Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-1 4/25/2008	MW-2 6/28/2007	MW-2 5/8/2008	MW-2 9/17/2008	MW-2 6/24/2009	MW-3 5/7/2008	MW-5 6/25/2007	MW-5 4/24/2008	MW-5 9/5/2008	MW-5 6/18/2009	MW-6 6/25/2007	MW-6 4/25/2008	MW-6 9/8/2008	MW-6 6/16/2009
TOTAL VOC																		
					6.95	111	140.8	126.3	110	42.75	3.2	3.3	6	4.19	0	0.32	0.23	0
Volatile Organic Compound																		
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U		5 U	5 U	5 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	0.24 J	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	0.3 J	5 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	0.32 J	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	0.4 J	1 U	5 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15														
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U		5 U	5 U	5 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12														
1,4-Dioxane	5.6	24		6.1	200 U	1000 U	1000 U	1000 U	1000 U	200 U	1000 U	200 U	200 U	200 U	1000 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	5 U	50 U	50 U	50 U	10 U	5 U	10 U	10 U	0.77 J	5 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether						10 U					10 U				10 U			
2-Hexanone					10 U		50 U	50 U	50 U	10 U		10 U	10 U	10 U		10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U		50 U	50 U	50 U	10 U		10 U	10 U	10 U		10 U	10 U	10 U
Acetone	3700	10000		22000	10 U		50 U	50 U	50 U	10 U		10 U	10 U	10 U		10 U	10 U	10 U
Acrolein	0.055	0.12		0.042		100 U					100 U				100 U			
Acrylonitrile	0.63	2.7		0.045	20 U	100 U	100 U	100 U	100 U	20 U	100 U	20 U	20 U	20 U	100 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromochloromethane	90	90			1 U		5 U	5 U	5 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromoform	80	80		8.5	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U		5 U	5 U	5 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloroethane	230	900		21000	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloroform	80	80		0.19	1 U	5 U	5 U	5 U	5 U	2.2	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloromethane	30	30		190	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	0.66 J	5 U	5 U	5 U	5 U	0.75 J	3.2 J	2.2	4.4	2.5	5 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680														
Methyl tert-butyl ether	20	20		12	1 U		5 U	5 U	5 U	0.45 J		1 U	1 U	1 U		1 U	1 U	1 U
Methylene chloride	5	5		4.8	1 U	5 U	1.8 J	2.3 J B	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Naphthalene	100	100		0.14														
Styrene	100	100	100	1600	1 U		5 U	5 U	5 U	1 U		1 U	1 U	1 U		1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	0.55 J	91	120	110	94	0.35 J	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	0.19 J	1 U	5 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	5.5	20	19	14	16	39	5 U	1.1	0.78 J	0.62 J	5 U	1 U	0.23 J	1 U
Vinyl Chloride	2	2	2	0.016	1 U	5 U	5 U	5 U	5 U	1 U	5 U	1 U	0.23 J	1 U	5 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U		15 U	15 U	15 U	3 U		3 U	3 U	3 U		3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-7 6/28/2007	MW-7 5/19/2008	MW-7 10/1/2008	MW-7 7/7/2009	MW-8 5/19/2008	MW-9 5/9/2008	MW-10 6/26/2007	MW-10 Dup 6/26/2007	MW-10 5/9/2008	MW-10 9/22/2008	MW-10 6/30/2009	MW-11 4/24/2008
TOTAL VOC																
					2396	2099	1779	1504	109.24	188.64	390	380	327.1	317	530.4	5.58
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52		50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	96	96	85	59	0.74 J	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,1-Dichloroethane	27	110		2.4	75 U	50 U	17 J	12 J	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,1-Dichloroethene	7	7	7	340	90	94	77	59	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
1,2-Dichloroethane	5	5	5	0.15	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,2-Dichloropropane	5	5	5	0.39	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	15000 U	10000 U	10000 U	10000 U	400 U	1000 U	2000 U	2000 U	5000 U	5000 U	5000 U	200 U
2-Butanone	4000	4000		7100	75 U	500 U	500 U	500 U	20 U	50 U	10 U	10 U	250 U	250 U	250 U	10 U
2-Chloroethyl Vinyl Ether					150 U						20 U	20 U				
2-Hexanone						500 U	500 U	500 U	20 U	50 U			250 U	250 U	250 U	10 U
4-Methyl-2-Pentanone	190	410		2000		500 U	500 U	500 U	20 U	50 U			250 U	250 U	250 U	10 U
Acetone	3700	10000		22000		500 U	500 U	500 U	20 U	50 U			250 U	250 U	250 U	10 U
Acrolein	0.055	0.12		0.042	1500 U						200 U	200 U				
Acrylonitrile	0.63	2.7		0.045	1500 U	1000 U	1000 U	1000 U	40 U	100 U	200 U	200 U	500 U	500 U	500 U	20 U
Benzene	5	5	5	0.41	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Bromochloromethane	90	90				50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
Bromodichloromethane	100	100		0.12	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Bromoform	80	80		8.5	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Bromomethane	10	10		8.7	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Carbon Disulfide	1900	4100		1000		50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
Carbon Tetrachloride	5	5	5	0.2	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Chlorobenzene	100	100	100	91	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Chlorodibromomethane	80	80		0.15	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Chloroethane	230	900		21000	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Chloroform	80	80		0.19	75 U	50 U	50 U	50 U	1.5 J	5 U	10 U	10 U	25 U	25 U	25 U	0.37 J
Chloromethane	30	30		190	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	310	290	300	300	8.5	32	110	100	260	290	340	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Ethylbenzene	700	700	700	1.5	75 U	50 U	50 U	50 U	2 U	0.34 J	10 U	10 U	25 U	25 U	25 U	1 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12		50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
Methylene chloride	5	5		4.8	75 U	39 J	50 U	54 B	1.5 J	1.8 J	10 U	10 U	25 U	12 J B	8.4 J	1 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600		50 U	50 U	50 U	2 U	5 U			25 U	25 U	25 U	1 U
Tetrachloroethene	5	5	5	0.11	700	480	300	270	54	2.2 J	10 U	10 U	25 U	25 U	25 U	0.31 J
Toluene	1000	1000	1000	2300	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	75 U	50 U	50 U	50 U	2 U	5 U	10 U	10 U	25 U	25 U	25 U	1 U
Trichloroethene	5	5	5	1.7	1200	1100	1000	750	43	150	280	280	62	25 U	170	4.9
Vinyl Chloride	2	2	2	0.016	75 U	50 U	50 U	50 U	2 U	2.3 J	10 U	10 U	5.1 J	15 J	12 J	1 U
Xylenes (Total)	10000	10000	10000	200		150 U	150 U	150 U	6 U	15 U			75 U	75 U	75 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-12 6/28/2007	MW-12 5/6/2008	MW-12 9/16/2008	MW-12 6/23/2009	MW-14 4/24/2008	MW-15 5/8/2008	MW-15 9/26/2008	MW-16D 5/13/2008	MW-16S 5/15/2008	MW-16S 10/2/2008	MW-17 Dup 6/25/2007	MW-17 6/25/2007	MW-17 4/28/2008
TOTAL VOC																	
					155.3	59.4	60.89	52.1	5.69	468.6	473	38.1	341.8	633	43.1	43.1	42.58
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52		2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U			1 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,1-Dichloroethane	27	110		2.4	5 U	2 U	0.91 J	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,1-Dichloroethene	7	7	7	340	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U			1 U
1,2-Dichloroethane	5	5	5	0.15	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,2-Dichloropropane	5	5	5	0.39	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	1000 U	400 U	400 U	400 U	200 U	4000 U	4000 U	200 U	4000 U	4000 U	1000 U	1000 U	200 U
2-Butanone	4000	4000		7100	5 U	20 U	20 U	20 U	10 U	200 U	200 U	10 U	200 U	200 U	5 U	5 U	10 U
2-Chloroethyl Vinyl Ether					10 U										10 U	10 U	
2-Hexanone						20 U	20 U	20 U	10 U	200 U	200 U	10 U	200 U	200 U			10 U
4-Methyl-2-Pentanone	190	410		2000		20 U	20 U	20 U	10 U	200 U	200 U	10 U	200 U	200 U			10 U
Acetone	3700	10000		22000		20 U	20 U	20 U	10 U	200 U	200 U	10 U	200 U	200 U			10 U
Acrolein	0.055	0.12		0.042	100 U										100 U	100 U	
Acrylonitrile	0.63	2.7		0.045	100 U	40 U	40 U	40 U	20 U	400 U	400 U	20 U	400 U	400 U	100 U	100 U	20 U
Benzene	5	5	5	0.41	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Bromochloromethane	90	90				2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U			1 U
Bromodichloromethane	100	100		0.12	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Bromoform	80	80		8.5	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Bromomethane	10	10		8.7	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Carbon Disulfide	1900	4100		1000		2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U			1 U
Carbon Tetrachloride	5	5	5	0.2	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Chlorobenzene	100	100	100	91	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Chlorodibromomethane	80	80		0.15	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Chloroethane	230	900		21000	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Chloroform	80	80		0.19	5 U	2 U	2 U	2 U	0.24 J	20 U	20 U	1 U	20 U	20 U	1.1 J	1.1 J	1.3
Chloromethane	30	30		190	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	11	0.9 J	13	2 U	1 U	20 U	20 U	5.1	6.9 J	20 U	5 U	5 U	0.64 J
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Ethylbenzene	700	700	700	1.5	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12		2 U	2 U	2 U	0.65 J	20 U	20 U	1 U	20 U	20 U			0.23 J
Methylene chloride	5	5		4.8	5 U	0.4 J	0.88 J B	2 U	1 U	8.6 J	20 U	1 U	5.9 J	20 U	5 U	5 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600		2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U			1 U
Tetrachloroethene	5	5	5	0.11	4.3 J	2.1	2.1	2.1	3.6	460	460	1 U	310	620	5 U	5 U	0.41 J
Toluene	1000	1000	1000	2300	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Trichloroethene	5	5	5	1.7	140	56	44	50	1.2	20 U	13 J	33	19 J	13 J	42	42	40
Vinyl Chloride	2	2	2	0.016	5 U	2 U	2 U	2 U	1 U	20 U	20 U	1 U	20 U	20 U	5 U	5 U	1 U
Xylenes (Total)	10000	10000	10000	200		6 U	6 U	6 U	3 U	60 U	60 U	3 U	60 U	60 U			3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-17 9/12/2008	MW-17 6/19/2009	MW-18D 4/23/2008	MW-18D 10/7/2008	MW-18D 7/9/2009	MW-18S 5/1/2008	MW-18S Dup 5/1/2008	MW-18S 10/3/2008	MW-18S 7/9/2009	MW-19 5/14/2008	MW-20D 5/7/2008	MW-20D 9/5/2008
TOTAL VOC																
					35.1	31.83	2084.32	2494	2594	1735	1722.7	990	970	216.4	0.24	0.13
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	0.14 J	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	3.4	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	20000 U	20000 U	10000 U	10000 U	10000 U	10000 U	2000 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	1000 U	1000 U	500 U	500 U	500 U	500 U	100 U	10 U	10 U
2-Chloroethyl Vinyl Ether																
2-Hexanone					10 U	10 U	10 U	1000 U	1000 U	500 U	500 U	500 U	500 U	100 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	1000 U	1000 U	500 U	500 U	500 U	500 U	100 U	10 U	10 U
Acetone	3700	10000		22000	10 U	10 U	10 U	1000 U	1000 U	500 U	500 U	500 U	500 U	100 U	10 U	10 U
Acrolein	0.055	0.12		0.042												
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	2000 U	2000 U	1000 U	1000 U	1000 U	1000 U	200 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Bromochloromethane	90	90			1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Bromoform	80	80		8.5	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Chloroethane	230	900		21000	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Chloroform	80	80		0.19	1	0.87 J	0.077 J	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	0.13 J
Chloromethane	30	30		190	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	0.5 J	0.45 J	650	760	770	520	500	320	300	2.4 J	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	34 J	100 U	15 J	15 J	50 U	50 U	10 U	1 U	1 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	0.6 J	0.51 J	1.3	100 U	100 U	50 U	50 U	50 U	50 U	4 J	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	3.4	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	100 U	100 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U
Trichloroethene	5	5	5	1.7	33	30	1400	1700 J	1800	1200	1200	670	670	210	0.24 J	1 U
Vinyl Chloride	2	2	2	0.016	1 U	1 U	26	100 U	24 J	50 U	7.7 J	50 U	50 U	10 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	300 U	300 U	150 U	150 U	150 U	150 U	30 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-20M 5/19/2008	MW-20M 9/11/2008	MW-20S 5/20/2008	MW-20S 10/1/2008	MW-22 4/28/2008	MW-26 5/5/2008	MW-26 9/29/2008	MW-27 5/14/2008	MW-27 9/30/2008	MW-28 5/8/2008	MW-29 4/23/2008	MW-30 5/7/2008	MW-30 Dup 5/7/2008
TOTAL VOC																	
					31.62	15.56	1007.7	501	29.14	511	447	776.7	660.9	137.62	0	0	0
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	25 U	40 U	0.75 J	25 U	25 U	25 U	25 U	31	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	5.2	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	25 U	40 U	0.67 J	19 J	19 J	25 U	25 U	21	1 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	0.35 J	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	200 U	200 U	5000 U	8000 U	200 U	5000 U	5000 U	5000 U	5000 U	400 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	10 U	250 U	400 U	10 U	250 U	250 U	250 U	250 U	20 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether																	
2-Hexanone					10 U	10 U	250 U	400 U	10 U	250 U	250 U	250 U	250 U	20 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	250 U	400 U	10 U	250 U	250 U	250 U	250 U	20 U	10 U	10 U	10 U
Acetone	3700	10000		22000	10 U	10 U	250 U	400 U	10 U	250 U	250 U	250 U	250 U	20 U	10 U	10 U	10 U
Acrolein	0.055	0.12		0.042													
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	500 U	800 U	20 U	500 U	500 U	500 U	500 U	40 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Bromochloromethane	90	90			1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Bromoform	80	80		8.5	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Chloroethane	230	900		21000	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Chloroform	80	80		0.19	0.78 J	0.56 J	25 U	40 U	1 U	25 U	25 U	25 U	25 U	0.2 J	1 U	1 U	1 U
Chloromethane	30	30		190	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	0.12 J	1 U	8.7 J	14 J	0.22 J	52	58	160	120	14	1 U	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Methylene chloride	5	5		4.8	0.36 J	1 U	20 J	40 U	1 U	25 U	25 U	6.5 J	9.9 J	0.57 J	1 U	1 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	0.36 J	1 U	29	17 J	4.6	25 U	25 U	560	500	7.3	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	1 U	25 U	40 U	2.9	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	25 U	40 U	1 U	25 U	25 U	5.2 J	25 U	2 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	30	15	950	470	20	440	370	45	31	58	1 U	1 U	1 U
Vinyl Chloride	2	2	2	0.016	1 U	1 U	25 U	40 U	1 U	25 U	25 U	25 U	25 U	2 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	75 U	120 U	3 U	75 U	75 U	75 U	75 U	6 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-31D 5/16/2008	MW-31D 9/24/2008	MW-31S 4/28/2008	MW-31S 9/11/2008	MW-32D 6/29/2007	MW-32D 5/8/2008	MW-32D 10/2/2008	MW-32D 7/14/2009	MW-32S 6/27/2007	MW-32S 5/13/2008	MW-32S 9/22/2008	MW-32S 7/6/2009
TOTAL VOC																
					413.7	463.8	30.14	60.86	212.3	1590	998	1097	380	470.1	509.1	376
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
1,1,1-Trichloroethane	200	200	200	9100	25 U	25 U	1 U	0.33 J	5 U	25 U	25 U	25 U	110	100	110	90
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
1,1,2-Trichloroethane	5	5	5	0.24	25 U	25 U	0.43 J	0.84 J	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
1,1-Dichloroethane	27	110		2.4	25 U	25 U	5	6.4	4 J	17 J	25 U	11 J	16	13 J	17	10 J
1,1-Dichloroethene	7	7	7	340	25 U	7.1 J	17	34	9.6	65	35	42	18	15	20	16
1,2,4-Trimethylbenzene	16	35		15	25 U	1 U	1 U	1 U								
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
1,2-Dichloroethane	5	5	5	0.15	25 U	25 U	0.18 J	0.35 J	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
1,2-Dichloropropane	5	5	5	0.39	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
1,3,5-Trimethylbenzene	16	35		12	25 U	1 U	1 U	1 U								
1,4-Dioxane	5.6	24		6.1	5000 U	5000 U	200 U	200 U	1000 U	5000 U	5000 U	5000 U	2000 U	3000 U	3000 U	3000 U
2-Butanone	4000	4000		7100	250 U	250 U	10 U	10 U	5 U	250 U	250 U	250 U	10 U	150 U	150 U	150 U
2-Chloroethyl Vinyl Ether									10 U				20 U			
2-Hexanone					250 U	250 U	10 U	10 U		250 U	250 U	250 U		150 U	150 U	150 U
4-Methyl-2-Pentanone	190	410		2000	250 U	250 U	10 U	10 U		250 U	250 U	250 U		150 U	150 U	150 U
Acetone	3700	10000		22000	250 U	250 U	10 U	10 U		250 U	250 U	250 U		150 U	150 U	150 U
Acrolein	0.055	0.12		0.042					100 U				200 U			
Acrylonitrile	0.63	2.7		0.045	500 U	500 U	20 U	20 U	100 U	500 U	500 U	500 U	200 U	300 U	300 U	300 U
Benzene	5	5	5	0.41	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 UJ
Bromochloromethane	90	90			25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
Bromodichloromethane	100	100		0.12	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Bromoform	80	80		8.5	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Bromomethane	10	10		8.7	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Carbon Disulfide	1900	4100		1000	25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
Carbon Tetrachloride	5	5	5	0.2	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Chlorobenzene	100	100	100	91	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 UJ
Chlorodibromomethane	80	80		0.15	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Chloroethane	230	900		21000	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Chloroform	80	80		0.19	25 U	25 U	1 U	0.34 J	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Chloromethane	30	30		190	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
cis-1,2-Dichloroethene	70	70	70	370	140	130	1.7	4.2	110	450	340	390	50	74	69	56
cis-1,3-Dichloropropene	6.6	26		0.43	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Ethylbenzene	700	700	700	1.5	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Isopropylbenzene	1100	2300		680	25 U	1 U	1 U	1 U								
Methyl tert-butyl ether	20	20		12	25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
Methylene chloride	5	5		4.8	8.8 J	25 U	1 U	1 U	5 U	11 J	25 U	25 U	10 U	6.1 J	7.1 J B	15 U
Naphthalene	100	100		0.14	25 U	1 U	1 U	1 U								
Styrene	100	100	100	1600	25 U	25 U	1 U	1 U		25 U	25 U	25 U		15 U	15 U	15 U
Tetrachloroethene	5	5	5	0.11	4.9 J	6.7 J	2.2	2	6.2	56	49	26	16	22	26	14 J
Toluene	1000	1000	1000	2300	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 UJ
trans-1,2-Dichloroethene	100	100	100	110	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
trans-1,3-Dichloropropene	6.6	26		0.43	25 U	25 U	1 U	1 U	5 U	25 U	25 U	25 U	10 U	15 U	15 U	15 U
Trichloroethene	5	5	5	1.7	260	320	3.1	11	79	970	560	590	170	240	260	190
Vinyl Chloride	2	2	2	0.016	25 U	25 U	0.53 J	1.4	3.5 J	21 J	14 J	38	10 U	15 U	15 U	15 U
Xylenes (Total)	10000	10000	10000	200	75 U	75 U	3 U	3 U		75 U	75 U	75 U		45 U	45 U	45 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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TOTAL VOC																	
					256	133.7	158.56	222.4	245.8	28.6	34.75	27.55	27.97	24.2	209.5	150.42	133.7
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
1,1,1-Trichloroethane	200	200	200	9100	2.8 J	5 U	1.9 J	1.3 J	2.6 J	5 U	0.39 J	1 U	1 U	1 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1-Dichloroethane	27	110		2.4	10 U	5 U	5 U	1.2 J	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1-Dichloroethene	7	7	7	340	5.2 J	1.7 J	2.9 J	3.4 J	4.2 J	5 U	0.56 J	0.45 J	0.47 J	0.3 J	3.2 J	2.7 J	2.5 J
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
1,2-Dichloroethane	5	5	5	0.15	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,2-Dichloropropane	5	5	5	0.39	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	2000 U	1000 U	1000 U	1000 U	1000 U	1000 U	200 U	200 U	200 U	200 U	1000 U	1000 U	1000 U
2-Butanone	4000	4000		7100	100 U	5 U	50 U	50 U	50 U	5 U	10 U	10 U	10 U	10 U	5 U	50 U	50 U
2-Chloroethyl Vinyl Ether						10 U				10 U					10 U		
2-Hexanone					100 U		50 U	50 U	50 U		10 U	10 U	10 U	10 U		50 U	50 U
4-Methyl-2-Pentanone	190	410		2000	100 U		50 U	50 U	50 U		10 U	10 U	10 U	10 U		50 U	50 U
Acetone	3700	10000		22000	100 U		50 U	50 U	50 U		10 U	10 U	10 U	10 U		50 U	50 U
Acrolein	0.055	0.12		0.042		100 U				100 U					100 U		
Acrylonitrile	0.63	2.7		0.045	200 U	100 U	100 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	100 U	100 U	100 U
Benzene	5	5	5	0.41	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Bromochloromethane	90	90			10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
Bromodichloromethane	100	100		0.12	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Bromoform	80	80		8.5	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Bromomethane	10	10		8.7	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Carbon Disulfide	1900	4100		1000	10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
Carbon Tetrachloride	5	5	5	0.2	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chlorobenzene	100	100	100	91	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chlorodibromomethane	80	80		0.15	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroethane	230	900		21000	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroform	80	80		0.19	10 U	5 U	0.46 J	5 U	5 U	2.5 J	1.6	3.2	3.3	3.5	2.3 J	0.92 J	1.2 J
Chloromethane	30	30		190	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	49	39	31	54	48	7.2	6.9	4.2	4.3	4	58	39	37
cis-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Ethylbenzene	700	700	700	1.5	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
Methylene chloride	5	5		4.8	10 U	5 U	1.3 J	2.5 J B	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	2.3 J B
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	10 U		5 U	5 U	5 U		1 U	1 U	1 U	1 U		5 U	5 U
Tetrachloroethene	5	5	5	0.11	19	10	11	20	21	2.9 J	4.3	3.7	3.9	3.4	16	7.8	6.7
Toluene	1000	1000	1000	2300	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Trichloroethene	5	5	5	1.7	180	83	110	140	170	16	21	16	16	13	130	100	84
Vinyl Chloride	2	2	2	0.016	10 U	5 U	5 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Xylenes (Total)	10000	10000	10000	200	30 U		15 U	15 U	15 U		3 U	3 U	3 U	3 U		15 U	15 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-35D 6/25/2009	MW-35S 5/13/2008	MW-36D 5/19/2008	MW-36S 5/7/2008	MW-37D 6/29/2007	MW-37D 5/14/2008	MW-37D 10/1/2008	MW-37D 7/13/2009	MW-37S 6/29/2007	MW-37S 5/14/2008	MW-37S Dup 5/14/2008	MW-37S 9/18/2008
TOTAL VOC																
					215.9	11.03	236.7	7.69	696.4	4162	3820	9832	552	188.3	200.4	489.8
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	1 U	10 U	1 U	98	390	280	710	53	12	12	23
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	27	110		2.4	1.9 J	1 U	10 U	0.43 J	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	7	7	7	340	3.1 J	1 U	2.1 J	1 U	6.6 J	31 J	100 U	72 J	10 U	10 U	10 U	10 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
1,2-Dichloroethane	5	5	5	0.15	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	5	5	0.39	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	1000 U	200 U	2000 U	200 U	2000 U	20000 U	20000 U	40000 U	2000 U	2000 U	2000 U	2000 U
2-Butanone	4000	4000		7100	50 U	10 U	100 U	10 U	10 U	1000 U	1000 U	2000 U	10 U	100 U	100 U	100 U
2-Chloroethyl Vinyl Ether									20 U				20 U			
2-Hexanone					50 U	10 U	100 U	10 U		1000 U	1000 U	2000 U		100 U	100 U	100 U
4-Methyl-2-Pentanone	190	410		2000	50 U	10 U	100 U	10 U		1000 U	1000 U	2000 U		100 U	100 U	100 U
Acetone	3700	10000		22000	50 U	10 U	100 U	10 U		1000 U	1000 U	2000 U		100 U	100 U	100 U
Acrolein	0.055	0.12		0.042					200 U				200 U			
Acrylonitrile	0.63	2.7		0.045	100 U	20 U	200 U	20 U	200 U	2000 U	2000 U	4000 U	200 U	200 U	200 U	200 U
Benzene	5	5	5	0.41	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Bromochloromethane	90	90			5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
Bromodichloromethane	100	100		0.12	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Bromoform	80	80		8.5	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Bromomethane	10	10		8.7	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Carbon Disulfide	1900	4100		1000	5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
Carbon Tetrachloride	5	5	5	0.2	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Chlorobenzene	100	100	100	91	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Chlorodibromomethane	80	80		0.15	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Chloroethane	230	900		21000	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Chloroform	80	80		0.19	2.3 J	0.13 J	10 U	1 U	1.8 J	100 U	100 U	200 U	10 U	1.4 J	1.1 J	3.5 J
Chloromethane	30	30		190	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70	70	70	370	50	2.5	150	3.7	80	140	140	240	73	8.9 J	9.4 J	24
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Ethylbenzene	700	700	700	1.5	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
Methylene chloride	5	5		4.8	5 U	1 U	5.7 J	1 U	10 U	21 J B	100 U	110 J	10 U	2 J B	2.9 J B	5.3 J
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	5 U	1 U	10 U	1 U		100 U	100 U	200 U		10 U	10 U	10 U
Tetrachloroethene	5	5	5	0.11	7.7	1	2.4 J	1 U	290	2600	2500	6400	370	150	160	400
Toluene	1000	1000	1000	2300	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	100	100	100	110	0.9 J	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	10 U	1 U	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Trichloroethene	5	5	5	1.7	150	7.4	73	3	220	980	900	2300	56	14	15	34
Vinyl Chloride	2	2	2	0.016	5 U	1 U	3.5 J	0.56 J	10 U	100 U	100 U	200 U	10 U	10 U	10 U	10 U
Xylenes (Total)	10000	10000	10000	200	15 U	3 U	30 U	3 U		300 U	300 U	600 U		30 U	30 U	30 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-37S 7/1/2009	MW-38D 6/26/2007	MW-38D 4/28/2008	MW-38D 9/16/2008	MW-38D 6/18/2009	MW-39D 6/27/2007	MW-39D 5/9/2008	MW-39D 9/18/2008	MW-39D Dup 9/18/2008	MW-39D 6/29/2009	MW-39S 6/27/2007	MW-39S 5/6/2008	MW-39S 9/15/2008
TOTAL VOC																	
					154.9	34.1	68.8	55.43	75.84	407	237	237.8	310	278	125	46.4	74.96
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	8.3 J	5 U	0.56 J	2 U	0.64 J	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	10 U	5 U	1.1 J	2 U	1.3 J	5 U	10 U	10 U	10 U	10 U	5 U	1 U	0.35 J
1,1-Dichloroethene	7	7	7	340	10 U	5 U	0.49 J	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	0.31 J
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	2000 U	1000 U	400 U	400 U	400 U	1000 U	2000 U	2000 U	2000 U	2000 U	1000 U	200 U	200 U
2-Butanone	4000	4000		7100	100 U	5 U	20 U	20 U	20 U	5 U	100 U	100 U	100 U	100 U	5 U	10 U	10 U
2-Chloroethyl Vinyl Ether						10 U				10 U					10 U		
2-Hexanone					100 U		20 U	20 U	20 U		100 U	100 U	100 U	100 U		10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	100 U		20 U	20 U	20 U		100 U	100 U	100 U	100 U		10 U	10 U
Acetone	3700	10000		22000	100 U		20 U	20 U	20 U		100 U	100 U	100 U	100 U		10 U	10 U
Acrolein	0.055	0.12		0.042		100 U				100 U					100 U		
Acrylonitrile	0.63	2.7		0.045	200 U	100 U	40 U	40 U	40 U	100 U	200 U	200 U	200 U	200 U	100 U	20 U	20 U
Benzene	5	5	5	0.41	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Bromochloromethane	90	90			10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
Bromodichloromethane	100	100		0.12	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Bromoform	80	80		8.5	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Bromomethane	10	10		8.7	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Chlorobenzene	100	100	100	91	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Chloroethane	230	900		21000	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Chloroform	80	80		0.19	10 U	5 U	0.19 J	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Chloromethane	30	30		190	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	11	10	15	0.74 J	16	120	67	58	76	68	26	8.5	23
cis-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
Methylene chloride	5	5		4.8	3.6 J B	5 U	2 U	0.89 J B	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	10 U		2 U	2 U	2 U		10 U	10 U	10 U	10 U		1 U	1 U
Tetrachloroethene	5	5	5	0.11	120	1.1 J	2.1	2.8	1.9 J	27	10 U	9.8 J	14	10	22	5.9	6.3
Toluene	1000	1000	1000	2300	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	2 U	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Trichloroethene	5	5	5	1.7	12	23	49	51	56	260	170	170	220	200	77	32	45
Vinyl Chloride	2	2	2	0.016	10 U	5 U	0.36 J	2 U	2 U	5 U	10 U	10 U	10 U	10 U	5 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	30 U		6 U	6 U	6 U		30 U	30 U	30 U	30 U		3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-39S 6/22/2009	MW-40D 6/25/2007	MW-40D 4/25/2008	MW-40D 9/8/2008	MW-40D 6/19/2009	MW-40S 6/25/2007	MW-40S 4/25/2008	MW-40S 9/4/2008	MW-40S 6/15/2009	MW-43D 6/25/2007	MW-43D 5/13/2008	MW-43D 9/25/2008	MW-43D 6/26/2009	MW-43S 6/25/2007
TOTAL VOC																		
					98.7	0	2.69	0.8	0.83	0	0	0	0	246	349	235.6	310.9	0
Volatile Organic Compound																		
1,1,1,2-Tetrachloroethane	70	70		0.52	2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
1,1,1-Trichloroethane	200	200	200	9100	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,1-Dichloroethane	27	110		2.4	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,1-Dichloroethene	7	7	7	340	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,2,4-Trimethylbenzene	16	35		15														
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
1,2-Dichloroethane	5	5	5	0.15	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,2-Dichloropropane	5	5	5	0.39	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
1,3,5-Trimethylbenzene	16	35		12														
1,4-Dioxane	5.6	24		6.1	400 U	1000 U	200 U	200 U	200 U	1000 U	200 U	200 U	200 U	2000 U	4000 U	4000 U	4000 U	1000 U
2-Butanone	4000	4000		7100	20 U	5 U	10 U	10 U	10 U	5 U	10 U	10 U	10 U	10 U	200 U	200 U	200 U	5 U
2-Chloroethyl Vinyl Ether						10 U				10 U				20 U				10 U
2-Hexanone					20 U		10 U	10 U	10 U		10 U	10 U	10 U		200 U	200 U	200 U	
4-Methyl-2-Pentanone	190	410		2000	20 U		10 U	10 U	10 U		10 U	10 U	10 U		200 U	200 U	200 U	
Acetone	3700	10000		22000	20 U		10 U	10 U	10 U		10 U	10 U	10 U		200 U	200 U	200 U	
Acrolein	0.055	0.12		0.042		100 U				100 U				200 U				100 U
Acrylonitrile	0.63	2.7		0.045	40 U	100 U	20 U	20 U	20 U	100 U	20 U	20 U	20 U	200 U	400 U	400 U	400 U	100 U
Benzene	5	5	5	0.41	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Bromochloromethane	90	90			2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
Bromodichloromethane	100	100		0.12	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Bromoform	80	80		8.5	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Bromomethane	10	10		8.7	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Carbon Disulfide	1900	4100		1000	2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
Carbon Tetrachloride	5	5	5	0.2	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Chlorobenzene	100	100	100	91	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Chlorodibromomethane	80	80		0.15	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Chloroethane	230	900		21000	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Chloroform	80	80		0.19	2 U	5 U	0.17 J	0.13 J	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Chloromethane	30	30		190	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	26	5 U	0.22 J	1 U	1 U	5 U	1 U	1 U	1 U	11	15 J	10 J	13 J	5 U
cis-1,3-Dichloropropene	6.6	26		0.43	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Ethylbenzene	700	700	700	1.5	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Isopropylbenzene	1100	2300		680														
Methyl tert-butyl ether	20	20		12	2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
Methylene chloride	5	5		4.8	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	6 J	20 U	20 U	5 U
Naphthalene	100	100		0.14														
Styrene	100	100	100	1600	2 U		1 U	1 U	1 U		1 U	1 U	1 U		20 U	20 U	20 U	
Tetrachloroethene	5	5	5	0.11	5.7	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	5 J	18 J	5.6 J	7.9 J	5 U
Toluene	1000	1000	1000	2300	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Trichloroethene	5	5	5	1.7	67	5 U	2.3	0.67 J	0.83 J	5 U	1 U	1 U	1 U	230	310	220	290	5 U
Vinyl Chloride	2	2	2	0.016	2 U	5 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	10 U	20 U	20 U	20 U	5 U
Xylenes (Total)	10000	10000	10000	200	6 U		3 U	3 U	3 U		3 U	3 U	3 U		60 U	60 U	60 U	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-43S 4/24/2008	MW-43S 9/4/2008	MW-43S 6/16/2009	MW-45 5/20/2008	MW-46 5/19/2008	MW-46 10/3/2008	MW-47 6/29/2007	MW-47 5/20/2008	MW-47 10/9/2008	MW-47 7/15/2009	MW-49D 5/21/2008	MW-49D 10/6/2008	MW-49D 7/13/2009
TOTAL VOC																	
					0.18	0.24	0	234.7	619	179	256.4	114.6	161.6	453.5	22590	6610	20030
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	10 U	25 U	5 U	2.5 J	0.5 J	4 U	10 U	4800	820	4900
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	1 J	10 U	2100	680	1600
1,1-Dichloroethene	7	7	7	340	1 U	1 U	1 U	10 U	25 U	5 U	8.9	2.5 J	3 J	11	550	170 J	640
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	2000 U	5000 U	1000 U	1000 U	800 U	800 U	2000 U	80000 U	40000 U	80000 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	100 U	250 U	50 U	5 U	40 U	40 U	100 U	4000 U	2000 U	4000 U
2-Chloroethyl Vinyl Ether											10 U						
2-Hexanone					10 U	10 U	10 U	100 U	250 U	50 U		40 U	40 U	100 U	4000 U	2000 U	4000 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	100 U	250 U	50 U		40 U	40 U	100 U	4000 U	2000 U	4000 U
Acetone	3700	10000		22000	10 U	10 U	10 U	100 U	250 U	50 U		40 U	40 U	100 U	4000 U	2000 U	4000 U
Acrolein	0.055	0.12		0.042							100 U						
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	200 U	500 U	100 U	100 U	80 U	80 U	200 U	8000 U	4000 U	8000 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Bromochloromethane	90	90			1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Bromoform	80	80		8.5	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Chloroethane	230	900		21000	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Chloroform	80	80		0.19	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Chloromethane	30	30		190	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	1 U	1 U	18	29	15	65	20	42	110	8400	3000	6800
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	3.7 J	22 J	5 U	5 U	1.6 J	1.6 J	2.5 J	200 J	200 U	230 J
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	1 U	1 U	1 U	10 U	25 U	5 U		4 U	4 U	10 U	400 U	200 U	400 U
Tetrachloroethene	5	5	5	0.11	0.18 J	0.24 J	1 U	150	500	120	40	42	26	70	740	240	660
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Trichloroethene	5	5	5	1.7	1 U	1 U	1 U	63	68	44	140	48 B	88	260	5800 B	1700	5200
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	10 U	25 U	5 U	5 U	4 U	4 U	10 U	400 U	200 U	400 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	30 U	75 U	15 U		12 U	12 U	30 U	1200 U	600 U	1200 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-49S 5/22/2008	MW-49S 10/9/2008	MW-49S 7/14/2009	MW-50D 6/28/2007	MW-50D 5/22/2008	MW-50D 10/7/2008	MW-50D 7/14/2009	MW-50S 6/28/2007	MW-50S 5/15/2008	MW-50S 9/30/2008	MW-50S 7/1/2009	MW-51D 6/29/2007
TOTAL VOC																
					35580	17900	8730	14870	18675	12860	9433	1179	797.4	615.1	223.2	307
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1000 U	400 U	400 U		250 U	250 U	250 U		20 U	20 U	10 U	
1,1,1-Trichloroethane	200	200	200	9100	1900	1700	850	500 U	240 J	150 J	160 J	25 U	20 U	20 U	10 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
1,1-Dichloroethane	27	110		2.4	2700	1600	800	1600	1600	1400	860	19 J	9 J	6.9 J	1.9 J	7.8
1,1-Dichloroethene	7	7	7	340	2100	930	390 J	630	850	580	360	19 J	8.9 J	7.2 J	3.2 J	13
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1000 U	400 U	400 U		250 U	250 U	250 U		20 U	20 U	10 U	
1,2-Dichloroethane	5	5	5	0.15	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
1,2-Dichloropropane	5	5	5	0.39	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	200000 U	80000 U	80000 U	100000 U	50000 U	50000 U	50000 U	5000 U	4000 U	4000 U	2000 U	1000 U
2-Butanone	4000	4000		7100	10000 U	4000 U	4000 U	500 U	2500 U	2500 U	2500 U	25 U	200 U	200 U	100 U	5 U
2-Chloroethyl Vinyl Ether								1000 U				50 U				10 U
2-Hexanone					10000 U	4000 U	4000 U		2500 U	2500 U	2500 U		200 U	200 U	100 U	
4-Methyl-2-Pentanone	190	410		2000	10000 U	4000 U	4000 U		2500 U	2500 U	2500 U		200 U	200 U	100 U	
Acetone	3700	10000		22000	10000 U	4000 U	4000 U		2500 U	2500 U	2500 U		200 U	200 U	100 U	
Acrolein	0.055	0.12		0.042				10000 U				500 U				100 U
Acrylonitrile	0.63	2.7		0.045	20000 U	8000 U	8000 U	10000 U	5000 U	5000 U	5000 U	500 U	400 U	400 U	200 U	100 U
Benzene	5	5	5	0.41	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Bromochloromethane	90	90			1000 U	400 U	400 U		250 U	250 U	250 U		20 U	20 U	10 U	
Bromodichloromethane	100	100		0.12	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Bromoform	80	80		8.5	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Bromomethane	10	10		8.7	1000 U	400 U	400 U	500 U	120 J	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Carbon Disulfide	1900	4100		1000	1000 U	400 U	400 U		250 U	250 U	250 U		20 U	13 J	10 U	
Carbon Tetrachloride	5	5	5	0.2	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Chlorobenzene	100	100	100	91	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Chlorodibromomethane	80	80		0.15	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Chloroethane	230	900		21000	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Chloroform	80	80		0.19	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Chloromethane	30	30		190	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	15000	7900	4200	5000	6700	4500	3600	430	330	250	110	88
cis-1,3-Dichloropropene	6.6	26		0.43	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Ethylbenzene	700	700	700	1.5	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	1000 U	400 U	400 U		250 U	250 U	250 U		20 U	20 U	10 U	
Methylene chloride	5	5		4.8	360 J	160 J	400 U	500 U	120 J	120 J	250 U	25 U	7.1 J	20 U	3.2 J B	5 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	1000 U	400 U	400 U		250 U	250 U	250 U		20 U	20 U	10 U	
Tetrachloroethene	5	5	5	0.11	520 J	410	190 J	740	800	710	590	51	23	18 J	4.9 J	8.2
Toluene	1000	1000	1000	2300	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	5.1 J	20 U	10 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	1000 U	400 U	400 U	500 U	250 U	250 U	250 U	25 U	20 U	20 U	10 U	5 U
Trichloroethene	5	5	5	1.7	13000	5200	2300	6900	8200	5400 J	3800	660	410	320	100	190
Vinyl Chloride	2	2	2	0.016	1000 U	400 U	400 U	500 U	45 J	250 U	63 J	25 U	4.3 J	20 U	10 U	5 U
Xylenes (Total)	10000	10000	10000	200	3000 U	1200 U	1200 U		750 U	750 U	750 U		60 U	60 U	30 U	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-51D 5/12/2008	MW-51D 9/18/2008	MW-51D 7/7/2009	MW-51S 6/29/2007	MW-51S Dup 6/29/2007	MW-51S 5/20/2008	MW-51S 10/2/2008	MW-51S 7/1/2009	MW-52 5/6/2008	MW-52 9/4/2008	MW-53 4/23/2008	MW-53 9/11/2008
TOTAL VOC																
					397	258.3	51.36	3567	3682	3770	2724	2413	0.85	11.09	0	0
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	10 U	10 U	1 U			75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	10 U	10 U	1 U	82	94	54 J	38 J	37 J	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	7 J	10 U	0.55 J	62 U	75 U	75 U	75 U	75 U	0.3 J	2.9	1 U	1 U
1,1-Dichloroethene	7	7	7	340	19	10	2.3	100	110	89	63 J	59 J	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15											1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	10 U	10 U	1 U			75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12											1 U	1 U
1,4-Dioxane	5.6	24		6.1	2000 U	2000 U	200 U	12000 U	15000 U	15000 U	15000 U	15000 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	100 U	100 U	10 U	62 U	75 U	750 U	750 U	750 U	10 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether								120 U	150 U							
2-Hexanone					100 U	100 U	10 U			750 U	750 U	750 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	100 U	100 U	10 U			750 U	750 U	750 U	10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	100 U	100 U	10 U			750 U	750 U	750 U	10 U	10 U	10 U	10 U
Acrolein	0.055	0.12		0.042				1200 U	1500 U							
Acrylonitrile	0.63	2.7		0.045	200 U	200 U	20 U	1200 U	1500 U	1500 U	1500 U	1500 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	0.57 J	1 U	1 U
Bromochloromethane	90	90			10 U	10 U	1 U			75 U	75 U	75 U	1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	10 U	10 U	1 U			75 U	75 U	75 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Chloromethane	30	30		190	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	160	90	15	660	750	600	510	460	0.2 J	2.9	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680											1 U	1 U
Methyl tert-butyl ether	20	20		12	10 U	10 U	1 U			75 U	75 U	75 U	1 U	0.42 J	1 U	1 U
Methylene chloride	5	5		4.8	10 U	4.2 J	1 U	62 U	75 U	27 J	75 U	40 J B	1 U	1 U	1 U	1 U
Naphthalene	100	100		0.14											1 U	1 U
Styrene	100	100	100	1600	10 U	10 U	1 U			75 U	75 U	75 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	11	8.7 J	1.9	1300	1100	1600	990	950	1 U	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	10 U	5.4 J	0.29 J	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	10 U	10 U	1 U	62 U	75 U	75 U	75 U	75 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	200	140	31	1400	1600	1400	1100	840	0.23 J	2.1	1 U	1 U
Vinyl Chloride	2	2	2	0.016	10 U	10 U	0.32 J	25 J	28 J	75 U	23 J	27 J	0.12 J	2.2	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	30 U	30 U	3 U			220 U	220 U	220 U	3 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-54 6/27/2007	MW-54 5/27/2008	MW-54 10/8/2008	MW-54 6/30/2009	MW-55 5/23/2008	MW-55 10/8/2008	MW-56 5/7/2008	MW-57 5/22/2008	MW-57 9/30/2008	MW-64D 6/28/2007	MW-64D 5/19/2008	MW-64D 9/29/2008
TOTAL VOC																
					768.6	929	697.7	926	4508	3467	10.57	649.3	235.6	960	1772	1600
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52		50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
1,1,1-Trichloroethane	200	200	200	9100	17 J	13 J	11 J	50 U	200 U	200 U	1 U	6.9 J	12 U	25 U	50 U	50 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
1,1,2-Trichloroethane	5	5	5	0.24	4.2 J	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
1,1-Dichloroethane	27	110		2.4	21 J	13 J	13 J	17 J	200 U	52 J	0.37 J	2.7 J	12 U	25 U	50 U	50 U
1,1-Dichloroethene	7	7	7	340	110	97	100	100	3000	2500	1 U	35	16	25 U	50 U	50 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
1,2-Dichloroethane	5	5	5	0.15	6.4 J	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
1,2-Dichloropropane	5	5	5	0.39	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	5000 U	10000 U	5000 U	10000 U	40000 U	40000 U	200 U	2500 U	2500 U	5000 U	10000 U	10000 U
2-Butanone	4000	4000		7100	25 U	500 U	250 U	500 U	2000 U	2000 U	10 U	120 U	120 U	25 U	500 U	500 U
2-Chloroethyl Vinyl Ether					50 U									50 U		
2-Hexanone						500 U	250 U	500 U	2000 U	2000 U	10 U	120 U	120 U		500 U	500 U
4-Methyl-2-Pentanone	190	410		2000		500 U	250 U	500 U	2000 U	2000 U	10 U	120 U	120 U		500 U	500 U
Acetone	3700	10000		22000		500 U	250 U	500 U	2000 U	2000 U	10 U	120 U	120 U		500 U	500 U
Acrolein	0.055	0.12		0.042	500 U									500 U		
Acrylonitrile	0.63	2.7		0.045	500 U	1000 U	500 U	1000 U	4000 U	4000 U	20 U	250 U	250 U	500 U	1000 U	1000 U
Benzene	5	5	5	0.41	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Bromochloromethane	90	90				50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
Bromodichloromethane	100	100		0.12	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Bromoform	80	80		8.5	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Bromomethane	10	10		8.7	25 U	50 U	25 U	50 U	200 U	200 U	1 U	2.3 J	12 U	25 U	50 U	50 U
Carbon Disulfide	1900	4100		1000		50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
Carbon Tetrachloride	5	5	5	0.2	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Chlorobenzene	100	100	100	91	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Chlorodibromomethane	80	80		0.15	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Chloroethane	230	900		21000	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Chloroform	80	80		0.19	25 U	50 U	25 U	50 U	24 J	200 U	1 U	3.5 J	12 U	25 U	50 U	50 U
Chloromethane	30	30		190	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
cis-1,2-Dichloroethene	70	70	70	370	150	160	110	140	130 J	78 J	1.4	160	59	25 U	50 U	50 U
cis-1,3-Dichloropropene	6.6	26		0.43	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Ethylbenzene	700	700	700	1.5	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12		50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
Methylene chloride	5	5		4.8	25 U	21 J	9.7 J	20 J	86 J	87 J	1 U	5.9 J	4.5 J	25 U	42 J	50 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600		50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U		50 U	50 U
Tetrachloroethene	5	5	5	0.11	50	75	54	79	68 J	200 U	5.5	13	6.1 J	280	630	600
Toluene	1000	1000	1000	2300	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
trans-1,2-Dichloroethene	100	100	100	110	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
trans-1,3-Dichloropropene	6.6	26		0.43	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Trichloroethene	5	5	5	1.7	410	550	400 J	570	1200	750 J	3.3	420	150	680	1100	1000
Vinyl Chloride	2	2	2	0.016	25 U	50 U	25 U	50 U	200 U	200 U	1 U	12 U	12 U	25 U	50 U	50 U
Xylenes (Total)	10000	10000	10000	200		150 U	75 U	150 U	600 U	600 U	3 U	38 U	38 U		150 U	150 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-64D 7/6/2009	MW-64S 6/29/2007	MW-64S 5/14/2008	MW-64S 9/25/2008	MW-64S 6/30/2009	MW-65D 4/25/2008	MW-65D Dup 4/25/2008	MW-65D 9/10/2008	MW-65S 5/8/2008	MW-66D 4/30/2008	MW-66S 4/30/2008	MW-66S 9/10/2008	MW-67D 5/6/2008
TOTAL VOC																	
					967	350	363.8	276	366	12.58	12.63	14.37	105	12.35	18.22	12.88	43.22
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	50 U		15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	50 U		15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	10000 U	1000 U	3000 U	1000 U	3000 U	200 U	200 U	200 U	600 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	500 U	5 U	150 U	50 U	150 U	10 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether						10 U											
2-Hexanone					500 U		150 U	50 U	150 U	10 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	500 U		150 U	50 U	150 U	10 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	500 U		150 U	50 U	150 U	10 U	10 U	2.6 J	30 U	10 U	10 U	10 U	10 U
Acrolein	0.055	0.12		0.042		100 U											
Acrylonitrile	0.63	2.7		0.045	1000 U	100 U	300 U	100 U	300 U	20 U	20 U	20 U	60 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	50 UJ	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			50 U		15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	50 U		15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	50 UJ	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	50 U	5 U	15 U	5 U	15 U	2.1	2	2	1.2 J	1.5	1.1	0.96 J	1.7
Chloromethane	30	30		190	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	50 U	5 U	15 U	5 U	15 U	0.13 J	0.13 J	1 U	0.5 J	0.24 J	0.54 J	0.48 J	0.62 J
cis-1,3-Dichloropropene	6.6	26		0.43	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	50 U		15 U	5 U	15 U	1 U	0.13 J	1 U	3 U	0.18 J	1 U	1 U	0.46 J
Methylene chloride	5	5		4.8	17 J B	5 U	3.8 J B	5 U	6 J	1 U	1 U	1 U	1.2 J	1 U	1 U	1 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	50 U		15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	340	110	120	96	120	0.35 J	0.37 J	0.37 J	3.1	0.43 J	0.58 J	0.44 J	0.44 J
Toluene	1000	1000	1000	2300	50 UJ	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	610	240	240	180	240	10	10	9.4	99	10	16	11	40
Vinyl Chloride	2	2	2	0.016	50 U	5 U	15 U	5 U	15 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	150 U		45 U	15 U	45 U	3 U	3 U	3 U	9 U	3 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-67S 5/6/2008	MW-68 5/12/2008	MW-69 6/27/2007	MW-69 5/5/2008	MW-69 9/22/2008	MW-69 7/2/2009	MW-70D 5/15/2008	MW-70S 5/12/2008	MW-74D 6/28/2007	MW-74D 5/9/2008
TOTAL VOC														
					61.96	50.23	196.3	190.8	206.8	60.3	181.2	89.23	155.9	117.4
Volatile Organic Compound														
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U		5 U	5 U	5 U	10 U	2 U		5 U
1,1,1-Trichloroethane	200	200	200	9100	26	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	0.5 J	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,1-Dichloroethene	7	7	7	340	0.39 J	1 U	2.5 J	2.8 J	1.8 J	5 U	10 U	0.63 J	3.2 J	2.3 J
1,2,4-Trimethylbenzene	16	35		15										
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U		5 U	5 U	5 U	10 U	2 U		5 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
1,3,5-Trimethylbenzene	16	35		12										
1,4-Dioxane	5.6	24		6.1	200 U	200 U	1000 U	1000 U	1000 U	1000 U	2000 U	400 U	1000 U	1000 U
2-Butanone	4000	4000		7100	10 U	10 U	5 U	50 U	50 U	50 U	100 U	20 U	5 U	50 U
2-Chloroethyl Vinyl Ether							10 U						10 U	
2-Hexanone					10 U	10 U		50 U	50 U	50 U	100 U	20 U		50 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U		50 U	50 U	50 U	100 U	20 U		50 U
Acetone	3700	10000		22000	10 U	10 U		50 U	50 U	50 U	100 U	20 U		50 U
Acrolein	0.055	0.12		0.042			100 U						100 U	
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	100 U	100 U	100 U	100 U	200 U	40 U	100 U	100 U
Benzene	5	5	5	0.41	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Bromochloromethane	90	90			1 U	1 U		5 U	5 U	5 U	10 U	2 U		5 U
Bromodichloromethane	100	100		0.12	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Bromoform	80	80		8.5	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Bromomethane	10	10		8.7	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Carbon Disulfide	1900	4100		1000	1 U	1 U		5 U	5 U	5 U	10 U	2 U		5 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Chlorobenzene	100	100	100	91	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Chloroethane	230	900		21000	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Chloroform	80	80		0.19	0.98 J	1.5	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Chloromethane	30	30		190	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	0.53 J	0.8 J	160	130	90	54	8 J	2.6	49	23
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Isopropylbenzene	1100	2300		680										
Methyl tert-butyl ether	20	20		12	0.26 J	0.41 J		5 U	5 U	5 U	10 U	2 U		5 U
Methylene chloride	5	5		4.8	1 U	1 U	5 U	5 U	2.4 J B	3 J	2.2 J	2 U	5 U	1.1 J
Naphthalene	100	100		0.14										
Styrene	100	100	100	1600	1 U	1 U		5 U	5 U	5 U	10 U	2 U		5 U
Tetrachloroethene	5	5	5	0.11	4.3	0.52 J	7.5	5 U	5 U	5 U	11	50	8.7	6
Toluene	1000	1000	1000	2300	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1.3 J	5 U	2.6 J	5 U	10 U	2 U	5 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Trichloroethene	5	5	5	1.7	29	47	25	58	110	3.3 J	160	36	95	85
Vinyl Chloride	2	2	2	0.016	1 U	1 U	5 U	5 U	5 U	5 U	10 U	2 U	5 U	5 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U		15 U	15 U	15 U	30 U	6 U		15 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-74D 9/17/2008	MW-74D 6/25/2009	MW-74S 6/28/2007	MW-74S 4/29/2008	MW-74S 9/16/2008	MW-74S 6/22/2009	MW-75D 6/29/2007	MW-75D 5/21/2008	MW-75D 10/2/2008	MW-75D 7/13/2009	MW-75S 6/29/2007	MW-75S 5/21/2008
TOTAL VOC																
					107	130.3	94.4	72.42	58.72	86.21	6130	2360	6074	4168	35130	48680
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	1.6 J	5 U	2 U	2 U	2 U	190 J	45 J	110 J	200 U	1000 U	1000 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
1,1-Dichloroethane	27	110		2.4	5 U	5 U	5 U	0.51 J	2 U	0.68 J	200 U	50 U	200 U	200 U	1000 U	2000 U
1,1-Dichloroethene	7	7	7	340	2.2 J	2.3 J	5 U	0.44 J	2 U	2 U	200 U	13 J	200 U	200 U	1000 U	2000 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
1,2-Dichloroethane	5	5	5	0.15	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
1,2-Dichloropropane	5	5	5	0.39	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	1000 U	1000 U	1000 U	400 U	400 U	400 U	40000 U	10000 U	40000 U	40000 U	200000 U	400000 U
2-Butanone	4000	4000		7100	50 U	50 U	5 U	20 U	20 U	20 U	200 U	500 U	2000 U	2000 U	1000 U	20000 U
2-Chloroethyl Vinyl Ether							10 U				400 U				2000 U	
2-Hexanone					50 U	50 U		20 U	20 U	20 U		500 U	2000 U	2000 U		20000 U
4-Methyl-2-Pentanone	190	410		2000	50 U	50 U		20 U	20 U	20 U		500 U	2000 U	2000 U		20000 U
Acetone	3700	10000		22000	50 U	50 U		20 U	20 U	20 U		500 U	2000 U	2000 U		20000 U
Acrolein	0.055	0.12		0.042			100 U				4000 U				20000 U	
Acrylonitrile	0.63	2.7		0.045	100 U	100 U	100 U	40 U	40 U	40 U	4000 U	1000 U	4000 U	4000 U	20000 U	40000 U
Benzene	5	5	5	0.41	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Bromochloromethane	90	90			5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
Bromodichloromethane	100	100		0.12	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Bromoform	80	80		8.5	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Bromomethane	10	10		8.7	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Carbon Disulfide	1900	4100		1000	5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
Carbon Tetrachloride	5	5	5	0.2	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Chlorobenzene	100	100	100	91	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Chlorodibromomethane	80	80		0.15	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Chloroethane	230	900		21000	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Chloroform	80	80		0.19	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Chloromethane	30	30		190	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
cis-1,2-Dichloroethene	70	70	70	370	19	52	40	24	18	27	840	62	80 J	68 J	630 J	680 J
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Ethylbenzene	700	700	700	1.5	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
Methylene chloride	5	5		4.8	2.3 J B	5 U	5 U	0.47 J	0.92 JB	2 U	200 U	120 B	84 J	200 U	1000 U	5000 B
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	5 U	5 U		2 U	2 U	2 U		50 U	200 U	200 U		2000 U
Tetrachloroethene	5	5	5	0.11	8.5	5.4	4.4 J	5	5.8	5.8	1300	1500	4300	2900	25000	32000
Toluene	1000	1000	1000	2300	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	5 U	5 U	2 U	2 U	0.73 J	200 U	50 U	200 U	200 U	1000 U	2000 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Trichloroethene	5	5	5	1.7	75	69	50	42	34	52	3800	620	1500	1200	9500	10000
Vinyl Chloride	2	2	2	0.016	5 U	5 U	5 U	2 U	2 U	2 U	200 U	50 U	200 U	200 U	1000 U	2000 U
Xylenes (Total)	10000	10000	10000	200	15 U	15 U		6 U	6 U	6 U		150 U	600 U	600 U		6000 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-75S 10/6/2008	MW-75S 7/14/2009	MW-77 4/24/2008	MW-77 10/2/2008	MW-77 7/8/2009	MW-78 4/23/2008	MW-79 6/25/2007	MW-79 4/24/2008	MW-79 9/15/2008	MW-79 6/22/2009	MW-80 5/1/2008	MW-81D 6/28/2007
TOTAL VOC																
					26870	26600	3110	2067.5	2980	0.28	34.3	54.2	42.49	78.3	291.2	404
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1000 U	2000 U	100 U	100 U	100 U	1 U		1 U	1 U	4 U	10 U	
1,1,1-Trichloroethane	200	200	200	9100	680 J	2000 U	100 U	100 U	100 U	1 U	5 U	0.37 J	1 U	4 U	3.4 J	25 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
1,1,2-Trichloroethane	5	5	5	0.24	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
1,1-Dichloroethane	27	110		2.4	1000 U	2000 U	100 U	100 U	100 U	0.28 J	9.8	13	13	21	10 U	25 U
1,1-Dichloroethene	7	7	7	340	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	0.79 J	0.49 J	4 U	4.4 J	25 U
1,2,4-Trimethylbenzene	16	35		15			35 J	44				1 U	1 U			
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1000 U	2000 U	100 U	100 U	100 U	1 U		1 U	1 U	4 U	10 U	
1,2-Dichloroethane	5	5	5	0.15	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
1,2-Dichloropropane	5	5	5	0.39	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
1,3,5-Trimethylbenzene	16	35		12			100 U	8.5 J				1 U	1 U			
1,4-Dioxane	5.6	24		6.1	200000 U	400000 U	20000 U	20000 U	20000 U	200 U	1000 U	200 U	200 U	800 U	2000 U	5000 U
2-Butanone	4000	4000		7100	10000 U	20000 U	1000 U	1000 U	1000 U	10 U	5 U	10 U	10 U	40 U	100 U	25 U
2-Chloroethyl Vinyl Ether											10 U					50 U
2-Hexanone					10000 U	20000 U	1000 U	1000 U	1000 U	10 U		10 U	10 U	40 U	100 U	
4-Methyl-2-Pentanone	190	410		2000	10000 U	20000 U	1000 U	1000 U	1000 U	10 U		10 U	10 U	40 U	100 U	
Acetone	3700	10000		22000	10000 U	20000 U	1000 U	1000 U	1000 U	10 U		10 U	10 U	40 U	100 U	
Acrolein	0.055	0.12		0.042							100 U					500 U
Acrylonitrile	0.63	2.7		0.045	20000 U	40000 U	2000 U	2000 U	2000 U	20 U	100 U	20 U	20 U	80 U	200 U	500 U
Benzene	5	5	5	0.41	1000 U	2000 U	1900	1200	2000	1 U	5 U	0.47 J	1 U	4 U	10 U	25 U
Bromochloromethane	90	90			1000 U	2000 U	100 U	100 U	100 U	1 U		1 U	1 U	4 U	10 U	
Bromodichloromethane	100	100		0.12	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Bromoform	80	80		8.5	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Bromomethane	10	10		8.7	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Carbon Disulfide	1900	4100		1000	1000 U	2000 U	100 U	100 U	100 U	1 U		1 U	1 U	4 U	10 U	
Carbon Tetrachloride	5	5	5	0.2	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Chlorobenzene	100	100	100	91	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Chlorodibromomethane	80	80		0.15	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Chloroethane	230	900		21000	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Chloroform	80	80		0.19	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Chloromethane	30	30		190	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
cis-1,2-Dichloroethene	70	70	70	370	390 J	2000 U	100 U	100 U	100 U	1 U	22	36	26	53	97	87
cis-1,3-Dichloropropene	6.6	26		0.43	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Ethylbenzene	700	700	700	1.5	1000 U	2000 U	87 J	58 J	110	1 U	5 U	0.12 J	1 U	4 U	10 U	25 U
Isopropylbenzene	1100	2300		680			100 U	24				1 U	1 U			
Methyl tert-butyl ether	20	20		12	1000 U	2000 U	790	470	610	1 U		1 U	1 U	4 U	10 U	
Methylene chloride	5	5		4.8	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	2.9 J	25 U
Naphthalene	100	100		0.14			66 J	110				0.18 J	1 U			
Styrene	100	100	100	1600	1000 U	2000 U	100 U	100 U	100 U	1 U		1 U	1 U	4 U	10 U	
Tetrachloroethene	5	5	5	0.11	19000	20000	100 U	100 U	100 U	1 U	5 U	0.24 J	1 U	4 U	3.5 J	17 J
Toluene	1000	1000	1000	2300	1000 U	2000 U	82 J	53 J	100	1 U	5 U	1 U	1 U	4 U	10 U	25 U
trans-1,2-Dichloroethene	100	100	100	110	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	0.61 J	1.4	1.6 J	10 U	25 U
trans-1,3-Dichloropropene	6.6	26		0.43	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	1 U	1 U	4 U	10 U	25 U
Trichloroethene	5	5	5	1.7	6800	6600	100 U	100 U	100 U	1 U	2.5 J	1.9	1.6	2.7 J	180	300
Vinyl Chloride	2	2	2	0.016	1000 U	2000 U	100 U	100 U	100 U	1 U	5 U	0.31 J	1 U	4 U	10 U	25 U
Xylenes (Total)	10000	10000	10000	200	3000 U	6000 U	150 J	100 J	160 J	3 U		0.21 J	3 U	12 U	30 U	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-81D 5/23/2008	MW-81D 10/7/2008	MW-81D 7/13/2009	MW-81S 6/28/2007	MW-81S 5/23/2008	MW-81S 10/7/2008	MW-81S 7/13/2009	MW-82 6/26/2007	MW-82 4/25/2008	MW-82 9/12/2008	MW-82 6/23/2009	MW-83 5/23/2008
TOTAL VOC																
					1579	1202	1243	4194	3708	3351	3483	9.8	75.25	80.78	59.21	12.67
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	50 U	50 U	50 U	120 U	120 U	120 U	15 J	5 U	0.24 J	0.36 J	0.21 J	1 U
1,1-Dichloroethene	7	7	7	340	50 U	50 U	50 U	37 J	26 J	120 U	120 U	5 U	1 U	0.32 J	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15												1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12												1 U
1,4-Dioxane	5.6	24		6.1	10000 U	10000 U	10000 U	25000 U	25000 U	25000 U	25000 U	1000 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	500 U	500 U	500 U	120 U	1200 U	1200 U	1200 U	5 U	10 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether								250 U				10 U				
2-Hexanone					500 U	500 U	500 U		1200 U	1200 U	1200 U		10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	500 U	500 U	500 U		1200 U	1200 U	1200 U		10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	500 U	500 U	500 U		1200 U	1200 U	1200 U		10 U	3.7 J	10 U	10 U
Acrolein	0.055	0.12		0.042				2500 U				100 U				
Acrylonitrile	0.63	2.7		0.045	1000 U	1000 U	1000 U	2500 U	2500 U	2500 U	2500 U	100 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	0.15 J	1 U	1 U	1 U
Chloromethane	30	30		190	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	300	250	230	1000	730	750	720	9.8	40	35	29	6.9
cis-1,3-Dichloropropene	6.6	26		0.43	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680												1 U
Methyl tert-butyl ether	20	20		12	50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
Methylene chloride	5	5		4.8	21 J	22 J	50 U	120 U	100 J	59 J	120 U	5 U	1 U	1 U	1 U	1 U
Naphthalene	100	100		0.14												0.71 J
Styrene	100	100	100	1600	50 U	50 U	50 U		120 U	120 U	120 U		1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	58	40 J	43 J	57 J	52 J	42 J	48 J	5 U	1.7	2.4	1.6	0.23 J
Toluene	1000	1000	1000	2300	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	0.27 J
trans-1,2-Dichloroethene	100	100	100	110	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	0.16 J	1 U	1.4	0.16 J
trans-1,3-Dichloropropene	6.6	26		0.43	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	1200	890 J	970	3100	2800	2500 J	2700	5 U	33	39	27	2.3
Vinyl Chloride	2	2	2	0.016	50 U	50 U	50 U	120 U	120 U	120 U	120 U	5 U	1 U	1 U	1 U	2.1
Xylenes (Total)	10000	10000	10000	200	150 U	150 U	150 U		380 U	380 U	380 U		3 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-83 10/7/2008	MW-84 5/14/2008	MW-85 6/26/2007	MW-85 4/25/2008	MW-85 9/18/2008	MW-85 7/1/2009	MW-86D 5/5/2008	MW-86S 5/5/2008	MW-87 6/28/2007	MW-87 Dup 6/28/2007	MW-87 5/15/2008	MW-87 10/1/2008	MW-87 7/9/2009
TOTAL VOC																	
					746.56	299.5	147.3	152.3	163.5	54.5	415.9	47.8	2205	97.1	2770	2511	2646
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	43 J	32 J	32 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
1,1-Dichloroethane	27	110		2.4	6.3	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
1,1-Dichloroethene	7	7	7	340	4.7	10 U	5 U	10 U	10 U	5 U	20 U	2 U	29 J	5 U	49 J	43 J	40 J
1,2,4-Trimethylbenzene	16	35		15	1 U												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
1,2-Dichloroethane	5	5	5	0.15	0.71 J	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
1,2-Dichloropropane	5	5	5	0.39	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
1,3,5-Trimethylbenzene	16	35		12	1 U												
1,4-Dioxane	5.6	24		6.1	200 U	2000 U	1000 U	2000 U	2000 U	1000 U	4000 U	400 U	12000 U	1000 U	20000 U	20000 U	20000 U
2-Butanone	4000	4000		7100	10 U	100 U	5 U	100 U	100 U	50 U	200 U	20 U	62 U	5 U	1000 U	1000 U	1000 U
2-Chloroethyl Vinyl Ether							10 U						120 U	10 U			
2-Hexanone					10 U	100 U		100 U	100 U	50 U	200 U	20 U			1000 U	1000 U	1000 U
4-Methyl-2-Pentanone	190	410		2000	10 U	100 U		100 U	100 U	50 U	200 U	20 U			1000 U	1000 U	1000 U
Acetone	3700	10000		22000	10 U	100 U		100 U	100 U	50 U	200 U	20 U			1000 U	1000 U	1000 U
Acrolein	0.055	0.12		0.042			100 U						1200 U	100 U			
Acrylonitrile	0.63	2.7		0.045	20 U	200 U	100 U	200 U	200 U	100 U	400 U	40 U	1200 U	100 U	2000 U	2000 U	2000 U
Benzene	5	5	5	0.41	0.72 J	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Bromochloromethane	90	90			1 U	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
Bromodichloromethane	100	100		0.12	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Bromoform	80	80		8.5	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Bromomethane	10	10		8.7	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Carbon Disulfide	1900	4100		1000	1 U	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
Carbon Tetrachloride	5	5	5	0.2	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Chlorobenzene	100	100	100	91	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Chlorodibromomethane	80	80		0.15	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Chloroethane	230	900		21000	2.4	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Chloroform	80	80		0.19	1 U	10 U	5 U	10 U	10 U	5 U	20 U	0.8 J	62 U	5 U	100 U	100 U	100 U
Chloromethane	30	30		190	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
cis-1,2-Dichloroethene	70	70	70	370	600	130	130	150	160	53	17 J	1.2 J	850	40	910	780	840
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Ethylbenzene	700	700	700	1.5	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Isopropylbenzene	1100	2300		680	1 U												
Methyl tert-butyl ether	20	20		12	0.73 J	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
Methylene chloride	5	5		4.8	1 U	10 U	1.3 J	2.3 J	3.5 J	1.5 J B	6.4 J	2 U	62 U	5 U	35 J	100 U	100 U
Naphthalene	100	100		0.14	1 U												
Styrene	100	100	100	1600	1 U	10 U		10 U	10 U	5 U	20 U	2 U			100 U	100 U	100 U
Tetrachloroethene	5	5	5	0.11	0.3 J	7 J	5 U	10 U	10 U	5 U	2.5 J	2.8	26 J	5.1	33 J	56 J	34 J
Toluene	1000	1000	1000	2300	3.1	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
trans-1,2-Dichloroethene	100	100	100	110	6.6	2.5 J	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Trichloroethene	5	5	5	1.7	11 J	160	16	10 U	10 U	5 U	390	43	1300	52	1700	1600	1700
Vinyl Chloride	2	2	2	0.016	110	10 U	5 U	10 U	10 U	5 U	20 U	2 U	62 U	5 U	100 U	100 U	100 U
Xylenes (Total)	10000	10000	10000	200	3 U	30 U		30 U	30 U	15 U	60 U	6 U			300 U	300 U	300 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-88 6/28/2007	MW-88 4/29/2008	MW-88 9/25/2008	MW-88 6/26/2009	MW-91 6/28/2007	MW-91 5/7/2008	MW-91 9/19/2008	MW-91 6/25/2009	MW-92 Dup 6/27/2007	MW-92 6/27/2007	MW-92 5/14/2008	MW-92 9/30/2008
TOTAL VOC																
					61.5	402	419	532.1	151	156.8	240.8	141.9	302.1	213	163.5	235
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52		25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	25 U	25 U	7.7 J	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,1-Dichloroethane	27	110		2.4	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,1-Dichloroethene	7	7	7	340	5 U	6 J	25 U	8.4 J	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
1,2-Dichloroethane	5	5	5	0.15	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,2-Dichloropropane	5	5	5	0.39	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	1000 U	5000 U	5000 U	5000 U	1000 U	2000 U	2000 U	2000 U	1000 U	1000 U	2000 U	2000 U
2-Butanone	4000	4000		7100	5 U	250 U	250 U	250 U	5 U	100 U	100 U	100 U	5 U	5 U	100 U	100 U
2-Chloroethyl Vinyl Ether					10 U				10 U				10 U	10 U		
2-Hexanone						250 U	250 U	250 U		100 U	100 U	100 U			100 U	100 U
4-Methyl-2-Pentanone	190	410		2000		250 U	250 U	250 U		100 U	100 U	100 U			100 U	100 U
Acetone	3700	10000		22000		250 U	250 U	250 U		100 U	100 U	100 U			100 U	100 U
Acrolein	0.055	0.12		0.042	100 U				100 U				100 U	100 U		
Acrylonitrile	0.63	2.7		0.045	100 U	500 U	500 U	500 U	100 U	200 U	200 U	200 U	100 U	100 U	200 U	200 U
Benzene	5	5	5	0.41	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Bromochloromethane	90	90				25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
Bromodichloromethane	100	100		0.12	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Bromoform	80	80		8.5	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Bromomethane	10	10		8.7	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Carbon Disulfide	1900	4100		1000		25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
Carbon Tetrachloride	5	5	5	0.2	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Chlorobenzene	100	100	100	91	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Chlorodibromomethane	80	80		0.15	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Chloroethane	230	900		21000	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Chloroform	80	80		0.19	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Chloromethane	30	30		190	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
cis-1,2-Dichloroethene	70	70	70	370	15	91	98	120	5 U	10 U	10 U	10 U	1.1 J	5 U	10 U	10 U
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Ethylbenzene	700	700	700	1.5	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12		25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
Methylene chloride	5	5		4.8	5 U	14 J	25 U	25 U	5 U	5.8 J	8.8 J	1.9 J	5 U	5 U	2.5 J B	10 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600		25 U	25 U	25 U		10 U	10 U	10 U			10 U	10 U
Tetrachloroethene	5	5	5	0.11	2.5 J	11 J	11 J	16 J	130	130	210	120	230	160	140	190
Toluene	1000	1000	1000	2300	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Trichloroethene	5	5	5	1.7	44	280	310	380	21	21	22	20	71	53	21	45
Vinyl Chloride	2	2	2	0.016	5 U	25 U	25 U	25 U	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U
Xylenes (Total)	10000	10000	10000	200		75 U	75 U	75 U		30 U	30 U	30 U			30 U	30 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-92 7/8/2009	MW-93D 6/27/2007	MW-93D 5/13/2008	MW-93D 9/22/2008	MW-93D 6/26/2009	MW-93S 6/27/2007	MW-93S 4/25/2008	MW-93S 9/15/2008	MW-93S 6/17/2009	MW-94 5/8/2008	MW-94 9/29/2008	MW-94 7/8/2009	MW-95 5/2/2008
TOTAL VOC																	
					289.1	432.7	503.4	132.3	483.5	2.1	7.92	5.47	7.17	549.2	750	311.2	50.272
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	10 U	37	13	3.8	9.8 J	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,1-Dichloroethane	27	110		2.4	10 U	2.7 J	12 U	2 J	4.1 J	5 U	0.42 J	0.45 J	0.66 J	10 U	10 U	10 U	0.31 J
1,1-Dichloroethene	7	7	7	340	10 U	6	6.7 J	2.5	6.6 J	5 U	1 U	1 U	1 U	10 U	10 U	10 U	0.17 J
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,2-Dichloroethane	5	5	5	0.15	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,2-Dichloropropane	5	5	5	0.39	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	2000 U	1000 U	2500 U	500 U	2500 U	1000 U	200 U	200 U	200 U	2000 U	2000 U	2000 U	200 U
2-Butanone	4000	4000		7100	100 U	5 U	120 U	25 U	120 U	5 U	10 U	10 U	10 U	100 U	100 U	100 U	10 U
2-Chloroethyl Vinyl Ether						10 U				10 U							
2-Hexanone					100 U		120 U	25 U	120 U		10 U	10 U	10 U	100 U	100 U	100 U	10 U
4-Methyl-2-Pentanone	190	410		2000	100 U		120 U	25 U	120 U		10 U	10 U	10 U	100 U	100 U	100 U	10 U
Acetone	3700	10000		22000	100 U		120 U	25 U	120 U		10 U	10 U	10 U	100 U	100 U	100 U	10 U
Acrolein	0.055	0.12		0.042		100 U				100 U							
Acrylonitrile	0.63	2.7		0.045	200 U	100 U	250 U	50 U	250 U	100 U	20 U	20 U	20 U	200 U	200 U	200 U	20 U
Benzene	5	5	5	0.41	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Bromochloromethane	90	90			10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
Bromodichloromethane	100	100		0.12	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Bromoform	80	80		8.5	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Bromomethane	10	10		8.7	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Carbon Disulfide	1900	4100		1000	10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
Carbon Tetrachloride	5	5	5	0.2	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Chlorobenzene	100	100	100	91	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Chlorodibromomethane	80	80		0.15	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Chloroethane	230	900		21000	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Chloroform	80	80		0.19	10 U	5 U	12 U	2.5 U	12 U	5 U	1.5	0.62 J	0.41 J	10 U	10 U	10 U	0.082 J
Chloromethane	30	30		190	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	10 U	37	25	14	23	5 U	1.4	1.4	2.9	310	380	180	19
cis-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Ethylbenzene	700	700	700	1.5	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
Methylene chloride	5	5		4.8	5.1 J	5 U	8.7 J B	1 J B	12 U	5 U	1 U	1 U	1 U	4.1 J	10 U	2.5 J	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	10 U		12 U	2.5 U	12 U		1 U	1 U	1 U	10 U	10 U	10 U	1 U
Tetrachloroethene	5	5	5	0.11	240	170	200	50	200	2.1 J	2.8	1.8	1.9	11	23	5.8 J	2.6
Toluene	1000	1000	1000	2300	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	4.1 J	7 J	2.9 J	0.11 J
trans-1,3-Dichloropropene	6.6	26		0.43	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Trichloroethene	5	5	5	1.7	44	180	250	59	240	5 U	1.8	1.2	1.3	220	340	120	28
Vinyl Chloride	2	2	2	0.016	10 U	5 U	12 U	2.5 U	12 U	5 U	1 U	1 U	1 U	10 U	10 U	10 U	1 U
Xylenes (Total)	10000	10000	10000	200	30 U		38 U	7.5 U	38 U		3 U	3 U	3 U	30 U	30 U	30 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-95 9/11/2008	MW-95 6/23/2009	MW-96D 5/2/2008	MW-96D 9/24/2008	MW-96D 7/6/2009	MW-96S 5/2/2008	MW-96S 10/1/2008	MW-96S Dup 10/1/2008	MW-96S 7/2/2009	MW-97 5/2/2008	MW-97 9/19/2008	MW-97 7/1/2009
TOTAL VOC																
					51.72	56.79	565.9	350	378	2068	1442	1494	1620	718	674.8	631.1
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	6.8 J	25 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,1-Dichloroethane	27	110		2.4	0.32 J	0.39 J	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	5.1 J
1,1-Dichloroethene	7	7	7	340	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	200 U	200 U	5000 U	5000 U	5000 U	10000 U	10000 U	12000 U	10000 U	5000 U	5000 U	5000 U
2-Butanone	4000	4000		7100	10 U	10 U	250 U	250 U	250 U	500 U	500 U	600 U	500 U	250 U	250 U	250 U
2-Chloroethyl Vinyl Ether																
2-Hexanone					10 U	10 U	250 U	250 U	250 U	500 U	500 U	600 U	500 U	250 U	250 U	250 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	250 U	250 U	250 U	500 U	500 U	600 U	500 U	250 U	250 U	250 U
Acetone	3700	10000		22000	10 U	10 U	250 U	250 U	250 U	500 U	500 U	600 U	500 U	250 U	250 U	250 U
Acrolein	0.055	0.12		0.042												
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	500 U	500 U	500 U	1000 U	1000 U	1200 U	1000 U	500 U	500 U	500 U
Benzene	5	5	5	0.41	1 U	1 U	25 U	25 U	25 UJ	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Bromochloromethane	90	90			1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Bromodichloromethane	100	100		0.12	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Bromoform	80	80		8.5	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Bromomethane	10	10		8.7	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Chlorobenzene	100	100	100	91	1 U	1 U	25 U	25 U	25 UJ	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Chloroethane	230	900		21000	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Chloroform	80	80		0.19	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Chloromethane	30	30		190	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
cis-1,2-Dichloroethene	70	70	70	370	18	19	67	41	46	63	42 J	44 J	53	270	260	240
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Methylene chloride	5	5		4.8	1 U	1 U	6.9 J	25 U	25 U	15 J	50 U	60 U	17 J B	6.9 J	12 J B	16 J
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Tetrachloroethene	5	5	5	0.11	4.4	3.2	32	19 J	22 J	590	560	560	450	17 J	26	20 J
Toluene	1000	1000	1000	2300	1 U	1 U	25 U	25 U	25 UJ	50 U	50 U	60 U	50 U	25 U	25 U	25 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	0.2 J	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	25 U	25 U	25 U
Trichloroethene	5	5	5	1.7	29 J	34	460	290	310	1400	840	890	1100	420	370	350
Vinyl Chloride	2	2	2	0.016	1 U	1 U	25 U	25 U	25 U	50 U	50 U	60 U	50 U	4.1 J	25 U	25 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	75 U	75 U	75 U	150 U	150 U	180 U	150 U	75 U	75 U	75 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-98D 5/27/2008	MW-98D 9/8/2008	MW-98D 6/17/2009	MW-98I 5/23/2008	MW-98I 9/12/2008	MW-98I 6/18/2009	MW-98S 5/22/2008	MW-98S 9/8/2008	MW-98S 6/17/2009	MW-99D 5/22/2008	MW-99D 9/18/2008	MW-99D 6/25/2009	MW-99S 5/22/2008
TOTAL VOC																	
					2.93	0	0.17	46.509	45.49	35.16	20.36	38.17	15.59	188.3	142.3	111.3	254.6
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	0.58 J	0.51 J	0.39 J	0.22 J	1 U	1 U	5.9	5 U	2.9 J	4.1 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	1 U	0.41 J	0.38 J	1 U	0.41 J	0.19 J	5 U	5 U	5 U	5 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	1 U	0.55 J	0.57 J	0.39 J	0.17 J	0.39 J	1 U	5.2	4 J	3.1 J	4.3 J
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	1000 U	1000 U	1000 U	1000 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
2-Chloroethyl Vinyl Ether																	
2-Hexanone					10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
Acetone	3700	10000		22000	2.7 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
Acrolein	0.055	0.12		0.042													
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	100 U	100 U	100 U	100 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Bromochloromethane	90	90			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Bromoform	80	80		8.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Chloroethane	230	900		21000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Chloroform	80	80		0.19	1 U	1 U	1 U	0.079 J	1 U	1 U	0.07 J	0.17 J	1 U	5 U	5 U	5 U	5 U
Chloromethane	30	30		190	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	1 U	1 U	5.9	6.9	6.7	1.9	5.5	1.8	26	17	11	50
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.3 J B	2.5 J	5 U	3.2 J B
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5	5	5	0.11	1 U	1 U	1 U	9.4	8.1	5.3	5	5.7	2.6	7.9	8.8	8.3	13
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Trichloroethene	5	5	5	1.7	0.23 J	1 U	0.17 J	30	29	22	13	26	11	140	110	86	180
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	15 U	15 U	15 U	15 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-99S 9/24/2008	MW-99S 6/26/2009	MW-100D 5/22/2008	MW-100D 9/22/2008	MW-100D 7/1/2009	MW-100I 5/21/2008	MW-100I 9/24/2008	MW-100I 6/30/2009	MW-100S 5/22/2008	MW-100S Dup 5/22/2008	MW-100S 9/24/2008	MW-100S 7/2/2009
TOTAL VOC																
					181.7	165.3	533	783.1	328.1	548.2	282.6	353	580.2	571.3	290.6	225.6
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	200	200	200	9100	3 J	3.6 J	6 J	8.4 J	4.2 J	8 J	3.8 J	3.9 J	7.5 J	7.4 J	10 U	3 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	27	110		2.4	5 U	5 U	2.9 J	5.3 J	2.3 J	2.7 J	10 U	1.6 J	2.5 J	10 U	10 U	10 U
1,1-Dichloroethene	7	7	7	340	3.7 J	2.7 J	8.3 J	13 J	5.4 J	8.7 J	3.8 J	4.2 J	8.4 J	8.1 J	4.6 J	3.6 J
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	5	5	5	0.15	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	5	5	5	0.39	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	1000 U	1000 U	2500 U	4000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
2-Butanone	4000	4000		7100	50 U	50 U	120 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
2-Chloroethyl Vinyl Ether																
2-Hexanone					50 U	50 U	120 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
4-Methyl-2-Pentanone	190	410		2000	50 U	50 U	120 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acetone	3700	10000		22000	50 U	50 U	120 U	200 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Acrolein	0.055	0.12		0.042												
Acrylonitrile	0.63	2.7		0.045	100 U	100 U	250 U	400 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Benzene	5	5	5	0.41	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	90	90			5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	100	100		0.12	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	80	80		8.5	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane	10	10		8.7	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	1900	4100		1000	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	5	5	0.2	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	100	100	100	91	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorodibromomethane	80	80		0.15	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	230	900		21000	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	80	80		0.19	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	30	30		190	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	70	70	70	370	32	28	92	140	69	84	48	49	88	82	44	40
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	700	700	700	1.5	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	5		4.8	5 U	5 U	3.8 J	6.4 J	3.2 J B	4.8 J	10 U	4.3 J	3.8 J	3.8 J	10 U	4 J
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5	5	5	0.11	13	11	180	290	94	170	87	110	190	190	92	65
Toluene	1000	1000	1000	2300	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	5	5	5	1.7	130	120	240 J	320	150	270 B	140	180	280	280	150	110
Vinyl Chloride	2	2	2	0.016	5 U	5 U	12 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylenes (Total)	10000	10000	10000	200	15 U	15 U	38 U	60 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-101D 5/21/2008	MW-101D 9/12/2008	MW-101D 6/23/2009	MW-101D Dup 6/23/2009	MW-101S 5/22/2008	MW-101S 9/10/2008	MW-101S 6/18/2009	MW-102D 4/29/2008	MW-102D 9/19/2008	MW-102D 7/2/2009	MW-102D Dup 7/2/2009	MW-102S 4/30/2008
TOTAL VOC																
					58.38	39.39	48.14	33.5	33.65	26.13	29.91	202.9	200	151.3	130.8	138.98
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,1,1-Trichloroethane	200	200	200	9100	0.36 J	1 U	1 U	1 U	0.61 J	1 U	0.46 J	10 U	10 U	10 U	10 U	26
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,1-Dichloroethane	27	110		2.4	0.35 J	0.37 J	0.48 J	0.3 J	1 U	1 U	1 U	10 U	10 U	10 U	10 U	2.4 J
1,1-Dichloroethene	7	7	7	340	0.67 J	0.52 J	0.56 J	1 U	0.44 J	0.38 J	0.35 J	10 U	10 U	10 U	10 U	20
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	200 U	200 U	200 U	200 U	2000 U	2000 U	2000 U	2000 U	600 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	100 U	100 U	30 U
2-Chloroethyl Vinyl Ether																
2-Hexanone					10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	100 U	100 U	30 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	100 U	100 U	30 U
Acetone	3700	10000		22000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	100 U	100 U	30 U
Acrolein	0.055	0.12		0.042												
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U	200 U	200 U	200 U	60 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Bromochloromethane	90	90			1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Bromoform	80	80		8.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Chloroethane	230	900		21000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Chloroform	80	80		0.19	2.2	1.4	1.1	0.9 J	2	0.75 J	0.9 J	10 U	10 U	10 U	10 U	3 U
Chloromethane	30	30		190	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
cis-1,2-Dichloroethene	70	70	70	370	16	12	16	12	3.4	3.1	3.5	9.7 J	11	7.6 J	8.5 J	10
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.2 J	5 J B	6.6 J	3.2 J B	0.58 J
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Tetrachloroethene	5	5	5	0.11	8.8	6.1	6	4.3	4.2	3.9	3.7	11	14	7.1 J	9.1 J	19
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Trichloroethene	5	5	5	1.7	30	19	24	16	23	18	21	180	170	130	110	61
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	3 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	3 U	3 U	3 U	3 U	30 U	30 U	30 U	30 U	9 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-102S 9/17/2008	MW-102S 6/24/2009	MW-103D 4/30/2008	MW-103D 9/19/2008	MW-103D 6/23/2009	MW-103S 4/30/2008	MW-103S 9/19/2008	MW-103S 6/29/2009	MW-104 5/5/2008	MW-104 10/9/2008	MW-104 6/24/2009	MW-105 5/5/2008	MW-105 10/2/2008
TOTAL VOC																	
					167	321.79	113.27	113.9	135.5	258.2	271.8	336.9	44.82	42.08	63.88	1528.4	630
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,1,1-Trichloroethane	200	200	200	9100	31	97	5 U	5 U	5 U	3.6 J	3.5 J	5.1 J	1 U	1 U	1 U	19 J	40 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,1,2-Trichloroethane	5	5	5	0.24	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,1-Dichloroethane	27	110		2.4	2 J	17	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,1-Dichloroethene	7	7	7	340	29	62	5 U	5 U	5 U	2.6 J	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,2-Dichloroethane	5	5	5	0.15	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,2-Dichloropropane	5	5	5	0.39	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	500 U	600 U	1000 U	1000 U	1000 U	2000 U	2000 U	2000 U	200 U	200 U	200 U	8000 U	8000 U
2-Butanone	4000	4000		7100	25 U	30 U	50 U	50 U	50 U	100 U	100 U	100 U	10 U	10 U	10 U	400 U	400 U
2-Chloroethyl Vinyl Ether																	
2-Hexanone					25 U	30 U	50 U	50 U	50 U	100 U	100 U	100 U	10 U	10 U	10 U	400 U	400 U
4-Methyl-2-Pentanone	190	410		2000	25 U	30 U	50 U	50 U	50 U	100 U	100 U	100 U	10 U	10 U	10 U	400 U	400 U
Acetone	3700	10000		22000	25 U	30 U	50 U	50 U	50 U	100 U	100 U	100 U	10 U	10 U	10 U	400 U	400 U
Acrolein	0.055	0.12		0.042													
Acrylonitrile	0.63	2.7		0.045	50 U	60 U	100 U	100 U	100 U	200 U	200 U	200 U	20 U	20 U	20 U	800 U	800 U
Benzene	5	5	5	0.41	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Bromochloromethane	90	90			2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Bromodichloromethane	100	100		0.12	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Bromoform	80	80		8.5	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Bromomethane	10	10		8.7	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Carbon Disulfide	1900	4100		1000	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Carbon Tetrachloride	5	5	5	0.2	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Chlorobenzene	100	100	100	91	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Chlorodibromomethane	80	80		0.15	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Chloroethane	230	900		21000	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Chloroform	80	80		0.19	2.5 U	3 U	0.48 J	5 U	5 U	10 U	10 U	10 U	0.42 J	0.65 J	0.91 J	40 U	40 U
Chloromethane	30	30		190	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
cis-1,2-Dichloroethene	70	70	70	370	14	36	3.5 J	3.7 J	3.5 J	8.7 J	9.8 J	10	0.9 J	0.83 J	1.5	120	50
cis-1,3-Dichloropropene	6.6	26		0.43	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Ethylbenzene	700	700	700	1.5	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Methylene chloride	5	5		4.8	1 J B	0.79 J	0.99 J	2.2 J B	5 U	2.3 J	9.5 J	2.8 J	1 U	1 U	0.57 J	9.4 J	40 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Tetrachloroethene	5	5	5	0.11	25	27	8.3	12	12	31	39	39	7.5	1.6	7.9	1100	430
Toluene	1000	1000	1000	2300	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
trans-1,2-Dichloroethene	100	100	100	110	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
trans-1,3-Dichloropropene	6.6	26		0.43	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Trichloroethene	5	5	5	1.7	65	82	100	96	120	210	210	280	36	39	53	280	150
Vinyl Chloride	2	2	2	0.016	2.5 U	3 U	5 U	5 U	5 U	10 U	10 U	10 U	1 U	1 U	1 U	40 U	40 U
Xylenes (Total)	10000	10000	10000	200	7.5 U	9 U	15 U	15 U	15 U	30 U	30 U	30 U	3 U	3 U	3 U	120 U	120 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-105 7/9/2009	MW-106 4/29/2008	MW-106 9/29/2008	MW-106 6/24/2009	MW-107 5/6/2008	MW-107 9/10/2008	MW-107 6/24/2009	MW-108D 4/23/2008	MW-108D 9/5/2008	MW-108D 6/17/2009	MW-108S 4/23/2008	MW-108S 9/5/2008	MW-108S 6/22/2009
TOTAL VOC																	
					1623	107.54	103.7	141.3	44.95	25.62	38.37	1.5	1.27	1.68	0.18	0.42	4.38
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	23 J	4 U	5 U	1.7 J	3.3	1	2.3	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	50 U	4 U	5 U	5 U	0.38 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	50 U	0.82 J	5 U	5 U	0.26 J	0.41 J	0.55 J	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	10000 U	800 U	1000 U	1000 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	500 U	40 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.1 J
2-Chloroethyl Vinyl Ether																	
2-Hexanone					500 U	40 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	500 U	40 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	500 U	40 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3.1 J
Acrolein	0.055	0.12		0.042													
Acrylonitrile	0.63	2.7		0.045	1000 U	80 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	50 U	4 U	5 U	5 U	0.78 J	0.31 J	0.42 J	0.37 J	0.33 J	0.39 J	0.18 J	0.42 J	1 U
Chloromethane	30	30		190	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	120	17	16	18	6.1	3.4	4.1	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5	5		4.8	50 U	4 U	5 U	1.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	1200	9	8.7	10	23	9.5	15	0.38 J	0.36 J	0.55 J	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.18 J
trans-1,2-Dichloroethene	100	100	100	110	50 U	4 U	5 U	5 U	0.13 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	50 U	4 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	280	80	79	110	11	11	16	0.75 J	0.58 J	0.74 J	1 U	1 U	1 U
Vinyl Chloride	2	2	2	0.016	50 U	0.72 J	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	150 U	12 U	15 U	15 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-109D 5/20/2008	MW-109D 9/17/2008	MW-109D 6/23/2009	MW-109S 5/20/2008	MW-109S 9/16/2008	MW-109S 6/26/2009	MW-110 5/14/2008	MW-110 9/22/2008	MW-110 6/24/2009	MW-111 5/16/2008	MW-111 9/15/2008	MW-111 6/29/2009	MW-112 5/1/2008
TOTAL VOC																	
					271.3	69.9	219	91.3	434.2	381	148.8	148.6	164.1	41.6	29.1	7.27	17.63
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	0.35 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	0.2 J	1 U	1 U	0.41 J
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	1000 U	200 U	1000 U	400 U	1600 U	2000 U	1000 U	1000 U	1000 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	50 U	10 U	50 U	20 U	80 U	100 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether																	
2-Hexanone					50 U	10 U	50 U	20 U	80 U	100 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	50 U	10 U	50 U	20 U	80 U	100 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	50 U	10 U	50 U	20 U	80 U	100 U	50 U	50 U	50 U	10 U	10 U	10 U	10 U
Acrolein	0.055	0.12		0.042													
Acrylonitrile	0.63	2.7		0.045	100 U	20 U	100 U	40 U	160 U	200 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	130	37	100	46	180	200	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1.1
Bromoform	80	80		8.5	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	0.23 J
Chloroethane	230	900		21000	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	5 U	1 U	5 U	2 U	8 U	10 U	0.89 J	5 U	1.1 J	1 U	1 U	1 U	4.9
Chloromethane	30	30		190	1.7 J	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	5 U	1 U	5 U	2 U	8 U	10 U	0.61 J	5 U	5 U	6.2	4.3	1.1	0.43 J
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	17	3.9	10	3.1	46	25	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	35	16	27	22	29	26	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Methylene chloride	5	5		4.8	3.6 J	1 U	5 U	1.2 J	9.2	10 U	1.3 J	2.6 J B	1 J	1 U	1 U	1 U	1 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	5 U	1 U	5 U	2 U	8 U	10 U	62	69	63	2.2	1.8	0.66 J	0.21 J
Toluene	1000	1000	1000	2300	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	5 U	1 U	5 U	2 U	8 U	10 U	84	77	99	33	23	4.9	10
Vinyl Chloride	2	2	2	0.016	5 U	1 U	5 U	2 U	8 U	10 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	84	13	82	19	170	130	15 U	15 U	15 U	3 U	3 U	0.61 J	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-112 9/3/2008	MW-112 6/19/2009	MW-113 10/25/2007	MW-113 5/15/2008	MW-113 9/3/2008	MW-113 7/6/2009	MW-114 5/23/2008	MW-114 10/3/2008	MW-114 7/15/2009	MW-115 4/30/2008	MW-115 9/3/2008	MW-115 6/30/2009
TOTAL VOC																
					14.01	9.94	1705.71	3080	2235	1850	8293	4710	7670	427.6	378.8	554.5
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	3.7	51 J	29 J	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	0.98 J	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	5.1	100 U	100 U	100 U	200 U	200 U	200 U	76	76	130
1,1-Dichloroethene	7	7	7	340	0.51 J	1 U	23 J	66 J	43 J	34 J	53 J	200 U	200 U	10 J	12 J	17
1,2,4-Trimethylbenzene	16	35		15												
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	0.45 J	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
1,3,5-Trimethylbenzene	16	35		12												
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	20000 U	20000 U	20000 U	40000 U	40000 U	40000 U	3000 U	3000 U	3000 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	1000 U	1000 U	1000 U	2000 U	2000 U	2000 U	150 U	150 U	150 U
2-Chloroethyl Vinyl Ether																
2-Hexanone					10 U	10 U	10 U	1000 U	1000 U	1000 U	2000 U	2000 U	2000 U	150 U	150 U	150 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	1000 U	1000 U	1000 U	2000 U	2000 U	2000 U	150 U	150 U	150 U
Acetone	3700	10000		22000	10 U	10 U	7.7 J	1000 U	1000 U	1000 U	2000 U	2000 U	2000 U	150 U	150 U	150 U
Acrolein	0.055	0.12		0.042												
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	2000 U	2000 U	2000 U	4000 U	4000 U	4000 U	300 U	300 U	300 U
Benzene	5	5	5	0.41	1 U	1 U	1.0 U	100 U	100 U	100 UJ	200 U	200 U	200 U	15 U	15 U	15 U
Bromochloromethane	90	90			1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Bromodichloromethane	100	100		0.12	1 U	0.59 J	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Bromoform	80	80		8.5	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Bromomethane	10	10		8.7	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Chlorobenzene	100	100	100	91	1 U	1 U	1.0 U	100 U	100 U	100 UJ	200 U	200 U	200 U	15 U	15 U	15 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Chloroethane	230	900		21000	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Chloroform	80	80		0.19	2.9	2.9	0.62 J	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Chloromethane	30	30		190	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
cis-1,2-Dichloroethene	70	70	70	370	0.42 J	0.25 J	540	1000	730	660	2900	1700	2400	270	220	290
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Isopropylbenzene	1100	2300		680												
Methyl tert-butyl ether	20	20		12	1 U	1 U	0.44 J	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Methylene chloride	5	5		4.8	1 U	1 U	1.0 U	31 J	100 U	36 J B	90 J	200 U	100 J	3.3 J	15 U	15 U
Naphthalene	100	100		0.14												
Styrene	100	100	100	1600	1 U	1 U	1.8	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Tetrachloroethene	5	5	5	0.11	0.18 J	1 U	19	32 J	33 J	20 J	950	510	970	2.3 J	2.7 J	4.8 J
Toluene	1000	1000	1000	2300	1 U	1 U	0.26 J	100 U	100 U	100 UJ	200 U	200 U	200 U	15 U	15 U	15 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	2.3	100 U	100 U	100 U	200 U	200 U	200 U	2 J	2.2 J	3.5 J
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1.0 U	100 U	100 U	100 U	200 U	200 U	200 U	15 U	15 U	15 U
Trichloroethene	5	5	5	1.7	10	6.2	1100	1900	1400	1100	4300	2500	4200	11 J	7.9 J	9.2 J
Vinyl Chloride	2	2	2	0.016	1 U	1 U	0.36 J	100 U	100 U	100 U	200 U	200 U	200 U	53	58	100
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3.0 U	300 U	300 U	300 U	600 U	600 U	600 U	45 U	45 U	45 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-116 5/21/2008	MW-116 9/3/2008	MW-116 7/8/2009	MW-117 2/26/2009	MW-117 6/23/2009	CW-1 6/19/2007	CW-1 12/12/2007	CW-1 12/12/2007	CW-1 5/6/2008	CW-1 10/9/2008	CW-1 6/15/2009	CW-1 12/16/2009	CW-1A 6/19/2007
TOTAL VOC																	
					2317	1874	540.9	115.71	39.44	0	0	118	75	61.03	78	50.4	0.76
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	50 U	50 U	25 U	1 U	1 U				2 U	2 U	2 U	2 U	
1,1,1-Trichloroethane	200	200	200	9100	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,1-Dichloroethane	27	110		2.4	14 J	17 J	4.9 J	1 U	0.39 J	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,1-Dichloroethene	7	7	7	340	46 J	40 J	25 U	0.72 J	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	50 U	50 U	25 U	1 U	1 U				2 U	2 U	2 U	2 U	
1,2-Dichloroethane	5	5	5	0.15	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,2-Dichloropropane	5	5	5	0.39	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	10000 U	10000 U	5000 U	200 U	200 U	1000 U		1000 U	400 U	400 U	400 U	400 U	1000 U
2-Butanone	4000	4000		7100	500 U	500 U	250 U	10 U	10 U	5 U		5 U	20 U	20 U	20 U	20 U	5 U
2-Chloroethyl Vinyl Ether										10 U		10 U					10 U
2-Hexanone					500 U	500 U	250 U	10 U	10 U				20 U	20 U	20 U	20 U	
4-Methyl-2-Pentanone	190	410		2000	500 U	500 U	250 U	10 U	10 U				20 U	20 U	20 U	20 U	
Acetone	3700	10000		22000	500 U	500 U	250 U	10 U	10 U				20 U	20 U	20 U	20 U	
Acrolein	0.055	0.12		0.042						100 U		100 U					100 U
Acrylonitrile	0.63	2.7		0.045	1000 U	1000 U	500 U	20 U	20 U	100 U		100 U	40 U	40 U	40 U	40 U	100 U
Benzene	5	5	5	0.41	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Bromochloromethane	90	90			50 U	50 U	25 U	1 U	1 U				2 U	2 U	2 U	2 U	
Bromodichloromethane	100	100		0.12	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Bromoform	80	80		8.5	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Bromomethane	10	10		8.7	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Carbon Disulfide	1900	4100		1000	50 U	50 U	25 U	1 U	1 U				2 U	0.63 J	2 U	2 U	
Carbon Tetrachloride	5	5	5	0.2	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Chlorobenzene	100	100	100	91	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Chlorodibromomethane	80	80		0.15	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Chloroethane	230	900		21000	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Chloroform	80	80		0.19	50 U	50 U	25 U	1 U	0.65 J	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Chloromethane	30	30		190	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	1200	1100	370	39	12	5 U		18	12	9.4	12	9.4	5 U
cis-1,3-Dichloropropene	6.6	26		0.43	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Ethylbenzene	700	700	700	1.5	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12	50 U	50 U	25 U	1 U	1 U				2 U	2 U	2 U	2 U	
Methylene chloride	5	5		4.8	140 B	50 U	8 J	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	0.76 J
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600	50 U	50 U	25 U	1 U	1 U				2 U	2 U	2 U	2 U	
Tetrachloroethene	5	5	5	0.11	310	210	39	36	4.4	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Toluene	1000	1000	1000	2300	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	50 U	50 U	25 U	0.43 J	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	50 U	50 U	25 U	1 U	1 U	5 U		5 U	2 U	2 U	2 U	2 U	5 U
Trichloroethene	5	5	5	1.7	570	480	100	39	22	5 U		100	63	51	66	41	5 U
Vinyl Chloride	2	2	2	0.016	37 J	27 J	19 J	0.56 J	1 U	5 U	5 U		2 U	2 U	2 U	2 U	5 U
Xylenes (Total)	10000	10000	10000	200	150 U	150 U	75 U	3 U	3 U				6 U	6 U	6 U	6 U	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-1A 12/12/2007	CW-1A 5/7/2008	CW-1A 10/9/2008	CW-1A 6/15/2009	CW-1A 12/16/2009	CW-2 6/19/2007	CW-2 12/12/2007	CW-2 5/13/2008	CW-2 10/9/2008	CW-2 6/15/2009	CW-2 2/3/2010	CW-3 6/19/2007	CW-3 12/12/2007
TOTAL VOC																	
					121.2	53.96	59.49	52.58	34.26	24.1	22.2	26.47	18.3	23.26	31.66	74.3	53.57
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52		2 U	2 U	2 U	1 U			1 U	1 U	1 U	1 U		
1,1,1-Trichloroethane	200	200	200	9100	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1-Dichloroethane	27	110		2.4	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1-Dichloroethene	7	7	7	340	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,2,4-Trimethylbenzene	16	35		15													
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		2 U	2 U	2 U	1 U			1 U	1 U	1 U	1 U		
1,2-Dichloroethane	5	5	5	0.15	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,2-Dichloropropane	5	5	5	0.39	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
1,3,5-Trimethylbenzene	16	35		12													
1,4-Dioxane	5.6	24		6.1	1000 U	400 U	400 U	400 U	200 U	1000 U	1000 U	200 U	200 U	200 U	200 U	1000 U	1000 U
2-Butanone	4000	4000		7100	5 U	20 U	20 U	20 U	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	5 U
2-Chloroethyl Vinyl Ether					10 U					10 U	10 U					10 U	10 U
2-Hexanone						20 U	20 U	20 U	10 U			10 U	10 U	10 U	10 U		
4-Methyl-2-Pentanone	190	410		2000		20 U	20 U	20 U	10 U			10 U	10 U	10 U	10 U		
Acetone	3700	10000		22000		20 U	20 U	20 U	10 U			10 U	10 U	10 U	10 U		
Acrolein	0.055	0.12		0.042	100 U					100 U	100 U					100 U	100 U
Acrylonitrile	0.63	2.7		0.045	100 U	40 U	40 U	40 U	20 U	100 U	100 U	20 U	20 U	20 U	20 U	100 U	100 U
Benzene	5	5	5	0.41	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Bromochloromethane	90	90				2 U	2 U	2 U	1 U			1 U	1 U	1 U	1 U		
Bromodichloromethane	100	100		0.12	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Bromoform	80	80		8.5	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Bromomethane	10	10		8.7	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Carbon Disulfide	1900	4100		1000		2 U	2 U	2 U	1 U			1 U	1 U	1 U	1 U		
Carbon Tetrachloride	5	5	5	0.2	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chlorobenzene	100	100	100	91	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chlorodibromomethane	80	80		0.15	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chloroethane	230	900		21000	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Chloroform	80	80		0.19	5 U	0.19 J	2 U	2 U	0.19 J	5 U	5 U	0.08 J	1 U	1 U	1 U	5 U	5 U
Chloromethane	30	30		190	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
cis-1,2-Dichloroethene	70	70	70	370	5 U	0.58 J	0.57 J	0.83 J	0.5 J	4.1 J	5.2	3.5	3.3	3.8	5	38	32
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Ethylbenzene	700	700	700	1.5	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Isopropylbenzene	1100	2300		680													
Methyl tert-butyl ether	20	20		12		2 U	2 U	2 U	1 U			1 U	1 U	1 U	0.22 J		
Methylene chloride	5	5		4.8	5 U	0.4 J	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Naphthalene	100	100		0.14													
Styrene	100	100	100	1600		2 U	2 U	2 U	1 U			1 U	1 U	1 U	1 U		
Tetrachloroethene	5	5	5	0.11	1.2 J	0.79 J	0.92 J	0.75 J	0.57 J	5 U	5 U	0.89 J	1 U	0.46 J	0.44 J	1.3 J	0.57 J
Toluene	1000	1000	1000	2300	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Trichloroethene	5	5	5	1.7	120	52	58	51	33	20	17	22	15	19	26	35	21
Vinyl Chloride	2	2	2	0.016	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	5 U	5 U
Xylenes (Total)	10000	10000	10000	200		6 U	6 U	6 U	3 U			3 U	3 U	3 U	3 U		

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-3 5/6/2008	CW-3 10/9/2008	CW-3 6/15/2009	CW-3 12/16/2009	CW-4 6/27/2007	CW-4 12/12/2007	CW-4 5/6/2008	CW-4 10/9/2008	CW-4 6/15/2009	CW-4 12/16/2009	CW-5 6/19/2007	CW-5 12/12/2007	CW-5 5/6/2008
TOTAL VOC																	
					37.75	33.64	50.4	54.1	114.2	59.1	99.63	82.36	105.8	89.9	18.1	18.8	3.43
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	200 U	1000 U	1000 U	600 U	600 U	600 U	400 U	1000 U	1000 U	200 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	10 U	5 U	5 U	30 U	30 U	30 U	20 U	5 U	5 U	10 U
2-Chloroethyl Vinyl Ether									10 U	10 U					10 U	10 U	
2-Hexanone					10 U	10 U	10 U	10 U			30 U	30 U	30 U	20 U			10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	10 U			30 U	30 U	30 U	20 U			10 U
Acetone	3700	10000		22000	10 U	10 U	10 U	10 U			30 U	30 U	30 U	20 U			10 U
Acrolein	0.055	0.12		0.042					100 U	100 U					100 U	100 U	
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	20 U	100 U	100 U	60 U	60 U	60 U	40 U	100 U	100 U	20 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Bromochloromethane	90	90			1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Bromoform	80	80		8.5	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Chloroethane	230	900		21000	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Chloroform	80	80		0.19	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	0.17 J
Chloromethane	30	30		190	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	21	20	27	28	35	27	29	23	28	27	6.4	9	0.46 J
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	1 U	5 U	5 U	0.63 J	0.96 J	3 U	2 U	5 U	5 U	1 U
Styrene	100	100	100	1600	1 U	1 U	1 U	1 U			3 U	3 U	3 U	2 U			1 U
Tetrachloroethene	5	5	5	0.11	0.75 J	0.64 J	1.4	2.1	6.2	1.1 J	4	4.4	5.8	4.9	4.1 J	2.3 J	1.7
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Trichloroethene	5	5	5	1.7	16	13	22	24	73	31	66	54	72	58	7.6	7.5	1.1
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	1 U	5 U	5 U	3 U	3 U	3 U	2 U	5 U	5 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	3 U			9 U	9 U	9 U	6 U			3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-5 10/9/2008	CW-5 6/15/2009	CW-5 12/16/2009	CW-6 6/19/2007	CW-6 12/12/2007	CW-6 5/6/2008	CW-6 10/9/2008	CW-6 6/16/2009	CW-6 1/13/2010	CW-7 6/19/2007	CW-7 12/12/2007	CW-7 5/6/2008	CW-7 9/11/2008
TOTAL VOC																	
					47.7	10.82	8.2	256	156	130	121	112.72	62.3	14	12	9.35	9.35
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	1000 U	1000 U	400 U	400 U	400 U	200 U	1000 U	1000 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	5 U	5 U	20 U	20 U	20 U	10 U	5 U	5 U	10 U	10 U
2-Chloroethyl Vinyl Ether								10 U	10 U					10 U	10 U		
2-Hexanone					10 U	10 U	10 U			20 U	20 U	20 U	10 U			10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U			20 U	20 U	20 U	10 U			10 U	10 U
Acetone	3700	10000		22000	10 U	10 U	10 U			20 U	20 U	20 U	3.2 J			10 U	10 U
Acrolein	0.055	0.12		0.042				100 U	100 U					100 U	100 U		
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	100 U	100 U	40 U	40 U	40 U	20 U	100 U	100 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Bromochloromethane	90	90			1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Bromoform	80	80		8.5	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U J	5 U	5 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Chloroethane	230	900		21000	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Chloroform	80	80		0.19	1 U	0.22 J	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	0.56 J	0.55 J
Chloromethane	30	30		190	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	14	3.6	1.5	53	62	38	33	30	19	5 U	5 U	0.19 J	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	5 U	5 U	2 U	2 U	0.72 J B	1 U	5 U	5 U	1 U	1 U
Styrene	100	100	100	1600	1 U	1 U	1 U			2 U	2 U	2 U	1 U			1 U	1 U
Tetrachloroethene	5	5	5	0.11	1.7	3.2	4	160	63	70	69	64	32	1 J	5 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	0.2 J	5 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Trichloroethene	5	5	5	1.7	32	3.8	2.7	43	31	22	19	18	7.9J	13	12	8.6	8.8
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	5 U	5 U	2 U	2 U	2 U	1 U	5 U	5 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U			6 U	6 U	6 U	3 U			3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-7 6/16/2009	CW-7 12/16/2009	CW-7A 6/19/2007	CW-7A 12/12/2007	CW-7A 5/6/2008	CW-7A 10/9/2008	CW-7A 6/16/2009	CW-7A 12/16/2009	CW-8 1/3/2007	CW-8 6/19/2007	CW-8 12/12/2007	CW-8 5/6/2008
TOTAL VOC																
					8.55	8.86	245.3	335	320.8	163.1	189.1	193.8	638.8	485.1	906	531.4
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U			15 U	10 U	10 U	10 U				20 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	19	15 J	31 J	12 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	4.8 J	25 U	50 U	20 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	13	9.1 J	18 J	9.4 J
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U			15 U	10 U	10 U	10 U				20 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
1,4-Dioxane	5.6	24		6.1	200 U	200 U	2000 U	1000 U	3000 U	2000 U	2000 U	2000 U	2500 U	5000 U	10000 U	4000 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	5 U	150 U	100 U	100 U	100 U	62 U	25 U	50 U	200 U
2-Chloroethyl Vinyl Ether							20 U	10 U					25 U	50 U	100 U	
2-Hexanone					10 U	10 U			150 U	100 U	100 U	100 U				200 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U			150 U	100 U	100 U	100 U				200 U
Acetone	3700	10000		22000	10 U	10 U			150 U	100 U	100 U	100 U				200 U
Acrolein	0.055	0.12		0.042			200 U	100 U					250 U	500 U	1000 U	
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	200 U	100 U	300 U	200 U	200 U	200 U	250 U	500 U	1000 U	400 U
Benzene	5	5	5	0.41	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Bromochloromethane	90	90			1 U	1 U			15 U	10 U	10 U	10 U				20 U
Bromodichloromethane	100	100		0.12	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Bromoform	80	80		8.5	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Bromomethane	10	10		8.7	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Carbon Disulfide	1900	4100		1000	1 U	1 U			15 U	10 U	10 U	10 U				20 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Chlorobenzene	100	100	100	91	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Chloroethane	230	900		21000	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Chloroform	80	80		0.19	0.67 J	1	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Chloromethane	30	30		190	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
cis-1,2-Dichloroethene	70	70	70	370	0.29 J	0.26 J	10 U	2.1 J	1.7 J	10 U	10 U	10 U	130	120	260	120
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Methyl tert-butyl ether	20	20		12	1 U	1 U			15 U	10 U	10 U	10 U				20 U
Methylene chloride	5	5		4.8	1 U	1 U	10 U	5 U	3.8 J	10 U	5.5 J B	10 U	12 U	25 U	50 U	5 J
Styrene	100	100	100	1600	1 U	1 U			15 U	10 U	10 U	10 U				20 U
Tetrachloroethene	5	5	5	0.11	0.19 J	1 U	5.3 J	2.9 J	5.3 J	3.1 J	3.6 J	3.8 J	32	21 J	37 J	25
Toluene	1000	1000	1000	2300	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Trichloroethene	5	5	5	1.7	7.4	7.6	240	330	310	160	180	190	440	320	560	360
Vinyl Chloride	2	2	2	0.016	1 U	1 U	10 U	5 U	15 U	10 U	10 U	10 U	12 U	25 U	50 U	20 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U			45 U	30 U	30 U	30 U				60 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-8 9/11/2008	CW-8 6/16/2009	CW-8 1/13/2010	CW-9 6/19/2007	CW-9 12/12/2007	CW-9 5/6/2008	CW-9 9/11/2008	CW-9 6/15/2009	CW-9 12/16/2009	CW-13 6/25/2007	CW-13 12/12/2007	CW-13 5/7/2008
TOTAL VOC																
					348.3	402.3	782	1504.2	3492	1316.7	1459.3	1703.9	976.3	1575	1023.7	1056
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
1,1,1-Trichloroethane	200	200	200	9100	12	11	20	55	150	39	40	66	31	50 U	10 J	25 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
1,1,2-Trichloroethane	5	5	5	0.24	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
1,1-Dichloroethane	27	110		2.4	4.4 J	2.9 J	20 U	25 U	18 J	25 U	25 U	6.9 J	25 U	50 U	25 U	25 U
1,1-Dichloroethene	7	7	7	340	8.9 J	7.9 J	16 J	13 J	24 J	9.6 J	9.3 J	16 J	8.3 J	50 U	7.7 J	25 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
1,2-Dichloroethane	5	5	5	0.15	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
1,2-Dichloropropane	5	5	5	0.39	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
1,4-Dioxane	5.6	24		6.1	2000 U	2000 U	4000 U	5000 U	15000 U	5000 U	5000 U	5000 U	5000 U	10000 U	5000 U	5000 U
2-Butanone	4000	4000		7100	100 U	100 U	200 U	25 U	75 U	250 U	250 U	250 U	250 U	50 U	25 U	250 U
2-Chloroethyl Vinyl Ether								50 U	150 U					100 U	50 U	
2-Hexanone					100 U	100 U	200 U			250 U	250 U	250 U	250 U			250 U
4-Methyl-2-Pentanone	190	410		2000	100 U	100 U	200 U			250 U	250 U	250 U	250 U			250 U
Acetone	3700	10000		22000	100 U	100 U	200 U			250 U	250 U	250 U	250 U			250 U
Acrolein	0.055	0.12		0.042				500 U	1500 U					1000 U	500 U	
Acrylonitrile	0.63	2.7		0.045	200 U	200 U	400 U	500 U	1500 U	500 U	500 U	500 U	500 U	1000 U	500 U	500 U
Benzene	5	5	5	0.41	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Bromochloromethane	90	90			10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
Bromodichloromethane	100	100		0.12	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Bromoform	80	80		8.5	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Bromomethane	10	10		8.7	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Carbon Disulfide	1900	4100		1000	10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
Carbon Tetrachloride	5	5	5	0.2	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Chlorobenzene	100	100	100	91	10 U	10 U	20 UJ	6.2 J	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Chlorodibromomethane	80	80		0.15	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Chloroethane	230	900		21000	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Chloroform	80	80		0.19	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Chloromethane	30	30		190	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
cis-1,2-Dichloroethene	70	70	70	370	69	95	170	100	300	81	70	94	57	910	560	480
cis-1,3-Dichloropropene	6.6	26		0.43	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Ethylbenzene	700	700	700	1.5	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Methyl tert-butyl ether	20	20		12	10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
Methylene chloride	5	5		4.8	10 U	4.5 J B	20 U	25 U	75 U	7.1 J	25 U	11 J	25 U	50 U	25 U	14 J
Styrene	100	100	100	1600	10 U	10 U	20 U			25 U	25 U	25 U	25 U			25 U
Tetrachloroethene	5	5	5	0.11	24	21	36	820	1800	740	940	950	540	190	76	120
Toluene	1000	1000	1000	2300	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
trans-1,2-Dichloroethene	100	100	100	110	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
trans-1,3-Dichloropropene	6.6	26		0.43	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U
Trichloroethene	5	5	5	1.7	230	260	540J	510	1200	440	400	560	340	460	360	430
Vinyl Chloride	2	2	2	0.016	10 U	10 U	20 U	25 U	75 U	25 U	25 U	25 U	25 U	15 J	10 J	12 J
Xylenes (Total)	10000	10000	10000	200	30 U	30 U	60 U			75 U	75 U	75 U	75 U			75 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-13 9/11/2008	CW-13 6/15/2009	CW-13 12/16/2009	CW-14 5/20/2008	CW-14 9/30/2008	CW-15A 6/19/2007	CW-15A 12/12/2007	CW-15A 5/6/2008	CW-15A 9/11/2008	CW-15A 10/9/2008	CW-15A 6/15/2009	CW-15A 12/16/2009
TOTAL VOC																
					1063.7	1370.8	1040.6	1226	899.7	19610	14110	16580	1032	12006	19910	12921
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.52	25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
1,1,1-Trichloroethane	200	200	200	9100	8.7 J	14 J	10 J	25 U	25 U	5800	4100	4200	370	3400	6300	3700
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
1,1,2-Trichloroethane	5	5	5	0.24	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
1,1-Dichloroethane	27	110		2.4	25 U	25 U	25 U	25 U	25 U	110 J	500 U	100 J	10 J	82 J	110 J	81 J
1,1-Dichloroethene	7	7	7	340	11 J	12 J	8.6 J	25 U	25 U	1400	830	1100	92	730	1500	890
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
1,2-Dichloroethane	5	5	5	0.15	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
1,2-Dichloropropane	5	5	5	0.39	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
1,4-Dioxane	5.6	24		6.1	5000 U	5000 U	5000 U	5000 U	5000 U	50000 U	100000 U	50000 U	5000 U	50000 U	50000 U	50000 U
2-Butanone	4000	4000		7100	250 U	250 U	250 U	250 U	250 U	250 U	500 U	2500 U	250 U	2500 U	2500 U	2500 U
2-Chloroethyl Vinyl Ether										500 U	1000 U					
2-Hexanone					250 U	250 U	250 U	250 U	250 U			2500 U	250 U	2500 U	2500 U	2500 U
4-Methyl-2-Pentanone	190	410		2000	250 U	250 U	250 U	250 U	250 U			2500 U	250 U	2500 U	2500 U	2500 U
Acetone	3700	10000		22000	250 U	250 U	250 U	250 U	250 U			2500 U	250 U	2500 U	2500 U	2500 U
Acrolein	0.055	0.12		0.042						5000 U	10000 U					
Acrylonitrile	0.63	2.7		0.045	500 U	500 U	500 U	500 U	500 U	5000 U	10000 U	5000 U	500 U	5000 U	5000 U	5000 U
Benzene	5	5	5	0.41	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Bromochloromethane	90	90			25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
Bromodichloromethane	100	100		0.12	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Bromoform	80	80		8.5	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Bromomethane	10	10		8.7	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Carbon Disulfide	1900	4100		1000	25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
Carbon Tetrachloride	5	5	5	0.2	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Chlorobenzene	100	100	100	91	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Chlorodibromomethane	80	80		0.15	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Chloroethane	230	900		21000	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Chloroform	80	80		0.19	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Chloromethane	30	30		190	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
cis-1,2-Dichloroethene	70	70	70	370	440	500	430	660	420	5400	5100	5200	430	3600	5600	4300
cis-1,3-Dichloropropene	6.6	26		0.43	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Ethylbenzene	700	700	700	1.5	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Methyl tert-butyl ether	20	20		12	25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
Methylene chloride	5	5		4.8	25 U	8.8 J	25 U	11 J	9.7 J	250 U	500 U	80 J	25 U	94 J	250 U	250 U
Styrene	100	100	100	1600	25 U	25 U	25 U	25 U	25 U			250 U	25 U	250 U	250 U	250 U
Tetrachloroethene	5	5	5	0.11	180	220	160	25 U	25 U	1600	580	1300	130	1000	1600	950
Toluene	1000	1000	1000	2300	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
trans-1,2-Dichloroethene	100	100	100	110	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
trans-1,3-Dichloropropene	6.6	26		0.43	25 U	25 U	25 U	25 U	25 U	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Trichloroethene	5	5	5	1.7	410	600	420	530	460	5300	3500	4600	25 U	3100	4800	3000
Vinyl Chloride	2	2	2	0.016	14 J	16 J	12 J	25	10 J	250 U	500 U	250 U	25 U	250 U	250 U	250 U
Xylenes (Total)	10000	10000	10000	200	75 U	75 U	75 U	75 U	75 U			750 U	75 U	750 U	750 U	750 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-16 5/23/2008	CW-16 10/8/2008	CW-17 6/19/2007	CW-17 12/12/2007	CW-17 5/6/2008	CW-17 9/11/2008	CW-17 6/15/2009	CW-17 2/3/2010	CW-18 5/23/2008	CW-20 5/21/2008	CW-20 9/30/2008
TOTAL VOC															
					654.7	641	550.1	571.7	397.6	434	220	342.1	341.5	2195	1736
Volatile Organic Compound															
1,1,1,2-Tetrachloroethane	70	70		0.52	20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,1,1-Trichloroethane	200	200	200	9100	8.7 J	20 U	27	32	15	18	11	13	3.1 J	40 J	32 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,1,2-Trichloroethane	5	5	5	0.24	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,1-Dichloroethane	27	110		2.4	20 U	20 U	7.1 J	9.7 J	6.1 J	7 J	3.2 J	6.3 J	10 U	50 U	50 U
1,1-Dichloroethene	7	7	7	340	13 J	16 J	21	21	12	16	10 U	8.8 J	7.5 J	12 J	50 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,2-Dichloroethane	5	5	5	0.15	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,2-Dichloropropane	5	5	5	0.39	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
1,4-Dioxane	5.6	24		6.1	4000 U	4000 U	2000 U	3000 U	1600 U	2000 U	2000 U	2000 U	2000 U	10000 U	10000 U
2-Butanone	4000	4000		7100	200 U	200 U	10 U	15 U	80 U	100 U	100 U	100 U	100 U	500 U	500 U
2-Chloroethyl Vinyl Ether							20 U	30 U							
2-Hexanone					200 U	200 U			80 U	100 U	100 U	100 U	100 U	500 U	500 U
4-Methyl-2-Pentanone	190	410		2000	200 U	200 U			80 U	100 U	100 U	100 U	100 U	500 U	500 U
Acetone	3700	10000		22000	200 U	200 U			80 U	100 U	100 U	100 U	100 U	500 U	500 U
Acrolein	0.055	0.12		0.042			200 U	300 U							
Acrylonitrile	0.63	2.7		0.045	400 U	400 U	200 U	300 U	160 U	200 U	200 U	200 U	200 U	1000 U	1000 U
Benzene	5	5	5	0.41	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Bromochloromethane	90	90			20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
Bromodichloromethane	100	100		0.12	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Bromoform	80	80		8.5	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Bromomethane	10	10		8.7	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Carbon Disulfide	1900	4100		1000	20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
Carbon Tetrachloride	5	5	5	0.2	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Chlorobenzene	100	100	100	91	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Chlorodibromomethane	80	80		0.15	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Chloroethane	230	900		21000	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Chloroform	80	80		0.19	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Chloromethane	30	30		190	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
cis-1,2-Dichloroethene	70	70	70	370	140	140	120	170	89	91	51	97	160	73	56
cis-1,3-Dichloropropene	6.6	26		0.43	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Ethylbenzene	700	700	700	1.5	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Methyl tert-butyl ether	20	20		12	20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
Methylene chloride	5	5		4.8	10 J	12 J	10 U	15 U	2.5 J	10 U	3.8 J B	10 U	7.8 J	130 B	18 J
Styrene	100	100	100	1600	20 U	20 U			8 U	10 U	10 U	10 U	10 U	50 U	50 U
Tetrachloroethene	5	5	5	0.11	33	33	95	49	63	82	41	37	3.1 J	1300	1100
Toluene	1000	1000	1000	2300	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
trans-1,2-Dichloroethene	100	100	100	110	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
trans-1,3-Dichloropropene	6.6	26		0.43	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Trichloroethene	5	5	5	1.7	450	440 J	280	290	210	220	110	180	160	640	530
Vinyl Chloride	2	2	2	0.016	20 U	20 U	10 U	15 U	8 U	10 U	10 U	10 U	10 U	50 U	50 U
Xylenes (Total)	10000	10000	10000	200	60 U	60 U			24 U	30 U	30 U	30 U	30 U	150 U	150 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	Lift Station Deep Foundation 12/16/2009	Softail Lift Station 6/19/2007	Softail Lift Station 12/12/2007	Softail Lift Station Deep Foundation 5/20/2008	Softail Lift Station Toe of Slope 5/20/2008
TOTAL VOC									
					0.47	381.5	0	5.62	9.15
Volatile Organic Compound									
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U			1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	5 U	5 U	0.71 J	0.77 J
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	5 U	5 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	5 U	5 U	0.17 J	0.22 J
1,1-Dichloroethane	27	110		2.4	1 U	5 U	5 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	5 U	5 U	0.56 J	0.56 J
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U			1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	5 U	5 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	5 U	5 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	380 J	1000 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	5 U	5 U	10 U	10 U
2-Chloroethyl Vinyl Ether						10 U	10 U		
2-Hexanone					10 U			10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U			10 U	10 U
Acetone	3700	10000		22000	10 U			2.7 J	10 U
Acrolein	0.055	0.12		0.042		100 U	100 U		
Acrylonitrile	0.63	2.7		0.045	20 U	100 U	100 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	5 U	5 U	1 U	0.81 J
Bromochloromethane	90	90			1 U			1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	5 U	5 U	1 U	1 U
Bromoform	80	80		8.5	1 U	5 U	5 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	5 U	5 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U			1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	5 U	5 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	5 U	5 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	5 U	5 U	1 U	1 U
Chloroethane	230	900		21000	1 U	5 U	5 U	1 U	1 U
Chloroform	80	80		0.19	1 U	5 U	5 U	1 U	1 U
Chloromethane	30	30		190	1 U	5 U	5 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	5 U	5 U	1 U	0.92 J
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	5 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	5 U	5 U	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U			1 U	0.4 J
Methylene chloride	5	5		4.8	1 U	5 U	5 U	1 U	1 U
Styrene	100	100	100	1600	1 U			1 U	1 U
Tetrachloroethene	5	5	5	0.11	1 U	5 U	5 U	0.28 J	2.1
Toluene	1000	1000	1000	2300	1 U	5 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	5 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	5 U	1 U	1 U
Trichloroethene	5	5	5	1.7	0.47 J	1.5 J	5 U	1.2	3.1
Vinyl Chloride	2	2	2	0.016	1 U	5 U	5 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U			3 U	0.27 J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	Softail Lift Station Toe of Slope 12/16/2009	Cole D 5/1/2008	Cole D 9/12/2008	Cole F 5/1/2008	Cole F 9/8/2008	MW-4 (Cole) 5/1/2008	MW-4 (Cole) 9/8/2008	HERMAN (S-7) 2/13/2007	HERMAN (S-7) 5/10/2007	HERMAN (S-7) 6/26/2009
TOTAL VOC														
					0.53	59.41	55	13	40.24	3.72	33.54	0.96	0.83	0.84
Volatile Organic Compound														
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	400 U	400 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	20 U	20 U	10 U	10 U	10 U	10 U	5 U	5 U	10 U
2-Chloroethyl Vinyl Ether												2 U	2 U	
2-Hexanone					10 U	20 U	20 U	10 U	10 U	10 U	10 U			10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	20 U	20 U	10 U	10 U	10 U	10 U			10 U
Acetone	3700	10000		22000	10 U	20 U	20 U	10 U	10 U	10 U	10 U			10 U
Acrolein	0.055	0.12		0.042								20 U	20 U	
Acrylonitrile	0.63	2.7		0.045	20 U	40 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
Bromodichloromethane	100	100		0.12	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	1 U	2 U	2 U	1 U	1 U	0.22 J	0.43 J	0.96 J	0.83 J	0.84 J
Chloromethane	30	30		190	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	2 U	2 U	1 U	0.24 J	1 U	0.11 J	1 U	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
Methylene chloride	5	5		4.8	1 U	0.41 J	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	100	100	100	1600	1 U	2 U	2 U	1 U	1 U	1 U	1 U			1 U
Tetrachloroethene	5	5	5	0.11	1 U	42	41	3.7	9	1.3	11	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	0.53 J	17	14	9.3	31	2.2	22	1 U	1 U	1 U
Vinyl Chloride	2	2	2	0.016	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	6 U	6 U	3 U	3 U	3 U	3 U			3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	RW-2 6/26/2007	RW-2 4/22/2008	RW-2 9/26/2008	RW-2 7/16/2009	RW-4 Folk 2/13/2007	RW-4 Folk 5/10/2007	RW-4 Folk 8/22/2007	RW-4 Folk 5/14/2008	RW-4 Folk 9/10/2008	RW-4 Folk 6/18/2009	RW-5 6/26/2007	RW-5 4/22/2008	RW-5 9/26/2008	RW-5 7/8/2009
TOTAL VOC																		
					4.6	1.92	2.7	5.38	0	0.18	0.16	0.095	0	0.18	2.5	4.56	3.99	2.93
Volatile Organic Compound																		
1,1,1,2-Tetrachloroethane	70	70		0.52		1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065		1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	1000 U	200 U		200 U	200 U	200 U	200 U	200 U	200 U	200 U	1000 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	5 U	10 U	10 U	10 U	5 U	5 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether					10 U				2 U	2 U					10 U			
2-Hexanone						10 U	10 U	10 U			10 U	10 U	10 U	10 U		10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000		10 U	10 U	10 U			10 U	10 U	10 U	10 U		10 U	10 U	10 U
Acetone	3700	10000		22000		10 U	10 U	10 U			10 U	10 U	10 U	10 U		10 U	10 U	10 U
Acrolein	0.055	0.12		0.042	100 U				20 U	20 U					100 U			
Acrylonitrile	0.63	2.7		0.045	100 U	20 U		20 U	20 U	20 U	20 U	20 U	20 U	20 U	100 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromochloromethane	90	90				1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromoform	80	80		8.5	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000		1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloroethane	230	900		21000	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Chloroform	80	80		0.19	1.2 J	0.22 J	0.7 J	1.3	1 U	0.18 J	0.16 J	0.095 J	1 U	0.18 J	5 U	0.1 J	1 U	1 U
Chloromethane	30	30		190	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2.2	1.6	1.4
cis-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	20		12		1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
Methylene chloride	5	5		4.8	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Styrene	100	100	100	1600		1 U	1 U	1 U			1 U	1 U	1 U	1 U		1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	5 U	1 U	1 U	0.18 J	1 U	1 U	1 U	1 U	1 U	1 U	5 U	0.26 J	0.39 J	0.23 J
Toluene	1000	1000	1000	2300	1.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	2.1 J	1.7	2	3.9	1 U	1 U	1 U	1 U	1 U	1 U	2.5 J	2	2	1.3
Vinyl Chloride	2	2	2	0.016	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200		3 U	3 U	3 U			3 U	3 U	3 U	3 U		3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	HERMAN (S-7) 5/14/2008	Spring at Bldg 14 S1 4/30/2008	Spring at Bldg 14 S1 9/5/2008	Spring at Bldg 14 S2 4/30/2008	Spring at Bldg 14 S2 9/5/2008	TATE (S-6) 2/13/2007	TATE (S-6) 5/10/2007	TATE (S-6) 5/14/2008
TOTAL VOC												
					0.57	0	0.87	41.51	13.87	0.86	1.5	0.83
Volatile Organic Compound												
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	1 U	1 U	1 U	1 U			1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	340	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	1 U	1 U			1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	10 U	10 U	10 U	10 U	5 U	5 U	10 U
2-Chloroethyl Vinyl Ether										2 U	2 U	
2-Hexanone					10 U	10 U	10 U	10 U	10 U			10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	10 U	10 U	10 U	10 U			10 U
Acetone	3700	10000		22000	10 U	10 U	10 U	10 U	10 U			10 U
Acrolein	0.055	0.12		0.042						20 U	20 U	
Acrylonitrile	0.63	2.7		0.045	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			1 U	1 U	1 U	1 U	1 U			1 U
Bromodichloromethane	100	100		0.12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	80	80		8.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	1 U	1 U	1 U	1 U			1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	0.57 J	1 U	1 U	0.81 J	0.28 J	0.86 J	1.5	0.83 J
Chloromethane	30	30		190	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	1 U	1 U	1.4	0.32 J	1 U	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	0.2 J	1 U			1 U
Methylene chloride	5	5		4.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	100	100	100	1600	1 U	1 U	1 U	1 U	1 U			1 U
Tetrachloroethene	5	5	5	0.11	1 U	1 U	0.1 J	3.1	0.27 J	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	1 U	1 U	0.77 J	36	13	1 U	1 U	1 U
Vinyl Chloride	2	2	2	0.016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	10000	10000	10000	200	3 U	3 U	3 U	3 U	3 U			3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D,
Groundwater Data Summary - VOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	TATE (S-6) 6/26/2009	B41S-SW-009 2/8/2008	WWPL-SW-001 8/27/2007	WWPL-SW-001 Dup 8/27/2007	WWPL-SW-002 8/27/2007	WWPL-SW-003 8/27/2007	WWPL-SW-004 8/28/2007	WWPL-SW-005 8/27/2007
TOTAL VOC												
					0.91	206.17	0.17	0	0	1.81	0.5	1.33
Volatile Organic Compound												
1,1,1,2-Tetrachloroethane	70	70		0.52	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	9100	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.3	0.3		0.067	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	27	110		2.4	1 U	1.2 J	1 U	1 U	1 U	1 U	1 U	0.38 J
1,1-Dichloroethene	7	7	7	340	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.39	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dioxane	5.6	24		6.1	200 U	1000 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		7100	10 U	13 J	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloroethyl Vinyl Ether												
2-Hexanone					10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	190	410		2000	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	3700	10000		22000	10 U	120	10 U	10 U	10 U	10 U	10 U	10 U
Acrolein	0.055	0.12		0.042								
Acrylonitrile	0.63	2.7		0.045	20 U	100 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.41	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	90	90			1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	100	100		0.12	1 U	5 U	1 U	1 U	1 U	0.41 J	1 U	1 U
Bromoform	80	80		8.5	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	10		8.7	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	1900	4100		1000	1 U	31	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	5	5	0.2	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	91	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	230	900		21000	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	80	80		0.19	0.91 J	5 U	0.17 J	1 U	1 U	1.4	0.5 J	1 U
Chloromethane	30	30		190	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	370	1 U	8.4	1 U	1 U	1 U	1 U	1 U	0.45 J
cis-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	11	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5	5		4.8	1 U	1.4 J	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	100	100	100	1600	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	0.11	1 U	0.47 J	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1000	1000	1000	2300	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	110	1 U	2.2 J	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.43	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	5	5	1.7	1 U	1.1 J	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	2	2	0.016	1 U	15	1 U	1 U	1 U	1 U	1 U	0.5 J
Xylenes (Total)	10000	10000	10000	200	3 U	1.4 J	3 U	3 U	3 U	3 U	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - SVOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-7 5/19/2008	MW-28 5/8/2008	MW-32D 5/8/2008	MW-32D 10/2/2008	MW-32S 5/13/2008	MW-37D 5/14/2008	MW-37D 10/1/2008	MW-37S 5/14/2008	MW-37S Dup 5/14/2008	MW-37S 9/18/2008	MW-46 5/19/2008	MW-49D 5/21/2008	MW-49S 5/22/2008
Semi Volatile Organic Compound																	
1,2,4-Trichlorobenzene	70	70	70	8.2	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
1,2-Dichlorobenzene	600	600	600	370	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
1,3-Dichlorobenzene	600	600			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
1,4-Dichlorobenzene	75	75	75	0.43	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2,4,5-Trichlorophenol	3700	10000		3700	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2,4,6-Trichlorophenol	11	31		6.1	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2,4-Dichlorophenol	20	20		110	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2,4-Dimethylphenol	730	2000		730	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2,4-Dinitrophenol	19	41		73	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
2,4-Dinitrotoluene	2.1	8.4		0.22	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 UJ
2,6-Dinitrotoluene	37	100		37	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2-Chloronaphthalene	2900	8200		2900	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2-Chlorophenol	40	40		180	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2-Methylnaphthalene	730	2000		150	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2-Methylphenol	1800	5100		1800	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
2-Nitroaniline	2.1	5.8		110	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
2-Nitrophenol	290	820			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
3,3'-Dichlorobenzidine	1.5	5.8		0.15	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
3/4-Methylphenol				180	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
3-Nitroaniline	2.1	5.8			48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
4,6-Dinitro-2-Methylphenol				3.7	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
4-Bromophenyl phenyl ether					9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
4-Chloro-3-Methyl-Phenol	180	510			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
4-Chloroaniline	150	410		0.34	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	24 B
4-Chlorodiphenyl Ether					9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
4-Nitroaniline	2.1	5.8		3.4	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
4-Nitrophenol	60	60			48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
Acenaphthene	2200	3800		2200	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Acenaphthylene	2200	6100		2200	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Anthracene	66	66		11000	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Benzo (A) Anthracene	0.9	3.6	0.2	0.029	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	0.6 J	9.6 U	9.7 U	9.5 U	0.45 J
Benzo (a) Pyrene	0.2	0.2	0.2	0.0029	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Benzo (b) Fluoranthene	0.9	1.2		0.029	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	0.3 J
Benzo (g,h,i) Perylene	0.26	0.26			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	0.67 J	9.6 U	9.7 U	9.5 U	9.6 U
Benzo (k) Fluoranthene	0.55	0.55		0.29	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Bis(2-Chloroethoxy) Methane				110	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Bis(2-Chloroethyl) Ether	0.13	0.55		0.012	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Bis(2-Chloroisopropyl) Ether	300	300		0.32	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Bis(2-Ethylhexyl) Phthalate	6	6	6	4.8	9.5 U	9.6 U	2.1 J	9.4 U	9.6 U	1.6 J	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Butylbenzylphthalate	2700	2700		35	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Carbazole	33	130			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Chrysene	1.9	1.9		2.9	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	0.7 J	9.6 U	9.7 U	9.5 U	9.6 U
Dibenzo (a,h) Anthracene	0.09	0.36		0.0029	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	0.79 J	9.6 U	9.7 U	9.5 U	9.6 U
Dibenzofuran					9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Diethylphthalate	5000	5000		29000	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Dimethylphthalate					9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Di-n-Butylphthalate	3700	10000		3700	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Di-n-octylphthalate	730	2000			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Fluoranthene	260	260		1500	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	0.82 J
Fluorene	1500	1900		1500	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Hexachlorobenzene	1	1	1	0.042	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - SVOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-7 5/19/2008	MW-28 5/8/2008	MW-32D 5/8/2008	MW-32D 10/2/2008	MW-32S 5/13/2008	MW-37D 5/14/2008	MW-37D 10/1/2008	MW-37S 5/14/2008	MW-37S Dup 5/14/2008	MW-37S 9/18/2008	MW-46 5/19/2008	MW-49D 5/21/2008	MW-49S 5/22/2008
Hexachlorobutadiene	1	1		0.86	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Hexachlorocyclopentadiene	50	50	50	220	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U
Hexachloroethane	1	1		4.8	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Indeno (1,2,3-cd) Pyrene	0.9	3.6		0.029	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	0.66 J	9.6 U	9.7 U	9.5 U	9.6 U
Isophorone	100	100		71	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Naphthalene	100	100		0.14	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	0.42 J
Nitrobenzene	18	51		0.12	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	190
N-Nitrosodi-N-Propylamine	0.094	0.37		0.0096	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
N-Nitrosodiphenylamine	130	530		14	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Pentachlorophenol	1	1	1	0.56	48 U	48 U	47 U	47 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	48 U	3.7 J
Phenanthrene	1100	1100			9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	1.2 J
Phenol	4000	4000		11000	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U
Pyrene	130	130		1100	9.5 U	9.6 U	9.4 U	9.4 U	9.6 U	9.5 U	9.6 U	9.6 U	9.5 U	9.6 U	9.7 U	9.5 U	9.6 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - SVOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-49S 10/9/2008	MW-50D 5/22/2008	MW-50D 10/7/2008	MW-51S 5/20/2008	MW-54 5/27/2008	MW-55 5/23/2008	MW-55 10/8/2008	MW-74D 5/9/2008	MW-75S 5/21/2008	MW-87 5/15/2008	MW-113 10/25/2007	MW-116 6/10/2008	MW-116 9/3/2008	MW-117 2/26/2009
Semi Volatile Organic Compound																		
1,2,4-Trichlorobenzene	70	70	70	8.2	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
1,2-Dichlorobenzene	600	600	600	370	9.5 U	2.3 J	9.5 U	9.5 U	9.5 U	2.6 J	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
1,3-Dichlorobenzene	600	600			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
1,4-Dichlorobenzene	75	75	75	0.43	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,4,5-Trichlorophenol	3700	10000		3700	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,4,6-Trichlorophenol	11	31		6.1	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,4-Dichlorophenol	20	20		110	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,4-Dimethylphenol	730	2000		730	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,4-Dinitrophenol	19	41		73	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
2,4-Dinitrotoluene	2.1	8.4		0.22	9.5 U	9.4 UJ	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2,6-Dinitrotoluene	37	100		37	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2-Chloronaphthalene	2900	8200		2900	9.5 U	0.42 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2-Chlorophenol	40	40		180	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2-Methylnaphthalene	730	2000		150	9.5 U	0.54 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2-Methylphenol	1800	5100		1800	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
2-Nitroaniline	2.1	5.8		110	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
2-Nitrophenol	290	820			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
3,3'-Dichlorobenzidine	1.5	5.8		0.15	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
3/4-Methylphenol				180	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
3-Nitroaniline	2.1	5.8			48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
4,6-Dinitro-2-Methylphenol				3.7	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
4-Bromophenyl phenyl ether					9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
4-Chloro-3-Methyl-Phenol	180	510			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
4-Chloroaniline	150	410		0.34	9.5 U	22 B	9.5 U	9.5 U	9.5 U	26 B	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	0.53 J	9.7 U
4-Chlorodiphenyl Ether					9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
4-Nitroaniline	2.1	5.8		3.4	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
4-Nitrophenol	60	60			48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
Acenaphthene	2200	3800		2200	9.5 U	0.62 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Acenaphthylene	2200	6100		2200	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Anthracene	66	66		11000	9.5 U	0.56 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Benzo (A) Anthracene	0.9	3.6	0.2	0.029	9.5 U	0.54 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Benzo (a) Pyrene	0.2	0.2	0.2	0.0029	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Benzo (b) Fluoranthene	0.9	1.2		0.029	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Benzo (g,h,i) Perylene	0.26	0.26			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Benzo (k) Fluoranthene	0.55	0.55		0.29	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Bis(2-Chloroethoxy) Methane				110	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Bis(2-Chloroethyl) Ether	0.13	0.55		0.012	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Bis(2-Chloroisopropyl) Ether	300	300		0.32	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Bis(2-Ethylhexyl) Phthalate	6	6	6	4.8	1.6 J	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	6.6 J	2.1 J	9.6 U	9.7 U
Butylbenzylphthalate	2700	2700		35	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Carbazole	33	130			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Chrysene	1.9	1.9		2.9	9.5 U	0.71 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Dibenzo (a,h) Anthracene	0.09	0.36		0.0029	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Dibenzofuran					9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Diethylphthalate	5000	5000		29000	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Dimethylphthalate					9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Di-n-Butylphthalate	3700	10000		3700	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Di-n-octylphthalate	730	2000			9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Fluoranthene	260	260		1500	9.5 U	0.95 J	9.5 U	9.5 U	9.5 U	0.95 J	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Fluorene	1500	1900		1500	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Hexachlorobenzene	1	1	1	0.042	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-49S 10/9/2008	MW-50D 5/22/2008	MW-50D 10/7/2008	MW-51S 5/20/2008	MW-54 5/27/2008	MW-55 5/23/2008	MW-55 10/8/2008	MW-74D 5/9/2008	MW-75S 5/21/2008	MW-87 5/15/2008	MW-113 10/25/2007	MW-116 6/10/2008	MW-116 9/3/2008	MW-117 2/26/2009
Hexachlorobutadiene	1	1		0.86	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Hexachlorocyclopentadiene	50	50	50	220	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
Hexachloroethane	1	1		4.8	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Indeno (1,2,3-cd) Pyrene	0.9	3.6		0.029	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Isophorone	100	100		71	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Naphthalene	100	100		0.14	9.5 U	0.51 J	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Nitrobenzene	18	51		0.12	9.5 U	170	9.5 U	9.5 U	9.5 U	190	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
N-Nitrosodi-N-Propylamine	0.094	0.37		0.0096	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
N-Nitrosodiphenylamine	130	530		14	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	9.8 U	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Pentachlorophenol	1	1	1	0.56	48 U	47 U	48 U	48 U	48 U	49 U	50 U	48 U	48 U	47 U	50 U	48 U	48 U	48 U
Phenanthrene	1100	1100			9.5 U	1.4 J	9.5 U	9.5 U	9.5 U	1.2 J	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U
Phenol	4000	4000		11000	9.5 U	9.4 U	9.5 U	9.5 U	9.5 U	3.3 J B	10 U	9.5 U	9.5 U	9.4 U	0.34 J	9.5 U	9.6 U	9.7 U
Pyrene	130	130		1100	9.5 U	0.6 J	9.5 U	9.5 U	9.5 U	0.64 J	10 U	9.5 U	9.5 U	9.4 U	10 U	9.5 U	9.6 U	9.7 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

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Groundwater Data Summary - SVOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-8 5/6/2008	CW-8 9/11/2008	CW-15A 5/6/2008	CW-15A 9/11/2008	CW-15A 10/9/2008
Semi Volatile Organic Compound									
1,2,4-Trichlorobenzene	70	70	70	8.2	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
1,2-Dichlorobenzene	600	600	600	370	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
1,3-Dichlorobenzene	600	600			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
1,4-Dichlorobenzene	75	75	75	0.43	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4,5-Trichlorophenol	3700	10000		3700	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4,6-Trichlorophenol	11	31		6.1	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4-Dichlorophenol	20	20		110	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4-Dimethylphenol	730	2000		730	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,4-Dinitrophenol	19	41		73	47 U	48 U	47 U	48 U	47 U
2,4-Dinitrotoluene	2.1	8.4		0.22	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2,6-Dinitrotoluene	37	100		37	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2-Chloronaphthalene	2900	8200		2900	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2-Chlorophenol	40	40		180	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2-Methylnaphthalene	730	2000		150	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2-Methylphenol	1800	5100		1800	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
2-Nitroaniline	2.1	5.8		110	47 U	48 U	47 U	48 U	47 U
2-Nitrophenol	290	820			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
3,3'-Dichlorobenzidine	1.5	5.8		0.15	47 U	48 U	47 U	48 U	47 U
3/4-Methylphenol				180	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
3-Nitroaniline	2.1	5.8			47 U	48 U	47 U	48 U	47 U
4,6-Dinitro-2-Methylphenol				3.7	47 U	48 U	47 U	48 U	47 U
4-Bromophenyl phenyl ether					9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
4-Chloro-3-Methyl-Phenol	180	510			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
4-Chloroaniline	150	410		0.34	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
4-Chlorodiphenyl Ether					9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
4-Nitroaniline	2.1	5.8		3.4	47 U	48 U	47 U	48 U	47 U
4-Nitrophenol	60	60			47 U	48 U	47 U	48 U	47 U
Acenaphthene	2200	3800		2200	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Acenaphthylene	2200	6100		2200	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Anthracene	66	66		11000	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Benzo (A) Anthracene	0.9	3.6	0.2	0.029	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Benzo (a) Pyrene	0.2	0.2	0.2	0.0029	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Benzo (b) Fluoranthene	0.9	1.2		0.029	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Benzo (g,h,i) Perylene	0.26	0.26			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Benzo (k) Fluoranthene	0.55	0.55		0.29	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Bis(2-Chloroethoxy) Methane				110	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Bis(2-Chloroethyl) Ether	0.13	0.55		0.012	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Bis(2-Chloroisopropyl) Ether	300	300		0.32	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Bis(2-Ethylhexyl) Phthalate	6	6	6	4.8	10	9.6 U	9 J	9.5 U	9.4 U
Butylbenzylphthalate	2700	2700		35	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Carbazole	33	130			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Chrysene	1.9	1.9		2.9	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Dibenzo (a,h) Anthracene	0.09	0.36		0.0029	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Dibenzofuran					9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Diethylphthalate	5000	5000		29000	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Dimethylphthalate					9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Di-n-Butylphthalate	3700	10000		3700	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Di-n-octylphthalate	730	2000			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Fluoranthene	260	260		1500	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Fluorene	1500	1900		1500	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Hexachlorobenzene	1	1	1	0.042	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - SVOC Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-8 5/6/2008	CW-8 9/11/2008	CW-15A 5/6/2008	CW-15A 9/11/2008	CW-15A 10/9/2008
Hexachlorobutadiene	1	1		0.86	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Hexachlorocyclopentadiene	50	50	50	220	47 U	48 U	47 U	48 U	47 U
Hexachloroethane	1	1		4.8	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Indeno (1,2,3-cd) Pyrene	0.9	3.6		0.029	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Isophorone	100	100		71	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Naphthalene	100	100		0.14	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Nitrobenzene	18	51		0.12	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
N-Nitrosodi-N-Propylamine	0.094	0.37		0.0096	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
N-Nitrosodiphenylamine	130	530		14	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Pentachlorophenol	1	1	1	0.56	47 U	48 U	1.7 J	48 U	47 U
Phenanthrene	1100	1100			9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Phenol	4000	4000		11000	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U
Pyrene	130	130		1100	9.4 U	9.6 U	9.4 U	9.5 U	9.4 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-1 4/25/2008	MW-2 5/8/2008	MW-2 9/17/2008	MW-3 5/7/2008	MW-5 4/24/2008	MW-5 9/5/2008	MW-6 6/25/2007	MW-6 4/25/2008	MW-6 9/8/2008	MW-7 6/28/2007	MW-7 5/19/2008	MW-7 10/1/2008	MW-7 7/7/2009	MW-8 5/19/2008
METAL																		
Antimony	6	6	6	15	10 U	10 U	2 U	10 U	10 U	0.071 B		10 U	0.075 B		10 U	0.094 B		10 U
Arsenic	10	10	10	0.045	10 U	10 U	1 U	10 U	10 U	1 U		10 U	1 U		10 U	1 U		10 U
Barium	2000	2000	2000	7300	26.2 B	23.1 B	22.3	121 B J	79 B	72.5		201	157		139 B	86.2		155 B
Beryllium	4	4	4	73	4 U	4 U	1 U	4 U	4 U	0.072 B		4 U	1 U		4 U	1 U		4 U
Cadmium	5	5	5	18	5 U	5 U	1 U	5 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Chromium	100	100	100		1.9 B	3.5 B	20.1 J	5 U	5 U	5 J		5 U	3.9 J		51.4	84 J	114	2.5 B
Copper	1000	1000	1300	1500	25 U	2.4 B	12	25 U	31.7	17.2		25 U	1.3 B		2.1 B	13.3		3.4 B
Hexavalent Chromium	100	100		110	50 U	50 U		50 U	50 U		10 U	50 U	0 U	45	50 U	110	170 J	50 U
Lead	5	5	15		3 U	3 U	0.27 B	3 U	3 U	4.8		3 U	0.14 B		3 U	3.3		3 U
Mercury	2	2	2	0.57	0.2 U	0.071 B	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U		0.2 U
Nickel	100	100		730	1.9 B	3.7 B	9.6	6.2 B	3.9 B	4.3		4 B	2.5		1.5 B	3.8		40 U
Selenium	50	50	50	180	5 U	5 U	0.28 B	5 U	5 U	5 U		5 U	0.42 B		5 U	1.2 B		5 U
Silver	100	100		180	5 U	5 U	1 U	5 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Thallium	2	2	2	2.4	10 U	10 U	0.037 B	10 U	10 U	0.033 B		10 U	0.089 B		10 U	0.1 B J		10 U
Vanadium	260	720		260	50 U	50 U	2.1 J	50 U	1.5 B	2.3 J		2 B	1.1 J		2.2 B	3.2 J		1.6 B
Zinc	2000	2000		11000	2.9 B	6.6 B J	19.1	20 U	6 B	6.1		6.2 B	4.9 B		5.2 B J	13.6		11.6 B J
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	10 U	2 U	10 U	10 U	0.078 B J		10 U	0.049 B J		10 U	0.087 B		10 U
Arsenic	10	10	10	0.045	10 U	10 U	0.47 B	10 U	10 U	0.25 B		10 U	0.38 B		10 U	1 U		10 U
Barium	2000	2000	2000	7300	27 B	23 B	21.6	118 B J	74.4 B	69.4		200	172		135 B	84.1		155 B
Beryllium	4	4	4	73	4 U	4 U	1 U	4 U	4 U	1 U		4 U	1 U		4 U	1 U		4 U
Cadmium	5	5	5	18	5 U	5 U	1 U	5 U	5 U	1 U		5 U	1 U		5 U	0.12 B J		5 U
Chromium	100	100	100		5 U	1.7 B	12.1 J	5 U	5 U	4.4 J	5 U	5 U	4.4 J	48	51.3	92.7 J	113	2.2 B
Copper	1000	1000	1300	1500	25 U	25 U	0.95 B	25 U	18.8 B	6.6		25 U	1.1 B		1.9 B	2.9 J		1.2 B
Hexavalent Chromium	100	100		110	50 U	50 U		50 U	50 U			50 U	0 U		62	96	140	50 U
Lead	5	5	15		3 U	3 U	0.11 B	3 U	3 U	0.058 B J	3 U	3 U	0.072 B J	3 U	3 U	0.44 B J		3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.17 B	0.2 U		0.2 U
Nickel	100	100		730	40 U	2.5 B	7.1	6.1 B	2.5 B	2.9	2.9 B	3.4 B	2.9	40 U	40 U	4.2		40 U
Selenium	50	50	50	180	5 U	5 U	5 U	5 U	5 U	0.33 B		5 U	0.24 B		5 U	0.87 B		5 U
Silver	100	100		180	5 U	5 U	1 U	5 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Thallium	2	2	2	2.4	10 U	10 U	0.036 B	10 U	10 U	0.032 B J		10 U	0.083 B J		10 U	0.12 B		10 U
Vanadium	260	720		260	50 U	50 U	0.31 B J	50 U	1.1 B	1.1		50 U	1.1		2.1 B	1 U		2.6 B
Zinc	2000	2000		11000	4.3 B J	9.7 B J	18.9	14.4 B J	4.5 B J	4.9 B	7.8 B J	8.9 B J	6.1	6.8 B J	4.8 B	7		9.9 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-9 5/9/2008	MW-10 5/9/2008	MW-10 9/22/2008	MW-11 4/24/2008	MW-12 6/28/2007	MW-12 5/6/2008	MW-12 9/16/2008	MW-14 4/24/2008	MW-15 5/8/2008	MW-15 9/26/2008	MW-16D 5/13/2008	MW-16S 5/15/2008	MW-16S 10/2/2008	MW-16S 7/9/2009
METAL																		
Antimony	6	6	6	15	10 U	10 U	2 U	10 U		10 U	0.062 B	10 U	10 U	0.14 B	10 U	10 U	1.1 B	
Arsenic	10	10	10	0.045	10 U	10 U	1 U	10 U		10 U	1 U	10 U	10 U	1 U	10 U	10 U	13.8 J	1 U
Barium	2000	2000	2000	7300	10.7 B J	10.2 B J	9.6 B J	133 B		11.6 B	10.6	120 B	114 B	102	55 B	60.8 B	194	
Beryllium	4	4	4	73	4 U	4 U	1 U	4 U		4 U	1 U	4 U	0.45 B	1 U	4 U	4 U	3.7	
Cadmium	5	5	5	18	0.51 B	0.46 B	1 U	5 U		5 U	1 U	5 U	5 U	1 U	5 U	5 U	1.1	
Chromium	100	100	100		3 B	5 U	13.9 J	4.2 B		2.4 B	16.6 J	1.6 B	14	13.1 J E	5 U	2.8 B	37 J	
Copper	1000	1000	1300	1500	25 U	25 U	0.44 B	4.5 B		1.9 B	2.4	25 U	9.4 B	3	25 U	3.2 B	30	
Hexavalent Chromium	100	100		110	10 U	50 U		50 U	10 U	50 U	0 U	50 U	50 U		50 U	50 U		
Lead	5	5	15		3 U	3 U	0.15 B	3 U		3 U	0.27 B	3 U	3 U	0.79 B	3 U	9.1	142	5.8
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.092 B J	0.083 B	
Nickel	100	100		730	3.3 B	1.4 B	0.81 B	22.6 B		5.7 B J	9.4	3.2 B	12 B	4.8	40 U	12.2 B	72.4	
Selenium	50	50	50	180	5 U	5 U	0.62 B	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	2.4 B	
Silver	100	100		180	5 U	5 U	1 U	5 U		5 U	1 U	5 U	0.68 B	1 U	5 U	0.74 B	0.58 B	
Thallium	2	2	2	2.4	5.4 B J	10 U	1 U	10 U		10 U	0.1 B	10 U	10 U	0.26 B	10 U	10 U	0.45 B J	
Vanadium	260	720		260	50 U	50 U	3.2 J	1.7 B		50 U	1.8 J	50 U	50 U	3.8 J	50 U	50 U	9.8 J	
Zinc	2000	2000		11000	6.8 B J	1.7 B J	3.8 B	22.8		4.9 B J	4.4 B	7.7 B	23.3 J	12.4	22.1 J	22.8 J	182	
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	10 U	0.31 B J	10 U		10 U	0.073 B	10 U	10 U	0.21 B	10 U	10 U	0.73 B	
Arsenic	10	10	10	0.045	10 U	10 U	0.63 B	10 U		10 U	1 U	10 U	10 U	1 U	10 U	10 U	4.4	1 U
Barium	2000	2000	2000	7300	9.6 B	10.4 B	9.7 B	134 B		10.6 B	10.4	117 B	111 B	96.5	55.8 B	46.5 B	109	
Beryllium	4	4	4	73	4 U	4 U	1 U	4 U		4 U	1 U	4 U	0.37 B J	1 U	4 U	4 U	2.5	
Cadmium	5	5	5	18	0.5 B	0.53 B	1 U	5 U		5 U	1 U	5 U	5 U	1 U	5 U	5 U	0.62 B J	
Chromium	100	100	100		5 U	5 U	12.1 J	5 U	5 U	5 U	9.1 J	5 U	1.6 B	11.7 J E	5 U	5 U	19.8 J	
Copper	1000	1000	1300	1500	25 U	25 U	0.3 B	2.8 B		25 U	1.6 B	25 U	3.4 B	2.8	25 U	25 U	11.6 J	
Hexavalent Chromium	100	100		110	50 U	50 U		50 U		50 U	0 U	50 U	50 U		50 U	50 U		
Lead	5	5	15		3 U	3 U	0.048 B	3 U	3 U	3 U	0.065 B	3 U	3 U	0.37 B	3 U	3 U	67.2 J	0.043 B
Mercury	2	2	2	0.57	0.087 B J	0.095 B J	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.087 B J	0.2 U	
Nickel	100	100		730	2.8 B	1.5 B	0.54 B	19.6 B	4.3 B	3 B J	8	3.2 B	4.6 B	4.8	40 U	10.3 B	41.8	
Selenium	50	50	50	180	5 U	5 U	0.5 B J	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.6 B	
Silver	100	100		180	5 U	5 U	1 U	5 U		5 U	1 U	5 U	5 U	1 U	5 U	5 U	0.1 B	
Thallium	2	2	2	2.4	10 U	6.1 B	1 U	10 U		10 U	0.097 B	10 U	10 U	0.077 B J	10 U	10 U	0.14 B	
Vanadium	260	720		260	50 U	50 U	2.1 J	50 U		50 U	1.7 J	50 U	50 U	3.7 J	50 U	50 U	4.2 J	
Zinc	2000	2000		11000	2.5 B J	1.7 B J	4 B	22.7 J	6.2 B J	3.4 B J	6.2	8 B J	20.2 J	15	21.4 J	14.9 B J	74.9	

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Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-17 4/28/2008	MW-17 9/12/2008	MW-18D 4/23/2008	MW-18D 10/7/2008	MW-18D 7/9/2009	MW-18S 5/1/2008	MW-18S Dup 5/1/2008	MW-18S 10/3/2008	MW-18S 7/9/2009	MW-19 5/14/2008	MW-20D 5/7/2008	MW-20D 9/5/2008	MW-20D 6/16/2009
METAL																	
Antimony	6	6	6	15	10 U	2 U	10 U	0.31 B		10 U	10 U	0.32 B		10 U	10 U	0.64 B	3.6
Arsenic	10	10	10	0.045	10 U	0.24 B	10	4		2.4 B	10 U	1.8 J		10 U	10 U	1.1	1.2
Barium	2000	2000	2000	7300	20.8 B	26	84.3 B	42.2		269	98.3 B	157		25.5 B	11.9 B J	20.6	
Beryllium	4	4	4	73	4 U	0.17 B	4 U	1 U		0.65 B	0.53 B	0.096 B		4 U	4 U	0.36 B	0.16 B
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U		0.86 B	5 U	0.21 B		5 U	5 U	1 U	
Chromium	100	100	100		5 U	5.3 J	5 U	13.6 J		4.6 B	2.1 B	8.9 J		5 U	2.2 B	14.2 J	13.6 J
Copper	1000	1000	1300	1500	25 U	1.1 B	4.2 B	0.95 B		4.2 B	1.4 B	4.2		25 U	2.3 B	2.7	
Hexavalent Chromium	100	100		110	50 U		50 U			50 U	50 U			50 U	120	0 U	50 U
Lead	5	5	15		3 U	1.6	5.1	1.1	0.93 B	14.2	6.7	10	1.8	3 U	59.8	31.8	45.6
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	
Nickel	100	100		730	40 U	1.6	2.2 B	3.4 J		10.5 B	3.8 B	5.7		1.7 B	3.2 B	6.2	5.5
Selenium	50	50	50	180	5 U	5 U	5 U	5.0 U		5 U	5 U	0.53 B		5 U	5 U	5 U	
Silver	100	100		180	5 U	1 U	5 U	1 U		2.2 B	0.99 B	1 U		5 U	5 U	1 U	
Thallium	2	2	2	2.4	10 U	0.043 B	5.1 B	0.23 B		4.3 B	3.9 B	0.043 B J		10 U	10 U	0.024 B	
Vanadium	260	720		260	50 U	2.4 J	50 U	5.1 J		2.3 B	50 U	6.9 J		50 U	50 U	3.3 J	
Zinc	2000	2000		11000	7.6 B	5 J	35.6	8.9		379 J	222 J	97.9		20 U	20 U	15.5	
METAL (Dissolved)																	
Antimony	6	6	6	15	10 U	2 U	10 U	0.16 B		10 U	10 U	2 U		10 U	10 U	0.1 B J	0.77 B J
Arsenic	10	10	10	0.045	10 U	0.19 B	2.4 B	2.7		10 U	10 U	1.5		10 U	10 U	0.5 B	0.44 B
Barium	2000	2000	2000	7300	20.2 B	20.2	39 B	32.2		28.1 B	31.7 B	39.7		23.8 B	5.6 B J	4.1 B	
Beryllium	4	4	4	73	4 U	1 U	4 U	1 U		0.61 B J	0.54 B J	1 U		4 U	4 U	1 U	1 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U		5 U	5 U	1 U		5 U	5 U	1 U	
Chromium	100	100	100		5 U	4.9 J	5 U	14 J		5 U	5 U	7.9 J		5 U	5 U	4.9 J	6.5 J
Copper	1000	1000	1300	1500	25 U	0.36 B	25 U	0.31 B		25 U	25 U	0.54 B J		25 U	25 U	0.26 B	
Hexavalent Chromium	100	100		110	50 U		50 U			50 U	50 U			50 U	50 U	0 U	50 U
Lead	5	5	15		3 U	1 U	3 U	1 U	0.038 B	3 U	3 U	0.27 B J	0.053 B	3 U	12.2	0.4 B J	0.071 B
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	
Nickel	100	100		730	40 U	0.46 B	1.7 B	3.2		40 U	40 U	3.7		40 U	2.2 B	3.3	3.8
Selenium	50	50	50	180	5 U	0.21 B J	5 U	0.68 B		5 U	5 U	1.2 B		5 U	5 U	5 U	
Silver	100	100		180	5 U	1 U	5 U	1 U		5 U	5 U	1 U		5 U	5 U	1 U	
Thallium	2	2	2	2.4	10 U	0.025 B	3.9 B	0.043 B		10 U	10 U	1 U		10 U	10 U	1 U	
Vanadium	260	720		260	50 U	2.3 J	1 B	2.7 J		50 U	1.3 B	2.6 J		50 U	50 U	1.8	
Zinc	2000	2000		11000	3.5 B	2.9 B J	6.8 B J	5.0 U		34.9	22.6	16.8		2.8 B J	20 U	4.4 B	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-20D Dup 6/16/2009	MW-20M 5/19/2008	MW-20M 9/11/2008	MW-20M 6/19/2009	MW-20S 5/20/2008	MW-20S 10/1/2008	MW-22 4/28/2008	MW-26 5/5/2008	MW-26 9/29/2008	MW-27 5/14/2008	MW-27 9/30/2008	MW-28 5/8/2008	MW-29 4/23/2008
METAL																	
Antimony	6	6	6	15	2.9	10 U	0.58 B	0.46 B J	10 U	0.099 B	10 U	10 U	0.24 B	10 U	0.05 B	10 U	10 U
Arsenic	10	10	10	0.045	0.85 B	2.4 B	14.6	17.3	10 U	0.41 B J	10 U	10 U	0.72 B	10 U	1 U	10 U	10 U
Barium	2000	2000	2000	7300		360	724		102 B	145	18.6 B	102 B	80.4	102 B	85.2	284	742
Beryllium	4	4	4	73	0.13 B	4.8	10.4	9.2	4 U	0.31 B	4 U	0.33 B	0.13 B	0.56 B	1 U	4 U	4 U
Cadmium	5	5	5	18		0.79 B	2.1		5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	0.6 B
Chromium	100	100	100		14.4 J	5 U	24.4 J	52	4 B	10.5 J	7.2	3 B	12.2 J	13.1	20.8 J	2.1 B	4.9 B
Copper	1000	1000	1300	1500		25.8	68.8		0.92 B	8.2	25 U	4.3 B	5.5	1.9 B	1.1 B	25 U	6.8 B
Hexavalent Chromium	100	100		110	50 U	330	0 U	50 U	50 U		50 U	50 U		50 U	0 U	50 U	50 U
Lead	5	5	15		42	92.6	261	248	3 U	3.7	3 U	4.1	2.6	3 U	0.47 B	3 U	4.5
Mercury	2	2	2	0.57		0.13 B	0.12 B		0.2 U	0.2 U	0.2 U	0.2	0.1 B	0.97 J	0.75	0.2 U	0.63
Nickel	100	100		730	5.9	122	167	181	6.6 B	8.3	4 B	5.2 B J	6.3	13.7 B	10.8	40 U	7.6 B
Selenium	50	50	50	180		5 U	7.5		5 U	0.34 B	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	100	100		180		5 U	0.52 B		5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U
Thallium	2	2	2	2.4		10 U	0.69 B		10 U	0.12 B J	10 U	4.3 B J	0.058 B	10 U	0.035 B	10 U	10 U
Vanadium	260	720		260		3.4 B	26.8 J		50 U	6.7 J	2 B	3.1 B	3.3 J	2 B	4.5 J	1.9 B	1.4 B
Zinc	2000	2000		11000		217 J	422 J		12.2 B J	14.4	2.4 B	26.7 J	19	34.2 J	8	10.2 B J	82.2
METAL (Dissolved)																	
Antimony	6	6	6	15	0.8 B J	10 U	0.34 B	0.33 B J	10 U	2 U	10 U	10 U	0.21 B	10 U	2 U	10 U	10 U
Arsenic	10	10	10	0.045	0.66 B	10 U	17.1	1 U	10 U	1 U	10 U	10 U	1 U	10 U	1 U	10 U	10 U
Barium	2000	2000	2000	7300		39.9 B	750		101 B	95.6	14.3 B	92.6 B	70.6	98 B	85.7	294	728
Beryllium	4	4	4	73	1 U	4 U	11.5	0.16 B	4 U	0.12 B	4 U	4 U	1 U	4 U	1 U	4 U	4 U
Cadmium	5	5	5	18		5 U	2.2		5 U	0.12 B J	5 U	5 U	1 U	5 U	1 U	5 U	0.63 B
Chromium	100	100	100		7.6 J	5 U	26.1 J	5.9 J	5 U	7.8 J	5 U	5 U	12.1 J	1.3 B	12.4 J	1.9 B	5 U
Copper	1000	1000	1300	1500		3 B	69		0.91 B	7.2 J	25 U	25 U	2.9	25 U	0.53 B	25 U	25 U
Hexavalent Chromium	100	100		110	50 U	50 U	0 U	50 U	50 U		50 U	50 U		50 U	0 U	50 U	50 U
Lead	5	5	15		0.14 B	3 U	246 J	0.45 B	3 U	0.32 B J	3 U	3 U	0.059 B	3 U	0.044 B	3 U	3 U
Mercury	2	2	2	0.57		0.2 U	0.14 B		0.2 U	0.2 U	0.2 U	0.062 B	0.061 B	0.38 J	0.57	0.2 U	0.2 U
Nickel	100	100		730	4.1	17.1 B	181	12.9	5.1 B	7.5	1.8 B	1.8 B J	2.7	6 B	8.4	40 U	5.3 B
Selenium	50	50	50	180		5 U	8.4		5 U	0.3 B	5 U	5 U	5 U	5 U	0.47 B	5 U	5 U
Silver	100	100		180		5 U	0.51 B		5 U	1 U	5 U	5 U	1 U	5 U	1 U	5 U	5 U
Thallium	2	2	2	2.4		10 U	0.7 B J		10 U	0.069 B	10 U	10 U	0.04 B J	10 U	0.021 B J	10 U	3.2 B
Vanadium	260	720		260		50 U	25.5		50 U	1.2 J	50 U	50 U	3.5 J	1.4 B	3.2 J	1.8 B	1.5 B
Zinc	2000	2000		11000		21.6	470 J		13.8 B	15.3	8.6 B	4.8 B J	11.2	23.5 J	6.6	5 B J	28.5 J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-30 5/7/2008	MW-30 Dup 5/7/2008	MW-31D 5/16/2008	MW-31D 9/24/2008	MW-31S 4/28/2008	MW-31S 9/11/2008	MW-32D 6/29/2007	MW-32D 5/8/2008	MW-32D 10/2/2008	MW-32S 6/27/2007	MW-32S 5/13/2008	MW-32S 9/22/2008	MW-32S 7/6/2009	MW-33 5/12/2008
METAL																		
Antimony	6	6	6	15	10 U	10 U	10 U	0.25 B	10 U	0.056 B		10 U	0.11 B		10 U	0.083 B		10 U
Arsenic	10	10	10	0.045	2.6 B	2.3 B	10 U	1 U	10 U	0.34 B		10 U	1 U		10 U	1 U		10 U
Barium	2000	2000	2000	7300	39.8 B J	41.7 B J	44 B	47.6 J	309	142		37.4 B	39.7		86.2 B	61.9 J		71.4 B
Beryllium	4	4	4	73	4 U	4 U	4 U	1 U	4 U	1 U		4 U	1 U		4 U	1 U		4 U
Cadmium	5	5	5	18	0.5 B	0.5 B	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Chromium	100	100	100		2 B	1.8 B	1.7 B	14.6 J	1.3 B	4.5 J		4.4 B	10.8 J		8.6	28.9 J	17.3	9.9
Copper	1000	1000	1300	1500	25 U	25 U	0.94 B	0.93 B	25 U	0.73 B		25 U	1.6 B		25 U	0.67 B		1 B
Hexavalent Chromium	100	100		110	50 U	50 U	50 U	0 U	50 U	0 U	10 U	50 U	0 U	13	50 U	0 U	50 U	50 U
Lead	5	5	15		3 U	3 U	3 U	0.34 B	3 U	0.11 B		3 U	1.6		3 U	0.26 B		3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U		0.2 U
Nickel	100	100		730	6.7 B	6.6 B	1.5 B	3.2	1.3 B	1.6		3.9 B	4.4		2 B	1.8		3.1 B
Selenium	50	50	50	180	5 U	5 U	5 U	1 B	5 U	0.95 B		5 U	5 U		5 U	0.29 B		5 U
Silver	100	100		180	0.81 B	0.72 B	0.7 B	1 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Thallium	2	2	2	2.4	10 U	10 U	10 U	0.019 B	4.9 B	1 U		10 U	0.024 B J		10 U	0.037 B		10 U
Vanadium	260	720		260	50 U	50 U	50 U	3.6 J	2 B	1.1 J		2.8 B	5.4 J		3.3 B	2.8 J		50 U
Zinc	2000	2000		11000	12.6 B J	13.9 B J	12.7 B	6.2	3.4 B	5.0 U		9.9 B J	7.3		4.1 B J	4 B		8.9 B
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	10 U	10 U	2 U	10 U	2 U		10 U	0.088 B		10 U	0.061 B J		10 U
Arsenic	10	10	10	0.045	10 U	2.6 B	10 U	1 U	10 U	1 U		10 U	1 U		10 U	1 U		10 U
Barium	2000	2000	2000	7300	37.7 B J	37.3 B J	39.4 B	46.3	303	140		37.4 B	35.6		84 B	57.7		64.4 B
Beryllium	4	4	4	73	4 U	4 U	4 U	1 U	4 U	1 U		4 U	1 U		4 U	1 U		4 U
Cadmium	5	5	5	18	0.44 B	0.33 B	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Chromium	100	100	100		5 U	5 U	5 U	14.8 J	5 U	4.5 J	5 U	5 U	8.4 J	10.8	6.9	28.2 J	16.2	6.4
Copper	1000	1000	1300	1500	25 U	25 U	25 U	0.63 B	25 U	0.54 B		25 U	0.32 B J		25 U	0.6 B		25 U
Hexavalent Chromium	100	100		110	50 U	50 U	50 U	0 U	50 U	0 U		50 U	0 U		50 U	0 U	50 U	50 U
Lead	5	5	15		3 U	3 U	3 U	0.022 B	3 U	1 U	3 U	3 U	0.078 B J	3 U	3 U	0.063 B		3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U		0.2 U
Nickel	100	100		730	6.6 B	6.2 B	40 U	2.3	40 U	1.4	1.4 B	2.8 B	2.9	1.7 B	40 U	1.6		1.1 B
Selenium	50	50	50	180	5 U	5 U	5 U	5.0 U	5 U	0.73 B		5 U	0.65 B		5 U	0.23 B J		5 U
Silver	100	100		180	0.85 B	0.75 B	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U		5 U
Thallium	2	2	2	2.4	10 U	10 U	10 U	1 U	7.2 B J	1 U		10 U	1 U		10 U	0.031 B		10 U
Vanadium	260	720		260	50 U	50 U	50 U	1.0 U	1.1 B	1.6		2.9 B	2.3 J		2.6 B	4.1 J		50 U
Zinc	2000	2000		11000	20 U	20 U	5.6 B J	3.2 B	3.3 B	5.0 U	4.2 B J	2.6 B J	3.5 B	8.8 B J	27.8 J	3.2 B		6 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-34D 6/26/2007	MW-34D 5/6/2008	MW-34D 9/17/2008	MW-34S 6/26/2007	MW-34S 4/28/2008	MW-34S 9/10/2008	MW-34S Dup 9/10/2008	MW-35D 5/6/2008	MW-35D 9/17/2008	MW-35S 5/13/2008	MW-36D 5/19/2008	MW-36S 5/7/2008	MW-37D 5/14/2008	MW-37D 10/1/2008
METAL																		
Antimony	6	6	6	15		10 U	0.18 B		10 U	0.12 B	0.13 B	10 U	0.16 B	10 U	10 U	10 U	10 U	0.63 B
Arsenic	10	10	10	0.045		10 U	1 U		10 U	0.61 B	0.64 B	10 U	0.17 B	10 U	3.3 B	10 U	10 U	1 U
Barium	2000	2000	2000	7300		96.1 B	100		132 B	65.6	66.2	93.6 B	71.7	27.4 B	79.5 B	70.9 B J	38 B	35.2
Beryllium	4	4	4	73		4 U	1 U		4 U	1 U	1 U	4 U	1 U	4 U	4 U	4 U	4 U	1 U
Cadmium	5	5	5	18		5 U	1 U		5 U	1 U	1 U	5 U	1 U	5 U	0.26 B	0.26 B	5 U	1 U
Chromium	100	100	100			3.6 B	9.4 J		1.5 B	5.7 J	5.9 J	2.2 B	7.1 J	3.5 B	4.7 B	6.8	5 U	6.3 J
Copper	1000	1000	1300	1500		25 U	1.3 B		25 U	0.86 B	0.96 B	25 U	0.87 B	2.1 B	4.6 B	25 U	1.1 B	1 B
Hexavalent Chromium	100	100		110	10 U	50 U	0 U	10 U	50 U	0 U	0 U	50 U		50 U	50 U	50 U	50 U	
Lead	5	5	15			3 U	0.41 B		3 U	0.31 B	0.33 B	3 U	0.2 B	3 U	3.8	3 U	3 U	0.52 B
Mercury	2	2	2	0.57		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730		40 U	1.3		40 U	0.94 B	0.89 B	1.5 B J	1.4	1.7 B	12.2 B	5.8 B	1.4 B	1.9
Selenium	50	50	50	180		5 U	0.63 B		5 U	0.85 B	0.54 B	5 U	0.75 B	5 U	5 U	5 U	5 U	5 U
Silver	100	100		180		5 U	1 U		5 U	1 U	1 U	5 U	1 U	5 U	0.86 B	5 U	5 U	1 U
Thallium	2	2	2	2.4		10 U	0.051 B		10 U	0.031 B	0.029 B	3.4 B J	0.13 B	10 U	10 U	10 U	10 U	0.095 B J
Vanadium	260	720		260		2.7 B	1.1 J		2.5 B	1.8 J	2.4 J	3.6 B	2.7 J	1.3 B	3.7 B	50 U	50 U	3.7 J
Zinc	2000	2000		11000		3.5 B J	4.4 B		1.6 B	5.0 U	5.0 U	20 U	4.1 B	7.4 B J	23.2 J	20 U	2.2 B	5.6
METAL (Dissolved)																		
Antimony	6	6	6	15		10 U	0.11 B		10 U	0.12 B	0.17 B	10 U	0.17 B	10 U	10 U	10 U	10 U	0.69 B
Arsenic	10	10	10	0.045		10 U	0.41 B		10 U	1 U	1 U	10 U	1 U	10 U	3.3 B	10 U	10 U	0.78 B
Barium	2000	2000	2000	7300		98 B	95.1		131 B	67.1	64.9	91.5 B	67.5	28 B	75.7 B	73.5 B J	34.1 B	33.4
Beryllium	4	4	4	73		4 U	1 U		4 U	1 U	1 U	4 U	1 U	4 U	4 U	4 U	4 U	1 U
Cadmium	5	5	5	18		5 U	1 U		5 U	1 U	1 U	5 U	1 U	5 U	0.28 B	5 U	5 U	0.12 B J
Chromium	100	100	100		2.5 B	3.7 B	9.9 J	1.2 B	5 U	6.1 J	5.6 J	1.7 B	8.1 J	1.5 B	5 U	5 U	5 U	9.9 J
Copper	1000	1000	1300	1500		25 U	1.2 B		25 U	0.7 B	0.74 B	25 U	0.75 B	25 U	1 B	25 U	25 U	0.98 B J
Hexavalent Chromium	100	100		110		50 U	0 U		50 U	0 U	0 U	50 U		50 U	50 U	50 U	50 U	
Lead	5	5	15		3 U	3 U	1 U	3 U	3 U	1.0 U	1.0 U	3 U	0.032 B	3 U	3 U	3 U	3 U	0.16 B J
Mercury	2	2	2	0.57		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	40 U	1.2	1.7 B	40 U	0.74 B	0.56 B	40 U	1.2	1.3 B	7.5 B	2.1 B	40 U	1.7
Selenium	50	50	50	180		5 U	5 U		5 U	0.55 B	0.37 B	5 U	0.56 B	5 U	5 U	5 U	5 U	0.8 B
Silver	100	100		180		5 U	1 U		5 U	1 U	1 U	5 U	1 U	5 U	0.91 B	5 U	5 U	1 U
Thallium	2	2	2	2.4		10 U	0.031 B		10 U	1.0 U	1.0 U	10 U	0.13 B	10 U	10 U	10 U	10 U	0.14 B
Vanadium	260	720		260		1.4 B	1.2 J		1.5 B	1.7	1.5	3.2 B	2 J	1.5 B	1.2 B	50 U	50 U	1 U
Zinc	2000	2000		11000	6.7 B J	2 B J	2.3 B	7.5 B J	5.5 B	5.0 U	5.0 U	5.2 B J	4 B	9.4 B J	8.4 B	20 U	1.8 B J	12.3

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-37S 5/14/2008	MW-37S Dup 5/14/2008	MW-37S 9/18/2008	MW-38D 6/26/2007	MW-38D 4/28/2008	MW-38D 9/16/2008	MW-39D 5/9/2008	MW-39D 9/18/2008	MW-39D Dup 9/18/2008	MW-39S 5/6/2008	MW-39S 9/15/2008	MW-40D 4/25/2008	MW-40D 9/8/2008	MW-40S 4/25/2008
METAL																		
Antimony	6	6	6	15	10 U	10 U	0.36 B J		10 U	0.13 B	10 U	0.066 B J	0.07 B J	10 U	0.079 B	10 U	0.22 B	10 U
Arsenic	10	10	10	0.045	10 U	10 U	0.43 B		10 U	0.24 B	10 U	0.53 B	1 U	10 U	0.44 B	10 U	0.3 B	10 U
Barium	2000	2000	2000	7300	66.4 B	64.5 B	53.7		41.4 B	35	52.2 B	46.4	46.1	69.7 B J	84	82.5 B	23.9	41.1 B
Beryllium	4	4	4	73	4 U	4 U	1 U		4 U	1 U	4 U	1 U	1 U	4 U	1 U	4 U	1 U	4 U
Cadmium	5	5	5	18	5 U	0.25 B	1 U		5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U	5 U
Chromium	100	100	100		3.7 B	3.3 B	5.5 J		1.6 B	9.4 J	1.7 B	7 J	6.8 J	1.3 B	5.4 J	5 U	4.9 J	17.2
Copper	1000	1000	1300	1500	1.1 B	1.1 B	1.2 B		25 U	0.55 B	0.81 B	0.86 B	0.82 B	25 U	0.79 B	25 U	1.1 B	2.1 B
Hexavalent Chromium	100	100		110	50 U	50 U		10 U	50 U	0 U	50 U			50 U		50 U		50 U
Lead	5	5	15		3 U	3 U	0.26 B		3 U	0.097 B	3 U	0.43 B	0.4 B	3 U	1 U	3 U	0.42 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	2.5 B	2.2 B	1.1		1.1 B	1.8	1.5 B	2.1	2.3	1.7 B	1.8	40 U	0.82 B	11.6 B
Selenium	50	50	50	180	5 U	5 U	0.34 B		5 U	0.36 B	5 U	0.32 B	5 U	5 U	0.33 B	5 U	0.3 B	5 U
Silver	100	100		180	5 U	5 U	1 U		5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	10 U	10 U	0.05 B J		10 U	0.12 B	10 U	0.033 B J	0.029 B J	10 U	0.023 B	10 U	0.031 B	10 U
Vanadium	260	720		260	50 U	50 U	3.9 J		50 U	1.3 J	50 U	5 J	4.1 J	50 U	1.1 J	50 U	1.9 J	5.3 B
Zinc	2000	2000		11000	5.2 B	7.2 B	4.6 B		3.1 B	2.4 B	59.1	6.1	4.4 B	2.6 B J	2.8 B J	4.7 B	5.8	17.7 B
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	10 U	0.32 B J		10 U	0.1 B	10 U	2 U	2 U	10 U	0.057 B	10 U	0.13 B J	10 U
Arsenic	10	10	10	0.045	10 U	10 U	1 U		10 U	1 U	10 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	59.4 B	60.3 B	49.2		41.8 B	34.8	51 B	42.1	42.6	70.6 B J	83.5	85.8 B	22.5	31.1 B
Beryllium	4	4	4	73	4 U	4 U	1 U		4 U	1 U	4 U	1 U	1 U	4 U	1 U	4 U	1 U	4 U
Cadmium	5	5	5	18	5 U	5 U	1 U		5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U	5 U
Chromium	100	100	100		5 U	5 U	6.5 J	1.6 B	5 U	11.3 J E	5 U	5 J	4.9 J	5 U	5.4 J	5 U	4.5 J	5 U
Copper	1000	1000	1300	1500	25 U	25 U	0.97 B		25 U	0.48 B	0.76 B	0.36 B	0.31 B	0.75 B	1 B	25 U	0.84 B	25 U
Hexavalent Chromium	100	100		110	50 U	50 U			50 U	0 U	50 U			50 U		50 U		50 U
Lead	5	5	15		3 U	3 U	0.064 B	3 U	3 U	1 U	3 U	0.033 B	0.029 B	3 U	1 U	3 U	0.25 B J	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.1 B J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	40 U	1	1.5 B	40 U	1.6	40 U	0.89 B	1.2	1.5 B	1.1	40 U	0.62 B	1.4 B
Selenium	50	50	50	180	5 U	5 U	5 U		5 U	5 U	5 U	0.5 B	5 U	2.7 B	0.58 B J	5 U	5 U	5 U
Silver	100	100		180	5 U	5 U	1 U		5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	10 U	10 U	0.02 B		10 U	0.073 B	3.6 B	1 U	1 U	10 U	0.02 B	10 U	1 U	10 U
Vanadium	260	720		260	50 U	1.4 B	1 U		50 U	2.1 J	1 B	1 U	0.25 B J	50 U	0.94 B J	50 U	1.8	50 U
Zinc	2000	2000		11000	6.3 B J	6.3 B J	4.5 B	7.9 B J	3.7 B	3.5 B	8.2 B J	6.1	3.5 B	20 U	4.7 B J	9.2 B J	3.3 B	3.7 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-40S 9/4/2008	MW-40S 6/15/2009	MW-43D 6/25/2007	MW-43D 5/13/2008
METAL								
Antimony	6	6	6	15	0.54 B			10 U
Arsenic	10	10	10	0.045	5			10 U
Barium	2000	2000	2000	7300	85.5			12.4 B
Beryllium	4	4	4	73	1.8			4 U
Cadmium	5	5	5	18	0.32 B			5 U
Chromium	100	100	100		28.2 J			5 U
Copper	1000	1000	1300	1500	16.4			25 U
Hexavalent Chromium	100	100		110			10 U	50 U
Lead	5	5	15		23.6	62		3 U
Mercury	2	2	2	0.57	0.2 U			0.2 U
Nickel	100	100		730	19			40 U
Selenium	50	50	50	180	0.72 B			5 U
Silver	100	100		180	1 U			5 U
Thallium	2	2	2	2.4	0.2 B			10 U
Vanadium	260	720		260	23.6 J			50 U
Zinc	2000	2000		11000	90.1			8.2 B J
METAL (Dissolved)								
Antimony	6	6	6	15	0.2 B J			10 U
Arsenic	10	10	10	0.045	0.53 B			10 U
Barium	2000	2000	2000	7300	28.6			12.6 B
Beryllium	4	4	4	73	1 U			4 U
Cadmium	5	5	5	18	1 U			5 U
Chromium	100	100	100		5.8 J		5 U	5 U
Copper	1000	1000	1300	1500	0.86 B			25 U
Hexavalent Chromium	100	100		110				50 U
Lead	5	5	15		0.097 B J	0.02 B	3 U	3 U
Mercury	2	2	2	0.57	0.2 U			0.2 U
Nickel	100	100		730	2.3		40 U	40 U
Selenium	50	50	50	180	0.42 B			5 U
Silver	100	100		180	1 U			5 U
Thallium	2	2	2	2.4	0.13 B J			10 U
Vanadium	260	720		260	1.7			50 U
Zinc	2000	2000		11000	3 B		6.1 B J	11.6 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-43D 9/25/2008	MW-43S 6/25/2007	MW-43S 4/24/2008	MW-43S 9/4/2008	MW-43S 6/16/2009	MW-45 5/20/2008	MW-46 5/19/2008	MW-46 10/3/2008	MW-47 6/29/2007	MW-47 5/20/2008	MW-47 10/9/2008	MW-47 7/15/2009	MW-49D 5/21/2008	MW-49D 10/6/2008
METAL																		
Antimony	6	6	6	15	0.12 B		10 U	0.3 B		10 U	10 U	1.7 B		10 U	0.22 B		10 U	1.2 B
Arsenic	10	10	10	0.045	0.25 B		3.5 B	1.5		10 U	10 U	1 U		10 U	2.5		7.6 B	6.7 J
Barium	2000	2000	2000	7300	16.5 J		87.8 B	73.3		69.8 B	144 B	98.9		177 B J	125		69.5 B J	84.6
Beryllium	4	4	4	73	1 U		0.62 B	0.16 B		4 U	4 U	1 U		0.58 B J	0.3 B		0.41 B J	1 U
Cadmium	5	5	5	18	1 U		5 U	1 U		5 U	5 U	1 U		5 U	0.21 B		5 U	0.15 B
Chromium	100	100	100		14.2 J		3.1 B	7.1 J		2.5 B	2.3 B	7 J		1330	1860 J	4470	5 U	5.8 J
Copper	1000	1000	1300	1500	1.8 B		6.4 B	4		1.1 B	2.3 B	0.83 B		25 U	4.7		0.83 B	2
Hexavalent Chromium	100	100		110	57	10 U	50 U	0 U		50 U	50 U		3000	1400	300	5100	50 U	0 U
Lead	5	5	15		1.8		8	4.1	1	3 U	3 U	0.28 B		3 U	2.7		3 U	2
Mercury	2	2	2	0.57	0.2 U		0.057 B	0.2 U		0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.019 B
Nickel	100	100		730	3.1		11.1 B	5.8		1.1 B	40 U	1.7		9.1 B	11.4 J		3 B	4.5
Selenium	50	50	50	180	5 U		5 U	5 U		5 U	5 U	5 U		5 U	1.5 B J		5 U	5 U
Silver	100	100		180	1 U		5 U	1 U		5 U	5 U	1 U		5 U	1 U		5 U	1 U
Thallium	2	2	2	2.4	0.06 B		10 U	0.05 B		10 U	10 U	1 U		4.7 B	0.031 B		10 U	0.34 B J
Vanadium	260	720		260	5.1 J		4.8 B	4.2 J		3.3 B	1.7 B	4.1 J		50 U	6.2 J		3 B	5.1 J
Zinc	2000	2000		11000	13.7		29	27.3		6.3 B J	3.9 B J	4.1 B		13.6 B J	23.5		7.6 B J	11
METAL (Dissolved)																		
Antimony	6	6	6	15	0.075 B J		10 U	0.15 B J		10 U	10 U	1.6 B		10 U	0.21 B		10 U	0.64 B
Arsenic	10	10	10	0.045	1 U		10 U	1 U		10 U	10 U	0.34 B		10 U	3.4		7.9 B	4.4
Barium	2000	2000	2000	7300	10.7		51.5 B	62.6		65.6 B	139 B	95.8		204	129		71 B	77.8
Beryllium	4	4	4	73	1 U		4 U	1 U		4 U	4 U	1 U		0.53 B J	0.35 B		0.37 B J	1 U
Cadmium	5	5	5	18	1 U		5 U	1 U		5 U	5 U	1 U		0.52 B	0.14 B		5 U	1 U
Chromium	100	100	100		12.6 J	5 U	5 U	4.2 J		1.3 B	1.8 B	9.6 J	3580	1140	2310 J	4440	5 U	6.7 J
Copper	1000	1000	1300	1500	0.38 B		25 U	0.34 B		25 U	25 U	0.78 B J		25 U	5.9		25 U	0.54 B J
Hexavalent Chromium	100	100		110	0 U		50 U	0 U		50 U	50 U			450	0 U	4400	50 U	0 U
Lead	5	5	15		1 U	3 U	3 U	0.086 B J	1 U	3 U	3 U	0.068 B J	3 U	3 U	3.7		3 U	0.062 B J
Mercury	2	2	2	0.57	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U		0.2 U	0.021 B		0.2 U	0.2 U
Nickel	100	100		730	1.3	2.5 B	40 U	1.6		40 U	40 U	1.9	2.4 B	10.3 B	10.9		3.4 B	3.9
Selenium	50	50	50	180	0.68 B J		5 U	0.31 B		5 U	5 U	1 B		5 U	1.4 B		5 U	0.55 B
Silver	100	100		180	1 U		5 U	1 U		5 U	5 U	1 U		0.62 B	1 U		5 U	1 U
Thallium	2	2	2	2.4	0.039 B		10 U	0.051 B J		10 U	10 U	1 U		10 U	0.047 B		10 U	0.41 B
Vanadium	260	720		260	2.8 J		50 U	1		1.5 B	2.2 B	5.1 J		50 U	13.8 J		2.7 B	5.4 J
Zinc	2000	2000		11000	8.1	14.6 B J	5.6 B J	3.4 B		2.8 B	5.6 B	2.4 B	4.2 B J	10.6 B J	39.4 J		3.1 B J	3.4 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-49S 5/22/2008	MW-49S 10/9/2008	MW-49S 7/14/2009	MW-50D 5/22/2008	MW-50D 10/7/2008	MW-50S 5/15/2008	MW-50S 9/30/2008	MW-50S 7/1/2009	MW-51D 6/29/2007	MW-51D 5/12/2008	MW-51D 9/18/2008	MW-51S 6/29/2007	MW-51S 5/20/2008	MW-51S 10/2/2008
METAL																		
Antimony	6	6	6	15	10 U	1.3 B		10 U	0.2 B	10 U	1.2 B			10 U	5.8 J		10 U	2 U
Arsenic	10	10	10	0.045	12.7	7.7	5.8	10 U	1.6	10 U	0.49 B			10 U	2		10 U	1 U
Barium	2000	2000	2000	7300	200 U	47.4		200 U	36.4	293	71.5			64.1 B	40.5		73.7 B	63
Beryllium	4	4	4	73	4 U	1 U		4 U	1 U	4 U	0.16 B			4 U	1 U		4 U	1 U
Cadmium	5	5	5	18	0.39 B	1 U		5 U	1 U	0.29 B	0.25 B			5 U	1 U		0.65 B	0.46 B
Chromium	100	100	100		4.9 B	11.9 J		2.7 B	14 J	5	37.3 J			4.6 B	8.7 J		258	340 J
Copper	1000	1000	1300	1500	6.9 B	1.9 B		1 B	3.5	3.7 B	20.8			2 B	7.9		25 U	0.92 B
Hexavalent Chromium	100	100		110	59 J	0 U		50 UJ	0 U	50 U	0 U		10 U	50 U	0 U	260	280	330
Lead	5	5	15		7	0.35 B	2.8	3 U	1.5	3 U	7.9	2 J		3 U	3.1		3 U	0.54 B
Mercury	2	2	2	0.57	0.14 B	0.2 U		0.2 U	0.2 U	0.091 B J	0.2 U			0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	12.7 B	4.1 J		3.7 B	5.5 J	7.6 B	17.3			2.3 B	5.8		57.6	27
Selenium	50	50	50	180	5 U	1.3 B J		5 U	5.0 U	5 U	5 U			5 U	0.83 B		5 U	0.66 B
Silver	100	100		180	5 U	1 U		5 U	1 U	5 U	1 U			5 U	1 U		5 U	1 U
Thallium	2	2	2	2.4	10 U	1 U		10 U	0.053 B	10 U	0.085 B			10 U	0.18 B J		10 U	0.04 B J
Vanadium	260	720		260	5.3 B	2.8 J		3.2 B	3.9 J	3.3 B	7.2 J			1.9 B	6.6 J		50 U	2.7 J
Zinc	2000	2000		11000	50.6 J	8.3		20 U	13.5	39.1 J	65.2			3 B	29.7		3.3 B J	7.5
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.85 B		10 U	0.18 B	10 U	0.54 B			10 U	2.2 J		10 U	2 U
Arsenic	10	10	10	0.045	11.9	4.9	4.3	10 U	1.2	10 U	0.45 B			10 U	2.9		10 U	1 U
Barium	2000	2000	2000	7300	97.1 B	41.6		32 B	32.9	280	66.3			57.2 B	28		74.2 B	61.8
Beryllium	4	4	4	73	4 U	1 U		4 U	1 U	4 U	1 U			4 U	1 U		4 U	1 U
Cadmium	5	5	5	18	5 U	1 U		5 U	1 U	5 U	1 U			5 U	1 U		0.69 B	0.48 B J
Chromium	100	100	100		3.7 B	11.3 J		5 U	13.5 J	5 U	13.7 J		2.8 B	5 U	4.6 J	253	259	356 J
Copper	1000	1000	1300	1500	5.3 B	0.78 B		25 U	0.88 B	25 U	4.1			1.8 B	4.4		0.88 B	1.1 B J
Hexavalent Chromium	100	100		110	62	0 U		50 U	0 U	50 U	0 U			50 U	0 U		280	330
Lead	5	5	15		4.3	1 U	0.07 B	3 U	1 U	3 U	0.12 B	0.049 B J	3 U	3 U	0.24 B	3 U	3 U	0.7 B J
Mercury	2	2	2	0.57	0.098 B	0.2 U		0.2 U	0.2 U	0.087 B J	0.2 U			0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	11 B	2.6		1.8 B	3.7	4.7 B	5		3 B	40 U	2.5	26.4 B	58.3	29.7
Selenium	50	50	50	180	5 U	1.1 B		5 U	1.2 B	5 U	0.72 B			5 U	0.96 B		5 U	0.48 B
Silver	100	100		180	5 U	1 U		5 U	1 U	5 U	1 U			5 U	1 U		5 U	1 U
Thallium	2	2	2	2.4	10 U	1 U		10 U	0.13 B	10 U	0.068 B J			10 U	0.092 B		10 U	0.038 B
Vanadium	260	720		260	6.7 B	1.5 J		1.3 B	6.8 J	3.9 B	4.6 J			1.2 B	2.3 J		50 U	1 U
Zinc	2000	2000		11000	29.5 J	6.2 J		20 U	5.0 U	21 J	15.9		4 B J	2 B J	13.8	6.3 B J	6.7 B	3.5 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-51S 7/1/2009	MW-52 5/6/2008	MW-52 9/4/2008	MW-52 7/13/2009	MW-52 Dup 7/13/2009	MW-53 4/23/2008	MW-53 9/11/2008	MW-54 6/27/2007	MW-54 5/27/2008	MW-54 10/8/2008	MW-55 5/23/2008	MW-55 10/8/2008	MW-55 6/30/2009	MW-56 5/7/2008
METAL																		
Antimony	6	6	6	15		10 U	0.48 B			10 U	0.4 B		10 U	0.094 B	10 U	0.25 B		10 U
Arsenic	10	10	10	0.045		10 U	3			5.2 B	0.44 B		10 U	1 U	10 U	1.5		10 U
Barium	2000	2000	2000	7300		117 B J	144			171 B	95.9		41.1 B	41.2	93.4 B J	74.4		108 B J
Beryllium	4	4	4	73		4 U	0.94 B			0.64 B	1 U		0.34 B J	1 U	0.92 B J	0.24 B		4 U
Cadmium	5	5	5	18		0.51 B	0.19 B			5 U	1 U		5 U	1 U	0.44 B	1 U		5 U
Chromium	100	100	100		304 J	17.6	19.8 J			21.5	9.9 J		2.8 B	11.9 J	13.6	18.8 J		6.6
Copper	1000	1000	1300	1500		14.2 B	13.1			15.1 B	1.2 B		1.1 B	2.3	13.7 B	7.8		0.96 B
Hexavalent Chromium	100	100		110	410	50 U				50 U	0 U	10 U	50 U	0 U	310			50 U
Lead	5	5	15			11.3	13.5	16.1	16.1	10.9	0.38 B		3 U	1 U	12.1	6.4	5.8 J	3 U
Mercury	2	2	2	0.57		0.2 U	0.2 U			0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U		0.2 U
Nickel	100	100		730		34 B	25			22.9 B	3.3		2.5 B	2.8 J	17 B	11.5 J		9.5 B
Selenium	50	50	50	180		5 U	0.58 B			5 U	0.46 B		5 U	5.0 U	5 U	5.0 U		5 U
Silver	100	100		180		5 U	1 U			5 U	1 U		0.62 B	1 U	1.7 B	1 U		5 U
Thallium	2	2	2	2.4		10 U	0.14 B			10 U	0.067 B		10 U	1 U	10 U	0.071 B		10 U
Vanadium	260	720		260		6.9 B	11.9 J			16 B	1.2 J		2.1 B	6.4 J	10.6 B	10.6 J		50 U
Zinc	2000	2000		11000		30.8 J	41.3			87.9	5.0 U		4.3 B J	5.5	95.8 J	35.7		15.9 B J
METAL (Dissolved)																		
Antimony	6	6	6	15		10 U	0.17 B J			10 U	0.37 B		10 U	0.12 B	10 U	0.13 B		10 U
Arsenic	10	10	10	0.045		10 U	1.3			10 U	0.15 B		10 U	1 U	10 U	0.2 B		10 U
Barium	2000	2000	2000	7300		86.7 B J	97.5			141 B	97.8		39.9 B	41	56.4 B	46.7		107 B J
Beryllium	4	4	4	73		4 U	1 U			4 U	1 U		4 U	1 U	0.7 B J	1 U		4 U
Cadmium	5	5	5	18		5 U	1 U			5 U	1 U		5 U	1 U	5 U	1 U		5 U
Chromium	100	100	100		301	10.2	5.1 J			5 U	7 J	5 U	1.6 B	15.1 J	5 U	12.5 J		1.4 B
Copper	1000	1000	1300	1500		2 B	0.49 B			25 U	0.98 B		25 U	0.99 B	25 U	1.4 B		25 U
Hexavalent Chromium	100	100		110	400	50 U				50 U	0 U		50 U	0 U	50 U			50 U
Lead	5	5	15			3 U	0.15 B J	0.12 B	0.079 B	3 U	1.0 U	3 U	3 U	1 U	3 U	1 U	0.037 B J	3 U
Mercury	2	2	2	0.57		0.2 U	0.2 U			0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U		0.2 U
Nickel	100	100		730		41	8.3			6.1 B	2.6	40 U	1.9 B	2.8	40 U	3.4		3.2 B
Selenium	50	50	50	180		5 U	0.49 B			5 U	0.57 B		5 U	2.2 B	5 U	1.2 B		5 U
Silver	100	100		180		5 U	1 U			5 U	1 U		5 U	1 U	5 U	1 U		5 U
Thallium	2	2	2	2.4		10 U	0.037 B J			4.4 B	1.0 U		3.2 B	0.02 B	10 U	1 U		10 U
Vanadium	260	720		260		50 U	1.9			50 U	1.7		1.4 B	3.6 J	1.5 B	5 J		50 U
Zinc	2000	2000		11000		20 U	7.9			7.8 B	7 J	6.8 B J	5.4 B J	5.0 U	6.5 B J	5.0 U		20 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-57 5/22/2008	MW-57 9/30/2008	MW-64D 5/19/2008	MW-64D 9/29/2008	MW-64S 5/14/2008	MW-64S 9/25/2008	MW-64S 6/30/2009	MW-65D 4/25/2008	MW-65D Dup 4/25/2008	MW-65D 9/10/2008	MW-65D 6/22/2009	MW-65S 5/8/2008	MW-66D 4/30/2008
METAL																	
Antimony	6	6	6	15	10 U	0.054 B	10 U	2 U	10 U	0.58 B		10 U	10 U	0.17 B		10 U	10 U
Arsenic	10	10	10	0.045	10 U	0.29 B	10 U	0.25 B	12.4	11	0.45 B	10 U	10 U	0.6 B		10 U	10 U
Barium	2000	2000	2000	7300	200 U	43.4	34 B	29.4	799	914 J		38.8 B	31.5 B	33.5		24.2 B	4.2 B J
Beryllium	4	4	4	73	4 U	1 U	4 U	1 U	3.2 B	3.3		4 U	4 U	0.18 B		4 U	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	1.6 B	1.8		5 U	5 U	1 U		5 U	5 U
Chromium	100	100	100		53.2	69.1 J	4.6 B	9.6 J	55.4	77.9 J		37.4	40.9	237 J	17.3	11.5	5 U
Copper	1000	1000	1300	1500	1.1 B	0.61 B	25 U	0.54 B	32.4	42.6		5.4 B	7.6 B	10.3		25 U	0.9 B
Hexavalent Chromium	100	100		110	82 J	94	50 U		50 U			50 U	50 U		50 U	50 U	50 U
Lead	5	5	15		3 U	0.68 B	3 U	0.78 B	55.4	73.4	0.92 B J	2.8 B	3 U	2.2		3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.12 B	0.15 B		0.2 U	0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	40 U	2.4	4.4 B	1.4	46.2	50.7		41.7	69.7	171	10.2	10.9 B	2.3 B
Selenium	50	50	50	180	5 U	5 U	5 U	0.71 B	5 U	4.4 B		5 U	5 U	5 U		5 U	5 U
Silver	100	100		180	5 U	1 U	5 U	1 U	5 U	0.24 B		5 U	5 U	1 U		5 U	5 U
Thallium	2	2	2	2.4	10 U	1 U	10 U	0.037 B	10 U	0.77 B		10 U	10 U	0.094 B		4 B	10 U
Vanadium	260	720		260	1.1 B	3.7 J	50 U	4.2 J	27.7 B	36.7 J		5.3 B	2.2 B	2.1 J		50 U	50 U
Zinc	2000	2000		11000	20 U	3.3 B	5.6 B J	1.9 B	200	206		30.1	22.1	21.2 J		18.4 B J	5.5 B J
METAL (Dissolved)																	
Antimony	6	6	6	15	10 U	0.054 B	10 U	2 U	10 U	0.094 B J		10 U	10 U	0.14 B		10 U	10 U
Arsenic	10	10	10	0.045	10 U	1 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	1 U		10 U	10 U
Barium	2000	2000	2000	7300	44.9 B	42.2	33.8 B	30.3	34.4 B	18.1		17.1 B	17.2 B	15.9		20.1 B	2.5 B J
Beryllium	4	4	4	73	4 U	1 U	4 U	1 U	4 U	0.12 B		4 U	4 U	1 U		0.46 B J	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	5 U	1 U		5 U	5 U	1 U		5 U	5 U
Chromium	100	100	100		49.4	71.9 J	5 U	11.4 J	5 U	14.5 J		2.2 B	5.2	9.8 J	6.2 J	4.6 B	5 U
Copper	1000	1000	1300	1500	25 U	0.31 B	25 U	0.45 B	25 U	0.96 B		3.6 B	4.2 B	2.4		25 U	25 U
Hexavalent Chromium	100	100		110	50 U	71	50 U		50 U			50 U	50 U		50 U	50 U	50 U
Lead	5	5	15		3 U	0.082 B	3 U	0.12 B	3 U	0.089 B	0.05 B J	3 U	3 U	1.0 U		3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	40 U	1.8	2.2 B	1.9	1.5 B	3		77.4	214	26.3	7.1	8.5 B	1.2 B
Selenium	50	50	50	180	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U	0.5 B		5 U	5 U
Silver	100	100		180	5 U	1 U	5 U	1 U	5 U	1 U		5 U	5 U	1 U		5 U	5 U
Thallium	2	2	2	2.4	10 U	1 U	10 U	0.04 B J	10 U	0.026 B		10 U	10 U	1.0 U		6.8 B	10 U
Vanadium	260	720		260	50 U	4.1 J	50 U	2.4 J	50 U	1.3 J		50 U	50 U	2.1		50 U	50 U
Zinc	2000	2000		11000	20 U	2.7 B	6.9 B	2.8 B	13.9 B J	12.3		29.7 J	54.2 J	16.5 J		19.5 B J	2.7 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-66S 4/30/2008	MW-66S 9/10/2008	MW-66S 7/7/2009	MW-67D 5/6/2008	MW-67S 5/6/2008	MW-68 5/12/2008	MW-69 5/5/2008	MW-69 9/22/2008	MW-70D 5/15/2008	MW-70S 5/12/2008	MW-74D 6/28/2007	MW-74D 5/9/2008	MW-74D 9/17/2008	MW-74S 6/28/2007
METAL																		
Antimony	6	6	6	15	10 U	0.71 B		10 U	10 U	10 U	10 U	0.21 B	10 U	10 U		10 U	0.11 B	
Arsenic	10	10	10	0.045	10 U	30.8	1 U	10 U	2.4 B	10 U	10 U	1 U	10 U	10 U		10 U	1 U	
Barium	2000	2000	2000	7300	11 B J	388		23 B	44.3 B	75.1 B	86.4 B	96.2 J	37.9 B	89.8 B		103 B	99.2	
Beryllium	4	4	4	73	4 U	3.3		4 U	4 U	4 U	4 U	1 U	0.33 B	4 U		4 U	1 U	
Cadmium	5	5	5	18	5 U	0.38 B		5 U	5 U	5 U	5 U	1 U	5 U	5 U		5 U	1 U	
Chromium	100	100	100		3.3 B	167 J	11.9	1.3 B	6.5	5 U	1.4 B	14.9 J	8.9	8.2		2.4 B	9.9 J	
Copper	1000	1000	1300	1500	8.3 B	53.1		25 U	4.2 B	25 U	25 U	1.1 B	4.8 B	2 B		0.84 B	1.3 B	
Hexavalent Chromium	100	100		110	53	0 U	50 UJ	50 U	50 U	50 U	50 U		50 U	50 U	10 U	50 U	0 U	10 U
Lead	5	5	15		3 U	72	0.82 B	3 U	3 U	3 U	3 U	0.13 B	3.8	3 U		3 U	0.65 B	
Mercury	2	2	2	0.57	0.2 U	0.23		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.11 B J	0.2 U		0.2 U	0.2 U	
Nickel	100	100		730	6 B	79.1		40 U	3.8 B J	2.1 B	1.5 B J	3	25.4 B	11.8 B		2 B	2.9	
Selenium	50	50	50	180	5 U	2.8 B		5 U	2.5 B	5 U	5 U	0.22 B	5 U	5 U		5 U	0.8 B	
Silver	100	100		180	5 U	0.099 B		5 U	5 U	5 U	5 U	1 U	5 U	5 U		5 U	1 U	
Thallium	2	2	2	2.4	3.4 B J	0.57 B		10 U	10.7 J	10 U	10 U	1 U	10 U	10 U		10 U	0.062 B	
Vanadium	260	720		260	50 U	78.2 J		50 U	2.4 B	50 U	2.3 B	5.5 J	2.1 B	50 U		50 U	1.5 J	
Zinc	2000	2000		11000	8.7 B J	124 J		1.8 B J	9.3 B J	1.6 B	20 U	3 B	30.6 J	32.9		4.1 B	6.5	
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.099 B		10 U	10 U	10 U	10 U	0.061 B J	10 U	10 U		10 U	0.062 B	
Arsenic	10	10	10	0.045	10 U	0.44 B	1 U	10 U	10 U	10 U	10 U	1 U	10 U	10 U		10 U	1 U	
Barium	2000	2000	2000	7300	6.6 B J	6.9 B		23.7 B	35 B	68.8 B	78.9 B	94.4	25.9 B	77.7 B		100 B	95	
Beryllium	4	4	4	73	4 U	1 U		4 U	4 U	4 U	4 U	1 U	4 U	4 U		4 U	1 U	
Cadmium	5	5	5	18	5 U	1 U		5 U	5 U	5 U	5 U	1 U	5 U	5 U		5 U	1 U	
Chromium	100	100	100		5 U	7.5 J	6.2	5 U	1.4 B	5 U	5 U	16.1 J	5 U	3.2 B	1.2 B	5 U	7.5 J	2.1 B
Copper	1000	1000	1300	1500	2.2 B	1 B		25 U	25 U	25 U	25 U	1.2 B	25 U	1.6 B		1.1 B	0.44 B	
Hexavalent Chromium	100	100		110	50 U	0 U	50 U	50 U	50 U	50 U	50 U		50 U	50 U		50 U	0 U	
Lead	5	5	15		3 U	0.45 B J	0.17 B J	3 U	3 U	3 U	3 U	0.071 B	3 U	3 U	3 U	3 U	1 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.075 B		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.077 B J	0.2 U		0.093 B J	0.2 U	
Nickel	100	100		730	2.9 B	2.8		40 U	2.5 B J	40 U	40 U	1.3	1.2 B	7.9 B	40 U	40 U	1.8	40 U
Selenium	50	50	50	180	5 U	0.23 B		5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U	
Silver	100	100		180	5 U	1 U		5 U	5 U	5 U	5 U	1 U	5 U	5 U		5 U	1 U	
Thallium	2	2	2	2.4	10 U	1.0 U		10 U	10 U	3.1 B	10 U	1 U	10 U	10 U		10 U	0.036 B	
Vanadium	260	720		260	50 U	2.1		50 U	50 U	50 U	1.3 B	2.5 J	1 B	2.1 B		50 U	1.3 J	
Zinc	2000	2000		11000	4.3 B J	6.2 J		2.5 B J	2.8 B J	2.1 B J	20 U	3.3 B	7.3 B J	20.4 J	4.3 B J	8.9 B J	4.4 B	7.2 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-74S 4/29/2008	MW-74S 9/16/2008	MW-75D 6/29/2007	MW-75D 5/21/2008	MW-75D 10/2/2008	MW-75S 6/29/2007	MW-75S 5/21/2008	MW-75S 10/6/2008	MW-77 4/24/2008	MW-77 10/2/2008	MW-78 4/23/2008	MW-79 4/24/2008	MW-79 9/15/2008	MW-80 5/1/2008
METAL																		
Antimony	6	6	6	15	10 U	0.083 B		10 U	0.16 B		10 U	0.056 B	10 U	2 U	10 U	10 U	0.091 B	10 U
Arsenic	10	10	10	0.045	10 U	0.29 B		10 U	0.24 B J		10 U	1 U	5.2 B	4.3 J	10 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	47.9 B	35		43.8 B J	46.6		21.2 B J	22.7	146 B	125	31.1 B	260	268	192 B
Beryllium	4	4	4	73	4 U	1 U		0.4 B J	1 U		0.34 B J	1 U	4 U	0.19 B	4 U	4 U	0.099 B	0.64 B
Cadmium	5	5	5	18	5 U	1 U		5 U	1 U		5 U	1 U	5 U	0.15 B	5 U	5 U	1 U	5 U
Chromium	100	100	100		8.6	10.1 J		10.2	13.7 J		5 U	5.5 J	2.2 B	7.5 J	5 U	2.2 B	7.1 J	11.4
Copper	1000	1000	1300	1500	2.8 B	1.3 B		25 U	1.4 B		25 U	1 B	1.4 B	1.6 B	6.2 B	25 U	1.8 B	25 U
Hexavalent Chromium	100	100		110	50 U	0 U	10 U	50 U	0 U	10 U	50 U	0 U	50 U	0 U	50 U	50 U	0 U	50 U
Lead	5	5	15		3.6	0.99 B		3 U	0.66 B		3 U	0.85 B	3 U	2.7	3 U	3 U	0.38 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U	0.096 B	0.2 U	0.2 U	0.2 U	0.2 U	0.4
Nickel	100	100		730	3.6 B	2.9		19.8 B	2.1		1.4 B	2.2	64.1	56.2	2.5 B	2.7 B	3	5 B
Selenium	50	50	50	180	5 U	0.53 B		5 U	1.2 B		5 U	0.41 B	5 U	5 U	5 U	5 U	0.46 B	5 U
Silver	100	100		180	5 U	1 U		5 U	1 U		0.6 B	1 U	1.8 B	1 U	5 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	10 U	0.089 B		10 U	0.071 B J		10 U	1 U	10 U	0.099 B J	10 U	10 U	0.032 B	10 U
Vanadium	260	720		260	6.2 B	1 J		50 U	4.9 J		1.2 B	4.5 J	50 U	3.9 J	50 U	2.6 B	2.5 J	5.5 B
Zinc	2000	2000		11000	14.4 B	6.8		19.8 B J	3.9 B		6.3 B J	10.1	7.9 B	6	10.3 B	4.6 B	4.5 B J	14.9 B J
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.089 B		10 U	2 U		10 U	0.063 B	10 U	2 U	10 U	10 U	2 U	10 U
Arsenic	10	10	10	0.045	10 U	0.16 B		10 U	0.17 B		10 U	1 U	6.9 B	5	10 U	10 U	0.99 B	10 U
Barium	2000	2000	2000	7300	35.2 B	32.4		43.7 B	41.4		20.7 B	20.6	146 B	112	28.1 B	259	283	174 B
Beryllium	4	4	4	73	4 U	1 U		0.4 B J	1 U		0.39 B J	1 U	4 U	1 U	4 U	4 U	1 U	0.58 B J
Cadmium	5	5	5	18	5 U	1 U		5 U	1 U		5 U	1 U	5 U	1 U	5 U	5 U	1 U	5 U
Chromium	100	100	100		2.2 B	9 J	2 B	10.2	15.6 J	5 U	5 U	6.8 J E	1.8 B	6.3 J	5 U	5 U	4.9 J	7.4
Copper	1000	1000	1300	1500	25 U	0.58 B		25 U	0.78 B J		25 U	0.37 B J	25 U	0.54 B J	12.9 B	25 U	1.6 B	25 U
Hexavalent Chromium	100	100		110	50 U	0 U		50 U	0 U		50 U	0 U	50 U	0 U	50 U	50 U	0 U	50 U
Lead	5	5	15		3 U	0.037 B	3 U	3 U	0.068 B J	3 U	3 U	0.062 B J	3 U	0.19 B J	3 U	3 U	1 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18 B
Nickel	100	100		730	40 U	0.81 B	1.4 B	40 U	1.9	1.6 B	1.1 B	1.7	64.2	63.4	1.5 B	1.6 B	2.4	1.2 B
Selenium	50	50	50	180	5 U	0.58 B		5 U	1.3 B		5 U	5 U	5 U	0.92 B	5 U	5 U	0.34 B J	5 U
Silver	100	100		180	5 U	1 U		5 U	1 U		5 U	1 U	2.1 B	1 U	5 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	10 U	0.14 B		10 U	0.029 B		10 U	1 U	7.9 B	0.041 B	10 U	10 U	1 U	10 U
Vanadium	260	720		260	50 U	1 J		50 U	2.3 J		2.1 B	3.6 J	50 U	1 U	50 U	50 U	2 J	1.3 B
Zinc	2000	2000		11000	1.5 B	4.6 B	18.1 B J	1.4 B J	2.3 B	8.4 B J	6.5 B J	2.5 B	5.6 B J	6.1	18.9 B	5.2 B J	5.3 J	2.2 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-81D 5/23/2008	MW-81D 10/7/2008	MW-81S 5/23/2008	MW-81S 10/7/2008	MW-82 4/25/2008	MW-82 9/12/2008	MW-83 5/23/2008	MW-83 10/7/2008	MW-84 5/14/2008	MW-85 6/26/2007	MW-85 4/25/2008	MW-85 9/18/2008	MW-86D 5/5/2008	MW-86S 5/5/2008
METAL																		
Antimony	6	6	6	15	10 U	0.12 B	10 U	0.12 B	10 U	0.049 B	10 U	0.18 B	10 U		10 U	0.24 B J	10 U	10 U
Arsenic	10	10	10	0.045	10 U	0.38 B	10 U	0.24 B	10 U	1 U	10 U	1 U	10 U		10 U	0.75 B	10 U	10 U
Barium	2000	2000	2000	7300	79.3 B J	82.4	197 B J	147	34.8 B	30.2	45.7 B J	91.7	45.8 B		13 B	10	217	44.1 B
Beryllium	4	4	4	73	0.64 B J	1 U	0.67 B J	1 U	4 U	1 U	0.73 B J	1 U	4 U		4 U	1 U	4 U	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	0.24 B		5 U	1 U	5 U	5 U
Chromium	100	100	100		3.8 B	15.1 J	2.6 B	12.9 J	5 U	4.4 J	1.9 B	12 J	4 B		1.5 B	6.7 J	2.7 B	5 U
Copper	1000	1000	1300	1500	2.5 B	2	25 U	1.1 B	25 U	0.35 B	25 U	0.84 B	4.1 B		25 U	3	25 U	25 U
Hexavalent Chromium	100	100		110	50 U		50 U		50 U		95	0 U	50 U	10 U	50 U	0 U	50 U	50 U
Lead	5	5	15		3 U	0.89 B	3 U	1 U	3 U	1 U	3 U	1 U	3		3 U	0.79 B	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	2.6 B	5.2 J	2.6 B	3.6 J	40 U	0.54 B	1.2 B	1.0 U	10.5 B		1.6 B	2.7	2.4 B J	40 U
Selenium	50	50	50	180	5 U	5.0 U	5 U	5.0 U	5 U	5 U	5 U	5.0 U	5 U		5 U	5 U	5 U	5 U
Silver	100	100		180	0.87 B	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U		5 U	1 U	5 U	5 U
Thallium	2	2	2	2.4	10 U	0.039 B	10 U	0.026 B	10 U	0.047 B	10 U	0.11 B	10 U		10 U	0.06 B J	10 U	7.8 B J
Vanadium	260	720		260	1.2 B	3.8 J	3.2 B	3 J	50 U	1.9 J	50 U	2.9 J	1.8 B		2 B	5 J	1.7 B	50 U
Zinc	2000	2000		11000	58 J	13.7	17.3 B J	17.6	3.8 B	3.2 B J	8.2 B J	15.9	22.3		2.5 B	15.4	4.2 B J	6.5 B J
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.36 B	10 U	0.16 B	10 U	2 U	10 U	0.11 B	10 U		10 U	2 U	10 U	10 U
Arsenic	10	10	10	0.045	10 U	1 U	10 U	1 U	10 U	0.31 B	10 U	1 U	10 U		10 U	0.17 B	10 U	10 U
Barium	2000	2000	2000	7300	72.9 B	81.5	188 B	146	35 B	29.8	46.4 B	78.4	34.8 B		11.3 B	6.3 B	190 B	45.7 B
Beryllium	4	4	4	73	0.73 B J	1 U	0.74 B J	1 U	4 U	1 U	0.71 B J	1 U	4 U		4 U	1 U	4 U	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U		5 U	1 U	5 U	5 U
Chromium	100	100	100		5 U	13 J	5 U	12 J	5 U	4.8 J	5 U	10.7 J	5 U	5 U	5 U	5.3 J	5 U	1.2 B
Copper	1000	1000	1300	1500	25 U	0.74 B	25 U	1.5 B	25 U	0.39 B	25 U	0.31 B	25 U		25 U	0.18 B	25 U	25 U
Hexavalent Chromium	100	100		110	50 U		50 U		50 U		50 U	0 U	50 U		50 U	0 U	50 U	50 U
Lead	5	5	15		3 U	1 U	3 U	1 U	3 U	1 U	3 U	1 U	3 U	3 U	3 U	0.029 B	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	3.6	1.8 B	3.1	40 U	0.58 B	40 U	1.2	1.1 B	1.9 B	40 U	0.59 B	40 U	1.6 B J
Selenium	50	50	50	180	5 U	1.6 B	5 U	2.2 B	5 U	0.3 B J	5 U	1.3 B	5 U		5 U	0.26 B	5 U	5 U
Silver	100	100		180	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U		5 U	1 U	5 U	5 U
Thallium	2	2	2	2.4	10 U	1 U	10 U	1 U	10 U	0.029 B	10 U	0.036 B	10 U		10 U	1 U	10 U	7.2 B
Vanadium	260	720		260	1.2 B	3.5 J	1.6 B	3.4 J	50 U	1.5 J	50 U	3.3 J	50 U		1.1 B	1 U	50 U	50 U
Zinc	2000	2000		11000	16.2 B J	5.0 U	9.4 B J	5.0 U	2.1 B J	4.7 B J	2.6 B J	5.0 U	6.1 B J	6.6 B J	3.6 B J	7.9	1.5 B J	6.8 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-87 Dup 6/28/2007	MW-87 6/28/2007	MW-87 5/15/2008
METAL							
Antimony	6	6	6	15			10 U
Arsenic	10	10	10	0.045			10 U
Barium	2000	2000	2000	7300			45.5 B
Beryllium	4	4	4	73			4 U
Cadmium	5	5	5	18			5 U
Chromium	100	100	100				1.8 B
Copper	1000	1000	1300	1500			25 U
Hexavalent Chromium	100	100		110	10 U	10 U	50 U
Lead	5	5	15				3 U
Mercury	2	2	2	0.57			0.094 B J
Nickel	100	100		730			2.4 B
Selenium	50	50	50	180			5 U
Silver	100	100		180			5 U
Thallium	2	2	2	2.4			10 U
Vanadium	260	720		260			2.6 B
Zinc	2000	2000		11000			17.4 B J
METAL (Dissolved)							
Antimony	6	6	6	15			10 U
Arsenic	10	10	10	0.045			10 U
Barium	2000	2000	2000	7300			29.3 B
Beryllium	4	4	4	73			4 U
Cadmium	5	5	5	18			5 U
Chromium	100	100	100		5 U	5 U	5 U
Copper	1000	1000	1300	1500			25 U
Hexavalent Chromium	100	100		110			50 U
Lead	5	5	15		3 U	3 U	3 U
Mercury	2	2	2	0.57			0.085 B J
Nickel	100	100		730	40 U	1.2 B	40 U
Selenium	50	50	50	180			5 U
Silver	100	100		180			5 U
Thallium	2	2	2	2.4			10 U
Vanadium	260	720		260			2.3 B
Zinc	2000	2000		11000	13.7 B J	13.3 B J	7 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-87 10/1/2008	MW-87 7/9/2009	MW-88 6/28/2007	MW-88 4/29/2008	MW-88 9/25/2008	MW-91 5/7/2008	MW-91 9/19/2008	MW-92 5/14/2008	MW-92 9/30/2008	MW-93D 6/27/2007	MW-93D 5/13/2008	MW-93D 9/22/2008	MW-93S 6/27/2007	MW-93S 4/25/2008	MW-93S 9/15/2008
METAL																			
Antimony	6	6	6	15	0.28 B			10 U	0.12 B	10 U	0.058 B	10 U	0.074 B		10 U	0.057 B		10 U	0.92 B
Arsenic	10	10	10	0.045	7.1 J			10 U	1 U	10 U	1 U	10 U	1 U		10 U	1 U		10 U	0.47 B
Barium	2000	2000	2000	7300	94.8			271	192 J	152 B	156 J	102 B	68.9		18.6 B	19.8 J		34.3 B	25.5
Beryllium	4	4	4	73	0.43 B			4 U	1 U	0.37 B	1 U	4 U	1 U		4 U	1 U		4 U	1 U
Cadmium	5	5	5	18	0.21 B			5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U
Chromium	100	100	100		20.5 J			1.9 B	15.4 J	5 U	22 J	5 U	8.1 J		5 U	14.4 J		1.9 B	6.2 J
Copper	1000	1000	1300	1500	6.9			25 U	1.9 B	25 U	1.7 B	25 U	0.81 B		25 U	0.8 B		25 U	0.6 B
Hexavalent Chromium	100	100		110	0 U		10 U	50 U	0 U	50 U		50 U		10 U	50 U	0 U	10 U	50 U	0 U
Lead	5	5	15		9.3	0.52 B		3 U	0.56 B	3 U	0.7 B	3 U	0.071 B		3 U	0.1 B		3 U	1 U
Mercury	2	2	2	0.57	0.2 U			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	15			40 U	3	2.4 B	6.4	1.5 B	1.6		40 U	1.6		40 U	0.62 B
Selenium	50	50	50	180	2 B			5 U	0.68 B	5 U	5 U	2.8 B	5 U		5 U	5 U		5 U	0.39 B
Silver	100	100		180	1 U			5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U
Thallium	2	2	2	2.4	0.16 B J			10 U	0.12 B	10 U	0.072 B	10 U	0.021 B		10 U	1 U		10 U	0.021 B
Vanadium	260	720		260	10.8 J			1.3 B	4.1 J	1.1 B	3.2 J	50 U	1.9 J		50 U	3 J		50 U	2.9 J
Zinc	2000	2000		11000	30			3.9 B	4.8 B	15.7 B J	8.6	2 B	5.7		20 U	3.6 B		7 B	2.5 B J
METAL (Dissolved)																			
Antimony	6	6	6	15	2 U			10 U	0.14 B J	10 U	0.16 B J	10 U	0.22 B		10 U	0.052 B J		10 U	0.96 B
Arsenic	10	10	10	0.045	1 U			10 U	1 U	10 U	1 U	10 U	1 U		10 U	1 U		10 U	0.79 B
Barium	2000	2000	2000	7300	28.7			269	192	152 B	160	90.9 B	68.5		18 B	19.5		34.9 B	25.9
Beryllium	4	4	4	73	1 U			4 U	1 U	4 U	1 U	4 U	1 U		4 U	1 U		4 U	1 U
Cadmium	5	5	5	18	1 U			5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U
Chromium	100	100	100		9.1 J		5 U	5 U	16.8 J	5 U	17.2 J	5 U	10.5 J	5 U	5 U	15.4 J	2.4 B	1.6 B	6.3 J
Copper	1000	1000	1300	1500	0.67 B J			25 U	0.96 B	25 U	1.4 B	25 U	0.84 B		25 U	0.68 B		25 U	0.54 B
Hexavalent Chromium	100	100		110	0 U			50 U	0 U	50 U		50 U			50 U	0 U		50 U	0 U
Lead	5	5	15		0.11 B J	1 U	3 U	3 U	0.036 B	3 U	0.31 B	3 U	0.061 B	3 U	3 U	0.081 B	3 U	3 U	1 U
Mercury	2	2	2	0.57	0.2 U			0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U		0.2 U	0.2 U
Nickel	100	100		730	2.6		40 U	40 U	2.6	2.4 B	6.8	40 U	1.8	1.3 B	40 U	1.6	40 U	40 U	0.38 B
Selenium	50	50	50	180	0.8 B			5 U	1.3 B J	5 U	0.3 B J	5 U	5 U		5 U	5 U		5 U	0.77 B J
Silver	100	100		180	1 U			5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U	1 U
Thallium	2	2	2	2.4	0.049 B			10 U	0.12 B	10 U	0.083 B	5.9 B	0.026 B J		10 U	1 U		10 U	0.019 B
Vanadium	260	720		260	1 U			50 U	0.61 B J	50 U	2.7 J	50 U	2.8 J		50 U	3.7 J		50 U	3.3 J
Zinc	2000	2000		11000	4.4 B		2.5 B J	20 U	2.5 B	18 B J	14.9	10.8 B J	5.6	9.9 B J	4.4 B J	5.4	3.3 B J	2.8 B J	3.7 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-94 5/8/2008	MW-94 9/29/2008	MW-94 7/8/2009	MW-95 5/2/2008	MW-95 9/11/2008	MW-96D 5/2/2008	MW-96D 9/24/2008	MW-96S 5/2/2008	MW-96S 10/1/2008	MW-96S Dup 10/1/2008	MW-97 5/2/2008	MW-97 9/19/2008	MW-98D 5/27/2008	MW-98D 9/8/2008
METAL																		
Antimony	6	6	6	15	10 U	0.87 B		10 U	2 U	10 U	0.062 B	10 U	0.14 B	0.13 B	10 U	2 U	10 U	0.061 B
Arsenic	10	10	10	0.045	10 U	35.5	1 U	10 U	0.3 B	10 U	0.7 B	10 U	1 U	1 U	10 U	0.38 B	10 U	0.33 B
Barium	2000	2000	2000	7300	54.7 B	684		76 B	35.2	48.3 B	57.9 J	42.7 B	40	39.7	41.5 B	36.8 J	78.2 B	69
Beryllium	4	4	4	73	4 U	7.7	1 U	0.56 B	1 U	4 U	0.097 B	0.42 B	1 U	1 U	0.4 B	1 U	0.41 B J	1 U
Cadmium	5	5	5	18	5 U	4.4		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U
Chromium	100	100	100		5 U	187 J	10.4 J	8.7	6.7 J	2.7 B	14.6 J	3.5 B	7.2 J	8 J	2.9 B	13.8 J	5 U	4.3 J
Copper	1000	1000	1300	1500	25 U	172		2.1 B	1.1 B	25 U	3.3	25 U	1.1 B	1 B	25 U	1.1 B	25 U	1.5 B
Hexavalent Chromium	100	100		110	50 U		50 U	50 U		50 U		50 U			50 U		50 U	
Lead	5	5	15		3 U	123	0.36 B	3 U	0.27 B	3 U	2.6	3 U	0.36 B	0.34 B	3 U	1.5	3 U	0.26 B
Mercury	2	2	2	0.57	0.2 U	0.57		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	117	5.9	5.9 B	1.6	40 U	4.4	1.7 B	2.4	2.4	2.4 B	2.4	1.1 B	0.51 B
Selenium	50	50	50	180	5 U	6.3		5 U	0.85 B	5 U	5 U	5 U	0.76 B	5 U	5 U	0.42 B	5 U	5 U
Silver	100	100		180	5 U	1.5		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U	1 U	0.6 B	1 U
Thallium	2	2	2	2.4	10 U	1.5		10 U	1 U	10 U	0.026 B	10 U	0.047 B J	0.047 B J	10 U	1 U	5.1 B	1 U
Vanadium	260	720		260	50 U	192 J		50 U	1.2 J	1.5 B	5.5 J	2.2 B	5.8 J	4.3 J	50 U	4.4 J	50 U	2 J
Zinc	2000	2000		11000	3.3 B J	358		11.5 B J	5.0 U	2.7 B J	10.7	4.2 B J	4 B	3.8 B	4.7 B J	5	4.4 B J	4.8 B
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.27 B		10 U	0.051 B	10 U	2 U	10 U	0.23 B	0.17 B	10 U	0.065 B J	10 U	2 U
Arsenic	10	10	10	0.045	10 U	1 U	1 U	10 U	0.18 B	10 U	1 U	10 U	1 U	1 U	10 U	1 U	10 U	0.69 B
Barium	2000	2000	2000	7300	58.2 B	63.5		37.9 B	31.9	47.4 B	45.7	39.3 B	38.6	38.6	40.6 B	38.6	74.8 B	66.1
Beryllium	4	4	4	73	0.34 B J	1 U	1 U	0.57 B J	1 U	0.53 B J	1 U	0.6 B J	1 U	1 U	0.61 B J	1 U	4 U	1 U
Cadmium	5	5	5	18	5 U	1 U		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U
Chromium	100	100	100		5 U	11.1 J	4.3	1.4 B	5.8 J	2.3 B	16.4 J	2.2 B	9 J	8.8 J	5 U	16.6 J	5 U	4.1 J
Copper	1000	1000	1300	1500	25 U	0.68 B		25 U	0.48 B	25 U	0.79 B	25 U	1 B J	0.98 B J	25 U	1.4 B	25 U	0.25 B
Hexavalent Chromium	100	100		110	50 U		50 U	50 U		50 U		50 U			50 U		50 U	
Lead	5	5	15		3 U	0.19 B	0.14 B	3 U	1 U	3 U	0.16 B	3 U	0.1 B J	0.079 B J	3 U	0.19 B	3 U	0.025 B J
Mercury	2	2	2	0.57	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	4.2 B	1.1	3.5	40 U	1	40 U	2.2	40 U	3	2.9	40 U	2.3	1.2 B	0.42 B
Selenium	50	50	50	180	5 U	5 U		5 U	0.34 B	5 U	5.0 U	5 U	5 U	0.61 B	5 U	0.97 B J	5 U	5 U
Silver	100	100		180	5 U	1 U		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U	1 U	5 U	1 U
Thallium	2	2	2	2.4	10 U	0.15 B J		10 U	1 U	4 B	1 U	10 U	0.073 B	0.046 B	10 U	1 U	5.9 B	1 U
Vanadium	260	720		260	50 U	4.7 J		1.3 B	1.7	2.1 B	4.5 J	1.2 B	1 U	1.2 J	50 U	5.3 J	50 U	1.8
Zinc	2000	2000		11000	16.2 B J	5.7		2.1 B	5.0 U	1.8 B	6.8	2.3 B	10.5	1.6 B	20 U	6.2	1.5 B J	3.5 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-98I 5/23/2008	MW-98I 9/12/2008	MW-98S 5/22/2008	MW-98S 9/8/2008	MW-99D 5/22/2008	MW-99D 9/18/2008	MW-99S 5/22/2008	MW-99S 9/24/2008	MW-100D 5/22/2008	MW-100D 9/22/2008	MW-100I 5/21/2008	MW-100I 9/24/2008	MW-100S 5/22/2008	MW-100S Dup 5/22/2008
METAL																		
Antimony	6	6	6	15	10 U	0.11 B	10 U	0.12 B	10 U	0.2 B J	10 U	0.069 B	10 U	2 U	10 U	2 U	10 U	10 U
Arsenic	10	10	10	0.045	10 U	0.18 B	10 U	0.38 B	10 U	0.59 B	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Barium	2000	2000	2000	7300	52.2 B J	46.4	200 U	39.7	200 U	49.3	200 U	40.6 J	200 U	43.4 J	43.8 B J	40.4 J	200 U	200 U
Beryllium	4	4	4	73	0.61 B J	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	0.35 B J	1 U	4 U	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	5 U
Chromium	100	100	100		2.2 B	5.6 J E	1.7 B	6.4 J	5.2	7.8 J	2.1 B	15.5 J	3.8 B	14.7 J	3.6 B	15.5 J	11	11.1
Copper	1000	1000	1300	1500	25 U	0.74 B	0.75 B	1.1 B	25 U	0.6 B	1.2 B	0.75 B	25 U	1.1 B	25 U	1.5 B	25 U	25 U
Hexavalent Chromium	100	100		110	50 U		50 UJ		50 UJ		50 UJ		50 UJ		50 U		50 UJ	50 UJ
Lead	5	5	15		3 U	0.34 B	3 U	0.37 B	3 U	0.1 B	3 U	0.077 B	3 U	0.28 B	3 U	0.79 B	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	1.2 B	1.2	40 U	2	1.4 B	0.83 B	1.6 B	2.8	2.1 B	4.1	40 U	2.6	40 U	1.6 B
Selenium	50	50	50	180	5 U	0.45 B	5 U	0.36 B	5 U	0.74 B	5 U	0.35 B	5 U	5 U	5 U	0.36 B	5 U	5 U
Silver	100	100		180	5 U	1 U	5 U	1 U	0.61 B	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	0.62 B
Thallium	2	2	2	2.4	10 U	0.057 B	10 U	1 U	3.8 B	0.081 B J	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Vanadium	260	720		260	50 U	0.72 B J	50 U	1.3 J	50 U	3.9 J	1.6 B	4.4 J	50 U	3 J	50 U	3.1 J	2.5 B	2.6 B
Zinc	2000	2000		11000	3.4 B J	3.9 B J	20 U	3.9 B	20 U	7.2	20 U	3.4 B	20 U	3.5 B	6.7 B J	7.1	20 U	20 U
METAL (Dissolved)																		
Antimony	6	6	6	15	10 U	0.081 B	10 U	0.13 B J	10 U	0.11 B J	10 U	2 U	10 U	2 U	10 U	2 U	10 U	10 U
Arsenic	10	10	10	0.045	10 U	0.15 B	10 U	0.25 B	10 U	0.45 B	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Barium	2000	2000	2000	7300	46.7 B	45.6	47.7 B	39.2	30.1 B	39.6	40.5 B	39.2	35.8 B	41	42 B	38	36 B	38.7 B
Beryllium	4	4	4	73	0.67 B J	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	4 U
Cadmium	5	5	5	18	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	5 U
Chromium	100	100	100		1.6 B	5.8 J E	5 U	5.6 J	4.6 B	7.7 J	5 U	15.4 J E	2.8 B	12.7 J	4 B	17.3 J	9.2	9.4
Copper	1000	1000	1300	1500	25 U	0.48 B	25 U	0.59 B	25 U	0.51 B	25 U	0.75 B	25 U	0.69 B	25 U	0.73 B	25 U	25 U
Hexavalent Chromium	100	100		110	50 U		50 U		50 U		50 U		50 U		50 U		50 U	50 U
Lead	5	5	15		3 U	1 U	3 U	0.041 B J	3 U	0.07 B	3 U	0.047 B	3 U	0.045 B	3 U	0.06 B	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	1	40 U	1.2	40 U	0.82 B	1.4 B	2.5	1.8 B	3.8	40 U	1.9	40 U	40 U
Selenium	50	50	50	180	5 U	0.44 B J	5 U	0.63 B	5 U	0.4 B	5 U	5.0 U	5 U	0.46 B J	5 U	5 U	5 U	5 U
Silver	100	100		180	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	0.73 B	1 U	5 U	1 U	5 U	5 U
Thallium	2	2	2	2.4	10 U	0.098 B	10 U	1 U	6.8 B	0.031 B	4 B	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Vanadium	260	720		260	1.2 B	1.5 J	50 U	0.87 B	50 U	0.78 B J	50 U	1.0 U	1.3 B	2.7 J	50 U	4.9 J	50 U	50 U
Zinc	2000	2000		11000	3.1 B J	2.4 B J	20 U	3.3 B	20 U	6.1	20 U	5	20 U	6.6	6.2 B J	2 B	20 U	20 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-100S 9/24/2008	MW-101D 5/21/2008	MW-101D 9/12/2008	MW-101S 5/22/2008	MW-101S 9/10/2008	MW-102D 4/29/2008	MW-102D 9/19/2008	MW-102S 4/30/2008	MW-102S 9/17/2008	MW-103D 4/30/2008	MW-103D 9/19/2008	MW-103S 4/30/2008	MW-103S 9/19/2008	MW-104 5/5/2008
METAL																		
Antimony	6	6	6	15	0.092 B	10 U	0.2 B	10 U	0.14 B	10 U	0.24 B	10 U	2 U	10 U	2 U	10 U	2 U	10 U
Arsenic	10	10	10	0.045	0.45 B	10 U	0.31 B	10 U	0.32 B	10 U	0.71 B	10 U	0.48 B	10 U	1 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	42.5 J	32.9 B J	38.1	200 U	56.6	11.4 B J	10 J	100 B J	95.3	64.7 B J	59.5 J	90.5 B J	87.3 J	86.1 B
Beryllium	4	4	4	73	0.097 B	0.45 B J	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U
Cadmium	5	5	5	18	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U
Chromium	100	100	100		16.6 J	1.7 B	5.6 J	1.3 B	8.1 J	5 U	12.6 J	1.6 B	12.3 J	5 U	18.2 J	5 U	18.6 J	13.2
Copper	1000	1000	1300	1500	3.1	25 U	0.65 B	25 U	0.8 B	25 U	0.84 B	0.84 B	2	1 B	2.2	25 U	1.2 B	25 U
Hexavalent Chromium	100	100		110		50 U		50 UJ		50 U		50 U		50 U		50 U		50 U
Lead	5	5	15		1.8	3 U	0.14 B	3 U	0.11 B	3 U	0.15 B	3 U	1.3	3 U	0.092 B	3 U	0.26 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	4	2.1 B	2.2	1.4 B	1.9	40 U	0.9 B	6.8 B	7.8	40 U	3.6	2.4 B	4.1	9.9 B J
Selenium	50	50	50	180	5 U	5 U	0.79 B	5 U	2 B	5 U	0.39 B	5 U	0.4 B	5 U	5 U	5 U	5 U	5 U
Silver	100	100		180	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	0.02 B	10 U	0.16 B	10 U	0.045 B	10 U	0.019 B	6.8 B J	1 U	10 U	1 U	10 U	0.043 B	10 U
Vanadium	260	720		260	4.7 J	2.9 B	1.2 J	1.4 B	0.95 B J	50 U	4.7 J	50 U	1.4 J	50 U	1.8 J	50 U	5 J	50 U
Zinc	2000	2000		11000	13	16.5 B J	5.4 J	20 U	5.0 U	20 U	3.2 B	8.7 B J	17.8	2.8 B J	4.3 B	4.1 B J	3.9 B	37.1 J
METAL (Dissolved)																		
Antimony	6	6	6	15	2 U	10 U	0.24 B	10 U	0.12 B	10 U	2 U	10 U	2 U	10 U	2 U	10 U	0.063 B J	10 U
Arsenic	10	10	10	0.045	1 U	10 U	0.92 B	10 U	1 U	10 U	0.36 B	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	32.3	33.9 B	38.8	49.8 B	57.5	7.7 B J	7.3 B	94.1 B J	86.9	61 B J	54.7	90 B J	78.2	82.2 B
Beryllium	4	4	4	73	1 U	0.45 B J	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U
Cadmium	5	5	5	18	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U
Chromium	100	100	100		17.1 J	5 U	5.7 J	5 U	7.9 J	5 U	14.4 J	5 U	7.9 J	5 U	15.8 J	5 U	16.6 J	2.6 B
Copper	1000	1000	1300	1500	0.75 B	25 U	0.42 B	25 U	0.73 B	25 U	0.37 B	0.72 B	1.4 B	25 U	0.4 B	25 U	0.47 B	25 U
Hexavalent Chromium	100	100		110		50 U		50 U		50 U		50 U		50 U		50 U		50 U
Lead	5	5	15		0.081 B	3 U	1 U	3 U	1.0 U	3 U	0.068 B	3 U	0.92 B	3 U	0.063 B	3 U	0.072 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	2	2.7 B	2	40 U	2.1	40 U	0.69 B	7.2 B	6.5	40 U	3.1	1.3 B	3.4	8.2 B J
Selenium	50	50	50	180	5 U	5 U	0.68 B J	5 U	1.8 B	5 U	0.84 B J	5 U	0.22 B	5 U	0.46 B J	5 U	0.64 B J	5 U
Silver	100	100		180	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	1 U	10 U	0.081 B	10 U	1.0 U	10 U	1 U	10 U	1 U	3.6 B	1 U	9.7 B	0.037 B	10 U
Vanadium	260	720		260	2.7 J	2.7 B	1.1 J	1.6 B	1.1	50 U	3.5 J	50 U	0.86 B J	50 U	1.7 J	1.8 B	5.2 J	50 U
Zinc	2000	2000		11000	3.3 B	12.2 B J	4.6 B J	20 U	5.0 U	5 B J	9.9	9.9 B J	15.9	4.2 B J	3.7 B	2 B J	4 B	35.2 J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-104 10/9/2008	MW-104 6/24/2009	MW-105 5/5/2008	MW-105 10/2/2008	MW-106 4/29/2008	MW-106 9/29/2008	MW-107 5/6/2008	MW-107 9/10/2008	MW-108D 4/23/2008	MW-108D 9/5/2008	MW-108S 4/23/2008	MW-108S 9/5/2008	MW-108S 6/22/2009	MW-109D 5/20/2008
METAL																		
Antimony	6	6	6	15	0.34 B		10 U	2 U	10 U	0.086 B	10 U	0.082 B	10 U	0.072 B	50 U	2.9		10 U
Arsenic	10	10	10	0.045	5		10 U	1 U	10 U	1.2	10 U	0.53 B	10 U	1 U	93.4	78.1	1 U	10 U
Barium	2000	2000	2000	7300	307		46.4 B	47.8	156 B	123	182 B	66	7.9 B	7.8 B	1350	1470		418
Beryllium	4	4	4	73	2.5		4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	39.2	44.5	0.19 B	4 U
Cadmium	5	5	5	18	0.85 B		5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	25 U	8.1	1 U	5 U
Chromium	100	100	100		34.8 J		2.6 B	7.5 J	6.6	14.8 J	7.7	14.7 J	5 U	4.3 J	49.9	85.4 J		5 U
Copper	1000	1000	1300	1500	14.6		25 U	1.1 B	1.2 B	1.7 B	25 U	0.73 B	25 U	0.86 B	274	307		25 U
Hexavalent Chromium	100	100		110			50 U		50 U		50 U		50 U		50 U			50 U
Lead	5	5	15		10.7	0.87 B	3 U	0.36 B	3 U	1	3 U	0.16 B	3 U	0.2 B	374	446	1.2	3 U
Mercury	2	2	2	0.57	0.03 B		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.27	0.53		0.2 U
Nickel	100	100		730	31.5 J		2.5 B J	3.3	5.8 B	6.3	5.9 B J	3.5	40 U	0.52 B	337	352	5.7	1.1 B
Selenium	50	50	50	180	3.7 B J		5 U	0.73 B	5 U	3.3 B	5 U	0.37 B	5 U	5 U	13.8 B	23.5		5 U
Silver	100	100		180	0.26 B		5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	7.2 B	0.5 B		5 U
Thallium	2	2	2	2.4	0.18 B		10 U	0.041 B J	6 B	0.087 B	10 U	0.031 B	10 U	1 U	17.9 B	2.5		10 U
Vanadium	260	720		260	27 J		1.6 B	6.3 J	2 B	2.7 J	4.7 B	1.9 J	50 U	1.4 J	65.2 B	69.8 J		50 U
Zinc	2000	2000		11000	63.3		4.8 B J	3.5 B	17.7 B	5.8	42.1 J	5.0 U	5.6 B	2.8 B	1130	1010		2 B J
METAL (Dissolved)																		
Antimony	6	6	6	15	0.12 B		10 U	2 U	10 U	0.094 B	10 U	0.12 B	10 U	2 U	10 U	2 U		10 U
Arsenic	10	10	10	0.045	1 U		10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	0.42 B	1 U	10 U
Barium	2000	2000	2000	7300	72.2		45.6 B	46.1	151 B	135	180 B	66.6	7.3 B	6.8 B	71.2 B	72		420
Beryllium	4	4	4	73	1 U		4 U	1 U	4 U	1 U	4 U	1 U	4 U	1 U	4 U	0.09 B	0.21 B	4 U
Cadmium	5	5	5	18	1 U		5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U
Chromium	100	100	100		13.2 J		2.3 B	10.6 J	5 U	10.8 J	2.7 B	12 J	5 U	4.3 J	5 U	4.6 J		5 U
Copper	1000	1000	1300	1500	0.41 B		25 U	1.4 B J	25 U	0.94 B	25 U	0.61 B	25 U	0.22 B	25 U	0.28 B		25 U
Hexavalent Chromium	100	100		110			50 U		50 U		50 U		50 U		50 U			50 U
Lead	5	5	15		1 U	1 U	3 U	0.15 B J	3 U	0.31 B	3 U	1.0 U	3 U	1 U	3 U	0.031 B J	1 U	3 U
Mercury	2	2	2	0.57	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.059 B	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U
Nickel	100	100		730	2.8		1.6 B J	4.3	1.5 B	4.6	2.8 B J	2.8	40 U	0.27 B	5.6 B	7.6	4.3	40 U
Selenium	50	50	50	180	1.3 B		5 U	0.28 B	5 U	5 U	5 U	0.31 B	5 U	5 U	5 U	0.46 B		5 U
Silver	100	100		180	1 U		5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U		5 U
Thallium	2	2	2	2.4	1 U		10 U	0.038 B	7.6 B J	0.078 B J	10 U	1.0 U	10 U	1 U	10 U	0.056 B J		10 U
Vanadium	260	720		260	4.7 J		1.6 B	0.63 B J	50 U	2 J	4.2 B	1.3	50 U	1.5	50 U	1.5		50 U
Zinc	2000	2000		11000	9.4 J		8.2 B J	11.3	3.2 B	6	18.8 B J	5.0 U	3.2 B	2.5 B	8.6 B	7.7		1.9 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-109D 9/17/2008	MW-109S 5/20/2008	MW-109S 9/16/2008	MW-110 5/14/2008	MW-110 9/22/2008	MW-111 5/16/2008	MW-111 9/15/2008	MW-112 5/1/2008	MW-112 9/3/2008	MW-113 10/25/2007	MW-113 5/15/2008	MW-113 9/3/2008	MW-113 7/6/2009	MW-114 5/23/2008
METAL																		
Antimony	6	6	6	15	0.081 B	10 U	0.058 B	10 U	2 U	10 U	2 U	10 U	0.14 B	10 U	10 U	0.096 B		10 U
Arsenic	10	10	10	0.045	1.6	10 U	1.2	10 U	1 U	10 U	0.34 B	10 U	1 U	15.1	10 U	1 U	1.0 U	10 U
Barium	2000	2000	2000	7300	318	214	172	39.9 B	36.8 J	108 B	95	54.6 B	53.8	204	42.9 B	37.5		42.8 B
Beryllium	4	4	4	73	1 U	4 U	0.15 B	4 U	1 U	4 U	1 U	4 U	1 U	4 U	4 U	1 U		4 U
Cadmium	5	5	5	18	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	5 U	1 U		5 U
Chromium	100	100	100		5.5 J	5 U	7.2 J	5 U	16.3 J	1.7 B	4.4 J	10.7	16.2 J	60.8	2.1 B	4.4 J		1.8 B
Copper	1000	1000	1300	1500	0.39 B	25 U	1.5 B	25 U	0.83 B	0.99 B	0.81 B	25 U	0.58 B	53.3	25 U	0.45 B		25 U
Hexavalent Chromium	100	100		110		50 U		50 U		50 U		50 U			50 U			10 U
Lead	5	5	15		0.18 B	3 U	1.5	3 U	0.22 B	3 U	1 U	3 U	0.14 B	17.8	3 U	0.038 B	0.27 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.31	0.62	0.093 B J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	4.5	0.097 B J	0.2 U	0.20 U	0.2 U
Nickel	100	100		730	1.6	2.9 B	6.2	40 U	2.7	1.8 B	0.33 B	40 U	0.7 B	79.6	2.1 B	0.38 B		2.5 B
Selenium	50	50	50	180	0.58 B	5 U	0.26 B	5 U	0.21 B	5 U	5 U	5 U	0.83 B	4.9 B	5 U	5 U		5 U
Silver	100	100		180	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	0.79 B	5 U	1 U		5 U
Thallium	2	2	2	2.4	0.034 B	10 U	0.077 B	10 U	1 U	10 U	0.032 B	3.9 B	0.046 B	10 U	10 U	0.076 B		4.3 B
Vanadium	260	720		260	1.4 J	2 B	1.1 J	50 U	3.5 J	50 U	1.9 J	1.2 B	1.6 J	28.4 B	1.9 B	1.4 J		1.1 B
Zinc	2000	2000		11000	2.5 B	3.9 B J	11.1	16.9 B J	2 B	1.6 B	2 B J	5.4 B J	5.2	174 J	18.6 B J	3.7 B		6.7 B J
METAL (Dissolved)																		
Antimony	6	6	6	15	0.052 B	10 U	0.064 B	10 U	0.078 B J	10 U	2 U	10 U	0.17 B J		10 U	0.15 B J		10 U
Arsenic	10	10	10	0.045	0.47 B	10 U	0.59 B	10 U	0.28 B	10 U	1 U	10 U	0.19 B		10 U	1 U	1.0 U	10 U
Barium	2000	2000	2000	7300	306	221	166	39.3 B	35.2	108 B	93.8	54.7 B	54.1		42.1 B	38.4		41.8 B
Beryllium	4	4	4	73	1 U	4 U	1 U	4 U	1 U	4 U	1 U	0.57 B J	1 U		4 U	1 U		4 U
Cadmium	5	5	5	18	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U
Chromium	100	100	100		6.3 J	5 U	6.9 J	5 U	14.9 J	5 U	4.9 J	8.8	17 J		5 U	4.3 J		5 U
Copper	1000	1000	1300	1500	0.43 B	25 U	0.5 B	25 U	1.1 B	25 U	0.23 B	25 U	0.55 B		25 U	0.62 B		25 U
Hexavalent Chromium	100	100		110		50 U		50 U		50 U		50 U			50 U			10 U
Lead	5	5	15		0.16 B	3 U	0.4 B	3 U	0.23 B	3 U	1 U	3 U	0.068 B J		3 U	0.087 B J	1.0 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.1 B	0.073 B	0.09 B J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.1 B J	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	1.9	3 B	4.1	40 U	2.7	40 U	0.3 B	40 U	0.49 B		40 U	0.34 B		1.8 B
Selenium	50	50	50	180	0.28 B	5 U	0.36 B	5 U	5 U	5 U	0.34 B J	5 U	0.97 B		5 U	0.22 B		5 U
Silver	100	100		180	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U		5 U	1 U		5 U
Thallium	2	2	2	2.4	0.022 B	10 U	0.055 B	10 U	1 U	7.3 B	1 U	8.4 B	0.053 B J		10 U	0.12 B J		5.8 B
Vanadium	260	720		260	1.6 J	50 U	1.7 J	50 U	3.6 J	50 U	1.8 J	50 U	1.8		50 U	1.3		50 U
Zinc	2000	2000		11000	5.3	5.5 B	9.1	3.3 B J	3.3 B	2.3 B J	2.7 B J	1.6 B	4.3 B		20.5 J	4.9 B		20 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-114 10/3/2008	MW-115 4/30/2008	MW-115 9/3/2008	MW-115 6/30/2009	MW-116 5/21/2008	MW-116 9/3/2008	MW-117 2/26/2009	CW-1 5/6/2008	CW-1A 5/7/2008	CW-2 5/13/2008	CW-3 5/6/2008	CW-4 5/6/2008	CW-5 5/6/2008	CW-6 5/6/2008
METAL																		
Antimony	6	6	6	15	0.11 B	10 U	0.54 B		10 U	0.076 B	0.47 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Arsenic	10	10	10	0.045	1 U	17.3	15.3	5.8	10 U	1 U	0.89 B	10 U	10 U	3.2 B	10 U	10 U	10 U	10 U
Barium	2000	2000	2000	7300	53.8	316	305		26.8 B J	26.2	273 J	21.4 B J	112 B J	49.5 B	18.2 B J	20.4 B J	25.2 B J	33.3 B J
Beryllium	4	4	4	73	1 U	3.1 B	3.1		0.49 B J	1 U	1 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Cadmium	5	5	5	18	1 U	5 U	0.99 B		0.51 B	0.44 B	1 U	5 U	5 U	0.68 B	5 U	5 U	5 U	5 U
Chromium	100	100	100		5.5 J	39.8	52.2 J		2.9 B	8.9 J	7.1 J	5 U	5 U	2.7 B	5 U	5 U	5 U	5 U
Copper	1000	1000	1300	1500	1 B	23.6 B	30.8		25 U	0.9 B	2.5	25 U	1.3 B	16.7 B	25 U	25 U	25 U	25 U
Hexavalent Chromium	100	100		110		50 U			50 U	0 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Lead	5	5	15		0.37 B	39	47.6	5.6 J	3 U	0.28 B	0.29 B J	3 U	3 U	3.1	3 U	3 U	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.12 B	0.083 B		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	3.7	50.1	57.1		19.4 B	18.6	4.8	3.8 B	9.7 B	10 B	7.1 B	6.8 B	40 U	1.2 B
Selenium	50	50	50	180	5 U	5 U	2.9 B		5 U	0.39 B	1.5 B J	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	100	100		180	1 U	5 U	0.13 B		1.4 B	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	2	2	2	2.4	0.057 B J	3.8 B	0.48 B		10 U	0.099 B	0.072 B J	10 U	10 U	3.9 B	10 U	10 U	10 U	10 U
Vanadium	260	720		260	4 J	44.1 B	49 J		2.2 B	1.4 J	1.4 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	2000	2000		11000	9.2	129 J	134		20.2 J	15.8	4.7 B	20 U	25.6 J	32.2 J	20 U	20 U	20 U	20 U
METAL (Dissolved)																		
Antimony	6	6	6	15	0.11 B	10 U	0.097 B J		10 U	0.091 B J	0.51 B	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Arsenic	10	10	10	0.045	1 U	6.1 B	5.1	5.4	10 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Barium	2000	2000	2000	7300	44.4	174 B	166		25.7 B	25.1	266 J	18.3 B J	112 B J	34.5 B	17.7 B J	20 B J	27.1 B J	33.7 B J
Beryllium	4	4	4	73	1 U	0.57 B J	1 U		0.41 B J	1 U	1 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
Cadmium	5	5	5	18	1 U	5 U	1 U		0.64 B	0.48 B	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chromium	100	100	100		7 J	5 U	5.1 J		2.9 B	7.3 J E	6.7 J E	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Copper	1000	1000	1300	1500	0.52 B J	25 U	1.2 B		25 U	0.86 B	1.6 B	25 U	2 B	25 U	25 U	25 U	25 U	25 U
Hexavalent Chromium	100	100		110		50 U			50 U	0 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Lead	5	5	15		0.049 B J	3 U	1 J	0.021 B J	3 U	0.12 B J	0.23 B J	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	4.3	40 U	2.8		18.6 B	17.6	4.3	4 B	9.5 B	9.1 B	7.2 B	6.9 B	40 U	1.6 B
Selenium	50	50	50	180	0.67 B	5 U	0.55 B		5 U	0.59 B	0.76 B	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	100	100		180	1 U	5 U	1 U		1.5 B	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Thallium	2	2	2	2.4	0.041 B	3.7 B	0.039 B J		10 U	0.092 B J	0.15 B J	10 U	10 U	3.9 B	10 U	10 U	10 U	10 U
Vanadium	260	720		260	0.57 B J	50 U	2		3 B	0.58 B	1 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	2000	2000		11000	2.3 B	20 U	5.7		15.8 B J	16.3	4.2 B	20 U	27.1 J	21.3 J	20 U	20 U	20 U	20 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-7 5/6/2008	CW-7 9/11/2008
METAL						
Antimony	6	6	6	15	10 U	0.24 B
Arsenic	10	10	10	0.045	10 U	0.86 B
Barium	2000	2000	2000	7300	41.4 B J	42.3
Beryllium	4	4	4	73	4 U	1 U
Cadmium	5	5	5	18	5 U	1 U
Chromium	100	100	100		5 U	4.7 J
Copper	1000	1000	1300	1500	5.2 B	6.7
Hexavalent Chromium	100	100		110	50 U	
Lead	5	5	15		3 U	1.7
Mercury	2	2	2	0.57	0.2 U	0.2 U
Nickel	100	100		730	9.1 B	8.2
Selenium	50	50	50	180	5 U	5 U
Silver	100	100		180	5 U	1 U
Thallium	2	2	2	2.4	10 U	1 U
Vanadium	260	720		260	50 U	2.6 J
Zinc	2000	2000		11000	20 U	9 J
METAL (Dissolved)						
Antimony	6	6	6	15	10 U	2 U
Arsenic	10	10	10	0.045	10 U	0.2 B
Barium	2000	2000	2000	7300	42.9 B J	38.6
Beryllium	4	4	4	73	4 U	1 U
Cadmium	5	5	5	18	5 U	1 U
Chromium	100	100	100		5 U	5 J
Copper	1000	1000	1300	1500	6.2 B	5
Hexavalent Chromium	100	100		110	50 U	
Lead	5	5	15		3 U	1.0 U
Mercury	2	2	2	0.57	0.2 U	0.2 U
Nickel	100	100		730	10 B	7.8
Selenium	50	50	50	180	5 U	5 U
Silver	100	100		180	5 U	1 U
Thallium	2	2	2	2.4	10 U	1 U
Vanadium	260	720		260	50 U	0.88 B
Zinc	2000	2000		11000	20 U	7.9 J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-7 9/11/2008	CW-7A 5/6/2008	CW-8 5/6/2008	CW-8 9/11/2008	CW-9 5/6/2008	CW-9 9/11/2008	CW-13 5/7/2008	CW-13 5/7/2008	CW-13 9/11/2008	CW-14 5/20/2008	CW-14 9/30/2008	CW-15A 5/6/2008	CW-15A 9/11/2008	CW-15A 10/9/2008	CW-16 5/23/2008
METAL																			
Antimony	6	6	6	15		10 U	10 U	0.067 B	10 U	0.38 B		10 U	0.076 B	10 U	0.061 B	10 U	2 U	0.052 B	10 U
Arsenic	10	10	10	0.045		10 U	10 U	1	10 U	1 U		10 U	1 U	10 U	0.25 B	10 U	1 U	1 U	10 U
Barium	2000	2000	2000	7300		113 B J	74.8 B	57.8	55.4 B	46.1		86.9 B	65.8	59.9 B	43.5	70.9 B	59	65.3	68.9 B J
Beryllium	4	4	4	73		4 U	4 U	1 U	4 U	1 U		4 U	1 U	4 U	1 U	4 U	1 U	1 U	0.6 B J
Cadmium	5	5	5	18		5 U	5 U	1 U	5 U	1 U		5 U	1 U	0.3 B	1 U	5 U	1 U	1 U	5 U
Chromium	100	100	100			5 U	4.3 B	8.9 J	6.6	8.9 J		2.8 B	8.5 J	1.9 B	11.5 J	1.3 B	4.7 J	10.6 J	4.6 B
Copper	1000	1000	1300	1500		37.4	25 U	1.1 B	25 U	2.2		25 U	2.5	18.5 B	2.7	25 U	1.6 B	1.8 B	25 U
Hexavalent Chromium	100	100		110		50 U	50 U		50 U	0 U	50 U		0 U	50 U	0 U	50 U			50 U
Lead	5	5	15			3 U	3 U	0.62 B	3 U	0.23 B		3 U	0.67 B	3.5	0.87 B	3 U	0.22 B	1 U	3 U
Mercury	2	2	2	0.57		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.018 B	0.2 U
Nickel	100	100		730		8.7 B	40 U	0.6 B	5.2 B J	5.8		5.6 B	5.6	3.8 B	5.5	9.6 B J	7.8	10.5 J	4.3 B
Selenium	50	50	50	180		5 U	5 U	0.72 B	5 U	0.36 B		5 U	0.23 B	5 U	0.37 B	5 U	0.98 B	1.2 B J	5 U
Silver	100	100		180		5 U	5 U	1 U	5 U	1 U		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U
Thallium	2	2	2	2.4		10 U	10 U	0.021 B	10 U	1 U		10 U	0.03 B	10 U	0.068 B	10 U	0.032 B	1 U	10 U
Vanadium	260	720		260		50 U	1 B	1.7 J	1.7 B	2.4 J		50 U	1 J	1.8 B	4.1 J	2.6 B	1.5 J	2.1 J	1.6 B
Zinc	2000	2000		11000		12.2 B J	16.9 B J	15.8 J	1.7 B J	5.0 U		11.9 B J	5.0 U	115 J	21.9	8.9 B J	8.7 J	8.1	4.8 B J
METAL (Dissolved)																			
Antimony	6	6	6	15	2 U	10 U	10 U	0.057 B	10 U	0.43 B		10 U	2 U	10 U	0.053 B	10 U	0.084 B	0.064 B	10 U
Arsenic	10	10	10	0.045	0.2 B	10 U	10 U	0.43 B	10 U	0.6 B		10 U	1 U	10 U	1 U	10 U	1 U	1 U	10 U
Barium	2000	2000	2000	7300	38.6	119 B J	74.5 B	55.9	55 B	47.4		84.4 B	67.4	53.7 B	43.8	70.2 B	60.4	65.8	65 B
Beryllium	4	4	4	73	1 U	4 U	4 U	1 U	4 U	1 U		4 U	1 U	4 U	1 U	4 U	1 U	1 U	0.73 B J
Cadmium	5	5	5	18	1 U	5 U	5 U	1 U	5 U	1 U		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U
Chromium	100	100	100		5 J	5 U	4.1 B	9.1 J	6.4	9.1 J		2.6 B	9.3 J	5 U	11.1 J	1.8 B	5.1 J	10.8 J	2.1 B
Copper	1000	1000	1300	1500	5	9.2 B	25 U	0.65 B	25 U	0.58 B		25 U	1 B	0.79 B	1.5 B	0.73 B	1.6 B	2	25 U
Hexavalent Chromium	100	100		110		50 U	50 U		50 U	0 U	50 U		0 U	50 U	0 U	50 U			50 U
Lead	5	5	15		1.0 U	3 U	3 U	1.0 U	3 U	1.0 U		3 U	1.0 U	3 U	0.15 B	3 U	1.0 U	1 U	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.065 B		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	7.8	9.1 B	40 U	0.4 B	6.2 B J	3.2		5.6 B	5.1	2.3 B	5	9.7 B J	7.8	10.5	3.6 B
Selenium	50	50	50	180	5 U	5 U	5 U	0.39 B	5 U	0.54 B		5 U	0.31 B	5 U	5 U	5 U	0.85 B	2.1 B	5 U
Silver	100	100		180	1 U	5 U	5 U	1 U	5 U	1 U		5 U	1 U	5 U	1 U	5 U	1 U	1 U	5 U
Thallium	2	2	2	2.4	1 U	10 U	10 U	1 U	10 U	1 U		10 U	1.0 U	10 U	0.035 B J	10 U	1.0 U	1 U	10 U
Vanadium	260	720		260	0.88 B	50 U	2.7 B	0.77 B	50 U	1.8		1 B	1	2.8 B	2.3 J	1.9 B	1.4	3.1 J	50 U
Zinc	2000	2000		11000	7.9 J	20 U	44.5 J	11.7 J	1.4 B J	5.0 U		20.1 J	5.0 U	7.9 B	7.8	10.7 B J	9.4 J	12.5 J	4.9 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-16 10/8/2008	CW-17 5/6/2008	CW-17 9/11/2008	CW-17 6/15/2009	CW-17 12/16/2009	CW-18 5/23/2008	CW-20 5/21/2008	CW-20 9/30/2008	Softail Lift Station Deep Foundation 5/20/2008
METAL													
Antimony	6	6	6	15	0.11 B	10 U	0.18 B			10 U	10 U	0.1 B	10 U
Arsenic	10	10	10	0.045	1 U	10 U	0.67 B			10 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	49	41.1 B	37.4			58.6 B J	47 B J	42	42.7 B
Beryllium	4	4	4	73	1 U	4 U	1 U			0.56 B J	0.43 B J	1 U	4 U
Cadmium	5	5	5	18	1 U	5 U	1 U			5 U	5 U	1 U	5 U
Chromium	100	100	100		16.4 J	10.4	12.3 J			5 U	14.2	19.6 J	5 U
Copper	1000	1000	1300	1500	1.5 B	1.1 B	348			25 U	0.81 B	1.1 B	1.3 B
Hexavalent Chromium	100	100		110	0 U	50 U	0 U			50 U	50 U		50 U
Lead	5	5	15		0.07 B	4.8	67.7	1.1	0.56 B	3 U	3 U	0.31 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U			0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	5.4 J	7.6 B J	17.9			43.6	40 U	2	40 U
Selenium	50	50	50	180	5.0 U	5 U	0.5 B			5 U	5 U	5 U	5 U
Silver	100	100		180	1 U	5 U	1 U			5 U	5 U	1 U	5 U
Thallium	2	2	2	2.4	1 U	10 U	0.022 B			10 U	5 B	0.029 B	10 U
Vanadium	260	720		260	2.4 J	50 U	1.7 J			1.1 B	50 U	3 J	2.2 B
Zinc	2000	2000		11000	4.9 B	4.2 B J	191 J			25.6 J	131 J	27.7	11.8 B J
METAL (Dissolved)													
Antimony	6	6	6	15	0.11 B	10 U	2 U			10 U	10 U	0.1 B	10 U
Arsenic	10	10	10	0.045	1 U	10 U	1 U			10 U	10 U	1 U	10 U
Barium	2000	2000	2000	7300	47.8	40.8 B	37.6			56.1 B	43.4 B	40.3	41 B
Beryllium	4	4	4	73	1 U	4 U	1 U			0.72 B J	0.36 B J	1 U	4 U
Cadmium	5	5	5	18	1 U	5 U	1 U			5 U	5 U	1 U	5 U
Chromium	100	100	100		13.9 J	9.9	12.6 J			5 U	5.2	19.7 J	5 U
Copper	1000	1000	1300	1500	1.7 B	25 U	0.95 B			25 U	25 U	0.61 B	1.9 B
Hexavalent Chromium	100	100		110	0 U	50 U	0 U			50 U	50 U		50 U
Lead	5	5	15		1 U	3 U	0.61 B J	0.58 B	0.54 B	3 U	3 U	0.045 B	3 U
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U			0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	4.6	4.1 B J	4.3			38.9 B	1.1 B	1.5	40 U
Selenium	50	50	50	180	1.5 B	5 U	0.51 B			5 U	5 U	0.44 B	5 U
Silver	100	100		180	1 U	5 U	1 U			5 U	0.6 B	1 U	5 U
Thallium	2	2	2	2.4	1 U	10 U	1.0 U			10 U	10 U	0.019 B J	10 U
Vanadium	260	720		260	4.7 J	50 U	1.7			50 U	50 U	5 J	50 U
Zinc	2000	2000		11000	5.0 U	23.1 J	5.0 U			2 B J	3.2 B J	3.7 B	8.9 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	Softail Lift Station Toe of Slope 5/20/2008	Cole D 5/1/2008	Cole D 9/12/2008	Cole F 5/1/2008	Cole F 9/8/2008	MW-4 (Cole) 5/1/2008	MW-4 (Cole) 9/8/2008	RW-2 4/22/2008	RW-2 9/26/2008	RW-4 Folk 5/14/2008	RW-4 Folk 9/10/2008
METAL															
Antimony	6	6	6	15	10 U	10 U	0.075 B	10 U	0.23 B	10 U	2 U	10 U	0.18 B	10 U	0.17 B
Arsenic	10	10	10	0.045	10 U	10 U	1 U	10 U	0.45 B	10 U	1 U	10 U	1 U	10 U	0.17 B
Barium	2000	2000	2000	7300	59.3 B	31.3 B	25.2	31.3 B	32.5	141 B	102	42.5 B	23.9	90.4 B	74.2
Beryllium	4	4	4	73	4 U	4 U	1 U	4 U	1 U	0.55 B	1 U	4 U	1 U	4 U	1 U
Cadmium	5	5	5	18	5 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	0.59 B	1 U
Chromium	100	100	100		5 U	5 U	5.7 J	5 U	4.1 J	1.7 B	5.1 J	10.6	13.9 J	5 U	6 J
Copper	1000	1000	1300	1500	0.84 B	25 U	0.8 B	25 U	1.3 B	25 U	0.8 B	42.6	5	475	398
Hexavalent Chromium	100	100		110	50 U	50 U		50 U		50 U		50 U		50 U	
Lead	5	5	15		3 U	3 U	0.057 B	3 U	0.19 B	3 U	0.39 B	4.7	0.99 B	28.9	23
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	1.2 B	40 U	0.59 B	40 U	0.5 B	2.5 B	2.1	11.8 B	5.1	14 B	9
Selenium	50	50	50	180	5 U	5 U	0.62 B	5 U	5 U	5 U	1.2 B	5 U	5 U	5 U	5 U
Silver	100	100		180	5 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U
Thallium	2	2	2	2.4	10 U	10 U	0.067 B	10 U	0.12 B	10 U	0.022 B	5.6 B	0.32 B	10 U	0.078 B
Vanadium	260	720		260	50 U	50 U	2.1 J	50 U	1.8 J	1.5 B	1.4 J	1.3 B	4.1 J	50 U	2.1 J
Zinc	2000	2000		11000	26.4 J	3.8 B J	3.1 B J	2.7 B J	5.3	12.3 B J	8.3	51.7	29.7	145	93.2 J
METAL (Dissolved)															
Antimony	6	6	6	15	10 U	10 U	0.073 B	10 U	0.16 B J	10 U	0.2 B J	10 U	0.09 B	10 U	0.13 B
Arsenic	10	10	10	0.045	10 U	10 U	1 U	10 U	0.23 B	10 U	1	10 U	1 U	10 U	1 U
Barium	2000	2000	2000	7300	62 B	31.7 B	24.9	29.2 B	33.1	139 B	107	36.9 B	21.5	86.9 B	73.3
Beryllium	4	4	4	73	4 U	0.52 B J	1 U	0.66 B J	1 U	0.6 B J	0.15 B	4 U	1 U	4 U	1 U
Cadmium	5	5	5	18	5 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U
Chromium	100	100	100		5 U	5 U	5.3 J	5 U	4 J	5 U	8.2 J	1.4 B	12 J	5 U	7.5 J
Copper	1000	1000	1300	1500	0.97 B	25 U	0.68 B	25 U	1.1 B	25 U	2.1	14 B	3.4	522	274
Hexavalent Chromium	100	100		110	50 U	50 U		50 U		50 U		50 U		50 U	
Lead	5	5	15		3 U	3 U	1 U	3 U	0.055 B J	3 U	2 J	3 U	0.15 B	5.9	12.6 J
Mercury	2	2	2	0.57	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	100		730	40 U	40 U	0.39 B	40 U	0.4 B	1.5 B	4.9	11.3 B	4.9	13.6 B	8.8
Selenium	50	50	50	180	5 U	5 U	0.46 B J	5 U	5 U	5 U	1.6 B	5 U	5 U	5 U	0.57 B
Silver	100	100		180	5 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U	1 U
Thallium	2	2	2	2.4	10 U	3.5 B	0.041 B	3.2 B	1 U	4.3 B	0.044 B J	10 U	0.15 B J	10 U	1.0 U
Vanadium	260	720		260	50 U	1.5 B	2 J	50 U	0.84 B	50 U	2.2	1.8 B	3.2 J	50 U	2.7
Zinc	2000	2000		11000	26	2.4 B	3.2 B J	8.3 B	4.7 B	9.5 B	14	54.5	32.6	158 J	88 J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Metal Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	RW-4 Folk 6/18/2009	RW-5 4/22/2008	RW-5 9/26/2008	HERMAN (S-7) 5/14/2008	TATE (S-6) 5/14/2008	B41S-SW-009 2/8/2008
METAL										
Antimony	6	6	6	15		10 U	0.11 B	10 U	10 U	40.2
Arsenic	10	10	10	0.045		10 U	1 U	10 U	10 U	26
Barium	2000	2000	2000	7300		49.4 B	37.3	40.5 B	56.7 B	213
Beryllium	4	4	4	73		4 U	1 U	4 U	4 U	0.58 B
Cadmium	5	5	5	18		5 U	1 U	5 U	5 U	1210
Chromium	100	100	100			5 U	10.9 J	5 U	5 U	9190
Copper	1000	1000	1300	1500		25 U	0.97 B	0.97 B	25 U	238 J
Hexavalent Chromium	100	100		110		50 U		50 U	50 U	
Lead	5	5	15		6.1 J	3 U	0.053 B	3 U	3 U	67.6
Mercury	2	2	2	0.57		0.081 B	0.2 U	0.2 U	0.2 U	0.24
Nickel	100	100		730		40 U	1.9	40 U	3.4 B	3530
Selenium	50	50	50	180		5 U	5 U	5 U	5 U	8
Silver	100	100		180		5 U	1 U	5 U	5 U	0.83 B
Thallium	2	2	2	2.4		4.3 B	0.12 B	10 U	10 U	10 U
Vanadium	260	720		260		1.2 B	3.3 J	50 U	50 U	129
Zinc	2000	2000		11000		6.1 B	2.9 B	5.1 B	8 B	4640 J
METAL (Dissolved)										
Antimony	6	6	6	15		10 U	0.1 B	10 U	10 U	
Arsenic	10	10	10	0.045		10 U	1 U	10 U	10 U	
Barium	2000	2000	2000	7300		50.4 B	36.3	36.2 B	52.6 B	
Beryllium	4	4	4	73		4 U	1 U	4 U	4 U	
Cadmium	5	5	5	18		5 U	1 U	5 U	5 U	
Chromium	100	100	100			5 U	11 J	5 U	5 U	
Copper	1000	1000	1300	1500		25 U	0.51 B	25 U	25 U	
Hexavalent Chromium	100	100		110		50 U		50 U	50 U	
Lead	5	5	15		2.3 J	3 U	0.29 B	3 U	3 U	
Mercury	2	2	2	0.57		0.2 U	0.2 U	0.2 U	0.2 U	
Nickel	100	100		730		40 U	1.9	40 U	2.2 B	
Selenium	50	50	50	180		5 U	0.56 B	5 U	5 U	
Silver	100	100		180		5 U	1 U	5 U	5 U	
Thallium	2	2	2	2.4		10 U	0.1 B J	10 U	3.3 B	
Vanadium	260	720		260		3.1 B	3.7 J	50 U	50 U	
Zinc	2000	2000		11000		3.6 B	3.4 B	7.9 B J	6.5 B J	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-1 4/25/2008	MW-2 6/28/2007	MW-2 5/8/2008	MW-2 9/17/2008	MW-2 6/24/2009	MW-3 5/7/2008	MW-5 4/24/2008	MW-5 9/5/2008	MW-6 4/25/2008	MW-6 9/8/2008	MW-7 5/19/2008	MW-7 10/1/2008	MW-8 5/19/2008	MW-9 5/9/2008	MW-10 5/9/2008	MW-10 9/22/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1											6.7					
Cyanide, Free																				
Cyanide, Free	200	200	200	730	10 U	14	100 J	100 J	100 J	10 U	10 U	10 U	2.2 B	10 U	2.7 B J	10 U	10 U	10 U	10 U	10 U
Cyanide, Total																				
Cyanide, Total	200	200		730	10 U	1280	1300	930	980	10 U	10 U	10 U	2 B	8.9 B	1.7 B J	10 U	2.1 B J	10 U	1.9 B	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-11 4/24/2008	MW-12 5/6/2008	MW-12 9/16/2008	MW-14 4/24/2008	MW-15 5/8/2008	MW-15 9/26/2008	MW-16D 5/13/2008	MW-16S 5/15/2008	MW-16S 10/2/2008	MW-17 4/28/2008	MW-17 9/12/2008	MW-18D 4/23/2008	MW-18D 10/7/2008	MW-18S 5/1/2008	MW-18S Dup 5/1/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	2.8 B	3.7 B	1.6 B J	10 U	29 J	10 U	14 J	10 U	10 U	1.6 B J	1.6 B J	10 U	2.2 B	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.8 B J	2.4 B J	10 U	10 U	6.5 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-18S 10/3/2008	MW-19 5/14/2008	MW-20D 5/7/2008	MW-20D 9/5/2008	MW-20M 5/19/2008	MW-20M 9/11/2008	MW-20S 5/20/2008	MW-20S 10/1/2008	MW-22 4/28/2008	MW-26 5/5/2008	MW-26 9/29/2008	MW-27 5/14/2008	MW-27 9/30/2008	MW-28 5/8/2008	MW-29 4/23/2008	MW-30 5/7/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1														11		
Cyanide, Free																				
Cyanide, Free	200	200	200	730	10 U	3 B J	10 U	10 U	1.8 B J	2.2 B J	10 U	10 U	2.1 B J	10 U	10 U	10 U	10 U	2.3 B J	10 U	10 U
Cyanide, Total																				
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	10 U	10 U	2.3 B J	10 U	2.6 B	10 U	10 U	10 U	10 U	10 U	6.1 B J	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-30 Dup 5/7/2008	MW-31D 5/16/2008	MW-31D 9/24/2008	MW-31S 4/28/2008	MW-31S 9/11/2008	MW-32D 5/8/2008	MW-32D 10/2/2008	MW-32D 7/14/2009	MW-32S 5/13/2008	MW-32S 9/22/2008	MW-33 5/12/2008	MW-34D 5/6/2008	MW-34D 9/17/2008	MW-34S 4/28/2008	MW-34S 9/10/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1						18		14	2.3						
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U	10 U	10 U	1.7 B J	4.8 B J	10 U	10 U		3.5 B J	2.6 B J	4.2 B J	10 U	10 U	2 B J	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	2.2 B	10 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-34S Dup 9/10/2008	MW-35D 5/6/2008	MW-35D 9/17/2008	MW-35S 5/13/2008	MW-36D 5/19/2008	MW-36S 5/7/2008	MW-37D 5/14/2008	MW-37D 10/1/2008	MW-37S 5/14/2008	MW-37S Dup 5/14/2008	MW-37S 9/18/2008	MW-38D 4/28/2008	MW-38D 9/16/2008	MW-39D 5/9/2008	MW-39D 9/18/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1							0.057 J		0.19 U	0.19 U					
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U	10 U	2.5 B J	3.5 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3.3 B J	2.5 B J	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	2.3 B	10 U	2.4 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-39D Dup 9/18/2008	MW-39S 5/6/2008	MW-39S 9/15/2008	MW-40D 4/25/2008	MW-40D 9/8/2008	MW-40S 4/25/2008	MW-40S 9/4/2008	MW-43D 5/13/2008	MW-43D 9/25/2008	MW-43S 4/24/2008	MW-43S 9/4/2008	MW-45 5/20/2008	MW-46 5/19/2008	MW-46 10/3/2008	MW-47 5/20/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1													0.27		
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U	1.6 B	1.8 B J	10 U	10 U	10 U	10 U	2.7 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	5.5 B J	10 U	10 U	6 B	10 U	10 U	10 U	2.1 B J	10 U	2.2 B J	2 B J	10 U	3.3 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-47 10/9/2008	MW-49D 5/21/2008	MW-49D 10/6/2008	MW-49S 5/22/2008	MW-49S 10/9/2008	MW-49S 7/14/2009	MW-50D 5/22/2008	MW-50D 10/7/2008	MW-50S 5/15/2008	MW-50S 9/30/2008	MW-51D 5/12/2008	MW-51D 9/18/2008	MW-51S 6/29/2007	MW-51S 5/20/2008	MW-51S 10/2/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1		3.2		1300		140	14							15	
Cyanide, Free																			
Cyanide, Free	200	200	200	730	2.7 B	10 U	2.3 B	10 UJ	2.3 B		10 UJ	1.9 B	10 U	10 U	2.7 B J	10 U	2 U	4.1 B J	7.4 B
Cyanide, Total																			
Cyanide, Total	200	200		730	2.7 B	5.5 B J	10 U	10 U	10 U		10 U	2.5 B	10 U	10 U	10 U	10 U	10.2	32 J	6 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-51S 7/1/2009	MW-52 5/6/2008	MW-52 9/4/2008	MW-53 4/23/2008	MW-53 9/11/2008	MW-54 5/27/2008	MW-54 10/8/2008	MW-54 6/30/2009	MW-55 5/23/2008	MW-55 10/8/2008	MW-55 6/30/2009	MW-56 5/7/2008	MW-57 5/22/2008	MW-57 9/30/2008	MW-64D 5/19/2008	MW-64D 9/29/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1						26		58	8.3							
Cyanide, Free																				
Cyanide, Free	200	200	200	730	6.6 B J	1.6 B	10 U	10 U	1.7 B J	10 U	10 U		10 U	1.7 B	2.2 B J	10 U	10 UJ	10 U	1.9 B J	10 U
Cyanide, Total																				
Cyanide, Total	200	200		730	12	10 U	10 U	10 U	2 B	10 U	10 U		11 J	10 U	10 U	10 U	10 U	10 U	1.7 B J	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-64S 5/14/2008	MW-64S 9/25/2008	MW-65D 4/25/2008	MW-65D Dup 4/25/2008	MW-65D 9/10/2008	MW-65S 5/8/2008	MW-66D 4/30/2008	MW-66S 4/30/2008	MW-66S 9/10/2008	MW-67D 5/6/2008	MW-67S 5/6/2008	MW-68 5/12/2008	MW-69 5/5/2008	MW-69 9/22/2008	MW-70D 5/15/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U	10 U	15	1.8 B J	10 U	210 J	10 U	10 U	10 U	10 U	10 U	2.9 B J	10 U	2.2 B J	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	3.8 B	2.5 B	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	7.8 B J	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-70S 5/12/2008	MW-74D 5/9/2008	MW-74D 9/17/2008	MW-74S 4/29/2008	MW-74S 9/16/2008	MW-75D 5/21/2008	MW-75D 10/2/2008	MW-75S 5/21/2008	MW-75S 10/6/2008	MW-77 4/24/2008	MW-77 10/2/2008	MW-78 4/23/2008	MW-79 4/24/2008	MW-79 9/15/2008	MW-79 6/22/2009
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1		0.71						1.5							
Cyanide, Free																			
Cyanide, Free	200	200	200	730	2.7 B J	10 U	10 U	10 U	1.7 B J	10 U	10 U	10 U	1.9 B	2.9 B	10 U	10 U	3.4 B	2.6 B J	2.1 B J
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	10 U	2 B J	10 U	1.7 B J	10 U	1.7 B J	10 U	10 U	10 U	3200 J	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-80 5/1/2008	MW-81D 5/23/2008	MW-81D 10/7/2008	MW-81S 5/23/2008	MW-81S 10/7/2008	MW-82 4/25/2008	MW-82 9/12/2008	MW-83 5/23/2008	MW-83 10/7/2008	MW-84 5/14/2008	MW-85 4/25/2008	MW-85 9/18/2008	MW-86D 5/5/2008	MW-86S 5/5/2008	MW-87 5/15/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															29
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U	1.8 B	10 U	10 U	10 U	1.9 B	3.3 B J	10 U	1.8 B	10 U	10 U	10 U	2.8 B	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	4.1 B	10 U	10 U	10 U	10 U	10 U	10 U	2.4 B J	10 U	10 U	10 U	4.2 B	10 U	9.3 B J	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-87 10/1/2008	MW-87 7/9/2009	MW-88 4/29/2008	MW-88 9/25/2008	MW-91 6/28/2007	MW-91 5/7/2008	MW-91 9/19/2008	MW-91 6/25/2009	MW-92 6/27/2007	MW-92 5/14/2008	MW-92 9/30/2008	MW-92 7/8/2009	MW-93D 6/27/2007	MW-93D 5/13/2008	MW-93D 9/22/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1		19													
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 U		1.7 B J	10 U	2 U	6.8 B J	3.8 B	3.3 B J	2 U	6.2 B J	5 B	14	2 U	5.3 B J	2.2 B J
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U		10 U	10 U	59.7	27	13	25	23.4 J	4.2 B	16	13	1.8 B J	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-93S 6/27/2007	MW-93S 4/25/2008	MW-93S 9/15/2008	MW-94 5/8/2008	MW-94 9/29/2008	MW-95 5/2/2008	MW-95 9/11/2008	MW-96D 5/2/2008	MW-96D 9/24/2008	MW-96S 5/2/2008	MW-96S 10/1/2008	MW-96S Dup 10/1/2008	MW-97 5/2/2008	MW-97 9/19/2008	MW-98D 5/27/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	2 U	9.2 B	1.7 B J	10 U	10 U	10 U	1.7 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	3.6 B	10 U	10 U	10 U	10 U	2.5 B	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-98D 9/8/2008	MW-98D 6/17/2009
1,4-Dioxane						
1,4-Dioxane	5.6	24		6.1		
Cyanide, Free						
Cyanide, Free	200	200	200	730	10 U	2.4 B J
Cyanide, Total						
Cyanide, Total	200	200		730	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-98I 5/23/2008	MW-98I 9/12/2008	MW-98I 6/18/2009	MW-98S 5/22/2008	MW-98S 9/8/2008	MW-98S 6/17/2009	MW-99D 5/22/2008	MW-99D 9/18/2008	MW-99S 5/22/2008	MW-99S 9/24/2008	MW-100D 5/22/2008	MW-100D 9/22/2008	MW-100I 5/21/2008	MW-100I 9/24/2008	MW-100S 5/22/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	4 B	4.1 B J	4.3 B J	4.3 J	10 U	3.1 B J	10 UJ	10 U	10 UJ	10 U	10 UJ	2.2 B J	10 U	10 U	10 UJ
Cyanide, Total																			
Cyanide, Total	200	200		730	19 J	11 J	7.3 B	20 J	8.1 B	9.9 B	10 U	10 U	10 U	10 U	10 U	10 U	1.8 B J	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-100S Dup 5/22/2008	MW-100S 9/24/2008	MW-101D 5/21/2008	MW-101D 9/12/2008	MW-101S 5/22/2008	MW-101S 9/10/2008	MW-102D 4/29/2008	MW-102D 9/19/2008	MW-102S 4/30/2008	MW-102S 9/17/2008	MW-103D 4/30/2008	MW-103D 9/19/2008	MW-103S 4/30/2008	MW-103S 9/19/2008	MW-104 5/5/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	10 UJ	10 U	10 U	1.6 B J	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.8 B J	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 B J

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-104 10/9/2008	MW-105 5/5/2008	MW-105 10/2/2008	MW-106 4/29/2008	MW-106 9/29/2008	MW-107 5/6/2008	MW-107 9/10/2008	MW-108D 4/23/2008	MW-108D 9/5/2008	MW-108S 4/23/2008	MW-108S 9/5/2008	MW-109D 5/20/2008	MW-109D 9/17/2008	MW-109S 5/20/2008	MW-109S 9/16/2008
1,4-Dioxane																			
1,4-Dioxane	5.6	24		6.1															
Cyanide, Free																			
Cyanide, Free	200	200	200	730	1.7 B	10 U	10 U	2 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.8 B J	2.3 B J	10 U	10 U
Cyanide, Total																			
Cyanide, Total	200	200		730	10 U	2.3 B	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.7 B	10 U	2.8 B J	10 U	2.6 B J	1.7 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-110 5/14/2008	MW-110 9/22/2008	MW-111 5/16/2008	MW-111 9/15/2008	MW-111 6/29/2009	MW-112 5/1/2008	MW-112 9/3/2008	MW-113 10/25/2007	MW-113 5/15/2008	MW-113 9/3/2008	MW-114 5/23/2008	MW-114 10/3/2008	MW-115 4/30/2008	MW-115 9/3/2008	MW-116 5/21/2008	MW-116 6/10/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1																22
Cyanide, Free																				
Cyanide, Free	200	200	200	730	10 U	2.8 B J	10 U	10 U	1.8 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.5 B	10 U	10 U	
Cyanide, Total																				
Cyanide, Total	200	200		730	3.2 B	10 U	1.7 B J	3.6 B J	10 U	10 U	10 U	10 U	10 U	10 U	1.9 B J	10 U	10 U	10 U	3.6 B J	

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-116 9/3/2008	MW-116 7/8/2009	MW-117 2/26/2009	MW-117 6/23/2009	CW-1 5/6/2008	CW-1A 5/7/2008	CW-2 5/13/2008	CW-3 5/6/2008	CW-4 5/6/2008	CW-5 5/6/2008	CW-6 5/6/2008	CW-7 5/6/2008	CW-7 9/11/2008	CW-7A 5/6/2008	CW-8 5/6/2008	CW-8 9/11/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1		5.6		1											5.9	3.8
Cyanide, Free																				
Cyanide, Free	200	200	200	730	10 U		4.6 B	26 J	10 U	10 U	2.8 B J	10 U	10 U	10 U	10 U	10 U	1.6 B J	10 U	10 U	1.8 B J
Cyanide, Total																				
Cyanide, Total	200	200		730	10 U		110	31	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-8 1/13/2010	CW-9 5/6/2008	CW-9 9/11/2008	CW-13 5/7/2008	CW-13 9/11/2008	CW-14 5/20/2008	CW-14 9/30/2008	CW-15A 5/6/2008	CW-15A 9/11/2008	CW-15A 10/9/2008	CW-15A 6/15/2009	CW-15A 12/16/2009	CW-16 5/23/2008	CW-16 10/8/2008	CW-17 5/6/2008	CW-17 9/11/2008
1,4-Dioxane																				
1,4-Dioxane	5.6	24		6.1	3.6							250	130	140	99	140				
Cyanide, Free																				
Cyanide, Free	200	200	200	730		10 U	2.6 B J	1.7 B J	2.3 B J	1.8 B J	10 U	10 U	5.1 B J	6.5 B			10 U	10 U	1.6 B	2.1 B J
Cyanide, Total																				
Cyanide, Total	200	200		730		4.9 B	10 U	10 U	2.4 B	2.6 B J	10 U	10 U	8.5 B	5.4 B			1.9 B J	10 U	10 U	2.5 B

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-18 5/23/2008	CW-20 5/21/2008	CW-20 9/30/2008	Softail Lift Station Deep Foundation 5/20/2008	Softail Lift Station Toe of Slope 5/20/2008	Cole D 5/1/2008	Cole D 5/1/2008	Cole D 9/12/2008	Cole F 5/1/2008	Cole F 9/8/2008
1,4-Dioxane														
1,4-Dioxane	5.6	24		6.1										
Cyanide, Free														
Cyanide, Free	200	200	200	730	10 U	10 U	10 U	10 U	10 U		10 U	2.8 B J	10 U	10 U
Cyanide, Total														
Cyanide, Total	200	200		730	2.3 B J	2 B J	10 U	2.6 B J	2.6 B J	10 U		3.1 B J	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	MW-4 (Cole) 5/1/2008	MW-4 (Cole) 9/8/2008	HERMAN (S-7) 2/13/2007	HERMAN (S-7) 5/10/2007	HERMAN (S-7) 6/26/2009	RW-2 4/22/2008	RW-2 9/26/2008	RW-4 Folk 2/13/2007	RW-4 Folk 5/10/2007	RW-4 Folk 8/22/2007	RW-4 Folk 5/14/2008	RW-4 Folk 9/10/2008
1,4-Dioxane																
1,4-Dioxane	5.6	24		6.1												
Cyanide, Free																
Cyanide, Free	200	200	200	730	10 U	10 U	2 U	2 U	1.8 B J	10 U	10 U	2 U	2 U	2 U	10 U	10 U
Cyanide, Total																
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	10 U	10 U	10 U	8.9 B	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	RW-4 Folk 6/18/2009	RW-5 4/22/2008	RW-5 9/26/2008	HERMAN (S-7) 5/14/2008	Spring at Bldg 14 S1 4/30/2008	Spring at Bldg 14 S1 9/5/2008	Spring at Bldg 14 S2 4/30/2008	Spring at Bldg 14 S2 9/5/2008	TATE (S-6) 2/13/2007	TATE (S-6) 5/10/2007
1,4-Dioxane														
1,4-Dioxane	5.6	24		6.1										
Cyanide, Free														
Cyanide, Free	200	200	200	730	2.3 B J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2 U	2 U
Cyanide, Total														
Cyanide, Total	200	200		730	10 U	10 U	10 U	10 U	3.2 B	4.6 B	10 U	10 U	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Appendix D
Groundwater Data Summary - Other Analyses
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	TATE (S-6) 5/14/2008	TATE (S-6) 6/26/2009
1,4-Dioxane						
1,4-Dioxane	5.6	24		6.1		
Cyanide, Free						
Cyanide, Free	200	200	200	730	10 U	2.3 B J
Cyanide, Total						
Cyanide, Total	200	200		730	10 U	10 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.