21	<0.21	<0.21	<0.2	<0.2	0.43	<0.22	0.36	<0.2	<0.21
Fluorene	1,500	1,900	µg/L	<0.2	<1	<0.21	<0.21	<0.21	<0.2	<0.2	0.37	<0.22	0.14[4]	<0.2	<0.21
Hexachlorobenzene	1	6	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Hexachlorobutadiene	1	1,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Hexachlorocyclopentadiene	50	1,800	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Hexachloroethane	1	100	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	µg/L	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Isophorone	100	100,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	0.54[4]	<1.1	<1.1	<1	<1
2-Methylnaphthalene	730	730	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	3.8	<1	<1
Naphthalene	100	30,000	µg/L	<2.5	<1	<2.6	<2.7	<2.6	<2.5	<2.5	<2.5	<2.8	5.6	<2.5	<2.6
Nitrobenzene	18	18,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
2-Nitroaniline	2.1	2.1	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5

Table J-3
Area 2 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-1 12/10/2003	MW-1 12/8/2003	MW-2 12/8/2003	MW-3 12/9/2003	MW-4 12/9/2003	MW-5 12/12/2003	MW-6 12/10/2003	MW-18 12/8/2003	MW-21 12/9/2003	MW-24 12/8/2003	MW-25 12/10/2003	MW-48 12/8/2003
3-Nitroaniline	2.1	2.1	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
4-Nitroaniline	2.1	2.1	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2-Nitrophenol	290	290,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
4-Nitrophenol	60	60,000	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
N-nitrosodiphenylamine	130	35,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Pentachlorophenol	1	1,000	µg/L	<2.5	**4.6**	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	4.5
Phenanthrene	1,100	1,100	µg/L	<0.2	<1	<0.21	<0.21	<0.21	<0.2	<0.2	0.52	<0.22	0.43	<0.2	<0.21
Phenol	4,000	400,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	4.3	<1	<1
Pyrene	130	130	µg/L	<0.2	<1	<0.21	<0.21	<0.21	<0.2	<0.2	0.35	<0.22	0.11[4]	<0.2	<0.21
1,2,4-Trichlorobenzene	70	44,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	0.71[4]	<1.1	<1.1	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	µg/L	<1	<1	<1	<1.1	<1.1	<1	<1	<1	<1.1	<1.1	<1	<1
Polychlorinated Biphenyls[7]															
PCB 1016	2.6	2.6	µg/L	NS[8]	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1221	1.3	1.3	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1232	1.3	1.3	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1242	1.3	1.3	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1248	0.37	0.37	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1254	0.37	0.37	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
PCB 1260	1.1	1.1	µg/L	NS	NS	NS	NS	NS	NS	<0.1	NS	NS	NS	<0.1	NS
Dissolved Metals[9]															
Aluminum	200[10]	200[10]	µg/L	<50	<50	<50	<50	<50	**3,300**	<50	<50	<50	<50	<50	<50
Antimony	6	6,000	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	50	50,000	µg/L	42	38	20	21	37	20	6.5	15	16	24	5.2	21
Barium	2,000	2,000,000	µg/L	25	71	73	160	130	43	42	41	44	71	85	44
Beryllium	4	4,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron	600	600,000	µg/L	**60,000**	**14,000**	**2,300**	**6,100**	**3,700**	**6,900**	**67,000**	**16,000**	**4,500**	**23,000**	**2,700**	**27,000**
Cadmium	5	5,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	100	100,000	µg/L	2[4]	1.4[4]	3.6[4]	2.7[4]	1.8[4]	0.27[4]	1[4]	1.7[4]	0.63[4]	0.02[4]	1.5[4]	2.3[4]
Cobalt	2,000	2,000,000	µg/L	2.1[4]	1.1[4]	2.6[4]	0.85[4]	2.7[4]	59	1.6[4]	0.85[4]	8.9	0.73[4]	1.9[4]	0.73[4]
Copper	730	730,000	µg/L	27	18	180	10	9.3	56	9.2	17	17	10	19	17
Iron	300[10]	300[10]	µg/L	**55,000**	210	**910**	**2,000**	**12,000**	**790,000**	**29,000**	72	**470,000**	46	44	77
Lead	5	5,000	µg/L	**23**	**13**	**9.4**	**7.2**	**7.7**	<2	**6.2**	**12**	**11**	**6.8**	4.4	**11**
Manganese	50[10]	50[10]	µg/L	**13,000**	4.5[4]	**2,600**	**2,100**	**7,600**	**37,000**	**4,400**	21	**36,000**	17	**360**	<5
Mercury	2	2,000	µg/L	0.029[4]	<0.2	<0.2	<0.2	<0.2	0.67	<0.2	<0.2	0.54	<0.2	<0.2	<0.2
Molybdenum	--	--	µg/L	66,000	42,000	31,000	22,000	19,000	190,000	17,000	26,000	66,000	24,000	15,000	41,000
Nickel	100	100,000	µg/L	<10	3.3[4]	7.2[4]	2.4[4]	1.2[4]	<10	1.1[4]	6.4[4]	<10	0.65[4]	4.1[4]	0.29[4]
Selenium	50	50,000	µg/L	<5	**93**	10	<5	<5	<5	<5	**120**	<5	23	50	<5
Silver	100	100,000	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.17[4]	<1
Thallium	2	2,000	µg/L	1.3[4]	**9.4**	**5.9**	**3.9[4]**	<4	**2.8[4]**	1.1[4]	0.19[4]	<4	**5.4**	**8.3**	**3.4[4]**
Tin	22,000	22,000,000	µg/L	3.2[4]	<50	<50	7.2[4]	<50	<50	0.66[4]	1.4[4]	<50	2.4[4]	1.9[4]	<50

Table J-3
Area 2 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-1 12/10/2003	MW-1 12/8/2003	MW-2 12/8/2003	MW-3 12/9/2003	MW-4 12/9/2003	MW-5 12/12/2003	MW-6 12/10/2003	MW-18 12/8/2003	MW-21 12/9/2003	MW-24 12/8/2003	MW-25 12/10/2003	MW-48 12/8/2003
Tungsten	--	--	µg/L	350	3,300	57	130	580	1,300	90	240	760	1,800	46[4]	1,700
Vanadium	260	260,000	µg/L	26	280	19	9.6	12	350	7.1	120	88	13	9.5	62
Zinc	2,000	2,000,000	µg/L	14	11	25	7.1[4]	8.3[4]	52	4.3[4]	11	<10	12	9.7[4]	16
Additional Parameters															
Chromium VI[11]	--	--	µg/L	97	NS	NS	<10	NS	NS	31	NS	130	NS	NS	NS
Perchlorate[12]	--	--	µg/L	<0.2	NS	0.209	NS	<0.2	NS	<0.2	976	NS	34.7	NS	NS

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(8) NS - A sample was not collected from this location.
(9) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(10) Secondary Maximum Contaminant Level
(11) Hexavalent chromium was analyzed by US Environmental Protection Agency Method 7196.
(12) Perchlorate was analyzed by US Environmental Protection Agency Method 8321.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-4
Area 3 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-5 12/15/2003	MW-10 12/12/2003	MW-26 12/12/2003	MW-27 12/12/2003	MW-28 12/15/2003	MW-29 12/15/2003	MW-40 12/11/2003	MW-50 12/12/2003	UG-4 12/15/2003
Volatile Organic Compounds[2]												
Acetone	3,700	37,000	ug/L[3]	2.6[4]	3[4]	3.4[4]	3.4[4]	<10	2.7[4]	2.8[4]	2.7[4]	<10
Benzene	5	500	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	100	10,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	10	1000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Butanone	--[5]	--	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	100	10,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	100	1,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	3	300	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethane	27	270	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1	<1	<1	2.3	<1	<1	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-Hexanone	--	--	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	5	500	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	100	10,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	50	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	2	20	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Xylene, m & p-	--	--	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Xylene, o-	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3	<3	<3	<3	<3	<3	<3	<3
Semi-Volatile Organic Compounds[6]												
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.5	<2.5	<2.5	<2.6	<2.6	<2.5	<2.5	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.5	<2.5	<2.5	<2.6	<2.6	<2.5	<2.5	<2.5
Anthracene	66	66	ug/L	<0.21	<0.2	<0.2	<0.2	<2.6	<0.21	<0.2	<0.2	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table J-4
Area 3 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-5 12/15/2003	MW-10 12/12/2003	MW-26 12/12/2003	MW-27 12/12/2003	MW-28 12/15/2003	MW-29 12/15/2003	MW-40 12/11/2003	MW-50 12/12/2003	UG-4 12/15/2003
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Carbazole	33	1,200	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4-Chloroaniline	150	150	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Dimethylphthalate	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Di-n-butylphthalate	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Di-n-octylphthalate	--	--	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Fluoranthene	260	260	ug/L	<0.21	<0.2	<0.2	<0.2	<0.21	<0.21	<0.2	<0.2	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	<0.2	<0.2	<0.2	<0.21	<0.21	<0.2	<0.2	<0.2
Hexachlorobenzene	1	6	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Hexachlorobutadiene	1	1,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Hexachloroethane	1	100	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2-Methylnaphthalene	730	730	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Naphthalene	100	30,000	ug/L	<2.6	<2.5	<2.5	<2.5	<2.6	<2.6	<2.5	<2.5	<2.5
Nitrobenzene	18	18,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5

Table J-4
Area 3 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-5 12/15/2003	MW-10 12/12/2003	MW-26 12/12/2003	MW-27 12/12/2003	MW-28 12/15/2003	MW-29 12/15/2003	MW-40 12/11/2003	MW-50 12/12/2003	UG-4 12/15/2003
2-Nitrophenol	290	290,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.2	<0.2	<0.2	<0.21	<0.21	<0.2	<0.2	<0.2
Phenol	4,000	400,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Pyrene	130	130	ug/L	<0.21	<0.2	<0.2	<0.2	<0.21	<0.21	<0.2	<0.2	<0.2
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1	<1	<1	<1	<1	<1.1	<1	<1
Polychlorinated Biphenyls[7]												
PCB 1016	2.6	2.6	ug/L	NS[8]	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1221	1.3	1.3	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1232	1.3	1.3	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1242	1.3	1.3	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1248	0.37	0.37	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1254	0.37	0.37	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
PCB 1260	1.1	1.1	ug/L	NS	NS	<0.1	NS	NS	NS	NS	NS	NS
Dissolved Metals[9]												
Aluminum	200[10]	200[10]	ug/L	5.3[4]	<50	<50	27[4]	<50	<50	21[4]	<50	20[4]
Antimony	6	6,000	ug/L	0.49[4]	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	50	50,000	ug/L	4.9[4]	<5	2.5[4]	14	**200**	21	<5	5.2	3.8[4]
Barium	2,000	2,000,000	ug/L	1,600	160	290	82	100	290	38	59	52
Beryllium	4	4,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Boron	600	600,000	ug/L	**6,700**	**2,600**	**5,600**	**18,000**	400	**6,300**	67	**10,000**	110
Cadmium	5	5,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	100	100,000	ug/L	1.4[4]	5.9	3.2[4]	0.29[4]	3[4]	1.8[4]	0.78[4]	0.8	<5
Cobalt	2,000	2,000,000	ug/L	1.6[4]	0.48[4]	1.2[4]	0.28[4]	<5	0.81[4]	<5	1.1[4]	0.1[4]
Copper	730	730,000	ug/L	<5	3.7[4]	2.1[4]	6	1.6[4]	3.2[4]	0.67[4]	7.3	<5
Iron	300[10]	300[10]	ug/L	**960**	**1,600**	**21,000**	53	**5,300**	**7,000**	10[4]	**1,400**	<50
Lead	5	5,000	ug/L	<2	**5.2**	2	2.1	<2	<2	3.8	**6.2**	<2
Manganese	50[10]	50[10]	ug/L	**140**	**2,000**	**1,800**	19	**790**	**1,200**	26	**1,500**	44
Mercury	2	2,000	ug/L	<0.2	<0.2	0.028[4]	0.016[4]	<0.2	0.009[4]	<0.2	<0.2	<0.2
Molybdenum	--	--	ug/L	3,600	8,900	6,600	15,000	570	6,300	0.67[4]	22,000	190
Nickel	100	100,000	ug/L	1.6[4]	2[4]	2.5[4]	0.18[4]	3.2[4]	3.2[4]	2.2[4]	0.57[4]	2.2[4]
Selenium	50	50,000	ug/L	1.1[4]	<5	<5	<5	<5	<5	<5	<5	2.6[4]
Silver	100	100,000	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium	2	2,000	ug/L	**8.5**	**4.4**	**3.8[4]**	**11**	**6.4**	**8.2**	**8.9**	1.2[4]	**6.3**
Tin	22,000	22,000,000	ug/L	0.95[4]	4.8[4]	2.5[4]	1.4[4]	0.97[4]	1.9[4]	7.5[4]	1[4]	<50
Tungsten	--	--	ug/L	7.2[4]	510	150	620	64	29	2.1[4]	62	10[4]

Table J-4
Area 3 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-5 12/15/2003	MW-10 12/12/2003	MW-26 12/12/2003	MW-27 12/12/2003	MW-28 12/15/2003	MW-29 12/15/2003	MW-40 12/11/2003	MW-50 12/12/2003	UG-4 12/15/2003
Vanadium	260	260,000	ug/L	1.6[4]	5.8	5.8	9.9	1.3[4]	4.5[4]	<5	13	<5
Zinc	2,000	2,000,000	ug/L	0.91[4]	4.4[4]	3.6[4]	5[4]	1.7[4]	0.64[4]	1.6[4]	8.1[4]	<10
Additional Parameters												
Chromium VI[11]	--	--	µg/L	NS	<10	NS	NS	NS	NS	NS	<10	NS

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(8) NS - A sample was not collected from this location.
(9) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(10) Secondary Maximum Contaminant Level
(11) Hexavalent chromium was analyzed by US Environmental Protection Agency Method 7196.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-5
Area 4 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-04 12/16/2003	TB-05 12/16/2003
Volatile Organic Compounds[2]					
Acetone	3,700	37,000	ug/L[3]	<10	3.5[4]
Benzene	5	500	ug/L	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1
Bromoform	100	10,000	ug/L	<1	<1
Bromomethane	10	1000	ug/L	<1	<1
2-Butanone	--[5]	--	ug/L	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1
Carbon tetrachloride	5	50	ug/L	<1	<1
Chlorobenzene	100	10,000	ug/L	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1
Chloroform	100	1,000	ug/L	<1	<1
Chloromethane	3	300	ug/L	<1	<1
1,1-Dichloroethane	27	270	ug/L	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1
2-Hexanone	--	--	ug/L	<10	<10
Methylene chloride	5	500	ug/L	<1	0.78[4]
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<10
Styrene	100	10,000	ug/L	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1

Table J-5
Area 4 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-04 12/16/2003	TB-05 12/16/2003
Trichloroethene	5	50	ug/L	<1	<1
Vinyl chloride	2	20	ug/L	<2	<2
Xylene, m & p-	--	--	ug/L	<2	<2
Xylene, o-	--	--	ug/L	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3
Semi-Volatile Organic Compounds[6]					
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.6
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.6
Anthracene	66	66	ug/L	<0.21	<0.21
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1	<1
Carbazole	33	1,200	ug/L	<1	<1
4-Chloroaniline	150	150	ug/L	<1	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1	<1

Table J-5
Area 4 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification Sample Date Units	TB-04 12/16/2003	TB-05 12/16/2003
1,4-Dichlorobenzene	75	7,500	ug/L	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1
Dimethylphthalate	--	--	ug/L	<1	<1
Di-n-butylphthalate	--	--	ug/L	<1	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1	<1
Di-n-octylphthalate	--	--	ug/L	<1	<1
Fluoranthene	260	260	ug/L	<0.21	<0.21
Fluorene	1,500	1,900	ug/L	<0.21	<0.21
Hexachlorobenzene	1	6	ug/L	<1	<1
Hexachlorobutadiene	1	1,000	ug/L	<1	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1	<1
Hexachloroethane	1	100	ug/L	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1	<1
2-Methylnaphthalene	730	730	ug/L	<1	<1
Naphthalene	100	30,000	ug/L	<2.6	<2.6
Nitrobenzene	18	18,000	ug/L	<1	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1	<1
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.21
Phenol	4,000	400,000	ug/L	<1	<1

Table J-5
Area 4 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-04 12/16/2003	TB-05 12/16/2003
Pyrene	130	130	ug/L	<0.21	<0.21
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1
Polychlorinated Biphenyls[7]					
PCB 1016	2.6	2.6	ug/L	<0.1	<0.1
PCB 1221	1.3	1.3	ug/L	<0.1	<0.1
PCB 1232	1.3	1.3	ug/L	<0.1	<0.1
PCB 1242	1.3	1.3	ug/L	<0.1	<0.1
PCB 1248	0.37	0.37	ug/L	<0.1	<0.1
PCB 1254	0.37	0.37	ug/L	<0.1	<0.1
PCB 1260	1.1	1.1	ug/L	<0.1	<0.1
Dissolved Metals[8]					
Aluminum	200[9]	200[9]	ug/L	16[4]	9.2[4]
Antimony	6	6,000	ug/L	<5	<5
Arsenic	50	50,000	ug/L	3.6[4]	0.42[4]
Barium	2,000	2,000,000	ug/L	73	82
Beryllium	4	4,000	ug/L	<1	<1
Boron	600	600,000	ug/L	130	73
Cadmium	5	5,000	ug/L	<1	<1
Chromium	100	100,000	ug/L	3.3[4]	1.5[4]
Cobalt	2,000	2,000,000	ug/L	0.61[4]	<5
Copper	730	730,000	ug/L	<5	<5
Iron	300[9]	300[9]	ug/L	9.3[4]	<50
Lead	5	5,000	ug/L	<2	<2
Manganese	50[9]	50[9]	ug/L	0.61[4]	0.61[4]
Mercury	2	2,000	ug/L	<0.2	<0.2
Molybdenum	--	--	ug/L	45	31
Nickel	100	100,000	ug/L	1.4[4]	1.5[4]
Selenium	50	50,000	ug/L	3.8[4]	1.7[4]
Silver	100	100,000	ug/L	<1	<1

Table J-5
Area 4 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-04 12/16/2003	TB-05 12/16/2003
Thallium	2	2,000	ug/L	4.2	0.33[4]
Tin	22,000	22,000,000	ug/L	<50	<50
Tungsten	--	--	ug/L	31[4]	5.6[4]
Vanadium	260	260,000	ug/L	<5	<5
Zinc	2,000	2,000,000	ug/L	0.26[4]	1.9[4]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(8) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(9) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-6
Area 5B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-7 12/18/2003	BR-8 12/18/2003	GW-3 12/17/2003	MW-53 12/16/2003	MW-54 12/18/2003	MW-55 12/18/2003
Volatile Organic Compounds[2]									
Benzene	5	500	µg/L[3]	<1	<1	<1	<1	<1	<1
Ethyl benzene	700	70,000	µg/L	<1	<1	<1	<1	<1	<1
Toluene	1,000	100,000	µg/L	<1	<1	<1	<1	<1	0.56[4]
Xylenes, Total	10,000	180,000	µg/L	<3	<3	<3	<3	<3	<3
Semi-Volatile Organic Compounds[5]									
Acenaphthene	2,200	3,800	µg/L	<2.6	<2.6	<2.6	<2.5	<2.6	1.7[4]
Acenaphthylene	2,200	16,000	µg/L	<2.6	<2.6	<2.6	<2.5	<2.6	10
Anthracene	66	66	µg/L	<0.21	<0.21	<0.21	<0.2	<0.21	0.5
Benzo(a)anthracene	0.9	11	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
4-Chloro-3-methylphenol	180	180	µg/L	<1	<1	<1	<1	<1	<1
2-Chlorophenol	40	40	µg/L	<1	<1	<1	<1	<1	<1
Chrysene	1.9	1.9	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	µg/L	<1	<1	<1	<1	<1	0.75[4]
p-Cresol (4-Methylphenol)	180	180,000	µg/L	<1	<1	<1	<1	<1	1.1
2,4-Dichlorophenol	20	20,000	µg/L	<1	<1	<1	<1	<1	<1
2,4-Dimethylphenol	730	730,000	µg/L	<1	<1	<1	<1	<1	4.5
4,6-Dinitro-2-methylphenol	--[6]	--	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Fluoranthene	260	260	µg/L	<0.21	<0.21	<0.21	<0.2	<0.21	0.63
Fluorene	1,500	1,900	µg/L	<0.21	<0.21	<0.21	<0.2	<0.21	1.9
Naphthalene	100	30,000	µg/L	<2.6	<2.6	<2.6	<2.5	<2.6	18
2-Nitrophenol	290	290,000	µg/L	<1	<1	<1	<1	<1	<1
4-Nitrophenol	60	60,000	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Pentachlorophenol	1	1,000	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Phenanthrene	1,100	1,100	µg/L	<0.21	<0.21	<0.21	<0.2	<0.21	1.6
Phenol	4,000	400,000	µg/L	<1	<1	<1	<1	<1	<1
Pyrene	130	130	µg/L	<0.21	<0.21	<0.21	<0.2	<0.21	<0.21
2,4,5-Trichlorophenol	3,700	1,000,000	µg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	µg/L	<1	<1	<1	<1	<1	<1
Dissolved Metals[7]									
Aluminum	200[8]	200[8]	µg/L	4.6[4]	4.4[4]	18[4]	11[4]	78[4]	24[4]
Antimony	6	6,000	µg/L	3.3[4]	<5	3.5[4]	0.27[4]	1.5[4]	<5
Arsenic	50	50,000	µg/L	5	1.7[4]	6.5	4.4[4]	5.9	8
Barium	2,000	2,000,000	µg/L	270	1,000	61	46	31	41
Beryllium	4	4,000	µg/L	<1	<1	0.32[4]	<1	<1	<1
Boron	600	600,000	µg/L	380	360	320	**750**	**1,900**	**12,000**
Cadmium	5	5,000	µg/L	<1	<1	<1	<1	<1	<1
Chromium	100	100,000	µg/L	0.78[4]	0.54[4]	0.96[4]	0.37[4]	0.24[4]	0.53[4]
Cobalt	2,000	2,000,000	µg/L	0.42[4]	1.2[4]	5.3	3.6[4]	0.67[4]	0.51[4]
Copper	730	730,000	µg/L	1.9[4]	2.4[4]	0.76[4]	<5	2.7[4]	8.8
Iron	300[8]	300[8]	µg/L	20	28[4]	**8,100**	**3,300**	130	42[4]
Lead	5	5,000	µg/L	<2	0.99[4]	<2	<2	1.8[4]	6
Manganese	50[8]	50[8]	µg/L	3.8[4]	7.8	**2,800**	**4,200**	**1,000**	0.46[4]

Table J-6
Area 5B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-7 12/18/2003	BR-8 12/18/2003	GW-3 12/17/2003	MW-53 12/16/2003	MW-54 12/18/2003	MW-55 12/18/2003
Mercury	2	2,000	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Molybdenum	--	--	µg/L	34	150	24	210	1,600	18,000
Nickel	100	100,000	µg/L	1.4[4]	1.8[4]	1.4[4]	1[4]	1.4[4]	0.22[4]
Selenium	50	50,000	µg/L	<5	<5	16	0.02[4]	4.2[4]	<5
Silver	100	100,000	µg/L	0.37[4]	0.73[4]	<1	<1	0.2[4]	0.39[4]
Thallium	2	2,000	µg/L	1.4[4]	**7.3**	**15**	<4	**6.2**	**8.3**
Tin	22,000	22,000,000	µg/L	<50	<50	3.5[4]	<50	1[4]	2.4[4]
Tungsten	--	--	µg/L	16[4]	28[4]	23[4]	5.1[4]	16[4]	760
Vanadium	260	260,000	µg/L	0.64[4]	0.1[4]	4.2[4]	<5	1.5[4]	32[4]
Zinc	2,000	2,000,000	µg/L	4.3[4]	1.8[4]	2.7[4]	1.3[4]	6.9[4]	4.5[4]
Additional Parameters									
Chromium VI[9]	--	--	µg/L	NS[10]	NS	NS	NS	<10	NS
Cyanide, Free[11]	200	200,000	µg/L	<5	<5	<5	<5	<5	<5

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8310.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level
(11) Hexavalent chromium was analyzed by US Environmental Protection Agency Method 7196.
(10) NS - Not Sampled
(10) Cyanide was analyzed by US Environmental Protection Agency Method ASTM 4500-1.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-7
Area 5D Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-6 12/17/2003	MW-51 12/17/2003	MW-52 12/17/2003
Volatile Organic Compounds[2]						
Benzene	5	500	ug/L[3]	<1	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3	<3
Semi-Volatile Organic Compounds[4]						
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.6	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	1.6[5]	<2.5
Anthracene	66	66	ug/L	<0.21	<0.21	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2	<0.2
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	7.8	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	18	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	7.7	<1
4,6-Dinitro-2-methylphenol	--[6]	--	ug/L	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5	<2.5
Fluoranthene	260	260	ug/L	<0.21	0.38	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	0.63	<0.2
Naphthalene	100	30,000	ug/L	<2.6	2.5[5]	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1	<1
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5	<2.5
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	0.61	<0.2

Table J-7
Area 5D Groundwater Analytical Results

	MSC[1] Residential	MSC Residential	Sample Identification / Sample Date	BR-6 12/17/2003	MW-51 12/17/2003	MW-52 12/17/2003
Phenol	4,000	400,000	ug/L	<1	3.1	<1
Pyrene	130	130	ug/L	<0.21	0.17[5]	<0.2
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1	<1
Dissolved Metals[7]						
Aluminum	200[8]	200[8]	ug/L	31[5]	<50	9.8[5]
Antimony	6	6,000	ug/L	0.63[5]	<5	1.9[5]
Arsenic	50	50,000	ug/L	4.1[5]	13	7.5
Barium	2,000	2,000,000	ug/L	250	390	220
Beryllium	4	4,000	ug/L	<1	<1	<1
Boron	600	600,000	ug/L	580	**8,800**	**12,000**
Cadmium	5	5,000	ug/L	<1	<1	<1
Chromium	100	100,000	ug/L	0.54[5]	<5	0.25[5]
Cobalt	2,000	2,000,000	ug/L	1[5]	0.25[5]	4.2[5]
Copper	730	730,000	ug/L	0.32[5]	1.3[5]	<5
Iron	300[8]	300[8]	ug/L	**1,700**	**1,900**	**12,000**
Lead	5	5,000	ug/L	<2	0.09[5]	0.29[5]
Manganese	50[8]	50[8]	ug/L	**180**	**610**	**7,800**
Mercury	2	2,000	ug/L	<0.2	<0.2	<0.2
Molybdenum	--	--	ug/L	29	10,000	2,600
Nickel	100	100,000	ug/L	2.6[5]	0.73[5]	2.2[5]
Selenium	50	50,000	ug/L	5.9	14	7.2
Silver	100	100,000	ug/L	<1	<1	<1
Thallium	2	2,000	ug/L	**9.7**	**10**	**4.1**
Tin	22,000	22,000,000	ug/L	2[5]	<5	<5
Tungsten	--	--	ug/L	14[5]	370	20[5]
Vanadium	260	260,000	ug/L	0.82[5]	10	1.1[5]
Zinc	2,000	2,000,000	ug/L	1.2[5]	2.3[5]	3.9[5]

Table J-7
Area 5D Groundwater Analytical Results

	MSC[1] Residential	MSC Residential	Sample Identification / Sample Date	BR-6 12/17/2003	MW-51 12/17/2003	MW-52 12/17/2003
Additional Parameters						
Chromium VI[9]	--	--	µg/L	NS[10]	NS	<10
Cyanide, Free[11]	200	200,000	µg/L	<5	<5	<5

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8310.
(5) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(6) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level
(11) Hexavalent chromium was analyzed by US Environmental Protection Agency Method 7196.
(10) NS - Not Sampled
(10) Cyanide was analyzed by US Environmental Protection Agency Method ASTM 4500-1.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-8
Area 7A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-01-1 12/19/2003	TB-02 12/19/2003	TB-03 12/19/2003
Volatile Organic Compounds[2]						
Benzene	5	500	ug/L[3]	<1	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3	<3
Semi-Volatile Organic Compounds[5]						
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.5	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.5	<2.5
Anthracene	66	66	ug/L	<0.21	<0.2	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2	<0.2
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5	<2.5
Fluoranthene	260	260	ug/L	<0.21	<0.2	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	<0.2	<0.2
Naphthalene	100	30,000	ug/L	<2.6	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1	<1
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5	<2.5
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.2	<0.2

Table J-8
Area 7A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-01-1 12/19/2003	TB-02 12/19/2003	TB-03 12/19/2003
Phenol	4,000	400,000	ug/L	<1	<1	<1
Pyrene	130	130	ug/L	<0.21	<0.2	<0.2
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1	<1
Dissolved Metals[7]						
Aluminum	200[8]	200[8]	ug/L	<50	12[9]	12[9]
Antimony	6	6,000	ug/L	<5	<5	<5
Arsenic	50	50,000	ug/L	<5	2.8[9]	<5
Barium	2,000	2,000,000	ug/L	15	37	92
Beryllium	4	4,000	ug/L	<1	<1	<1
Boron	600	600,000	ug/L	130	130	43[9]
Cadmium	5	5,000	ug/L	<1	<1	<1
Chromium	100	100,000	ug/L	0.47[9]	0.97[9]	0.5[9]
Cobalt	2,000	2,000,000	ug/L	0.23[9]	0.15[9]	0.24[9]
Copper	730	730,000	ug/L	1.8[9]	0.72[9]	1.8[9]
Iron	300[8]	300[8]	ug/L	25[9]	21[9]	24[9]
Lead	5	5,000	ug/L	0.61[9]	1.3[9]	1.1[9]
Manganese	50[8]	50[8]	ug/L	8.7	1.8[9]	0.39[9]
Mercury	2	2,000	ug/L	<0.2	<0.2	<0.2
Molybdenum	--	--	ug/L	12	15	15
Nickel	100	100,000	ug/L	4.6[9]	2.1[9]	1.9[9]
Selenium	50	50,000	ug/L	<5	<5	2.9[9]
Silver	100	100,000	ug/L	0.2[9]	0.15[9]	0.45[9]
Thallium	2	2,000	ug/L	<4	4	<4
Tin	22,000	22,000,000	ug/L	0.71[9]	0.11	1.7[9]
Tungsten	--	--	ug/L	85	24[9]	21[9]
Vanadium	260	260,000	ug/L	0.35[9]	0.11[9]	0.4[9]

Table J-8
Area 7A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	TB-01-1 / 12/19/2003	TB-02 / 12/19/2003	TB-03 / 12/19/2003
Zinc	2,000	2,000,000	ug/L	8.5[9]	0.17[9]	2.8[9]
Additional Parameters						
Cyanide, Free[10]	200	200,000	µg/L	<5	<5	<5

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(5) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8310.
(6) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level
(9) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(10) Cyanide was analyzed by US Environmental Protection Agency Method ASTM 4500-1.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-9
Area 7B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification Sample Date Units	BR-2 12/16/2003
Volatile Organic Compounds[2]				
Acetone	3,700	37,000	ug/L[3]	<10
Benzene	5	500	ug/L	<1
Bromodichloromethane	100	100	ug/L	<1
Bromoform	100	10,000	ug/L	<1
Bromomethane	10	1000	ug/L	<1
2-Butanone	--[4]	--	ug/L	<10
Carbon disulfide	1,900	1,900	ug/L	<1
Carbon tetrachloride	5	50	ug/L	<1
Chlorobenzene	100	10,000	ug/L	<1
Chloroethane	230	23,000	ug/L	<1
Chloroform	100	1,000	ug/L	<1
Chloromethane	3	300	ug/L	<1
1,1-Dichloroethane	27	270	ug/L	<1
1,2-Dichloroethane	5	50	ug/L	<1
1,1-Dichloroethene	7	70	ug/L	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1
1,2-Dichloropropane	5	50	ug/L	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1
Dibromochloromethane	100	10,000	ug/L	<1
Ethyl benzene	700	70,000	ug/L	<1
2-Hexanone	--	--	ug/L	<10
Methylene chloride	5	500	ug/L	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10
Styrene	100	10,000	ug/L	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1
Tetrachloroethene	5	50	ug/L	<1
Toluene	1,000	100,000	ug/L	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1
1,1,2-Trichloroethane	5	50	ug/L	<1
Trichloroethene	5	50	ug/L	<1
Vinyl chloride	2	20	ug/L	<2
Xylene, m & p-	--	--	ug/L	<2
Xylene, o-	--	--	ug/L	<1
Xylenes, Total	10,000	180,000	ug/L	<3
Semi-Volatile Organic Compounds[5]				
Acenaphthene	2,200	3,800	ug/L	<2.6
Acenaphthylene	2,200	16,000	ug/L	<2.6
Anthracene	66	66	ug/L	<0.21
Benzo(a)anthracene	0.9	11	ug/L	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1

Table J-9
Area 7B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification Sample Date Units	BR-2 12/16/2003
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1
Carbazole	33	1,200	ug/L	<1
4-Chloroaniline	150	150	ug/L	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1
2-Chlorophenol	40	40	ug/L	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1
Chrysene	1.9	1.9	ug/L	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2
Dibenzofuran	--	--	ug/L	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1
Dimethylphthalate	--	--	ug/L	<1
Di-n-butylphthalate	--	--	ug/L	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1
Di-n-octylphthalate	--	--	ug/L	<1
Fluoranthene	260	260	ug/L	<0.21
Fluorene	1,500	1,900	ug/L	<0.21
Hexachlorobenzene	1	6	ug/L	<1
Hexachlorobutadiene	1	1,000	ug/L	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1
Hexachloroethane	1	100	ug/L	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2
Isophorone	100	100,000	ug/L	<1
2-Methylnaphthalene	730	730	ug/L	<1
Naphthalene	100	30,000	ug/L	<1
Nitrobenzene	18	18,000	ug/L	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5
2-Nitrophenol	290	290,000	ug/L	<1
4-Nitrophenol	60	60,000	ug/L	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1
Pentachlorophenol	1	1,000	ug/L	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21
Phenol	4,000	400,000	ug/L	<1
Pyrene	130	130	ug/L	<0.21

Table J-9
Area 7B Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-2 / 12/16/2003
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1
Dissolved Metals[7]				
Aluminum	200[8]	200[8]	ug/L	17[9]
Antimony	6	6,000	ug/L	1.4[9]
Arsenic	50	50,000	ug/L	0.67[9]
Barium	2,000	2,000,000	ug/L	1,400
Beryllium	4	4,000	ug/L	<1
Boron	600	600,000	ug/L	320
Cadmium	5	5,000	ug/L	<1
Chromium	100	100,000	ug/L	<5
Cobalt	2,000	2,000,000	ug/L	0.97[9]
Copper	730	730,000	ug/L	<5
Iron	300[8]	300[8]	ug/L	16[9]
Lead	5	5,000	ug/L	<2
Manganese	50[8]	50[8]	ug/L	8.8
Mercury	2	2,000	ug/L	<0.2
Molybdenum	--	--	ug/L	3.2[9]
Nickel	100	100,000	ug/L	<10
Selenium	50	50,000	ug/L	<5
Silver	100	100,000	ug/L	<1
Thallium	2	2,000	ug/L	11
Tin	22,000	22,000,000	ug/L	0.79[9]
Tungsten	--	--	ug/L	5.9[9]
Vanadium	260	260,000	ug/L	<5
Zinc	2,000	2,000,000	ug/L	1.7[9]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters

(4) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(5) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(6) Polychlorinated Biphenyls were analyzed by US Environmental Protection Agency Method SW 846 8082.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level
(9) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-10
Area 8 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-4 12/10/2003	UG-3 12/10/2003
Volatile Organic Compounds[2]					
Acetone	3,700	37,000	ug/L[3]	5.9[4]	3.1[4]
Benzene	5	500	ug/L	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1
Bromoform	100	10,000	ug/L	<1	<1
Bromomethane	10	1000	ug/L	<1	<1
2-Butanone	--[5]	--	ug/L	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1
Carbon tetrachloride	5	50	ug/L	<1	<1
Chlorobenzene	100	10,000	ug/L	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1
Chloroform	100	1,000	ug/L	<1	<1
Chloromethane	3	300	ug/L	<1	<1
1,1-Dichloroethane	27	270	ug/L	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1
2-Hexanone	--	--	ug/L	<10	<10
Methylene chloride	5	500	ug/L	<1	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<10
Styrene	100	10,000	ug/L	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1

Table J-10
Area 8 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-4 12/10/2003	UG-3 12/10/2003
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1
Trichloroethene	5	50	ug/L	<1	<1
Vinyl chloride	2	20	ug/L	<2	<2
Xylene, m & p-	--	--	ug/L	<2	<2
Xylene, o-	--	--	ug/L	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3
Semi-Volatile Organic Compounds[6]					
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.5
Anthracene	66	66	ug/L	<0.21	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	1.2	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1	<1
Carbazole	33	1,200	ug/L	<1	<1
4-Chloroaniline	150	150	ug/L	<1	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1

Table J-10
Area 8 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-4 12/10/2003	UG-3 12/10/2003
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1
Dimethylphthalate	--	--	ug/L	1.1	<1
Di-n-butylphthalate	--	--	ug/L	<1	0.53
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1	<1
Di-n-octylphthalate	--	--	ug/L	<1	<1
Fluoranthene	260	260	ug/L	<0.21	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	<0.2
Hexachlorobenzene	1	6	ug/L	<1	<1
Hexachlorobutadiene	1	1,000	ug/L	<1	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1	<1
Hexachloroethane	1	100	ug/L	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1	<1
2-Methylnaphthalene	730	730	ug/L	<1	<1
Naphthalene	100	30,000	ug/L	<2.6	<2.5
Nitrobenzene	18	18,000	ug/L	<1	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1

Table J-10
Area 8 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-4 12/10/2003	UG-3 12/10/2003
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1	<1
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.2
Phenol	4,000	400,000	ug/L	<1	<1
Pyrene	130	130	ug/L	<0.21	<0.2
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1
Dissolved Metals[7]					
Aluminum	200[8]	200[8]	ug/L	17[4]	2.4[4]
Antimony	6	6,000	ug/L	<5	<5
Arsenic	50	50,000	ug/L	13	4.5[4]
Barium	2,000	2,000,000	ug/L	710	170
Beryllium	4	4,000	ug/L	0.06[4]	<1
Boron	600	600,000	ug/L	310	34[4]
Cadmium	5	5,000	ug/L	0.57[4]	<1
Chromium	100	100,000	ug/L	1.1[4]	6.8
Cobalt	2,000	2,000,000	ug/L	0.99[4]	2.9[4]
Copper	730	730,000	ug/L	1.9[4]	0.92[4]
Iron	300[8]	300[8]	ug/L	33[4]	**4,100**
Lead	5	5,000	ug/L	0.84[4]	0.64[4]
Manganese	50[8]	50[8]	ug/L	19	**5,300**
Mercury	2	2,000	ug/L	<0.2	0.002[4]
Molybdenum	--	--	ug/L	17	65
Nickel	100	100,000	ug/L	2.7[4]	5.7[4]
Selenium	50	50,000	ug/L	4[4]	<5

Table J-10
Area 8 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-4 12/10/2003	UG-3 12/10/2003
Silver	100	100,000	ug/L	0.53[4]	0.03[4]
Thallium	2	2,000	ug/L	3.8[4]	<4
Tin	22,000	22,000,000	ug/L	<50	<50
Tungsten	--	--	ug/L	11[4]	5[4]
Vanadium	260	260,000	ug/L	0.65[4]	150
Zinc	2,000	2,000,000	ug/L	2.7[4]	2[4]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Identified concentration is an estimated value below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-11
Area 9 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-3 12/11/2003	MW-41 12/11/2003
Volatile Organic Compounds[2]					
Acetone	3,700	37,000	ug/L[3]	<10	3.4[4]
Benzene	5	500	ug/L	<1	<1
Bromodichloromethane	100	100	ug/L	<1	<1
Bromoform	100	10,000	ug/L	<1	<1
Bromomethane	10	1000	ug/L	<1	<1
2-Butanone	--[4]	--	ug/L	<10	<10
Carbon disulfide	1,900	1,900	ug/L	<1	<1
Carbon tetrachloride	5	50	ug/L	<1	0.51[4]
Chlorobenzene	100	10,000	ug/L	<1	<1
Chloroethane	230	23,000	ug/L	<1	<1
Chloroform	100	1,000	ug/L	<1	<1
Chloromethane	3	300	ug/L	<1	<1
1,1-Dichloroethane	27	270	ug/L	<1	<1
1,2-Dichloroethane	5	50	ug/L	<1	<1
1,1-Dichloroethene	7	70	ug/L	<1	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1	<1
1,2-Dichloropropane	5	50	ug/L	<1	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1	<1
Dibromochloromethane	100	10,000	ug/L	<1	<1
Ethyl benzene	700	70,000	ug/L	<1	<1
2-Hexanone	--	--	ug/L	<10	<10
Methylene chloride	5	500	ug/L	<1	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10	<1
Styrene	100	10,000	ug/L	<1	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1	<1
Tetrachloroethene	5	50	ug/L	<1	<1
Toluene	1,000	100,000	ug/L	<1	<1

Table J-11
Area 9 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-3 12/11/2003	MW-41 12/11/2003
1,1,1-Trichloroethane	200	2,000	ug/L	<1	<1
1,1,2-Trichloroethane	5	50	ug/L	<1	<1
Trichloroethene	5	50	ug/L	<1	<1
Vinyl chloride	2	20	ug/L	<2	<2
Xylene, m & p-	--	--	ug/L	<2	0.64[4]
Xylene, o-	--	--	ug/L	<1	<1
Xylenes, Total	10,000	180,000	ug/L	<3	<3
Semi-Volatile Organic Compounds[5]					
Acenaphthene	2,200	3,800	ug/L	<2.6	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.6	<2.5
Anthracene	66	66	ug/L	<0.21	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1	<1
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1	<1
Carbazole	33	1,200	ug/L	<1	<1
4-Chloroaniline	150	150	ug/L	<1	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1	<1
2-Chlorophenol	40	40	ug/L	<1	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1	<1
Chrysene	1.9	1.9	ug/L	<0.2	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1	<1

Table J-11
Area 9 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-3 12/11/2003	MW-41 12/11/2003
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2	<0.2
Dibenzofuran	--	--	ug/L	<1	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1	<1
Dimethylphthalate	--	--	ug/L	<1	<1
Di-n-butylphthalate	--	--	ug/L	<1	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1	<1
Di-n-octylphthalate	--	--	ug/L	<1	<1
Fluoranthene	260	260	ug/L	<0.21	<0.2
Fluorene	1,500	1,900	ug/L	<0.21	<0.2
Hexachlorobenzene	1	6	ug/L	<1	<1
Hexachlorobutadiene	1	1,000	ug/L	<1	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1	<1
Hexachloroethane	1	100	ug/L	<1	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2	<0.2
Isophorone	100	100,000	ug/L	<1	<1
2-Methylnaphthalene	730	730	ug/L	<1	<1
Naphthalene	100	30,000	ug/L	<2.6	<2.5
Nitrobenzene	18	18,000	ug/L	<1	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5	<2.5
2-Nitrophenol	290	290,000	ug/L	<1	<1

Table J-11
Area 9 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-3 12/11/2003	MW-41 12/11/2003
4-Nitrophenol	60	60,000	ug/L	<2.5	<2.5
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1	<1
Pentachlorophenol	1	1,000	ug/L	<2.5	<2.5
Phenanthrene	1,100	1,100	ug/L	<0.21	<0.2
Phenol	4,000	400,000	ug/L	<1	<1
Pyrene	130	130	ug/L	<0.21	<0.2
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1	<1
Dissolved Metals[7]					
Aluminum	200[8]	200[8]	ug/L	4.5[4]	20[4]
Antimony	6	6,000	ug/L	5	<5
Arsenic	50	50,000	ug/L	4.5[4]	3.5[4]
Barium	2,000	2,000,000	ug/L	72	39
Beryllium	4	4,000	ug/L	0.07	<1
Boron	600	600,000	ug/L	11	97
Cadmium	5	5,000	ug/L	<1	<1
Chromium	100	100,000	ug/L	1.6[4]	1.1[4]
Cobalt	2,000	2,000,000	ug/L	1.7[4]	11
Copper	730	730,000	ug/L	0.98[4]	1.1[4]
Iron	300[8]	300[8]	ug/L	**18,000**	**10,000**
Lead	5	5,000	ug/L	2.4	<2
Manganese	50[8]	50[8]	ug/L	**2,200**	**2,600**
Mercury	2	2,000	ug/L	<0.2	<0.2
Molybdenum	--	--	ug/L	7[4]	0.14
Nickel	100	100,000	ug/L	2.5[4]	9.5[4]
Selenium	50	50,000	ug/L	1.6[4]	0.37

Table J-11
Area 9 Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	BR-3 12/11/2003	MW-41 12/11/2003
Silver	100	100,000	ug/L	<1	<1
Thallium	2	2,000	ug/L	<4	1.3[4]
Tin	22,000	22,000,000	ug/L	3.3[4]	3.8[4]
Tungsten	--	--	ug/L	7.9[4]	11
Vanadium	260	260,000	ug/L	0.46[4]	0.18[4]
Zinc	2,000	2,000,000	ug/L	0.31[4]	7[4]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater, Appendix A, Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Concentration represents an estimated value that is below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.

Table J-12
Area 10 A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification Sample Date Units	MW-49 12/11/2003
Volatile Organic Compounds[2]				
Acetone	3,700	37,000	ug/L[3]	3.3[4]
Benzene	5	500	ug/L	<1
Bromodichloromethane	100	100	ug/L	<1
Bromoform	100	10,000	ug/L	<1
Bromomethane	10	1000	ug/L	<1
2-Butanone	--[4]	--	ug/L	<10
Carbon disulfide	1,900	1,900	ug/L	<1
Carbon tetrachloride	5	50	ug/L	<1
Chlorobenzene	100	10,000	ug/L	<1
Chloroethane	230	23,000	ug/L	<1
Chloroform	100	1,000	ug/L	<1
Chloromethane	3	300	ug/L	<1
1,1-Dichloroethane	27	270	ug/L	<1
1,2-Dichloroethane	5	50	ug/L	<1
1,1-Dichloroethene	7	70	ug/L	<1
cis-1,2-Dichloroethene	70	700	ug/L	<1
trans-1,2-Dichloroethene	100	1,000	ug/L	<1
1,2-Dichloropropane	5	50	ug/L	<1
cis-1,3-Dichloropropene	--	--	ug/L	<1
trans-1,3-Dichloropropene	--	--	ug/L	<1
Dibromochloromethane	100	10,000	ug/L	<1
Ethyl benzene	700	70,000	ug/L	<1
2-Hexanone	--	--	ug/L	<10
Methylene chloride	5	500	ug/L	<1
4-Methyl-2-pentanone	190	19,000	ug/L	<10
Styrene	100	10,000	ug/L	<1
1,1,2,2-Tetrachloroethane	0.3	30	ug/L	<1
Tetrachloroethene	5	50	ug/L	<1
Toluene	1,000	100,000	ug/L	<1
1,1,1-Trichloroethane	200	2,000	ug/L	<1
1,1,2-Trichloroethane	5	50	ug/L	<1
Trichloroethene	5	50	ug/L	<1
Vinyl chloride	2	20	ug/L	<2
Xylene, m & p-	--	--	ug/L	<2
Xylene, o-	--	--	ug/L	<1
Xylenes, Total	10,000	180,000	ug/L	<3
Semi-Volatile Organic Compounds[5]				
Acenaphthene	2,200	3,800	ug/L	<2.5
Acenaphthylene	2,200	16,000	ug/L	<2.5
Anthracene	66	66	ug/L	<0.2
Benzo(a)anthracene	0.9	11	ug/L	<0.2
Benzo(a)pyrene	0.2	3.8	ug/L	<0.2
Benzo(b)fluoranthene	0.9	1.2	ug/L	<0.2
Benzo(k)fluoranthene	0.55	0.55	ug/L	<0.2
Benzo(g,h,i)perylene	0.26	0.26	ug/L	<0.2
Bis(2-chloroethoxy)methane	--	--	ug/L	<1
Bis(2-chloroethyl)ether	0.13	13	ug/L	<1
Bis(2-chloroisopropyl)ether	300	30,000	ug/L	<1

Table J-12
Area 10 A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-49 / 12/11/2003
Bis(2-ethylhexyl)phthalate	6	290	ug/L	<1
4-Bromophenyl-phenylether	--	--	ug/L	<1
Butylbenzylphthalate	2,700	2,700	ug/L	<1
Carbazole	33	1,200	ug/L	<1
4-Chloroaniline	150	150	ug/L	<1
4-Chloro-3-methylphenol	180	180	ug/L	<1
2-Chloronaphthalene	2,900	2,900	ug/L	<1
2-Chlorophenol	40	40	ug/L	<1
4-Chlorophenyl-phenylether	--	--	ug/L	<1
Chrysene	1.9	1.9	ug/L	<0.2
o-Cresol (2-Methylphenol)	1,800	180,000	ug/L	<1
p-Cresol (4-Methylphenol)	180	180,000	ug/L	<1
Dibenz(a,h)anthracene	0.09	0.6	ug/L	<0.2
Dibenzofuran	--	--	ug/L	<1
1,2-Dichlorobenzene	600	60,000	ug/L	<1
1,3-Dichlorobenzene	600	60,000	ug/L	<1
1,4-Dichlorobenzene	75	7,500	ug/L	<1
3,3'-Dichlorobenzidine	1.5	1,500	ug/L	<1
2,4-Dichlorophenol	20	20,000	ug/L	<1
Diethylphthalate	5,000	1,100,000	ug/L	<1
2,4-Dimethylphenol	730	730,000	ug/L	<1
Dimethylphthalate	--	--	ug/L	<1
Di-n-butylphthalate	--	--	ug/L	<1
4,6-Dinitro-2-methylphenol	--	--	ug/L	<2.5
2,4-Dinitrophenol	19	190	ug/L	<2.5
2,4-Dinitrotoluene	2.1	2,100	ug/L	<1
2,6-Dinitrotoluene	37	37,000	ug/L	<1
Di-n-octylphthalate	--	--	ug/L	<1
Fluoranthene	260	260	ug/L	<0.2
Fluorene	1,500	1,900	ug/L	<0.2
Hexachlorobenzene	1	6	ug/L	<1
Hexachlorobutadiene	1	1,000	ug/L	<1
Hexachlorocyclopentadiene	50	1,800	ug/L	<1
Hexachloroethane	1	100	ug/L	<1
Indeno(1,2,3-cd)pyrene	0.9	62	ug/L	<0.2
Isophorone	100	100,000	ug/L	<1
2-Methylnaphthalene	730	730	ug/L	<1
Naphthalene	100	30,000	ug/L	<2.5
Nitrobenzene	18	18,000	ug/L	<1
2-Nitroaniline	2.1	2.1	ug/L	<2.5
3-Nitroaniline	2.1	2.1	ug/L	<2.5
4-Nitroaniline	2.1	2.1	ug/L	<2.5
2-Nitrophenol	290	290,000	ug/L	<1
4-Nitrophenol	60	60,000	ug/L	0
N-nitrosodi-n-propylamine	0.094	94	ug/L	<1
N-nitrosodiphenylamine	130	35,000	ug/L	<1
Pentachlorophenol	1	1,000	ug/L	<2.5
Phenanthrene	1,100	1,100	ug/L	0
Phenol	4,000	400,000	ug/L	<1
Pyrene	130	130	ug/L	<0.2

Table J-12
Area 10 A Groundwater Analytical Results

Constituent	MSC[1] Residential Used Aquifers	MSC Residential Non-Use Aquifers	Sample Identification / Sample Date / Units	MW-49 / 12/11/2003
1,2,4-Trichlorobenzene	70	44,000	ug/L	<1
2,4,5-Trichlorophenol	3,700	1,000,000	ug/L	<2.5
2,4,6-Trichlorophenol	11	11,000	ug/L	<1
Dissolved Metals[7]				
Aluminum	200[8]	200[8]	ug/L	6.4[4]
Antimony	6	6,000	ug/L	<5
Arsenic	50	50,000	ug/L	2.3[4]
Barium	2,000	2,000,000	ug/L	26
Beryllium	4	4,000	ug/L	<1
Boron	600	600,000	ug/L	260
Cadmium	5	5,000	ug/L	<1
Chromium	100	100,000	ug/L	1.2[4]
Cobalt	2,000	2,000,000	ug/L	0.07[4]
Copper	730	730,000	ug/L	1.2[4]
Iron	300[8]	300[8]	ug/L	24[4]
Lead	5	5,000	ug/L	2.7
Manganese	50[8]	50[8]	ug/L	**53**
Mercury	2	2,000	ug/L	<0.2
Molybdenum	--	--	ug/L	28
Nickel	100	100,000	ug/L	1.6[4]
Selenium	50	50,000	ug/L	2.4[4]
Silver	100	100,000	ug/L	0.01[4]
Thallium	2	2,000	ug/L	**6.3**
Tin	22,000	22,000,000	ug/L	0.88[4]
Tungsten	--	--	ug/L	5.3[4]
Vanadium	260	260,000	ug/L	0.22[4]
Zinc	2,000	2,000,000	ug/L	1.7[4]

Footnotes:
(1) MSC - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Groundwater. Appendix A. Tables 1 and 2, 25 PA Code Chapter 250.
(2) Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8260B.
(3) µg/L - micrograms/liters
(4) Concentration represents an estimated value that is below the laboratory reporting limit but above the method detection limit.
(5) -- Medium Specific Concentration not yet established by Pennsylvania Department of Environmental Protection.
(6) Semi-Volatile Organic Compounds were analyzed by US Environmental Protection Agency Method SW 846 8270C and 8310.
(7) Dissolved Metals were analyzed by US Environmental Protection Agency Methods 6010B and 7470.
(8) Secondary Maximum Contaminant Level

610 = Reported concentration exceeds MSC for Residential Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Non-Use Aquifer.
610 = Reported concentration exceeds MSC for Residential Used and Non-Use Aquifer.