TABLE 5-86
Metals Concentrations in Groundwater
SCYI RFI
Watery Oil Separator (SWMU 43)
(Page 1 of 1)

Well ID	MCL	WOS-4A	WOS-4A	WOS-4AD	WOS-4AD	WOS-5	WOS-5
Lab ID	or RBSL[1]	N36548-1	N36548-1A	N36548-2	N36548-2A	N36348-4	N36348-4A
Sample Date		7-Apr-03	7-Apr-03	7-Apr-03	7-Apr-03	4-Apr-03	4-Apr-03
		Total	Dissolved	Total (duplicate)	Dissolved (duplicate)	Total	Dissolved
Metals (Reporting units are in ug/L)							
Antimony	**6**	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Arsenic	**10**	8.3 B	6.9 B	7.3 B	7.6 B	10.0	9.7 B
Barium	**2000**	118 B	112 B	121 B	114 B	100 B	89.4 B
Beryllium	**4**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Cadmium	**5**	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Chromium	**100**	0.52 B	0.40 U	0.40 U	5.6 B	0.40 U	0.40 U
Cobalt	*730*	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Lead	**15**	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Mercury	**2**	0.06 U	0.06 U	0.06 U	0.06 U	0.12 B	0.06 U
Nickel	*730*	1.6 U	1.6 U	2.1 B	4.9 B	1.6 U	1.6 U
Selenium	**50**	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Vanadium	*37*	1.0. U	1.0 U	1.0 U	1.1 B	1.0 U	1.0 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

--- not sampled

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels (RBCs) for tap water (Oct 2004) are shown in italics.
2. EPA Region 3 tap water RBCs are less than MCLs for all detected constituents, except for arsenic, which has a Region 3 RBC of 0.045 ug/L.
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-87
Immunoassay Field Screening Results
SCYI RFI
Watery Oil Separator (SWMU 43)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX					PAH				
	0.5-1.0	0.5-2.0	1.5-2.0	3.0-3.5	7.0-7.5	0.5-1.0	0.5-2.0	1.5-2.0	3.0-3.5	7.0-7.5
43-01		ND		ND			**> 25**		**10**	**> 25**
43-02		**12**		ND	**5**		**> 25**		**> 25**	ND
43-03			ND			ND			ND	ND
43-04			ND	ND	ND	ND			ND	0.74

Notes:
1. All immunoassay concentrations are in ppm.
2. ND means non-detect. The detection limit was 2.5 ppm for BTEX and 0.6 ppm for PAHs.
3. A blank box denotes not a sampled depth.
4. Bolded boxes indicate concentrations above site screening levels of 2.5 ppm for BTEX and 5 ppm for PAHs. Concentrations above site screening levels may also be due to cross-reactivity to non-target constituents.

Table 5-88
Summary of Free Product Apparent Thickness
SCYI RFI
Watery Oil Separator (SWMU 43)
(Page 1 of 1)

Thickness measurements are in feet

Date \ Well	WOS-1	WOS-2	WOS-3
22-Jul-96	0.01	0.01	--
8-Aug-96	none	0.08	--
31-Aug-96	none	0.77	none
18-Sep-96	none	0.1	none
28-Jan-97	none	0.23	none

-- not available

Table 5-89
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(1.5-2.0) BQO808 25-Jun-96	
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acetone	*1.1E+08*	5.8E+07	1.6E+04	11	U
Benzene	5.2E+04	800	30	11	U
Bromodichloromethane	4.6E+04	--	600	11	U
Bromoform	3.6E+05	8.8E+04	800	11	U
Bromomethane	1.4E+06	1.3E+04	200	11	UJ
2-Butanone	6.1E+08	1.4E+08	2.9E+04	11	U
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	11	U
Carbon tetrachloride	2.2E+04	300	70	11	U
Chlorobenzene	2.0E+07	5.4E+05	1000	11	U
Chloroethane	3.4E+04	--	400	11	U
Chloroform	9.9E+05	--	6.00E+02	11	U
Chloromethane	1.0E+07	300	600	11	UJ
Dibromochloromethane	--	--	--	11	U
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	11	U
1,2-Dichloroethane	3.1E+04	600	20	11	U
1,1-Dichloroethene	5.1E+07	4.1E+05	60	11	U
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	11	UJ
1,2-Dichloropropane	4.2E+04	2.1E+04	30	11	U
cis-1,3-Dichloropropene	2.9E+04	--	4	11	U
trans-1,3-Dichloropropene	2.9E+04	--	4	11	U
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	11	U
2-Hexanone	--	--	--	11	U
Methylene chloride	3.8E+05	2.2E+04	20	11	U
4-Methyl-2-Pentanone	--	--	--	11	U
Styrene	2.0E+08	1.5E+06	4000	11	U
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	11	U
Tetrachloroethene	5300	2000	60	11	U
Toluene	2.0E+08	6.5E+05	1.2E+04	11	U
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	11	U
1,1,2-Trichloroethane	5.0E+04	2000	20	11	U
Trichloroethene	7200	100	60	11	U
Vinyl chloride	4000	1000	10	11	U
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	11	U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown J - estimated value -- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard for
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-90
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(3.0-3.5) BQO803 21-Jun-96	44-03(3-3.5) BQV561 7-Aug-96	44-03(6.5-7) BQV558 1-Aug-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
Acetone	*1.1E+08*	5.8E+07	1.6E+04	2000	13 J	75 UJ
Benzene	5.2E+04	800	30	58 U	11 UJ	12 U
Bromodichloromethane	4.6E+04	--	600	58 U	11 UJ	12 U
Bromoform	3.6E+05	8.8E+04	800	58 U	11 UJ	12 U
Bromomethane	1.4E+06	1.3E+04	200	58 UJ	11 UJ	12 U
2-Butanone	6.1E+08	1.4E+08	2.9E+04	58 U	11 UJ	12 UJ
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	58 U	11 UJ	12 U
Carbon tetrachloride	2.2E+04	300	70	58 U	11 UJ	12 U
Chlorobenzene	2.0E+07	5.4E+05	1000	58 U	11 UJ	12 U
Chloroethane	3.4E+04	--	400	58 U	11 UJ	12 U
Chloroform	9.9E+05	--	6.00E+02	58 U	11 UJ	12 U
Chloromethane	1.0E+07	300	600	58 UJ	11 UJ	12 UJ
Dibromochloromethane	--	--	--	58 U	11 UJ	12 U
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	58 U	11 UJ	12 U
1,2-Dichloroethane	3.1E+04	600	20	58 U	11 UJ	12 U
1,1-Dichloroethene	5.1E+07	4.1E+05	60	58 U	11 UJ	12 U
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	58 UJ	11 UJ	12 U
1,2-Dichloropropane	4.2E+04	2.1E+04	30	58 U	11 UJ	12 U
cis-1,3-Dichloropropene	2.9E+04	--	4	58 U	11 UJ	12 U
trans-1,3-Dichloropropene	2.9E+04	--	4	58 U	11 UJ	12 U
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	58 U	11 UJ	12 U
2-Hexanone	--	--	--	58 U	11 UJ	12 UJ
Methylene chloride	3.8E+05	2.2E+04	20	58 U	11 UJ	12 U
4-Methyl-2-Pentanone	--	--	--	58 U	11 UJ	12 U
Styrene	2.0E+08	1.5E+06	4000	58 U	11 UJ	12 U
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	58 U	11 UJ	12 U
Tetrachloroethene	5300	2000	60	58 U	11 UJ	12 U
Toluene	2.0E+08	6.5E+05	1.2E+04	58 U	11 UJ	12 U
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	58 U	11 UJ	12 U
1,1,2-Trichloroethane	5.0E+04	2000	20	58 U	11 UJ	12 U
Trichloroethene	7200	100	60	58 U	11 UJ	12 U
Vinyl chloride	4000	1000	10	58 U	11 UJ	12 U
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	58 U	11 UJ	12 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown D - analyzed at a secondary dilution factor -- not available J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard for
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-91
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(0.5-1.0) BQO807 25-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)				
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	370 U
Acenaphthylene	--	--	--	370 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	370 U
Benzo(a)anthracene	*2000*	--	2,000	370 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	370 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	370 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	370 U
Benzo(a)pyrene	*200*	2.6E+06	8,000	370 U
bis(2-Chloroethoxy)methane	--	--	--	370 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	370 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	370 U
4-Bromophenyl phenyl ether	--	--	--	370 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	370 U
Carbazole	*9.6E+04*	9.4E+08	600	370 U
4-Chloroaniline	*2.7E+06*	--	700	370 U
p-Chloro-m-cresol	--	--	--	370 U
2-Chloronaphthalene	8.2E+07	--	--	370 U
2-Chlorophenol	*3.4E+06*	--	4,000	370 U
4-Chlorophenyl phenyl ether	--	--	--	370 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	370 U
Dibenzo(a,h)anthracene	*200*	--	2,000	370 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	370 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	370 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	370 U
1,3-Dichlorobenzene	3.1E+06	--	--	370 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	370 U
3,3'-Dichlorobenzidine	*4,000*	--	7	370 U

Table 5-91
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 2 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(0.5-1.0) BQO807 25-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)				
2,4-Dichlorophenol	*2.1E+06*	--	1,000	370 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	370 U
Dimethyl phthalate	1.0E+10	--	--	370 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	370 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	910 U
2,4-Dinitrophenol	*1.4E+06*	--	200	910 U
2,4-Dinitrotoluene	2.0E+06	--	0.8	370 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	370 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	370 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	370 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	370 U
Hexachlorobenzene	*1,000*	2,000	2,000	370 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	370 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	370 U
Hexachloroethane	*1.4E+05*	9.2E+04	500	370 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	370 U
Isophorone	*2.0E+06*	--	500	370 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	150 J
2-Methylphenol	*3.4E+07*	--	1.5E+04	370 UJ
4-Methylphenol	5.1E+06	--	--	370 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	370 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	370 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	47 J
2-Nitroaniline	3.1E+06	--	--	910 U
3-Nitroaniline	1.4E+05	--	--	910 U
4-Nitroaniline	1.4E+05	--	--	910 U
Nitrobenzene	*3.4E+05*	1.3E+05	100	370 U

Table 5-91
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 3 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(0.5-1.0) BQO807 25-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)				
2-Nitrophenol	--	--	--	370 U
4-Nitrophenol	--	--	--	910 U
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	370 U
Pentachlorophenol	*1.0E+04*	--	30	910 U
Phenanthrene	1.7E+07	--	4.2E+05	370 U
Phenol	*2.1E+08*	1.0E+09	1.0E+05	370 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	370 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	370 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	910 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	370 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

-- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentra (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-92
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(3.0-3.5) BQO804 21-Jun-96	44-03(3-3.5) BQV561 7-Aug-96	44-03(6.5-7) BQV558 1-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	390 U	360 U	360 U
Acenaphthylene	--	--	--	390 U	360 U	360 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	390 U	360 U	360 U
Benzo(a)anthracene	*2000*	--	2,000	390 U	360 UJ	360 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	390 U	360 U	360 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	390 U	360 U	360 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	390 U	360 U	360 U
Benzo(a)pyrene	*200*	2.6E+06	8,000	390 U	360 U	360 U
bis(2-Chloroethoxy)methane	--	--	--	390 U	360 U	360 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	390 U	360 U	360 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	390 U	360 UJ	360 U
4-Bromophenyl phenyl ether	--	--	--	390 U	360 U	360 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	390 U	360 UJ	360 U
Carbazole	*9.6E+04*	9.4E+08	600	390 U	360 U	360 U
4-Chloroaniline	*2.7E+06*	--	700	390 U	360 U	360 U
p-Chloro-m-cresol	--	--	--	390 U	360 U	360 U
2-Chloronaphthalene	8.2E+07	--	--	390 U	360 U	360 U
2-Chlorophenol	*3.4E+06*	--	4,000	390 U	360 U	360 U
4-Chlorophenyl phenyl ether	--	--	--	390 U	360 U	360 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	390 U	360 UJ	360 U
Dibenzo(a,h)anthracene	*200*	--	2,000	390 U	360 U	360 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	390 U	360 U	360 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	390 U	360 U	360 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	390 U	360 U	360 U
1,3-Dichlorobenzene	3.1E+06	--	--	390 U	360 U	360 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	390 U	360 U	360 U
3,3'-Dichlorobenzidine	*4,000*	--	7	390 U	360 UJ	360 U

Table 5-92
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 2 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(3.0-3.5) BQO804 21-Jun-96	44-03(3-3.5) BQV561 7-Aug-96	44-03(6.5-7) BQV558 1-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
2,4-Dichlorophenol	*2.1E+06*	--	1,000	390 U	360 U	360 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	390 U	360 U	360 U
Dimethyl phthalate	1.0E+10	--	--	390 U	360 U	360 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	390 U	360 U	360 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	940 U	870 U	870 U
2,4-Dinitrophenol	*1.4E+06*	--	200	940 U	870 UJ	870 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	390 U	360 U	360 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	390 U	360 U	360 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	390 U	360 UJ	360 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	390 U	360 U	360 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	390 U	360 U	360 U
Hexachlorobenzene	*1,000*	2,000	2,000	390 U	360 U	360 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	390 U	360 U	360 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	390 U	360 UJ	360 U
Hexachloroethane	*1.4E+05*	9.2E+04	500	390 U	360 U	360 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	390 U	360 U	360 U
Isophorone	*2.0E+06*	--	500	390 U	360 U	360 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	140 J	360 U	360 U
2-Methylphenol	*3.4E+07*	--	1.5E+04	390 UJ	360 U	360 U
4-Methylphenol	5.1E+06	--	--	390 U	360 U	360 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	390 U	360 U	360 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	390 U	360 U	360 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	44 J	360 U	360 U
2-Nitroaniline	3.1E+06	--	--	940 U	870 U	870 U
3-Nitroaniline	1.4E+05	--	--	940 U	870 U	870 U
4-Nitroaniline	1.4E+05	--	--	940 U	870 U	870 U
Nitrobenzene	*3.4E+05*	1.3E+05	100	390 U	360 U	360 U

Table 5-92
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 3 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	44-01(3.0-3.5) BQO804 21-Jun-96	44-03(3-3.5) BQV561 7-Aug-96	44-03(6.5-7) BQV558 1-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
2-Nitrophenol	--	--	--	390 U	360 U	360 U
4-Nitrophenol	--	--	--	940 U	870 U	870 U
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	390 U	360 U	360 U
Pentachlorophenol	*1.0E+04*	--	30	940 U	870 UJ	870 U
Phenanthrene	1.7E+07	--	4.2E+05	390 U	360 U	360 U
Phenol	*2.1E+08*	1.0E+09	1.0E+05	390 U	360 U	360 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	390 U	360 UJ	360 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	390 U	360 U	360 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	940 U	870 U	870 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	390 U	360 U	360 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

-- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based con (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-93
Metal Concentrations in Surface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	44-01(0.5-1.0) BQO807 25-Jun-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Antimony	410	--	5	9.2	7.6 U
Arsenic	1.9	770	29	8.7	0.8 BJ
Barium	7.2E+04	1.0E+06	1,600	183	114
Beryllium	2,000	2,600	63	0.4	0.34 B
Cadmium	*900*	3,400	8	0.8	0.41 U
Chromium	3,100	510	38	31	5.8
Cobalt	2.0E+04	1900	1300	17	13
Lead	400	--	--	32	2.3 J
Mercury	*340*	14	2	1.7	0.05 U
Nickel	2.0E+04	2.6E+04	130	28	4.3 B
Selenium	5,100	--	5	2.2	0.82 U
Vanadium	1,000	--	6,000	139	88.6

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the listed concentration

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CDRL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

-- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20.

Table 5-94
Metal Concentrations in Subsurface Soil
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	44-01-(3.0-3.5) BQO804 21-Jun-96	44-03(3-3.5) BQV561 7-Aug-96	44-03(6.5-7) BQV558 1-Aug-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Antimony	410	--	5	9.2	7.8 U	7.3 UJ	7.3 UJ
Arsenic	1.9	770	29	8.7	0.82 UJ	1.1 UJ	5.5 J
Barium	7.2E+04	1.0E+06	1,600	183	155	11.9 B	10.7 B
Beryllium	2,000	2,600	63	0.4	0.33 B	0.07 B	0.04 U
Cadmium	*900*	3,400	8	0.8	0.42 U	0.39 U	0.39 U
Chromium	3,100	510	38	31	6.2	2.7	3
Cobalt	2.0E+04	1900	1300	17	13	2.9 B	0.81 U
Lead	400	--	--	32	2.1 J	1.1	0.87
Mercury	*340*	14	2	1.7	0.05 U	0.04 U	0.04 U
Nickel	2.0E+04	2.6E+04	130	28	3.1 B	1.3 U	1.3 U
Selenium	5,100	--	5	2.2	0.85 U	1 UJ	1 UJ
Vanadium	1,000	--	6,000	139	96.5	61	17.4

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the listed concentration
J - estimated based on data validation
N - spiked sample recovery not within control limits
B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CDRL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Notes:
1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20.

Table 5-95
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Well ID	MCL	BB-2
Lab ID	or RBSL[1]	BRO811
Sample Date		26-Aug-96
VOCs (Reporting units are in ug/L)		
Acetone	*5500*	31 J
Benzene	**5**	10 U
Bromodichloromethane	**80**	10 U
Bromoform	**80**	10 U
Bromomethane	*8.5*	10 U
2-Butanone	*7000*	10 U
Carbon disulfide	*1000*	10 U
Carbon tetrachloride	**5**	10 U
Chlorobenzene	**100**	10 U
Chloroethane	*3.6*	10 U
Chloroform	**80**	10 U
Chloromethane	*190*	10 UJ
Dibromochloromethane	**80**	10 U
1,1-Dichloroethane	*800*	10 U
1,2-Dichloroethane	**5**	10 U
1,1-Dichloroethene	**7**	10 U
1,2-Dichloroethene (total)	**70**	10 U
1,2-Dichloropropane	**5**	10 U
cis-1,3-Dichloropropene	*0.44*	10 U
trans-1,3-Dichloropropene	*0.44*	10 U
Ethylbenzene	**700**	10 U
2-Hexanone	--	10 U
Methylene chloride	**5**	10 U
4-Methyl-2-Pentanone	*6300*	10 U
Styrene	**100**	10 U
1,1,2,2-Tetrachloroethane	*0.053*	10 U
Tetrachloroethene	**5**	10 U
Toluene	**1000**	10 U
1,1,1-Trichloroethane	**200**	10 U
1,1,2-Trichloroethane	**5**	10 U
Trichloroethene	**5**	10 U
Vinyl chloride	**2**	10 U
Xylene (total)	**1.0E+04**	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown. J - estimated value. -- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-96
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 3)

Well ID	MCL	BB-2
Lab ID	or RBSL[1]	BRO810
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
Acenaphthene	*370*	10 U
Acenaphthylene	*1,500*	10 U
Anthracene	*1,800*	10 U
Benzo(a)anthracene	*0.092*	10 U
Benzo(b)fluoranthene	*0.092*	10 U
Benzo(k)fluoranthene	*0.92*	10 U
Benzo(ghi)perylene	*73*	10 U
Benzo(a)pyrene	**0.2**	10 U
bis(2-Chloroethoxy)methane	--	10 U
bis(2-Chloroethyl) ether	*0.0096*	10 U
bis(2-Ethylhexyl)phthalate	**6**	10 U
4-Bromophenyl phenyl ether	--	10 U
Butyl benzyl phthalate	*7,300*	10 U
Carbazole	*3.3*	10 U
4-Chloroaniline	*150*	10 U
p-Chloro-m-cresol	--	10 U
2-Chloronaphthalene	*490*	10 U
2-Chlorophenol	*30*	10 U
4-Chlorophenyl phenyl ether	--	10 U
Chrysene	*9.2*	10 U
Dibenzo(a,h)anthracene	*0.0092*	10 U
Dibenzofuran	*12*	10 U
Di-n-butyl phthalate	*3,700*	10 U
1,2-Dichlorobenzene	**600**	10 U
1,3-Dichlorobenzene	*18*	10 U
1,4-Dichlorobenzene	**75**	10 U
3,3'-Dichlorobenzidine	*0.15*	10 UJ

Table 5-96
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 2 of 3)

Well ID	MCL	BB-2
Lab ID	or RBSL[1]	BRO810
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
2,4-Dichlorophenol	*110*	10 U
Diethyl phthalate	*2.9E+04*	10 U
Dimethyl phthalate	*3.7E+05*	10 U
2,4-Dimethylphenol	*730*	10 U
4,6-Dinitro-o-cresol	*3.7*	26 U
2,4-Dinitrophenol	*73*	26 U
2,4-Dinitrotoluene	*73*	10 U
2,6-Dinitrotoluene	*37*	10 U
Di-n-octyl phthalate	*1,500*	10 U
Fluoranthene	*1,500*	10 U
Fluorene	*240*	10 U
Hexachlorobenzene	**1**	10 U
Hexachlorobutadiene	*0.86*	10 U
Hexachlorocyclopentadiene	**50**	10 U
Hexachloroethane	*4.8*	10 U
Indeno(1,2,3-c,d)pyrene	*0.092*	10 U
Isophorone	*70*	10 U
2-Methylnaphthalene	*24*	10 U
2-Methylphenol	*1,800*	10 U
4-Methylphenol	*180*	10 U
N-Nitrosodiphenylamine	*14*	10 U
N-Nitrosodi-n-propylamine	*0.0096*	10 U
Naphthalene	*6.5*	10 U
2-Nitroaniline	*110*	26 U
3-Nitroaniline	*3.3*	26 U
4-Nitroaniline	*3.3*	26 UJ
Nitrobenzene	*3.5*	10 U

Table 5-96
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 3 of 3)

Well ID	MCL	BB-2
Lab ID	or RBSL[1]	BRO810
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
2-Nitrophenol	--	10 U
4-Nitrophenol	--	26 U
2,2'-oxybis(1-chloropropane)	--	10 UJ
Pentachlorophenol	**1**	26 U
Phenanthrene	*73*	10 U
Phenol	*1.1E+04*	10 U
Pyrene	*180*	10 U
1,2,4-Trichlorobenzene	**70**	10 U
2,4,5-Trichlorophenol	*3,700*	26 U
2,4,6-Trichlorophenol	*6.1*	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown.
J - estimated value.
-- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics. RBSLs for acenaphthylene, benzo(ghi)perylene, and phenanthrene are from TNRCC (2004).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-97
Metal Concentrations in Groundwater
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Well ID	MCL	BB-2
Lab ID	or RBSL[1]	BRO810
Sample Date		26-Aug-96
		Dissolved
Metals (Reporting units are in ug/L)		
Antimony	**6**	33.4 U
Arsenic	**10**	5.2 U
Barium	**2000**	413
Beryllium	**4**	0.2 U
Cadmium	**5**	2.7 BJ
Chromium	**100**	4.4 B
Cobalt	*730*	4.7 B
Lead	**15**	2.7 U
Mercury	**2**	0.1 U
Nickel	*730*	6 U
Selenium	**50**	4.7 U
Vanadium	*37*	2.8 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels (RBCs) for tap water (Oct 2004) are shown in italics.
2. EPA Region 3 tap water RBCs are less than MCLs for all detected constituents, except for arsenic, which has a Region 3 RBC of 0.045 ug/L.
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-98
Immunoassay Field Screening Results
SCYI RFI
Ballast Basin Skimmer Area (SWMU 44)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX					PAH				
	0.5-1.0	0.5-1.5	1.5-2.0	3.0-3.5	3.0-3.5(D)	0.5-1.0	0.5-1.5	1.5-2.0	3.0-3.5	3.0-3.5(D)
44-01			ND	ND		ND		ND	ND	
44-02		ND		ND		ND	ND		ND	
44-03	ND		**> 35**	**> 35**		ND			ND	
44-04			ND	ND	ND	ND			ND	ND
44-05			ND	ND		ND			ND	

Notes:
1. All immunoassay concentrations are in ppm.
2. ND means non-detect. The detection limit was 2.5 ppm for BTEX and 0.6 ppm for PAHs.
3. (D) suffix denotes duplicate.
4. A blank box denotes not a sampled depth.
5. Bolded boxes indicate concentrations above site screening levels of 2.5 ppm for BTEX and 5 ppm for PAHs. Concentrations above site screening levels may also be due to cross-reactivity to non-target constituents.

Table 5-99
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-01(0-2.0) BQV508 2-Jul-96	45-02(0-2.0) BQV507 2-Jul-96	45-04(1.5-2) BQO889 2-Jul-96	45-05(1.5-2) BQO888 2-Jul-96	45-08(1.5-2) BQV505 1-Jul-96	45-10(0-2.0) BQO877 28-Jun-96	45-11(0-2.0) BQO878 28-Jun-96	45-12(0-2) BQO899 28-Jun-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)											
Acetone	*1.1E+08*	5.8E+07	1.6E+04	120 UJ	17 J	11 U	93 J	120 J	11 UJ	12 U	14 UJ
Benzene	5.2E+04	800	30	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Bromodichloromethane	4.6E+04	--	600	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Bromoform	3.6E+05	8.8E+04	800	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Bromomethane	1.4E+06	1.3E+04	200	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
2-Butanone	6.1E+08	1.4E+08	2.9E+04	120 UJ	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Carbon tetrachloride	2.2E+04	300	70	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Chlorobenzene	2.0E+07	5.4E+05	1000	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Chloroethane	3.4E+04	--	400	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Chloroform	9.9E+05	--	6.00E+02	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Chloromethane	1.0E+07	300	600	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Dibromochloromethane	--	--	--	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
1,2-Dichloroethane	3.1E+04	600	20	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
1,1-Dichloroethene	5.1E+07	4.1E+05	60	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
1,2-Dichloropropane	4.2E+04	2.1E+04	30	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
cis-1,3-Dichloropropene	2.9E+04	--	4	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
trans-1,3-Dichloropropene	2.9E+04	--	4	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
2-Hexanone	--	--	--	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Methylene chloride	3.8E+05	2.2E+04	20	120 U	8 J	6 J	8 J	22 U	7 J	12 J	14 UJ
4-Methyl-2-Pentanone	--	--	--	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Styrene	2.0E+08	1.5E+06	4000	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Tetrachloroethene	5300	2000	60	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Toluene	2.0E+08	6.5E+05	1.2E+04	120 U	7 J	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
1,1,2-Trichloroethane	5.0E+04	2000	20	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ
Trichloroethene	7200	100	60	120 U	12 UJ	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Vinyl chloride	4000	1000	10	120 U	12 U	11 U	12 U	22 U	11 UJ	12 U	14 UJ
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	120 U	12 UJ	11 U	12 U	22 UJ	11 UJ	12 U	14 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown D - analyzed at a secondary dilution factor J - estimated value -- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard fon
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-100
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-04(3-3.5) BQO894 2-Jul-96	45-05(3-3.5) BQO890 2-Jul-96	45-05(5-5.5) BQO891 2-Jul-96	45-06(5-5.5) BQV500 1-Jul-96	45-08(3-3.5) BQV506 1-Jul-96	45-09(3-3.5) BQV503 1-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Acetone	*1.1E+08*	5.8E+07	1.6E+04	58 U	1600 UJ	160 J	80 J	140 J	1300 UJ
Benzene	5.2E+04	800	30	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Bromodichloromethane	4.6E+04	--	600	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Bromoform	3.6E+05	8.8E+04	800	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Bromomethane	1.4E+06	1.3E+04	200	12 U	1600 U	11 UJ	11 U	12 U	1300 U
2-Butanone	6.1E+08	1.4E+08	2.9E+04	12 U	1600 UJ	11 UJ	11 UJ	12 UJ	1300 UJ
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Carbon tetrachloride	2.2E+04	300	70	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Chlorobenzene	2.0E+07	5.4E+05	1000	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Chloroethane	3.4E+04	--	400	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Chloroform	9.9E+05	--	6.00E+02	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Chloromethane	1.0E+07	300	600	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Dibromochloromethane	--	--	--	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	12 U	1600 U	11 UJ	11 U	12 U	1300 U
1,2-Dichloroethane	3.1E+04	600	20	12 U	1600 U	11 UJ	11 U	12 U	1300 U
1,1-Dichloroethene	5.1E+07	4.1E+05	60	12 U	1600 U	11 UJ	11 U	12 U	1300 U
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	12 U	1600 U	11 UJ	11 U	12 U	1300 U
1,2-Dichloropropane	4.2E+04	2.1E+04	30	12 U	1600 U	11 UJ	11 U	12 U	1300 U
cis-1,3-Dichloropropene	2.9E+04	--	4	12 U	1600 U	11 UJ	11 U	12 U	1300 U
trans-1,3-Dichloropropene	2.9E+04	--	4	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
2-Hexanone	--	--	--	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Methylene chloride	3.8E+05	2.2E+04	20	7 J	1600 U	11 UJ	9 J	6 J	1300 U
4-Methyl-2-Pentanone	--	--	--	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Styrene	2.0E+08	1.5E+06	4000	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Tetrachloroethene	5300	2000	60	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Toluene	2.0E+08	6.5E+05	1.2E+04	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	12 U	1600 U	11 UJ	11 U	12 U	1300 U
1,1,2-Trichloroethane	5.0E+04	2000	20	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U
Trichloroethene	7200	100	60	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Vinyl chloride	4000	1000	10	12 U	1600 U	11 UJ	11 U	12 U	1300 U
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	12 U	1600 U	11 UJ	11 UJ	12 U	1300 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown D - analyzed at a secondary dilution factor J - estimated value -- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard fo
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-01(0-2.0) BQV508 2-Jul-96	45-02(0-2.0) BQV507 2-Jul-96	45-04(0.5-1) BQO895 2-Jul-96	45-05(0.5-1) BQO892 2-Jul-96	45-08(0-0.5) BQV504 1-Jul-96	45-10(0-2.0) BQO877 28-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	390 U	380 U	380 U	380 U	380 U	350 U
Acenaphthylene	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	390 U	380 U	380 U	380 U	380 U	350 U
Benzo(a)anthracene	*2000*	--	2,000	390 U	380 U	380 UJ	380 U	380 U	350 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	390 U	380 U	380 UJ	380 U	380 U	350 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	390 U	380 U	380 UJ	380 U	380 U	350 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	390 U	470	380 UJ	380 U	380 U	350 U
Benzo(a)pyrene	*200*	2.6E+06	8,000	390 U	380 U	380 UJ	380 U	380 U	350 U
bis(2-Chloroethoxy)methane	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	390 U	380 U	380 U	380 U	380 U	350 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	390 U	380 U	380 UJ	380 U	380 U	350 U
4-Bromophenyl phenyl ether	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	390 U	380 U	380 UJ	380 U	380 U	350 U
Carbazole	*9.6E+04*	9.4E+08	600	390 U	380 U	380 U	380 U	380 U	350 U
4-Chloroaniline	*2.7E+06*	--	700	390 U	380 U	380 U	380 U	380 U	350 U
p-Chloro-m-cresol	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
2-Chloronaphthalene	8.2E+07	--	--	390 U	380 U	380 U	380 U	380 U	350 U
2-Chlorophenol	*3.4E+06*	--	4,000	390 U	380 U	380 U	380 U	380 U	350 U
4-Chlorophenyl phenyl ether	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	390 U	380 U	380 UJ	380 U	380 U	350 U
Dibenzo(a,h)anthracene	*200*	--	2,000	390 U	380 U	380 UJ	380 U	380 U	350 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	390 U	380 U	380 U	380 U	380 U	350 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	390 U	380 U	380 U	380 U	380 U	350 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	390 U	380 U	380 U	380 U	380 U	350 U
1,3-Dichlorobenzene	3.1E+06	--	--	390 U	380 U	380 U	380 U	380 U	350 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	390 U	380 U	380 U	380 U	380 U	350 U
3,3'-Dichlorobenzidine	*4,000*	--	7	390 U	380 U	380 UJ	380 UJ	380 U	350 UJ

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 2 of 6)

Sample ID	Soil Ingestion/	Inhalation	Migration to	45-01(0-2.0)	45-02(0-2.0)	45-04(0.5-1)	45-05(0.5-1)	45-08(0-0.5)	45-10(0-2.0)
Lab ID	Dermal	RBSL[2]	Groundwater	BQV508	BQV507	BQO895	BQO892	BQV504	BQO877
Sample Date	RBSL[1]		RBSL[3]	2-Jul-96	2-Jul-96	2-Jul-96	2-Jul-96	1-Jul-96	28-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
2,4-Dichlorophenol	*2.1E+06*	--	1,000	390 U	380 U	380 U	380 U	380 U	350 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	390 U	380 U	380 U	380 U	380 U	350 U
Dimethyl phthalate	1.0E+10	--	--	390 U	380 U	380 U	380 U	380 U	350 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	390 U	380 U	380 U	380 U	380 U	350 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	950 U	920 U	920 U	930 U	920 U	860 U
2,4-Dinitrophenol	*1.4E+06*	--	200	950 UJ	920 UJ	920 U	930 UJ	920 UJ	860 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	390 U	380 U	380 U	380 U	380 U	350 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	390 U	380 U	380 U	380 U	380 U	350 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	390 U	380 U	380 UJ	380 U	380 U	350 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	390 U	380 U	380 U	380 U	380 U	350 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	390 U	380 U	380 U	380 U	380 U	350 U
Hexachlorobenzene	*1,000*	2,000	2,000	390 U	380 U	380 U	380 U	380 U	350 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	390 U	380 U	380 U	380 U	380 U	350 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	390 U	380 U	380 U	380 UJ	380 U	350 UJ
Hexachloroethane	*1.4E+05*	9.2E+04	500	390 U	380 U	380 U	380 U	380 U	350 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	390 U	380 U	380 UJ	380 U	380 U	350 U
Isophorone	*2.0E+06*	--	500	390 U	380 U	380 U	380 U	380 U	350 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	100 J	380 U	380 U	380 U	380 U	350 U
2-Methylphenol	*3.4E+07*	--	1.5E+04	390 U	380 U	380 U	380 U	380 U	350 U
4-Methylphenol	5.1E+06	--	--	390 U	380 U	380 U	380 U	380 U	350 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	390 U	380 U	380 U	380 U	380 U	350 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	390 U	380 U	380 U	380 U	380 U	350 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	390 U	380 U	380 U	380 U	380 U	350 U
2-Nitroaniline	3.1E+06	--	--	950 U	920 U	920 U	930 U	920 U	860 U
3-Nitroaniline	1.4E+05	--	--	950 U	920 U	920 U	930 U	920 U	860 U
4-Nitroaniline	1.4E+05	--	--	950 UJ	920 UJ	920 UJ	930 U	920 UJ	860 U
Nitrobenzene	*3.4E+05*	1.3E+05	100	390 U	380 U	380 U	380 U	380 U	350 U

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 3 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-01(0-2.0) BQV508 2-Jul-96	45-02(0-2.0) BQV507 2-Jul-96	45-04(0.5-1) BQO895 2-Jul-96	45-05(0.5-1) BQO892 2-Jul-96	45-08(0-0.5) BQV504 1-Jul-96	45-10(0-2.0) BQO877 28-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
2-Nitrophenol	--	--	--	390 U	380 U	380 U	380 U	380 U	350 U
4-Nitrophenol	--	--	--	950 UJ	920 UJ	920 UJ	930 U	920 UJ	860 U
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	390 UJ	380 UJ	380 U	380 U	380 UJ	350 U
Pentachlorophenol	*1.0E+04*	--	30	950 UJ	920 UJ	920 U	930 U	920 UJ	860 U
Phenanthrene	1.7E+07	--	4.2E+05	390 U	380 U	380 U	380 U	380 U	350 U
Phenol	*2.1E+08*	1.0E+09	1.0E+05	390 U	380 U	380 U	380 U	380 U	350 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	390 U	380 U	380 UJ	380 U	380 U	350 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	390 U	380 U	380 U	380 U	380 U	350 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	950 U	920 U	920 U	930 U	920 U	860 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	390 U	380 U	380 U	380 U	380 U	350 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

-- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentratio (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
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Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-11(0-2.0) BQO878 28-Jun-96	45-12(0-2.0) BQO879 28-Jun-96
Reporting units are in ug/kg					
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	400 U	450 U
Acenaphthylene	--	--	--	400 U	450 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	400 U	450 U
Benzo(a)anthracene	*2000*	--	2,000	400 U	450 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	400 U	450 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	400 U	450 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	400 U	1500
Benzo(a)pyrene	*200*	2.6E+06	8,000	400 U	450 U
bis(2-Chloroethoxy)methane	--	--	--	400 U	450 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	400 U	450 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	400 U	450 U
4-Bromophenyl phenyl ether	--	--	--	400 U	450 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	400 U	450 U
Carbazole	*9.6E+04*	9.4E+08	600	400 U	450 U
4-Chloroaniline	*2.7E+06*	--	700	400 U	450 U
p-Chloro-m-cresol	--	--	--	400 U	450 U
2-Chloronaphthalene	8.2E+07	--	--	400 U	450 U
2-Chlorophenol	*3.4E+06*	--	4,000	400 U	450 U
4-Chlorophenyl phenyl ether	--	--	--	400 U	450 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	400 U	450 U
Dibenzo(a,h)anthracene	*200*	--	2,000	400 U	450 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	400 U	450 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	400 U	450 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	400 U	450 U
1,3-Dichlorobenzene	3.1E+06	--	--	400 U	450 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	400 U	450 U
3,3'-Dichlorobenzidine	*4,000*	--	7	400 UJ	450 UJ

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 5 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-11(0-2.0) BQO878 28-Jun-96	45-12(0-2.0) BQO879 28-Jun-96
Reporting units are in ug/kg					
2,4-Dichlorophenol	*2.1E+06*	--	1,000	400 U	450 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	400 U	450 U
Dimethyl phthalate	1.0E+10	--	--	400 U	450 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	400 U	450 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	960 U	1100 U
2,4-Dinitrophenol	*1.4E+06*	--	200	960 UJ	1100 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	400 U	450 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	400 U	450 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	400 U	450 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	400 U	450 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	400 U	450 U
Hexachlorobenzene	*1,000*	2,000	2,000	400 U	450 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	400 U	450 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	400 UJ	450 UJ
Hexachloroethane	*1.4E+05*	9.2E+04	500	400 U	450 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	400 U	450 U
Isophorone	*2.0E+06*	--	500	400 U	450 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	400 U	450 U
2-Methylphenol	*3.4E+07*	--	1.5E+04	400 U	450 U
4-Methylphenol	5.1E+06	--	--	400 U	450 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	400 U	450 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	400 U	450 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	400 U	450 U
2-Nitroaniline	3.1E+06	--	--	960 U	1100 U
3-Nitroaniline	1.4E+05	--	--	960 U	1100 U
4-Nitroaniline	1.4E+05	--	--	960 U	1100 U
Nitrobenzene	*3.4E+05*	1.3E+05	100	400 U	450 U

Table 5-101
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
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Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-11(0-2.0) BQO878 28-Jun-96	45-12(0-2.0) BQO879 28-Jun-96
Reporting units are in ug/kg					
2-Nitrophenol	--	--	--	400 U	450 U
4-Nitrophenol	--	--	--	960 U	1100 U
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	400 U	450 U
Pentachlorophenol	*1.0E+04*	--	30	960 U	1100 U
Phenanthrene	1.7E+07	--	4.2E+05	400 U	450 U
Phenol	*2.1E+08*	1.0E+09	1.0E+05	400 U	450 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	400 U	450 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	400 U	450 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	960 U	1100 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	400 U	450 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based conc (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-102
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-04(3-3.5) BQO894 2-Jul-96	45-05(3-3.5) BQO893 2-Jul-96	45-05(5-5.5) BQO891 2-Jul-96	45-06(5-5.5) BQV500 1-Jul-96	45-08(3-3.5) BQV506 1-Jul-96	45-09(3-3.5) BQV503 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Acenaphthylene	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	370 U	2200 U	360 U	380 U	390 U	1800 U
Benzo(a)anthracene	*2000*	--	2,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	370 U	2200 U	360 U	380 U	390 U	1800 U
Benzo(a)pyrene	*200*	2.6E+06	8,000	370 U	2200 U	360 U	380 U	390 U	1800 U
bis(2-Chloroethoxy)methane	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	370 U	2200 U	360 U	380 U	390 U	1800 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	370 U	2200 U	360 U	380 U	390 UJ	1800 U
4-Bromophenyl phenyl ether	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Carbazole	*9.6E+04*	9.4E+08	600	370 U	2200 U	360 U	380 U	390 U	1800 U
4-Chloroaniline	*2.7E+06*	--	700	370 U	2200 U	360 U	380 U	390 U	1800 U
p-Chloro-m-cresol	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
2-Chloronaphthalene	8.2E+07	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
2-Chlorophenol	*3.4E+06*	--	4,000	370 U	2200 U	360 U	380 U	390 U	1800 U
4-Chlorophenyl phenyl ether	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Dibenzo(a,h)anthracene	*200*	--	2,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	370 U	2200 U	360 U	380 U	390 U	1800 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
1,3-Dichlorobenzene	3.1E+06	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	370 U	2200 U	360 U	380 U	390 U	1800 U
3,3'-Dichlorobenzidine	*4,000*	--	7	370 U	2200 U	360 UJ	380 U	390 UJ	1800 U

Table 5-102
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 2 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-04(3-3.5) BQO894 2-Jul-96	45-05(3-3.5) BQO893 2-Jul-96	45-05(5-5.5) BQO891 2-Jul-96	45-06(5-5.5) BQV500 1-Jul-96	45-08(3-3.5) BQV506 1-Jul-96	45-09(3-3.5) BQV503 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
2,4-Dichlorophenol	*2.1E+06*	--	1,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Dimethyl phthalate	1.0E+10	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	370 U	2200 U	360 U	380 U	390 U	1800 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	910 U	5300 U	880 U	920 U	950 U	4400 U
2,4-Dinitrophenol	*1.4E+06*	--	200	910 U	5300 UJ	880 UJ	920 U	950 UJ	4400 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	370 U	2200 U	360 U	380 U	390 U	1800 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	370 U	2200 U	360 U	380 U	390 U	1800 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	370 UJ	2200 U	360 U	380 UJ	390 UJ	1800 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	370 U	2200 U	360 U	380 U	390 U	1800 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Hexachlorobenzene	*1,000*	2,000	2,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	370 U	2200 U	360 U	380 U	390 U	1800 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	370 UJ	2200 UJ	360 UJ	380 UJ	390 UJ	1800 U
Hexachloroethane	*1.4E+05*	9.2E+04	500	370 U	2200 U	360 U	380 U	390 U	1800 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
Isophorone	*2.0E+06*	--	500	370 U	2200 U	360 U	380 U	390 U	1800 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
2-Methylphenol	*3.4E+07*	--	1.5E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
4-Methylphenol	5.1E+06	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	370 U	2200 U	360 U	380 U	390 U	1800 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	370 U	2200 U	360 U	380 U	390 U	1800 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	370 U	2200 U	360 U	380 U	390 U	1800 U
2-Nitroaniline	3.1E+06	--	--	910 U	5300 U	880 U	920 U	950 U	4400 U
3-Nitroaniline	1.4E+05	--	--	910 U	5300 U	880 U	920 U	950 U	4400 U
4-Nitroaniline	1.4E+05	--	--	910 UJ	5300 UJ	880 UJ	920 UJ	950 UJ	4400 UJ
Nitrobenzene	*3.4E+05*	1.3E+05	100	370 U	2200 U	360 U	380 U	390 U	1800 U

Table 5-102
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 3 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	45-04(3-3.5) BQO894 2-Jul-96	45-05(3-3.5) BQO893 2-Jul-96	45-05(5-5.5) BQO891 2-Jul-96	45-06(5-5.5) BQV500 1-Jul-96	45-08(3-3.5) BQV506 1-Jul-96	45-09(3-3.5) BQV503 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
2-Nitrophenol	--	--	--	370 U	2200 U	360 U	380 U	390 U	1800 U
4-Nitrophenol	--	--	--	910 U	5300 UJ	880 UJ	920 U	950 UJ	4400 UJ
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	370 U	2200 UJ	360 U	380 U	390 U	1800 UJ
Pentachlorophenol	*1.0E+04*	--	30	910 U	5300 UJ	880 U	920 U	950 U	4400 UJ
Phenanthrene	1.7E+07	--	4.2E+05	370 U	1400 J	21 J	380 U	390 U	3200
Phenol	*2.1E+08*	1.0E+09	1.0E+05	370 U	2200 U	360 U	380 U	390 U	1800 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	370 U	2200 U	360 U	380 U	390 U	1800 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	370 U	2200 U	360 U	380 U	390 U	1800 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	910 U	5300 U	880 U	920 U	950 U	4400 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	370 U	2200 U	360 U	380 U	390 U	1800 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

-- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentratio (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-103
Metal Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	45-01(0-2.0) BQV508 2-Jul-96	45-02(0-2.0) BQV507 2-Jul-96	45-04(0.5-1) BQO895 2-Jul-96	45-05(0.5-1) BQO892 2-Jul-96	45-08(0-0.5) BQV504 1-Jul-96	45-10(0-2.0) BQO877 28-Jun-96	45-11(0-2.0) BQO878 28-Jun-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)											
Antimony	410	--	5	9.2	7.9 UJ	7.7 UJ	7.7 UJ	7.8 UJ	7.7 UJ	7.5 UJ	8 UJ
Arsenic	1.9	770	29	8.7	6.4	5.5	6.1	7.3	1.6 B	1.8 B	1.9 BJ
Barium	7.2E+04	1.0E+06	1,600	183	16.5 B	14.6 B	51.5	39.7 B	41 B	49.5	74.7
Beryllium	2,000	2,600	63	0.4	0.08 B	0.05 B	0.39 B	0.25 B	0.17 B	0.33 B	0.29 B
Cadmium	*900*	3,400	8	0.8	0.43 U	0.41 U	0.41 U	0.42 U	0.41 U	0.41 U	0.43 U
Chromium	3,100	510	38	31	3	3.2	6.1	6	3.4	2.6	7.2
Cobalt	2.0E+04	1900	1300	17	1.7 B	1.8 B	7.8 B	4.2 B	7.2 B	6 B	9.6 B
Lead	400	--	--	32	0.88 J	2	1.2 J	2.8	1.9	5.6	6.4
Mercury	*340*	14	2	1.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	2.0E+04	2.6E+04	130	28	1.4 B	1.4 B	8.1 B	3.4 B	3.1 B	1.5 B	4 B
Selenium	5,100	--	5	2.2	0.85 U	0.83 U	0.83 UJ	0.84 U	0.83 U	0.81 UJ	0.86 U
Vanadium	1,000	--	6,000	139	12.9 J	18.3 J	111 J	32.5 J	58.3 J	74.5	90.4

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown
J - estimated based on data validation
B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.
S - The reported value was determined by the Method of Standard Additions
-- - not available

Notes:
1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20.

Table 5-103
Metal Concentrations in Surface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	45-12(0-2.0) BQO879 28-Jun-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Antimony	410	--	5	9.2	8.6 UJ
Arsenic	1.9	770	29	8.7	3.4 S
Barium	7.2E+04	1.0E+06	1,600	183	14.2 B
Beryllium	2,000	2,600	63	0.4	0.35 B
Cadmium	*900*	3,400	8	0.8	0.47 U
Chromium	3,100	510	38	31	5.1
Cobalt	2.0E+04	1900	1300	17	2.4 B
Lead	400	--	--	32	1.7
Mercury	*340*	14	2	1.7	0.05 U
Nickel	2.0E+04	2.6E+04	130	28	1.6 U
Selenium	5,100	--	5	2.2	0.93 UJ
Vanadium	1,000	--	6,000	139	20.8

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown
J - estimated based on data validation
B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.
S - The reported value was determined by the Method of Standard Additions
-- - not available

Notes:
1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20.

Table 5-104
Metal Concentrations in Subsurface Soil
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	45-04(3-3.5) BQO894 2-Jul-96	45-05(3-3.5) BQO893 2-Jul-96	45-05(5-5.5) BQO891 2-Jul-96	45-06(5-5.5) BQV500 1-Jul-96	45-08(3-3.5) BQV506 1-Jul-96	45-09(3-3.5) BQV503 1-Jul-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)										
Antimony	410	--	5	9.2	7.6 UJ	8.8 UJ	7.3 UJ	7.7 UJ	8 UJ	7.3 UJ
Arsenic	1.9	770	29	8.7	2.1 B	4.3	3.6	4.2	2.3 B	4.7
Barium	7.2E+04	1.0E+06	1,600	183	16.8 B	29.6 B	14.3 B	10.3 B	16.1 B	13.8 B
Beryllium	2,000	2,600	63	0.4	0.25 B	0.3 B	0.15 B	0.11 B	0.1 B	0.14 B
Cadmium	*900*	3,400	8	0.8	0.41 U	0.47 U	0.4 U	0.41 U	0.43 U	0.4 U
Chromium	3,100	510	38	31	1.6 B	3.7	3.8	4	2.7	2.7
Cobalt	2.0E+04	1900	1300	17	3.5 B	5.8 B	2 B	1.9 B	2.9 B	2.3 B
Lead	400	--	--	32	0.83 J	1.2 J	1.6	1.8	0.91 J	0.7 J
Mercury	*340*	14	2	1.7	0.05 U	0.05 U	0.04 U	0.05 B	0.05 U	0.04 U
Nickel	2.0E+04	2.6E+04	130	28	1.4 U	1.6 U	1.5 B	1.4 U	1.4 U	1.3 U
Selenium	5,100	--	5	2.2	0.82 U	0.94 U	0.79 U	0.83 U	0.86 U	0.79 U
Vanadium	1,000	--	6,000	139	21.6 J	32.9 J	17.4 J	18.4 J	21.5 J	16.5 J

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

-- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20.

Table 5-105
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
East Aisle Ditch (SWMU 45)
(Pages 1 of 1)

Well ID	MCL	45-01	45-02	45-09	45-09	45-10
Lab ID	or RBSL[1]	BTW505	BTW504	BTW502	BTW503	BTW500
Sample Date		6-Feb-97	7-Feb-97	7-Feb-97	7-Feb-97	7-Feb-97
					(duplicate)	
VOCs (Reporting units are in ug/L)						
Acetone	*5500*	10 U	10 J	9 J	10 UJ	10 U
Benzene	**5**	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	**80**	10 U	10 U	10 U	10 U	10 U
Bromoform	**80**	10 U	10 U	10 U	10 U	10 U
Bromomethane	*8.5*	10 U	10 UJ	10 UJ	10 UJ	10 U
2-Butanone	*7000*	10 U	10 UJ	10 UJ	10 UJ	10 UJ
Carbon disulfide	*1000*	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	**5**	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	**100**	10 U	10 U	10 U	10 U	10 U
Chloroethane	*3.6*	10 U	10 U	10 U	10 U	10 U
Chloroform	**80**	10 U	10 U	10 U	10 U	10 U
Chloromethane	*190*	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	**80**	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	*800*	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	**5**	10 U	10 U	10 U	10 U	10 UJ
1,1-Dichloroethene	**7**	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	**70**	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	**5**	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	*0.44*	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	*0.44*	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	**700**	10 U	10 U	10 U	10 U	10 U
2-Hexanone	--	10 U	10 UJ	10 UJ	10 UJ	10 U
Methylene chloride	**5**	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	*6300*	10 U	10 U	10 U	10 U	10 U
Styrene	**100**	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	*0.053*	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	**5**	10 U	10 U	10 U	10 U	10 U
Toluene	**1000**	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	**200**	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	**5**	10 U	10 U	10 U	10 U	10 U
Trichloroethene	**5**	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	**2**	10 U	10 U	10 U	10 U	10 U
Xylene (total)	**1.0E+04**	10 U	10 U	10 U	10 U	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown. J - estimated value. -- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics.
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-106
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 3)

Well ID	MCL	45-01	45-02	45-09	45-09	45-10
Lab ID	or RBSL[1]	BTW505	BTW504	BTW502	BTW503	BTW500
Sample Date		11-Feb-97	11-Feb-97	11-Feb-97	11-Feb-97	13-Feb-97
					(duplicate)	
BNAs (Reporting units are in ug/L)						
Acenaphthene	*370*	11 U	10 U	11 U	11 U	10 U
Acenaphthylene	*1,500*	11 U	10 U	11 U	11 U	10 U
Anthracene	*1,800*	11 U	10 U	11 U	11 U	10 U
Benzo(a)anthracene	*0.092*	11 UJ	10 UJ	11 U	11 UJ	10 U
Benzo(b)fluoranthene	*0.092*	11 U	10 U	11 U	11 U	10 U
Benzo(k)fluoranthene	*0.92*	11 U	10 U	11 U	11 U	10 U
Benzo(ghi)perylene	*73*	11 U	10 U	11 U	11 U	10 U
Benzo(a)pyrene	**0.2**	11 U	10 U	11 U	11 U	10 U
bis(2-Chloroethoxy)methane	--	11 U	10 U	11 U	11 U	10 U
bis(2-Chloroethyl) ether	*0.0096*	11 U	10 U	11	11 U	10 U
bis(2-Ethylhexyl)phthalate	**6**	11 UJ	10 UJ	11 U	11 UJ	10 U
4-Bromophenyl phenyl ether	--	11 U	10 U	11 U	11 U	10 U
Butyl benzyl phthalate	*7,300*	11 UJ	10 UJ	11 UJ	11 UJ	10 U
Carbazole	*3.3*	11 U	10 U	11 U	11 U	10 U
4-Chloroaniline	*150*	11 UJ	10 UJ	11 UJ	11 UJ	10 UJ
p-Chloro-m-cresol	--	11 U	10 U	11 U	11 U	10 UJ
2-Chloronaphthalene	*490*	11 U	10 U	11 U	11 U	10 U
2-Chlorophenol	*30*	11 U	10 U	11 U	11 U	10 U
4-Chlorophenyl phenyl ether	--	11 U	10 U	11 U	11 U	10 U
Chrysene	*9.2*	11 UJ	10 UJ	11 U	11 UJ	5 J
Dibenzo(a,h)anthracene	*0.0092*	11 U	10 U	11 U	11 U	10 U
Dibenzofuran	*12*	11 U	10 U	11 U	11 U	10 U
Di-n-butyl phthalate	*3,700*	11 U	10 U	11 U	11 U	10 U
1,2-Dichlorobenzene	**600**	11 U	10 U	11 U	11 U	10 U
1,3-Dichlorobenzene	*18*	11 U	10 U	11 U	11 U	10 U
1,4-Dichlorobenzene	**75**	11 U	10 U	11 U	11 U	10 U
3,3'-Dichlorobenzidine	*0.15*	11 UJ	10 UJ	11 U	11 UJ	10 U

Table 5-106
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 2 of 3)

Well ID	MCL	45-01	45-02	45-09	45-09	45-10
Lab ID	or RBSL[1]	BTW505	BTW504	BTW502	BTW503	BTW500
Sample Date		11-Feb-97	11-Feb-97	11-Feb-97	11-Feb-97	13-Feb-97
					(duplicate)	
BNAs (Reporting units are in ug/L)						
2,4-Dichlorophenol	*110*	27 U	10 U	11 U	11 U	10 U
Diethyl phthalate	*2.9E+04*	11 U	10 U	11 U	11 U	10 UJ
Dimethyl phthalate	*3.7E+05*	11 U	10 U	11 U	11 U	10 U
2,4-Dimethylphenol	*730*	11 U	10 U	11 U	11 U	10 U
4,6-Dinitro-o-cresol	*3.7*	11 U	10 U	11 U	11 U	10 U
2,4-Dinitrophenol	*73*	27 U	25 U	28 U	28 U	26 U
2,4-Dinitrotoluene	*73*	11 U	10 U	11 U	11 U	10 U
2,6-Dinitrotoluene	*37*	11 U	10 U	11 U	11 U	10 U
Di-n-octyl phthalate	*1,500*	11 U	10 U	11 U	11 U	10 UJ
Fluoranthene	*1,500*	11 U	10 U	11 U	11 U	10 U
Fluorene	*240*	11 U	2 J	5 J	7 J	4 J
Hexachlorobenzene	**1**	11 U	10 U	11 U	11 U	10 U
Hexachlorobutadiene	*0.86*	11 U	10 U	11 U	11 U	10 U
Hexachlorocyclopentadiene	**50**	11 U	10 U	11 U	11 U	10 U
Hexachloroethane	*4.8*	11 U	10 U	11 U	11 U	10 U
Indeno(1,2,3-c,d)pyrene	*0.092*	11 U	10 U	11 U	11 U	10 U
Isophorone	*70*	11 U	10 U	11 U	11 U	10 U
2-Methylnaphthalene	*24*	11 U	2 J	11 U	11 U	10 U
2-Methylphenol	*1,800*	11 U	10 U	11 U	11 U	10 U
4-Methylphenol	*180*	11 U	10 U	11 U	11 U	10 U
N-Nitrosodiphenylamine	*14*	11 U	10 U	11 U	11 U	10 U
N-Nitrosodi-n-propylamine	*0.0096*	11 U	10 U	11 U	11 U	10 U
Naphthalene	*6.5*	11 U	10 U	11 U	11 U	10 U
2-Nitroaniline	*110*	27 U	25 U	28 U	28 U	26 U
3-Nitroaniline	*3.3*	27 UJ	25 UJ	28 UJ	28 UJ	26 U
4-Nitroaniline	*3.3*	27 U	25 U	28 U	28 U	26 U
Nitrobenzene	*3.5*	11 U	10 U	11 U	11 U	10 U

Table 5-106
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 3 of 3)

Well ID	MCL	45-01	45-02	45-09	45-09	45-10
Lab ID	or RBSL[1]	BTW505	BTW504	BTW502	BTW503	BTW500
Sample Date		11-Feb-97	11-Feb-97	11-Feb-97	11-Feb-97	13-Feb-97
					(duplicate)	
BNAs (Reporting units are in ug/L)						
2-Nitrophenol	--	11 U	10 U	11 U	11 U	10 U
4-Nitrophenol	--	27 U	25 U	28 U	28 U	26 UJ
2,2'-oxybis(1-chloropropane)	--	11 U	10 U	11 U	11 U	10 U
Pentachlorophenol	**1**	27 U	25 U	28 U	28 U	26 U
Phenanthrene	*73*	11 U	10 U	11 U	11 U	8 J
Phenol	*1.1E+04*	11 U	10 U	11 U	11 U	10 U
Pyrene	*180*	11 UJ	10 UJ	11 UJ	11 UJ	5 J
1,2,4-Trichlorobenzene	**70**	11 U	10 U	11 U	11 U	10 U
2,4,5-Trichlorophenol	*3,700*	27 U	25 U	28 U	28 U	26 U
2,4,6-Trichlorophenol	*6.1*	11 U	10 U	11 U	11 U	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown.
J - estimated value.
-- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics. RBSLs for acenaphthylene, benzo(ghi)perylene, and phenanthrene are from TNRCC (2004).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-107
Metal Concentrations in Groundwater
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Well ID	MCL	45-01	45-02	45-09	45-09	45-10
Lab ID	or RBSL[1]	BTW505	BTW504	BTW502	BTW503	BTW500
Sample Date		01-Feb-97	01-Feb-97	01-Feb-97	01-Feb-97	01-Feb-97
		Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
					(Duplicate)	
Metals (Reporting units are in ug/L)						
Antimony	**6**	45.8 U	45.8 U	45.8 U	45.8 U	45.8 U
Arsenic	**10**	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U
Barium	**2000**	268	267	224	41 B	238
Beryllium	**4**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	**5**	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Chromium	**100**	6.4 U	6.4 U	6.4 U	6.4 U	6.4 U
Cobalt	*730*	5.7 U	7.3 B	5.7 U	5.7 U	5.7 U
Lead	**15**	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ	2.2 UJ
Mercury	**2**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	*730*	8.4 U	8.4 U	8.4 U	8.4 U	8.4 U
Selenium	**50**	4.5 U	4.5 U	4.5 U	4.5 UJ	4.5 U
Vanadium	*37*	5.2 U	12.1 B	5.2 U	5.2 U	5.2 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels (RBCs) for tap water (Oct 2004) are shown in italics.
2. EPA Region 3 tap water RBCs are less than MCLs for all detected constituents, except for arsenic, which has a Region 3 RBC of 0.045 ug/L.
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-108
Immunoassay Field Screening Results
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX					PAH				
	0-0.5	0-2.0	1.0-2.0	1.5-2.0	3.0-3.5	0-0.5	0-2.0	1.0-2.0	1.5-2.0	3.0-3.5
45-01		**> 35**					ND			
45-02		ND					**> 25**			
45-03			ND		ND			ND		**> 25**
45-04				**6**		ND				
45-05				**> 35**	ND	ND				**> 25**
45-06		ND			ND		ND			0.68
45-07		ND			ND		ND			ND
45-08				ND	ND				**> 25**	ND
45-09		**6**			**5**		1.8			**> 25**
45-10					ND		ND			**> 25**
45-11					ND		ND			ND
45-12		ND			ND		ND			ND

Notes:
1. All immunoassay concentrations are in ppm.
2. ND means non-detect. The detection limit was 2.5 ppm for BTEX and 0.6 ppm for PAHs.
3. A blank box denotes not a sampled depth.
4. Bolded boxes indicate concentrations above site screening levels of 2.5 ppm for BTEX and 5 ppm for PAHs. Concentrations above site screening levels may also be due to cross-reactivity to non-target constituents.

Table 5-109
Summary of Free Product Apparent Thickness
SCYI RFI
East Aisle Ditch (SWMU 45)
(Page 1 of 1)

Thickness measurements are in feet

Date \ Well	45-01	45-02	45-09	45-10
31-Aug-96	sheen	none	none	sheen
28-Jan-97	none	none	none	none

-- not available

Table 5-110
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 1)

Well ID Lab ID Sample Date	MCL or RBSL[1]	MDS-3 BQO834 13-Aug-96	MDS-4 BRO825 17-Sep-96	MDS-4 BTW401 5-Feb-97	MDS-4 BTW402 5-Feb-97 (duplicate)	MDS-4 N40627-1 3-Jun-03	MDS-4 N40627-1B 3-Jun-03 (duplicate)	MDS-9R N40872-2 5-Jun-03	MDS-8 BRO822 17-Sep-96	MDS-10R N40872-3 5-Jun-03
VOCs (Reporting units are in ug/L)										
Acetone	*5500*	10 U	10 U	10 U	10 U	25 U	25 U	3 J	10 U	3 J
Benzene	**5**	10 U	9 J	10 U	10 U	48	60	1	10 U	1
Bromodichloromethane	**80**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Bromoform	**80**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Bromomethane	*8.5*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
2-Butanone	*7000*	10 U	10 U	10 UJ	10 UJ	25 U	25 U	5 U	10 U	5 U
Carbon disulfide	*1000*	10 U	10 U	10 U	10 U	5 U	5 U	0.4 J	10 U	1 U
Carbon tetrachloride	**5**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Chlorobenzene	**100**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Chloroethane	*3.6*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Chloroform	**80**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Chloromethane	*190*	10 U	10 UJ	10 U	10 U	5 U	5 U	1 U	10 UJ	1 U
Dibromochloromethane	**80**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,1-Dichloroethane	*800*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,2-Dichloroethane	**5**	10 U	10 U	10 UJ	10 UJ	5 U	5 U	1 U	10 U	1 U
1,1-Dichloroethene	**7**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,2-Dichloroethene (total)	**70**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,2-Dichloropropane	**5**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
cis-1,3-Dichloropropene	*0.44*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
trans-1,3-Dichloropropene	*0.44*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Ethylbenzene	**700**	10 U	2 J	10 U	10 U	98	110	1 U	10 U	1 U
2-Hexanone	--	10 U	10 U	10 U	10 U	25 U	25 U	5 U	10 U	5 U
Methylene chloride	**5**	10 U	10 U	10 U	10 U	10 U	10 U	2 U	10 U	2 U
4-Methyl-2-Pentanone	*6300*	10 U	10 U	10 U	10 U	25 U	25 U	5 U	10 U	5 U
Styrene	**100**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,1,2,2-Tetrachloroethane	*0.053*	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Tetrachloroethene	**5**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Toluene	**1000**	10 U	4 J	10 U	10 U	2 J	2 J	1 U	10 U	1 U
1,1,1-Trichloroethane	**200**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
1,1,2-Trichloroethane	**5**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Trichloroethene	**5**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Vinyl chloride	**2**	10 U	10 U	10 U	10 U	5 U	5 U	1 U	10 U	1 U
Xylene (total)	**1.0E+04**	10 U	2 J	10 U	10 U	120	130	1 U	10 U	1 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown. J - estimated value. -- not available

Notes:
1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics.
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-111
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 3)

Well ID	MCL	MDS-3	MDS-4	MDS-4	MDS-4	MDS-9R	MDS-10R
Lab ID	or RBSL[1]	BQO834	BRO825	N40627-1C	N40627-1BC	N40872-2B	N40872-3B
Sample Date		13-Aug-96	17-Sep-96	3-Jun-03	3-Jun-03	3-Jun-03	5-Jun-03
					(duplicate)		
BNAs (Reporting units are in ug/L)							
Acenaphthene	*370*	10 U	11 U	2.7	2.7	2 U	2.2 U
Acenaphthylene	*1,500*	10 U	11 U	2 U	2 U	2 U	2.2 U
Anthracene	*1,800*	10 U	11 U	2 U	2 U	2 U	2.2 U
Benzo(a)anthracene	*0.092*	10 U	11 U	2 U	2 U	2 U	2.2 U
Benzo(b)fluoranthene	*0.092*	10 U	11 U	2 U	2 U	2 U	2.2 U
Benzo(k)fluoranthene	*0.92*	10 U	11 U	2 U	2 U	2 U	2.2 U
Benzo(ghi)perylene	*73*	10 U	11 U	2 U	2 U	2 U	2.2 U
Benzo(a)pyrene	**0.2**	10 U	11 U	2 U	2 U	2 U	2.2 U
bis(2-Chloroethoxy)methane	--	10 U	11 U	2 U	2 U	2 U	2.2 U
bis(2-Chloroethyl) ether	*0.0096*	10 U	11 U	2	2 U	2 U	2.2 U
bis(2-Ethylhexyl)phthalate	**6**	10 U	11 U	2 U	2 U	2 U	2.2 U
4-Bromophenyl phenyl ether	--	10 U	11 U	2 U	2 U	2 U	2.2 U
Butyl benzyl phthalate	*7,300*	10 U	11 U	2 U	2 U	2 U	2.2 U
Carbazole	*3.3*	10 U	11 U	2 U	2 U	2 U	2.2 U
4-Chloroaniline	*150*	10 U	11 U	5 U	5 U	5 U	5.4 U
p-Chloro-m-cresol	--	10 U	11 UJ	5 U	5 U	5 U	5.4 U
2-Chloronaphthalene	*490*	10 U	11 U	5 U	5 U	5 U	5.4 U
2-Chlorophenol	*30*	10 U	11 U	5 U	5 U	5 U	5.4 U
4-Chlorophenyl phenyl ether	--	10 U	11 U	2 U	2 U	2 U	2.2 U
Chrysene	*9.2*	10 U	11 U	2 U	2 U	2 U	2.2 U
Dibenzo(a,h)anthracene	*0.0092*	10 U	11 U	2 U	2 U	2 U	2.2 U
Dibenzofuran	*12*	10 U	11 U	5 U	1.1 J	5 U	5.4 U
Di-n-butyl phthalate	*3,700*	10 U	11 U	2 U	2 U	2 U	2.2 U
1,2-Dichlorobenzene	**600**	10 U	11 U	2 U	2 U	2 U	2.2 U
1,3-Dichlorobenzene	*18*	10 U	11 U	2 U	2 U	2 U	2.2 U
1,4-Dichlorobenzene	**75**	10 U	11 U	2 U	2 U	2 U	2.2 U
3,3'-Dichlorobenzidine	*0.15*	10 U	11 UJ	5 U	5 U	5 U	5.4 U

Table 5-111
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 2 of 3)

Well ID	MCL	MDS-3	MDS-4	MDS-4	MDS-4	MDS-9R	MDS-10R
Lab ID	or RBSL[1]	BQO834	BRO825	N40627-1C	N40627-1BC	N40872-2B	N40872-3B
Sample Date		13-Aug-96	17-Sep-96	3-Jun-03	3-Jun-03	3-Jun-03	5-Jun-03
					(duplicate)		
BNAs (Reporting units are in ug/L)							
2,4-Dichlorophenol	*110*	10 U	11 U	5 U	5 U	5 U	5.4 U
Diethyl phthalate	*2.9E+04*	10 U	11 U	2 U	2 U	2 U	2.2 U
Dimethyl phthalate	*3.7E+05*	10 U	11 U	2 U	2 U	2 U	2.2 U
2,4-Dimethylphenol	*730*	10 U	11 U	5 U	5 U	5 U	5.4 U
4,6-Dinitro-o-cresol	*3.7*	25 U	26 U	20 U	20 U	20 U	22 U
2,4-Dinitrophenol	*73*	25 U	26 UJ	20 U	20 U	20 U	22 U
2,4-Dinitrotoluene	*73*	10 U	11 U	2 U	2 U	2 U	2.2 U
2,6-Dinitrotoluene	*37*	10 U	11 U	2 U	2 U	2 U	2.2 U
Di-n-octyl phthalate	*1,500*	10 U	11 U	2 U	2 U	2 U	2.2 U
Fluoranthene	*1,500*	10 U	11 U	2 U	2 U	2 U	2.2 U
Fluorene	*240*	10 U	11 U	4.4	4.3	2 U	2.2 U
Hexachlorobenzene	**1**	10 U	11 U	2 U	2 U	2 U	2.2 U
Hexachlorobutadiene	*0.86*	10 U	11 U	2 U	2 U	2 U	2.2 U
Hexachlorocyclopentadiene	**50**	10 U	11 UJ	20 U	20 U	20 U	22 U
Hexachloroethane	*4.8*	10 U	11 U	5 U	5 U	5 U	5.4 U
Indeno(1,2,3-c,d)pyrene	*0.092*	10 U	11 U	2 U	2 U	2 U	2.2 U
Isophorone	*70*	10 U	11 U	2 U	2 U	2 U	2.2 U
2-Methylnaphthalene	*24*	10 U	11 U	59.7	60.1	2 U	2.2 U
2-Methylphenol	*1,800*	10 U	11 U	5 U	5 U	5 U	5.4 U
4-Methylphenol	*180*	10 U	11 U	5 U	5 U	5 U	5.4 U
N-Nitrosodiphenylamine	*14*	10 U	11 U	5 U	5 U	5 U	5.4 U
N-Nitrosodi-n-propylamine	*0.0096*	10 U	11 U	2 U	2 U	2 U	2.2 U
Naphthalene	*6.5*	10 U	11 U	21.9	21.9	2 U	2.2 U
2-Nitroaniline	*110*	25 U	26 U	5 U	5 U	5 U	5.4 U
3-Nitroaniline	*3.3*	25 U	26 U	5 U	5 U	5 U	5.4 U
4-Nitroaniline	*3.3*	25 U	26 U	5 U	5 U	5 U	5.4 U
Nitrobenzene	*3.5*	10 U	11 U	2 U	2 U	2 U	2.2 U

Table 5-111
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 3 of 3)

Well ID	MCL	MDS-3	MDS-4	MDS-4	MDS-4	MDS-9R	MDS-10R
Lab ID	or RBSL[1]	BQO834	BRO825	N40627-1C	N40627-1BC	N40872-2B	N40872-3B
Sample Date		13-Aug-96	17-Sep-96	3-Jun-03	3-Jun-03	3-Jun-03	5-Jun-03
					(duplicate)		
BNAs (Reporting units are in ug/L)							
2-Nitrophenol	--	10 U	11 U	5 U	5 U	5 U	5.4 U
4-Nitrophenol	--	25 U	26 U	20 U	20 U	20 U	22 U
2,2'-oxybis(1-chloropropane)	--	10 U	11 U	2 U	2 U	2 U	2.2 U
Pentachlorophenol	**1**	25 U	26 UJ	20 U	20 U	20 U	22 U
Phenanthrene	*73*	10 U	11 U	4.1	4.0	2 U	2.2 U
Phenol	*1.1E+04*	10 U	11 U	5 U	5 U	5 U	5.4 U
Pyrene	*180*	10 U	11 U	2 U	2 U	2 U	2.2 U
1,2,4-Trichlorobenzene	**70**	10 U	11 U	2 U	2 U	2 U	2.2 U
2,4,5-Trichlorophenol	*3,700*	25 U	26 U	5 U	5 U	5 U	5.4 U
2,4,6-Trichlorophenol	*6.1*	10 U	11 U	5 U	5 U	5 U	5.4 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown.
J - estimated value.
-- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics. RBSLs for acenaphthylene, benzo(ghi)perylene, and phenanthrene are from TNRCC (2004).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

TABLE 5-112
Metals Concentrations in Groundwater
SCYI RFI
Main Dock Sump(SWMU 33)
(Page 1 of 1)

Well ID	MCL	MDS-4	MDS-4	MDS-4	MDS-4	MDS-9R	MDS-9R	MDS-10R	MDS-10R
Lab ID	or RBSL[1]	N40627-1	N40627-1A	N40627-1B	N40627-1BA	N40872-2	N40872-2A	N40872-3	N40872-3A
Sample Date		3-Jun-03	3-Jun-03	3-Jun-03	3-Jun-03	5-Jun-03	5-Jun-03	5-Jun-03	5-Jun-03
		Total	Dissolved	Total (duplicate)	Dissolved (duplicate)	Total	Dissolved	Total	Dissolved
Metals (Reporting units are in ug/L)									
Antimony	**6**	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
Arsenic	**10**	3.3 U	3.3 U	3.5 B	3.3 U	4.3 B	5.4 B	3.3 U	3.3 U
Barium	**2000**	150 B	168 B	150 B	161 B	186 B	185 B	175 B	183 B
Beryllium	**4**	0.20 U	0.29 B	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Cadmium	**5**	0.76 B	0.90 B	0.59 B	0.64 B	1.2 B	0.95 B	0.73 B	0.85 B
Chromium	**100**	0.74 B	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Cobalt	*730*	1.2 B	0.97 B	0.70 U	0.70 U	0.97 B	0.70 U	0.70 U	1.4 B
Lead	**15**	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Mercury	**2**	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Nickel	*730*	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Selenium	**50**	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Vanadium	*37*	2.5 B	2.0 B	1.9 B	1.7 B	0.90 U	0.90 U	0.90 U	0.90 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

--- not sampled

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels (RBCs) for tap water (Oct 2004) are shown in italics.
2. EPA Region 3 tap water RBCs are less than MCLs for all detected constituents, except for arsenic, which has a Region 3 RBC of 0.045 ug/L.
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-113
Summary of Free Product Apparent Thickness
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 1)

Thickness measurements are in feet

Date \ Well	MDS-1	MDS-2	MDS-3	MDS-4	MDS-5	MDS-6	MDS-6R	MDS-7	MDS-8	large dia
16-Jul-96	1.11	0.63	none	sheen	--	--	--	--	--	--
8-Aug-96	1.75	1.12	none	--	--	2.34	--	sheen	none	--
28-Aug-96	0.74	0.41	none	sheen	0.11	0.58	none	0.04	none	--
1-Sep-96	0.69	0.4	none	sheen	0.12	0.5	none	0.08	none	sheen
18-Sep-96	1.16	0.05	none	none	0.98	0.35	0.84	none	none	--
28-Jan-97	0.81	0.43	none	none	0.28	0.88	0.63	0.34	none	0.01

-- not available
large dia - existing large diameter recovery well

Table 5-114
Volatile Organic Compound Concentrations in Surface Water
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 1)

Sample ID Lab ID Sample Date	EPA Region 4 Saltwater Screening Levels	EPA Ambient Water Quality Criteria[2]	Puerto Rico Water Quality Standards[3]	MDW-SW1 N91847-1 23-Feb-05	MDW-SW1 N91847-2 23-Feb-05 (duplicate)	MDS-SW2 N93098-1 11-Mar-05	MDS-SW2 N93098-2 11-Mar-05 (duplicate)
VOCs (Reporting units are in ug/L)							
Acetone		--		10 U	10 U	10 U	10 U
Benzene	109	--	710	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	--	--	460	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	640	--	3600	4.0 U	4.0 U	4.0 U	4.0 U
Bromomethane	120	--	4000	2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone		--		10 U	10 U	10 U	10 U
Carbon disulfide		--		2.0 U	2.0 U	2.0 U	2.0 U
Carbon tetrachloride	1500	--	44	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	105	--	21000	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	--			1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	815	--		1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	2700			1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	--	--	340	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane		--		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1130	--	990	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	2240	--	32	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)		--		1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2400		390	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	7.9			1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	7.9			1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	4.3	--	29000	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone				5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone				5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	2560	--	16000	2.0 U	2.0 U	2.0 U	2.0 U
Styrene		--		5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	90.2	--	110	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	45	--	88.5	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	37	--	200000	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	312		1030	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	--		420	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene		--	810	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride		--	5250	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)		--		1.0 U	1.0 U	1.0 U	1.0 U

U - compound was analyzed for but not detected at the concentration shown

Notes:

1. From EPA, Region 4 (EPA, 2003b).
2. From EPA ambient water quality standards for protection of aquatic life in saltwater for continuous exposure (EPA, 2002b).
3. From Puerto Rico Water Quality Standards (PREQB, 2003) for protection of human health in Class SB waters.

-- indicates standard not available

Table 5-115
Base Neutral/Acid Extractable Compound Concentrations in Surface Water
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 3)

Sample ID Lab ID Sample Date	EPA Region 4 Saltwater Screening Levels[1]	EPA Ambient Water Quality Criteria[2]	Puerto Rico Water Quality Standards[3]	MDW-SW1 N91847-1 23-Feb-05	MDW-SW1 N91847-2 23-Feb-05 (duplicate)	MDS-SW2 N93098-1 11-Mar-05	MDS-SW2 N93098-2 11-Mar-05
BNAs (Reporting units are in ug/L)							
Acenaphthene	9.7	--	2700	2.2 U	2.0 U	2.0 U	2.0 U
Acenaphthylene		--		2.2 U	2.0 U	2.0 U	2.0 U
Anthracene		--	110000	2.2 U	2.0 U	2.0 U	2.0 U
Benzo(a)anthracene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Benzo(b)fluoranthene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Benzo(k)fluoranthene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Benzo(ghi)perylene		--		2.2 U	2.0 U	2.0 U	2.0 U
Benzo(a)pyrene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroethoxy)methane	--	--		2.2 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroethyl) ether	--	--	14.0	2.2 U	2.0 U	2.0 U	2.0 U
bis(2-Ethylhexyl)phthalate	--	--	59	2.2 U	2.0 U	2.0 U	2.0 U
4-Bromophenyl phenyl ether	--			2.2 U	2.0 U	2.0 U	2.0 U
Butyl benzyl phthalate	29.4	--	5200	2.2 U	2.0 U	2.0 U	2.0 U
Carbazole	--	--		2.2 U	2.0 U	2.0 U	2.0 U
4-Chloroaniline	--	--		5.6 U	5.1 U	5.0 U	5.0 U
p-Chloro-m-cresol	--	--		2.2 U	2.0 U	2.0 U	2.0 U
2-Chloronaphthalene	--	--	4300	5.6 U	5.1 U	5.0 U	5.0 U
2-Chlorophenol	--	--		2.2 U	2.0 U	2.0 U	2.0 U
4-Chlorophenyl phenyl ether				2.2 U	2.0 U	2.0 U	2.0 U
Chrysene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Dibenzo(a,h)anthracene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Dibenzofuran		--		5.6 U	2.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	3.4	--	12000	2.2 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	19.7	--	17000	2.2 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	28.5	--	2600	2.2 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	19.9	--	2600	2.2 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine		--	0.77	5.6 U	5.1 U	5.0 U	5.0 U

Table 5-115
Base Neutral/Acid Extractable Compound Concentrations in Surface Water
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 2 of 3)

Sample ID Lab ID Sample Date	EPA Region 4 Saltwater Screening Levels[1]	EPA Ambient Water Quality Criteria[2]	Puerto Rico Water Quality Standards[3]	MDW-SW1 N91847-1 23-Feb-05	MDW-SW1 N91847-2 23-Feb-05 (duplicate)	MDS-SW2 N93098-1 11-Mar-05	MDS-SW2 N93098-2 11-Mar-05
BNAs (Reporting units are in ug/L)							
2,4-Dichlorophenol	--	--	790	2.2 U	2.0 U	2.0 U	2.0 U
Diethyl phthalate	75.9	--	120000	2.2 U	2.0 U	2.0 U	2.0 U
Dimethyl phthalate	580	--	2900000	2.2 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	--	--	2300	2.2 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-o-cresol	--	--	765	2.2 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrophenol	48.5	--	14000	2.2 U	2.0 U	2.0 U	2.0 U
2,4-Dinitrotoluene	--	--	9.1	2.2 U	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene		--		2.2 U	2.0 U	2.0 U	2.0 U
Di-n-octyl phthalate		--		2.2 U	2.0 U	2.0 U	2.0 U
Fluoranthene	1.6	--	370	2.2 U	2.0 U	2.0 U	2.0 U
Fluorene		--	14000	2.2 U	2.0 U	2.0 U	2.0 U
Hexachlorobenzene			0.0077	2.2 U	2.0 U	2.0 U	2.0 U
Hexachlorobutadiene	0.32		500	2.2 U	2.0 U	2.0 U	2.0 U
Hexachlorocyclopentadiene	0.07		17000	22 U	2.0 U	2.0 U	2.0 U
Hexachloroethane	9.4		89	5.6 U	5.1 U	5.0 U	5.0 U
Indeno(1,2,3-c,d)pyrene		--	0.49	2.2 U	2.0 U	2.0 U	2.0 U
Isophorone	129		26000	2.2 U	2.0 U	2.0 U	2.0 U
2-Methylnaphthalene		--		2.2 U	2.0 U	2.0 U	2.0 U
2-Methylphenol				2.2 U	2.0 U	2.0 U	2.0 U
4-Methylphenol				2.2 U	2.0 U	2.0 U	2.0 U
N-Nitrosodiphenylamine	33000	--	160	5.6 U	5.1 U	5.0 U	5.0 U
N-Nitrosodi-n-propylamine	--		14	2.2 U	2.0 U	2.0 U	2.0 U
Naphthalene	23.5	--		2.2 U	2.0 U	2.0 U	2.0 U
2-Nitroaniline				5.6 U	5.1 U	5.0 U	5.0 U
3-Nitroaniline				5.6 U	5.1 U	5.0 U	5.0 U
4-Nitroaniline				5.6 U	5.1 U	5.0 U	5.0 U
Nitrobenzene	66.8	--	1900	2.2 U	2.0 U	2.0 U	2.0 U

Table 5-115
Base Neutral/Acid Extractable Compound Concentrations in Surface Water
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 3 of 3)

Sample ID Lab ID Sample Date	EPA Region 4 Saltwater Screening Levels[1]	EPA Ambient Water Quality Criteria[2]	Puerto Rico Water Quality Standards[3]	MDW-SW1 N91847-1 23-Feb-05	MDW-SW1 N91847-2 23-Feb-05 (duplicate)	MDS-SW2 N93098-1 11-Mar-05	MDS-SW2 N93098-2 11-Mar-05
BNAs (Reporting units are in ug/L)							
Phenanthrene		--		2.2 U	2.0 U	2.0 U	2.0 U
Phenol	58	--	4600000	2.2 U	2.0 U	2.0 U	2.0 U
Pyrene		--	11000	2.2 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene			940	2.2 U	2.0 U	2.0 U	2.0 U

U - compound was analyzed for but not detected at the concentration shown

Notes:

1. From EPA, Region 4 (EPA, 2003b).
2. From EPA ambient water quality standards for protection of aquatic life in saltwater for continuous exposure (EPA, 2002b).
3. From Puerto Rico Water Quality Standards (PREQB, 2003) for protection of human health in Class SB waters.

Table 5-116
Metal Concentration in Surface Water
SCYI RFI
Main Dock Sump (SWMU 33)
(Page 1 of 1)

Sample ID Lab ID Sample Date	EPA Region 4 Saltwater Screening Levels[1]	EPA Ambient Water Quality Criteria[2]	Puerto Rico Water Quality Standards[3]	MDS-SW2 N93098-1A 11-Mar-05	MDS-SW2 N93098-2A 11-Mar-05 (duplicate)
Metals (Reporting units are in ug/L)					
Antimony	--		4300	6.6 U	6.6 U
Arsenic	36	36	1.4	2.7 B	2.2 U
Barium				8.8 B	8.9 B
Beryllium	--		--	0.20 U	0.20 U
Cadmium	9.3	9.3	9.3	0.30 U	0.30 U
Chromium	50	50		1.0 U	1.0 U
Cobalt				0.80 U	0.80 U
Lead	8.5	8.1	8.1	3.8 U	3.8 U
Mercury	0.025	0.94	0.051	0.10 U	0.10 U
Nickel	8.3	8.2	8.2	1.1 U	1.1 U
Selenium	71	71	71	3.5 B	5.1
Vanadium				2.7 B	2.7 B

U - compound was analyzed for but not detected at the concentration shown
B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Notes:
1. From EPA, Region 4 (EPA, 2003b).
2. From EPA ambient water quality standards for protection of aquatic life in saltwater for continuous exposure (EPA, 2002b).
3. From Puerto Rico Water Quality Standards (PREQB, 2003) for protection of aquatic life in Class SB waters.
-- indicates standard not available

Table 5-117
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(1.5-2.0) BQO800 18-Jun-96	
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acetone	*1.1E+08*	5.8E+07	1.6E+04	11	U
Benzene	5.2E+04	800	30	11	U
Bromodichloromethane	4.6E+04	--	600	11	U
Bromoform	3.6E+05	8.8E+04	800	11	U
Bromomethane	1.4E+06	1.3E+04	200	11	UJ
2-Butanone	6.1E+08	1.4E+08	2.9E+04	11	U
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	11	U
Carbon tetrachloride	2.2E+04	300	70	11	U
Chlorobenzene	2.0E+07	5.4E+05	1000	11	U
Chloroethane	3.4E+04	--	400	11	U
Chloroform	9.9E+05	--	6.00E+02	11	U
Chloromethane	1.0E+07	300	600	11	UJ
Dibromochloromethane	--	--	--	11	U
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	11	U
1,2-Dichloroethane	3.1E+04	600	20	11	U
1,1-Dichloroethene	5.1E+07	4.1E+05	60	11	U
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	11	U
1,2-Dichloropropane	4.2E+04	2.1E+04	30	11	U
cis-1,3-Dichloropropene	2.9E+04	--	4	11	U
trans-1,3-Dichloropropene	2.9E+04	--	4	11	U
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	11	U
2-Hexanone	--	--	--	11	U
Methylene chloride	3.8E+05	2.2E+04	20	11	U
4-Methyl-2-Pentanone	--	--	--	11	U
Styrene	2.0E+08	1.5E+06	4000	11	U
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	11	U
Tetrachloroethene	5300	2000	60	11	U
Toluene	2.0E+08	6.5E+05	1.2E+04	2	J
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	11	U
1,1,2-Trichloroethane	5.0E+04	2000	20	11	U
Trichloroethene	7200	100	60	11	U
Vinyl chloride	4000	1000	10	11	U
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	1	J

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown D - analyzed at a secondary dilution factor J - estimated value -- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard fon
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-118
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(3.0-3.5) BQO802 18-Jun-96	34-02(3.0-3.5) (Reanalysis) 18-Jun-96	34-04(7.5-8.0) BQO805 21-Jun-96	34-04(7.5-8.0) (Reanalysis) 21-Jun-96	34-05(7.5-8.0) BQO810 24-Jun-96	34-05(7.5-8.0) (Reanalysis) 24-Jun-96	34-06(7.5-8) BQV502 1-Jul-96	34-07(4.5-5) BQV559 5-Aug-96	34-08(4.5-5) BQV560 5-Aug-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)												
Acetone	*1.1E+08*	5.8E+07	1.6E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 UJ	11 UJ	35 J
Benzene	5.2E+04	800	30	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Bromodichloromethane	4.6E+04	--	600	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Bromoform	3.6E+05	8.8E+04	800	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Bromomethane	1.4E+06	1.3E+04	200	11 U	11 U	7200 UJ	7200 U	7100 UJ	7100 U	1300 U	11 UJ	12 UJ
2-Butanone	6.1E+08	1.4E+08	2.9E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 UJ	11 UJ	12 U
Carbon disulfide	1.0E+08	7.2E+05	3.2E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Carbon tetrachloride	2.2E+04	300	70	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Chlorobenzene	2.0E+07	5.4E+05	1000	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Chloroethane	3.4E+04	--	400	11 U	11 U	7200 UJ	7200 U	7100 UJ	7100 U	1300 U	11 UJ	12 UJ
Chloroform	9.9E+05	--	6.00E+02	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Chloromethane	1.0E+07	300	600	11 UJ	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Dibromochloromethane	--	--	--	11 UJ	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,1-Dichloroethane	1.0E+08	1.7E+06	2.3E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,2-Dichloroethane	3.1E+04	600	20	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,1-Dichloroethene	5.1E+07	4.1E+05	60	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,2-Dichloroethene (total)	9.2E+06	1.5E+05	400	11 UJ	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,2-Dichloropropane	4.2E+04	2.1E+04	30	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
cis-1,3-Dichloropropene	2.9E+04	--	4	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
trans-1,3-Dichloropropene	2.9E+04	--	4	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Ethylbenzene	1.0E+08	4.0E+05	1.3E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
2-Hexanone	--	--	--	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Methylene chloride	3.8E+05	2.2E+04	20	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
4-Methyl-2-Pentanone	--	--	--	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Styrene	2.0E+08	1.5E+06	4000	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,1,2,2-Tetrachloroethane	1.4E+04	1000	3	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Tetrachloroethene	5300	2000	60	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Toluene	2.0E+08	6.5E+05	1.2E+04	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,1,1-Trichloroethane	2.9E+08	1.2E+06	2000	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
1,1,2-Trichloroethane	5.0E+04	2000	20	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Trichloroethene	7200	100	60	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U
Vinyl chloride	4000	1000	10	11 U	11 U	7200 UJ	7200 U	7100 UJ	7100 U	1300 U	11 UJ	12 U
Xylene (total)	1.0E+09	9.0E+05	1.9E+05	11 U	11 U	7200 U	7200 U	7100 U	7100 U	1300 U	11 UJ	12 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown D - analyzed at a secondary dilution factor J - estimated value -- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002), except for acetone and 2-butanone, which are from EPA Region 9 PRGs (Oct 2004).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for 2-butanone, which is from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-119
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(1.0-1.5) BQO801 18-Jun-96	
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	360	U
Acenaphthylene	--	--	--	360	U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	360	U
Benzo(a)anthracene	*2000*	--	2,000	360	U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	360	U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	360	U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	360	U
Benzo(a)pyrene	*200*	2.6E+06	8,000	360	U
bis(2-Chloroethoxy)methane	--	--	--	360	U
bis(2-Chloroethyl) ether	*2000*	400	0.4	360	U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	360	U
4-Bromophenyl phenyl ether	--	--	--	360	U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	360	U
Carbazole	*9.6E+04*	9.4E+08	600	360	U
4-Chloroaniline	*2.7E+06*	--	700	360	U
p-Chloro-m-cresol	--	--	--	360	U
2-Chloronaphthalene	8.2E+07	--	--	360	U
2-Chlorophenol	*3.4E+06*	--	4,000	360	U
4-Chlorophenyl phenyl ether	--	--	--	360	U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	360	U
Dibenzo(a,h)anthracene	*200*	--	2,000	360	U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	360	U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	360	U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	360	U
1,3-Dichlorobenzene	3.1E+06	--	--	360	U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	360	U
3,3'-Dichlorobenzidine	*4,000*	--	7	360	U

Table 5-119
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 2 of 3)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(1.0-1.5) BQO801 18-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)				
2,4-Dichlorophenol	*2.1E+06*	--	1,000	360 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	360 U
Dimethyl phthalate	1.0E+10	--	--	360 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	360 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	870 U
2,4-Dinitrophenol	*1.4E+06*	--	200	870 U
2,4-Dinitrotoluene	2.0E+06	--	0.8	360 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	360 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	360 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	360 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	360 U
Hexachlorobenzene	*1,000*	2,000	2,000	360 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	360 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	360 U
Hexachloroethane	*1.4E+05*	9.2E+04	500	360 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	360 U
Isophorone	*2.0E+06*	--	500	360 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	360 U
2-Methylphenol	*3.4E+07*	--	1.5E+04	360 UJ
4-Methylphenol	5.1E+06	--	--	360 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	360 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	360 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	360 U
2-Nitroaniline	3.1E+06	--	--	870 U
3-Nitroaniline	1.4E+05	--	--	870 U
4-Nitroaniline	1.4E+05	--	--	870 U
Nitrobenzene	*3.4E+05*	1.3E+05	100	360 U

Table 5-119
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
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Sample ID	Soil Ingestion/	Inhalation	Migration to	34-02(1.0-1.5)
Lab ID	Dermal	RBSL[2]	Groundwater	BQO801
Sample Date	RBSL[1]		RBSL[3]	18-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)				
2-Nitrophenol	--	--	--	360 U
4-Nitrophenol	--	--	--	870 U
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	360 U
Pentachlorophenol	*1.0E+04*	--	30	870 U
Phenanthrene	1.7E+07	--	4.2E+05	360 U
Phenol	*2.1E+08*	1.0E+09	1.0E+05	360 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	360 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	360 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	870 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	360 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

-- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(3.0-3.5) BQO802 18-Jun-96	34-04(7.5-8.0) BQO806 21-Jun-96	34-05(7.5-8.0) BQO809 24-Jun-96	34-06(7.5-8) BQV502 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	350 U	3500 DJ	1900 U	1900 U
Acenaphthylene	--	--	--	350 U	2000 UJ	1900 U	1900 U
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	350 U	2000 U	1900 U	1900 U
Benzo(a)anthracene	*2000*	--	2,000	350 U	2000 U	1900 U	1900 U
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	350 U	2000 U	1900 U	1900 U
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	350 U	2000 U	1900 U	1900 U
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	350 U	2000 U	1900 U	1900 U
Benzo(a)pyrene	*200*	2.6E+06	8,000	350 U	2000 U	1900 U	1900 U
bis(2-Chloroethoxy)methane	--	--	--	350 U	2000 U	1900 U	1900 U
bis(2-Chloroethyl) ether	*2000*	400	0.4	350 U	2000 U	1900 U	1900 U
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	350 U	2900 BDJ	14000 BD	4200 U
4-Bromophenyl phenyl ether	--	--	--	350 U	2000 U	1900 U	1900 U
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	350 U	2000 U	1900 U	1900 U
Carbazole	*9.6E+04*	9.4E+08	600	350 U	2000 U	1900 U	1900 U
4-Chloroaniline	*2.7E+06*	--	700	350 U	2000 U	1900 U	1900 U
p-Chloro-m-cresol	--	--	--	350 U	2000 U	1900 U	1900 U
2-Chloronaphthalene	8.2E+07	--	--	350 U	2000 UJ	1900 U	1900 U
2-Chlorophenol	*3.4E+06*	--	4,000	350 U	2000 U	1900 U	1900 U
4-Chlorophenyl phenyl ether	--	--	--	350 U	2000 UJ	1900 U	1900 U
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	350 U	270 J	1900 U	1900 U
Dibenzo(a,h)anthracene	*200*	--	2,000	350 U	2000 U	1900 U	1900 U
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	350 U	3100 DJ	1900 DJ	1900 U
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	350 U	2000 U	1900 U	1900 U
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	350 U	2000 U	1900 U	1900 U
1,3-Dichlorobenzene	3.1E+06	--	--	350 U	2000 U	1900 U	1900 U
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	350 U	2000 U	1900 U	1900 U
3,3'-Dichlorobenzidine	*4,000*	--	7	350 U	2000 U	1900 U	1900 U

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
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Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(3.0-3.5) BQO802 18-Jun-96	34-04(7.5-8.0) BQO806 21-Jun-96	34-05(7.5-8.0) BQO809 24-Jun-96	34-06(7.5-8) BQV502 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
2,4-Dichlorophenol	*2.1E+06*	--	1,000	350 U	2000 U	1900 U	1900 U
Diethyl phthalate	*5.5E+08*	--	4.7E+05	350 U	2000 UJ	1900 U	1900 U
Dimethyl phthalate	1.0E+10	--	--	350 U	2000 UJ	1900 U	1900 U
2,4-Dimethylphenol	*1.4E+07*	--	9,000	350 U	2000 U	1900 U	1900 U
4,6-Dinitro-o-cresol	1.0E+05	--	--	850 U	4900 U	4700 U	4500 U
2,4-Dinitrophenol	*1.4E+06*	--	200	850 U	4900 UJ	4700 U	4500 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	350 U	2000 UJ	1900 U	1900 U
2,6-Dinitrotoluene	1.0E+06	--	0.7	350 U	2000 UJ	1900 U	1900 U
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	350 U	2000 U	1900 U	1900 U
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	350 U	560 J	1900 U	1900 U
Fluorene	2.4E+07	7.4E+07	5.6E+05	350 U	7900 J	3500	3800
Hexachlorobenzene	*1,000*	2,000	2,000	350 U	2000 U	1900 U	1900 U
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	350 U	2000 U	1900 U	1900 U
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	350 U	2000 UJ	1900 U	1900 U
Hexachloroethane	*1.4E+05*	9.2E+04	500	350 U	2000 U	1900 U	1900 U
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	350 U	2000 U	1900 U	1900 U
Isophorone	*2.0E+06*	--	500	350 U	2000 U	1900 U	1900 U
2-Methylnaphthalene	4.1E+06	--	1.7E+04	350 U	1E+05 D	35000 D	31000 D
2-Methylphenol	*3.4E+07*	--	1.5E+04	350 UJ	2000 UJ	1900 UJ	1900 U
4-Methylphenol	5.1E+06	--	--	350 U	2000 U	1900 U	1900 U
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	350 U	2000 U	1900 U	1900 U
N-Nitrosodi-n-propylamine	*200*	--	0.05	350 U	2000 U	1900 U	1900 U
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	350 U	28000 D	11000	1900 U
2-Nitroaniline	3.1E+06	--	--	850 U	4900 UJ	4700 U	4500 U
3-Nitroaniline	1.4E+05	--	--	850 U	4900 UJ	4700 U	4500 U
4-Nitroaniline	1.4E+05	--	--	850 U	4900 UJ	4700 U	4500 UJ
Nitrobenzene	*3.4E+05*	1.3E+05	100	350 U	2000 U	1900 U	1900 U

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 3 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-02(3.0-3.5) BQO802 18-Jun-96	34-04(7.5-8.0) BQO806 21-Jun-96	34-05(7.5-8.0) BQO809 24-Jun-96	34-06(7.5-8) BQV502 1-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
2-Nitrophenol	--	--	--	350 U	2000 U	1900 U	1900 U
4-Nitrophenol	--	--	--	850 U	4900 UJ	4700 U	4500 UJ
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	350 U	2000 U	1900 U	1900 UJ
Pentachlorophenol	*1.0E+04*	--	30	850 U	4900 U	4700 U	4500 UJ
Phenanthrene	1.7E+07	--	4.2E+05	350 U	13000	5700	6300
Phenol	*2.1E+08*	1.0E+09	1.0E+05	350 U	2000 U	1900 U	1900 U
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	350 U	1300 J	1900 UJ	1900 U
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	350 U	2000 U	1900 U	1900 U
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	850 U	4900 UJ	4700 U	4500 U
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	350 U	2000 UJ	1900 U	1900 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene, and pl from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 4 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-07(4.5-5) BQV559 5-Aug-96	34-08(4-4.5) BQV560 5-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	*3.7E+07*	5.6E+07	5.7E+05	360 UJ	390 UJ
Acenaphthylene	--	--	--	360 UJ	390 UJ
Anthracene	*1.8E+08*	1.0E+09	1.2E+07	360 UJ	390 UJ
Benzo(a)anthracene	*2000*	--	2,000	360 UJ	390 UJ
Benzo(b)fluoranthene	*2000*	2.6E+07	5,000	360 UJ	390 UJ
Benzo(k)fluoranthene	*2.3E+04*	2.6E+08	4.9E+04	360 UJ	390 UJ
Benzo(ghi)perylene	1.7E+07	--	4.6E+07	360 UJ	390 UJ
Benzo(a)pyrene	*200*	2.6E+06	8,000	360 UJ	390 UJ
bis(2-Chloroethoxy)methane	--	--	--	360 UJ	390 UJ
bis(2-Chloroethyl) ether	*2000*	400	0.4	360 UJ	390 UJ
bis(2-Ethylhexyl)phthalate	*1.4E+05*	1.0E+09	3.6E+06	360 UJ	390 UJ
4-Bromophenyl phenyl ether	--	--	--	360 UJ	390 UJ
Butyl benzyl phthalate	*1.4E+08*	--	9.3E+05	360 UJ	390 UJ
Carbazole	*9.6E+04*	9.4E+08	600	360 UJ	390 UJ
4-Chloroaniline	*2.7E+06*	--	700	360 UJ	390 UJ
p-Chloro-m-cresol	--	--	--	360 UJ	390 UJ
2-Chloronaphthalene	8.2E+07	--	--	360 UJ	390 UJ
2-Chlorophenol	*3.4E+06*	--	4,000	360 UJ	390 UJ
4-Chlorophenyl phenyl ether	--	--	--	360 UJ	390 UJ
Chrysene	*2.3E+05*	1.0E+09	1.6E+05	360 UJ	390 UJ
Dibenzo(a,h)anthracene	*200*	--	2,000	360 UJ	390 UJ
Dibenzofuran	2.0E+06	1.3E+07	3.3E+04	360 UJ	390 UJ
Di-n-butyl phthalate	*6.8E+07*	1.0E+09	2.3E+06	360 UJ	390 UJ
1,2-Dichlorobenzene	*6.2E+07*	6.0E+05	1.7E+04	360 UJ	390 UJ
1,3-Dichlorobenzene	3.1E+06	--	--	360 UJ	390 UJ
1,4-Dichlorobenzene	*8.0E+04*	--	2,000	360 UJ	390 UJ
3,3'-Dichlorobenzidine	*4,000*	--	7	360 UJ	390 UJ

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 5 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-07(4.5-5) BQV559 5-Aug-96	34-08(4-4.5) BQV560 5-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
2,4-Dichlorophenol	*2.1E+06*	--	1,000	360 UJ	390 UJ
Diethyl phthalate	*5.5E+08*	--	4.7E+05	360 UJ	390 UJ
Dimethyl phthalate	1.0E+10	--	--	360 UJ	390 UJ
2,4-Dimethylphenol	*1.4E+07*	--	9,000	360 UJ	390 UJ
4,6-Dinitro-o-cresol	1.0E+05	--	--	880 UJ	950 UJ
2,4-Dinitrophenol	*1.4E+06*	--	200	880 UJ	950 UJ
2,4-Dinitrotoluene	2.0E+06	--	0.8	360 UJ	390 UJ
2,6-Dinitrotoluene	1.0E+06	--	0.7	360 UJ	390 UJ
Di-n-octyl phthalate	*1.4E+07*	--	1.0E+07	360 UJ	390 UJ
Fluoranthene	2.4E+07	1.0E+09	4.3E+06	360 UJ	390 UJ
Fluorene	2.4E+07	7.4E+07	5.6E+05	360 UJ	390 UJ
Hexachlorobenzene	*1,000*	2,000	2,000	360 UJ	390 UJ
Hexachlorobutadiene	*2.5E+04*	1.3E+04	2,000	360 UJ	390 UJ
Hexachlorocyclopentadiene	*4.1E+06*	4.1E+04	4.0E+05	360 UJ	390 UJ
Hexachloroethane	*1.4E+05*	9.2E+04	500	360 UJ	390 UJ
Indeno(1,2,3-c,d)pyrene	*2,000*	2.6E+07	1.4E+04	360 UJ	390 UJ
Isophorone	*2.0E+06*	--	500	360 UJ	390 UJ
2-Methylnaphthalene	4.1E+06	--	1.7E+04	360 UJ	390 UJ
2-Methylphenol	*3.4E+07*	--	1.5E+04	360 UJ	390 UJ
4-Methylphenol	5.1E+06	--	--	360 UJ	390 UJ
N-Nitrosodiphenylamine	*3.9E+05*	--	1,000	360 UJ	390 UJ
N-Nitrosodi-n-propylamine	*200*	--	0.05	360 UJ	390 UJ
Naphthalene	*1.2E+07*	2.4E+05	8.4E+04	360 UJ	390 UJ
2-Nitroaniline	3.1E+06	--	--	880 UJ	950 UJ
3-Nitroaniline	1.4E+05	--	--	880 UJ	950 UJ
4-Nitroaniline	1.4E+05	--	--	880 UJ	950 UJ
Nitrobenzene	*3.4E+05*	1.3E+05	100	360 UJ	390 UJ

Table 5-120
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 6 of 6)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	34-07(4.5-5) BQV559 5-Aug-96	34-08(4-4.5) BQV560 5-Aug-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
2-Nitrophenol	--	--	--	360 UJ	390 UJ
4-Nitrophenol	--	--	--	880 UJ	950 UJ
2,2'-oxybis(1-chloropropane)	4.1E+04	--	--	360 UJ	390 UJ
Pentachlorophenol	*1.0E+04*	--	30	880 UJ	950 UJ
Phenanthrene	1.7E+07	--	4.2E+05	360 UJ	390 UJ
Phenol	*2.1E+08*	1.0E+09	1.0E+05	360 UJ	390 UJ
Pyrene	*1.8E+07*	5.8E+08	4.2E+06	360 UJ	390 UJ
1,2,4-Trichlorobenzene	6.8E+06	3.2E+06	5,000	360 UJ	390 UJ
2,4,5-Trichlorophenol	6.8E+07	--	2.7E+05	880 UJ	950 UJ
2,4,6-Trichlorophenol	1.7E+05	3.4E+05	200	360 UJ	390 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown -- not available

J - estimated value

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-base (RBCs), shown in standard font, except for benzo(ghi)perylene and phenanthrene, which are derived from TNRCC (March 2004).
2. RBSLs for inhalation of volatiles in outdoor air are from EPA (2002).
3. RBSLs for migration to groundwater are from EPA (2002) for a DAF of 20, except for benzo(ghi)perylene, dibenzofuran, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2004).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-121
Metal Concentrations in Surface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	34-02(1.0-1.5) BQO801 18-Jun-96	
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
Antimony	410	--	5	9.2	7.3	U
Arsenic	1.9	770	29	8.7	4.1	J
Barium	7.2E+04	1.0E+06	1,600	183	106	
Beryllium	2,000	2,600	63	0.4	0.21	B
Cadmium	*900*	3,400	8	0.8	0.39	U
Chromium	3,100	510	38	31	5.3	
Cobalt	2.0E+04	1900	1300	17	5.8	B
Lead	400	--	--	32	16.8	J
Mercury	*340*	14	2	1.7	0.04	U
Nickel	2.0E+04	2.6E+04	130	28	6.5	B
Selenium	5,100	--	5	2.2	0.79	U
Vanadium	1,000	--	6,000	139	33.6	

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the listed concentration

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CDRL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

-- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).

Table 5-122
Metal Concentrations in Subsurface Soil
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Soil Ingestion/ Dermal RBSL[1]	Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	34-02(3.0-3.5) BQO802 18-Jun-96	34-04(7.5-8.0) BQO806 21-Jun-96	34-05(7.5-8.0) BQO809 24-Jun-96	34-06(7.5-8) BQV502 1-Jul-96	34-07(4.5-5) BQV559 5-Aug-96	34-08(4-4.5) BQV560 5-Aug-96
Metals (Reporting units are in mg/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)										
Antimony	410	--	5	9.2	7.1 U	8.1 U	7.8 U	7.7 UJ	7.3 UJ	8 UJ
Arsenic	1.9	770	29	8.7	3.9 J	1.8 BJ	6.1 J	4	5.6 J	2.7 J
Barium	7.2E+04	1.0E+06	1,600	183	65	58	12.8 B	18 B	27.5 B	25.5 B
Beryllium	2,000	2,600	63	0.4	0.11 B	0.18 B	0.14 B	0.06 B	0.08 B	0.13 B
Cadmium	*900*	3,400	8	0.8	0.39 U	0.44 U	0.42 U	0.41 U	0.39 U	0.43 U
Chromium	3,100	510	38	31	14.7	3.2	2.8	2.2 B	3.2	4.5
Cobalt	2.0E+04	1900	1300	17	3.8 B	5.2 B	1.2 B	1.1 B	1.5 B	1.6 B
Lead	400	--	--	32	183 J	1 J	0.63 UJ	1.1 J	0.62 BJ	1.5
Mercury	*340*	14	2	1.7	0.04 U	0.05 U	0.05 U	0.05 U	0.04 U	0.05 U
Nickel	2.0E+04	2.6E+04	130	28	2.3 B	1.8 B	1.4 U	1.4 U	1.3 U	1.4 U
Selenium	5,100	--	5	2.2	0.77 U	0.88 U	0.84 UJ	0.82 U	1 UJ	1.1 UJ
Vanadium	1,000	--	6,000	139	22.6	36.7	7 B	7.9 BJ	11.3	18.8

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the listed concentration

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CDRL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

-- not available

Notes:

1. RBSLs for soil ingestion/dermal contact are the lower of EPA industrial SSLs (EPA, 2002), shown in italics, and EPA Region 3 (Oct 2004) industrial soil ingestion risk-based concentrations, shown in standard font.
2. RBSLs for inhalation of particulates or vapor in outdoor air are from EPA (2002).

Table 5-123
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 2)

Well ID	MCL	BDS-1	BDS-2	BDS-2	BDS-4	BDS-4	BDS-4	BDS-5	BDS-5	BDS-5	BDS-6
Lab ID	or RBSL[1]	BQO835	BRO803	N36804-6	BTW403	BRO821	N36804-7	BTW404	BRO820	N36804-3	BRO819
Sample Date		13-Aug-96	23-Aug-96	8-Apr-03	6-Feb-97	17-Sep-96	8-Apr-03	6-Feb-97	17-Sep-96	8-Apr-03	16-Sep-96
VOCs (Reporting units are in ug/L)											
Acetone	*5500*	10 U	10 U	10 U	10 U	10 U	5 U	10 U	10 U	5 U	10 U
Benzene	**5**	10 U	1 J	1 U	10 U	6 J	1 U	10 U	2 J	1 U	10 U
Bromodichloromethane	**80**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Bromoform	**80**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Bromomethane	*8.5*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
2-Butanone	*7000*	10 U	10 U	5 U	10 U	10 U	5 U	10 UJ	10 U	1 U	10 U
Carbon disulfide	*1000*	10 U	10 U	4	10 U	10 U	9	10 U	10 U	0.7 J	10 U
Carbon tetrachloride	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Chlorobenzene	**100**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Chloroethane	*3.6*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Chloroform	**80**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Chloromethane	*190*	10 U	10 UJ	1 U	10 U	10 U	1 U	10 U	10 UJ	1 U	10 UJ
Dibromochloromethane	**80**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,1-Dichloroethane	*800*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,2-Dichloroethane	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 UJ	10 U	1 U	10 U
1,1-Dichloroethene	**7**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,2-Dichloroethene (total)	**70**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,2-Dichloropropane	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
cis-1,3-Dichloropropene	*0.44*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
trans-1,3-Dichloropropene	*0.44*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Ethylbenzene	**700**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	3 J	1 U	10 U
2-Hexanone	--	10 U	10 U	5 U	10 U	10 U	5 U	10 U	10 U	5 U	10 U
Methylene chloride	**5**	10 U	10 U	2 U	10 U	10 U	2 U	10 U	10 U	2 U	10 U
4-Methyl-2-Pentanone	*6300*	10 U	10 U	5 U	10 U	10 U	5 U	10 U	10 U	5 U	10 U
Styrene	**100**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,1,2,2-Tetrachloroethane	*0.053*	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Tetrachloroethene	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Toluene	**1000**	10 U	10 U	0.3 J	10 U	10 U	1 U	10 U	2 J	1 U	10 U
1,1,1-Trichloroethane	**200**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
1,1,2-Trichloroethane	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Trichloroethene	**5**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Vinyl chloride	**2**	10 U	10 U	1 U	10 U	10 U	1 U	10 U	10 U	1 U	10 U
Xylene (total)	**1.0E+04**	10 U	10 U	1 U	10 U	2 J	1 U	10 U	23	1 U	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown. J - estimated value. -- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics.
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-123
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 2 of 2)

Well ID	MCL	BDS-7	MW-1
Lab ID	or RBSL[1]	BRO818	BRO817
Sample Date		16-Sep-96	16-Sep-96
VOCs (Reporting units are in ug/L)			
Acetone	*5500*	10 U	10 UJ
Benzene	**5**	10 U	10 U
Bromodichloromethane	**80**	10 U	10 U
Bromoform	**80**	10 U	10 U
Bromomethane	*8.5*	10 U	10 U
2-Butanone	*7000*	10 U	10 UJ
Carbon disulfide	*1000*	10 U	10 U
Carbon tetrachloride	**5**	10 U	10 U
Chlorobenzene	**100**	10 U	10 U
Chloroethane	*3.6*	10 U	10 U
Chloroform	**80**	10 U	10 U
Chloromethane	*190*	10 UJ	10 U
Dibromochloromethane	**80**	10 U	10 U
1,1-Dichloroethane	*800*	10 U	10 U
1,2-Dichloroethane	**5**	10 U	10 U
1,1-Dichloroethene	**7**	10 U	10 U
1,2-Dichloroethene (total)	**70**	10 U	10 U
1,2-Dichloropropane	**5**	10 U	10 U
cis-1,3-Dichloropropene	*0.44*	10 U	10 U
trans-1,3-Dichloropropene	*0.44*	10 U	10 U
Ethylbenzene	**700**	10 U	10 U
2-Hexanone	--	10 U	10 UJ
Methylene chloride	**5**	10 U	10 U
4-Methyl-2-Pentanone	*6300*	10 U	10 U
Styrene	**100**	10 U	10 U
1,1,2,2-Tetrachloroethane	*0.053*	10 U	10 U
Tetrachloroethene	**5**	10 U	10 U
Toluene	**1000**	10 U	10 U
1,1,1-Trichloroethane	**200**	10 U	10 U
1,1,2-Trichloroethane	**5**	10 U	10 U
Trichloroethene	**5**	10 U	10 U
Vinyl chloride	**2**	10 U	10 U
Xylene (total)	**1.0E+04**	10 U	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown. J - estimated value. -- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics.
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-124
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 3)

Well ID	MCL	BDS-1	BDS-2
Lab ID	or RBSL[1]	BQO840	BRO803
Sample Date		13-Aug-96	23-Aug-96
BNAs (Reporting units are in ug/L)			
Acenaphthene	*370*	10 U	10 U
Acenaphthylene	*1,500*	10 U	10 U
Anthracene	*1,800*	10 U	10 U
Benzo(a)anthracene	*0.092*	10 U	10 U
Benzo(b)fluoranthene	*0.092*	10 U	10 U
Benzo(k)fluoranthene	*0.92*	10 U	10 U
Benzo(ghi)perylene	*73*	10 U	10 U
Benzo(a)pyrene	**0.2**	10 U	10 U
bis(2-Chloroethoxy)methane	--	10 U	10 U
bis(2-Chloroethyl) ether	*0.0096*	10 U	10 U
bis(2-Ethylhexyl)phthalate	**6**	10 U	10 U
4-Bromophenyl phenyl ether	--	10 U	10 U
Butyl benzyl phthalate	*7,300*	10 U	10 U
Carbazole	*3.3*	10 U	10 U
4-Chloroaniline	*150*	10 U	10 U
p-Chloro-m-cresol	--	10 U	10 U
2-Chloronaphthalene	*490*	10 U	10 U
2-Chlorophenol	*30*	10 U	10 U
4-Chlorophenyl phenyl ether	--	10 U	10 U
Chrysene	*9.2*	10 U	10 U
Dibenzo(a,h)anthracene	*0.0092*	10 U	10 U
Dibenzofuran	*12*	10 U	10 U
Di-n-butyl phthalate	*3,700*	10 U	10 U
1,2-Dichlorobenzene	**600**	10 U	10 U
1,3-Dichlorobenzene	*18*	10 U	10 U
1,4-Dichlorobenzene	**75**	10 U	10 U
3,3'-Dichlorobenzidine	*0.15*	10 U	10 UJ

Table 5-124
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 2 of 3)

Well ID	MCL	BDS-1	BDS-2
Lab ID	or RBSL[1]	BQO840	BRO803
Sample Date		13-Aug-96	23-Aug-96
BNAs (Reporting units are in ug/L)			
2,4-Dichlorophenol	*110*	10 U	10 U
Diethyl phthalate	*2.9E+04*	10 U	10 U
Dimethyl phthalate	*3.7E+05*	10 U	10 U
2,4-Dimethylphenol	*730*	10 U	10 U
4,6-Dinitro-o-cresol	*3.7*	26 U	26 U
2,4-Dinitrophenol	*73*	26 U	26 UJ
2,4-Dinitrotoluene	*73*	10 U	10 U
2,6-Dinitrotoluene	*37*	10 U	10 U
Di-n-octyl phthalate	*1,500*	10 U	10 U
Fluoranthene	*1,500*	10 U	10 U
Fluorene	*240*	10 U	10 U
Hexachlorobenzene	**1**	10 U	10 U
Hexachlorobutadiene	*0.86*	10 U	10 U
Hexachlorocyclopentadiene	**50**	10 U	10 U
Hexachloroethane	*4.8*	10 U	10 U
Indeno(1,2,3-c,d)pyrene	*0.092*	10 U	10 U
Isophorone	*70*	10 U	10 U
2-Methylnaphthalene	*24*	10 U	10 J
2-Methylphenol	*1,800*	10 U	10 U
4-Methylphenol	*180*	10 U	10 U
N-Nitrosodiphenylamine	*14*	10 U	10 U
N-Nitrosodi-n-propylamine	*0.0096*	10 U	10 U
Naphthalene	*6.5*	10 U	10 U
2-Nitroaniline	*110*	26 U	26 U
3-Nitroaniline	*3.3*	26 U	26 U
4-Nitroaniline	*3.3*	26 U	26 UJ
Nitrobenzene	*3.5*	10 U	10 U

Table 5-124
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 3 of 3)

Well ID	MCL	BDS-1	BDS-2
Lab ID	or RBSL[1]	BQO840	BRO803
Sample Date		13-Aug-96	23-Aug-96
BNAs (Reporting units are in ug/L)			
2-Nitrophenol	--	10 U	10 U
4-Nitrophenol	--	26 U	26 U
2,2'-oxybis(1-chloropropane)	--	10 U	10 UJ
Pentachlorophenol	**1**	26 U	26 U
Phenanthrene	*73*	10 U	1 J
Phenol	*1.1E+04*	10 U	10 U
Pyrene	*180*	10 U	10 U
1,2,4-Trichlorobenzene	**70**	10 U	10 U
2,4,5-Trichlorophenol	*3,700*	26 U	26 U
2,4,6-Trichlorophenol	*6.1*	10 U	10 U

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for, but not detected at the concentration shown.
J - estimated value.
-- not available

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels for tap water (Oct 2004) are shown in italics. RBSLs for acenaphthylene, benzo(ghi)perylene, and phenanthrene are from TNRCC (2004).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-125
Metal Concentrations in Groundwater
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Well ID Lab ID Sample Date	MCL or RBSL[1]	BDS-1 BQO835 13-Aug-96 Dissolved	BDS-2 BRO803 23-Aug-96 Dissolved	BDS-2 BTW412 31-Jan-97 Dissolved	BDS-2 BTW413 31-Jan-97 Dissolved (duplicate)	BDS-2 N36804-6 8-Apr-03 Total	BDS-2 N36804-6A 8-Apr-03 Dissolved
Metals (Reporting units are in ug/L)							
Antimony	**6**	33.4 U	33.4 U	---	---	---	---
Arsenic	**10**	9.9 BJ	55.2	35.6	35	34.0	26.3
Barium	**2000**	65.5 B	262	---	---	---	---
Beryllium	**4**	0.2 U	0.2 U	---	---	---	---
Cadmium	**5**	3 BJ	2.9 BJ	---	---	---	---
Chromium	**100**	7.2 B	3.7 U	---	---	---	---
Cobalt	*730*	4.6 B	3.7 U	---	---	---	---
Lead	**15**	2.7 U	2.7 U	---	---	---	---
Mercury	**2**	0.1 U	0.1 U	---	---	---	---
Nickel	*730*	6.7 B	6 U	---	---	---	---
Selenium	**50**	4.7 U	4.7 U	---	---	---	---
Vanadium	*37*	4.4 B	2.8 U	---	---	---	---

Any results that exceed MCLs or RBSLs are shown bolded and shaded.

U - compound was analyzed for but not detected at the concentration shown

J - estimated based on data validation

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

--- not sampled

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 3 risk-based screening levels (RBCs) for tap water (Oct 2004) are shown in italics.
2. EPA Region 3 tap water RBCs are less than MCLs for all detected constituents, except for arsenic, which has a Region 3 RBC of 0.045 ug/L.
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-126
Immunoassay Field Screening Results
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX						PAH					
	0.5-1.0	1.0-1.5	1.5-2.0	1.5-2.5	3.0-3.5	7.5-8.0	0.5-1.0	1.0-1.5	1.5-2.0	1.5-2.5	3.0-3.5	7.5-8.0
34-01			ND		ND				ND		ND	
34-02			ND		ND			ND			ND	
34-03				ND	ND			ND			ND	
34-04			ND		**> 35**	ND	ND				ND	**>25**
34-05			ND		**11**	ND	**>25**				ND	**> 25**

Notes:
1. All immunoassay concentrations are in ppm.
2. ND means non-detect. The detection limit was 2.5 ppm for BTEX and 0.6 ppm for PAHs.
3. A blank box denotes not a sampled depth.
4. Bolded boxes indicate concentrations above site screening levels of 2.5 ppm for BTEX and 5 ppm for PAHs. Concentrations above site screening levels may also be due to cross-reactivity to non-target constituents.

Table 5-127
Summary of Free Product Apparent Thickness
SCYI RFI
Barge Dock Sump (SWMU 34)
(Page 1 of 1)

Thickness measurements are in feet

Date \ Well	BDS-1	BDS-2	BDS-3	BDS-4	BDS-5	BDS-6	BDS-7	MW-1	MW-9
1-Jul-96	--	--	--	--	--	--	--	--	0.13
9 to 12-Jul-96	none	none	0.29	--	--	--	--	none	0.07
1-Sep-96	none	sheen	0.49	none	sheen	sheen	none	none	0.08
20-Sep-96	none	none	0.22	none	none	none	none	none	0.01
28-Jan-97	none	0.02	0.48	none	none	none	none	none	0.02

-- not available

Table 6-1
Chemical and Physical Characteristics of Constituents of Concern
SCYI RFI

Constituent	Mole Weight (g/mole)	Melting Point (°C)	Boiling Point (°C)	Water Solubility (mg/l, 25°C)	Density (g/cm^3, 20°C)	Vapor Pressure (mm Hg, 25°C)	Henry's Law Constant ($atm\text{-}m^3/mol$, 25°C)	Octanol-water partition coefficient, log K_{OW}	Organic carbon absorption coefficient, log K_{OC}	Bioconcentration Factor, log BCF
Arsenic	74.92	818	na	0.0	na	0.0	0.0	na	na	1.30
Benzene	78.11	5.533	80	1,780	0.878	95.2	0.00549	2.13	1.79	1.39
Benzo(a)pyrene	252.32	179	495	0.00194	1.351	4.89E-09	8.36E-07	6.13	5.98	3.69
2-Methylnapthalene	142.20	34.6	241	25.4	1.0058	0.051	4.54E-04	4.11	3.93	3.79
Napthalene	128.18	80.3	218	31	1.145	0.0889	4.82E-04	3.37	3.080	2.33

na - not available

Data Sources: (1) Montgomery, J.H., 2000, Groundwater Chemicals Desk Reference, Lewis Publishers.
(2) USEPA, 1998, Human Health Risk Assessment for Hazardous Waste Combustion Facilities, EPA/530/D-98-001A.

Table 7-1
Maximum Detections in Surface Soil
SCYI RFI
(Page 1 of 1)

CAS Number	Chemical	SWMU-2	SWMU-3	SWMU-34	SWMU-35	SWMU-36	SWMU-38	SWMU-39	SWMU-40	SWMU-43	SWMU-44	SWMU-45
VOCs (ug/kg)												
67-64-1	Acetone	1300DJ	77J	--	1900D	40J	--	--	2600DJ	270J	--	120J
78-93-3	2-Butanone	--	--	--	--	--	--	--	150J	--	--	--
75-15-0	Carbon Disulfide	--	3J	--	--	--	--	--	67J	--	--	--
75-09-2	Methylene Chloride	--		--	--	6J	--	--	6J	20J	--	12J
108-88-3	Toluene	--	--	2J	--	4J	--	--	14J	--	--	7J
1330-20-7	Xylene	--	--	1J	--	21	--	--	--	--	--	--
BNAs (ug/kg)												
50-32-8	Benzo (a) pyrene	--	230J	--	--	--	--	49.4J	--	--	--	--
205-99-2	Benzo (b) fluoranthene	--	--	--	--	--	--	82.1	--	--	--	--
191-24-2	Benzo (ghi) perylene	--	--	--	--	--	--	--	--	--	--	1500
117-81-7	Bis (2-Ethylhexyl) phthalate	--	--	--	--	--	--	706	290J	--	--	--
218-01-9	Chrysene	--	300J	--	--	270J	--	82.1	140J	--	--	--
84-74-2	Di-n-butyl phthalate	--	--	--	--	--	--	--	170J	--	--	--
86-73-7	Fluorene	--	130J	--	--	570J	--	--	--	--	--	--
91-57-6	2-Methylnapthalene	--	210J	--	--	1300	--	--	180J	--	150J	--
91-20-3	Napthalene	--	54J	--	--	260J	--	--	45J	--	47J	--
206-44-0	Fluoranthene	39J	--	--	--	--	--	--	--	--	--	--
85-01-8	Phenanthrene	--	270J	--	770J	1800	--	--	--	--	--	--
108-95-2	Phenol	--	--	--	--	--	--	--	57J	--	--	--
129-00-0	Pyrene	42J	180J	--	--	410J	--	102	170J	--	--	--
Metals (mg/kg)												
7740-38-2	Arsenic	3.3J	2.5	4.1J	2.1BJ	0.9BJ	--	0.96BJ	3.4J	11	0.8BJ	7.3
7740-39-3	Barium	111	98.4	106	273	297	166	221	177	30.7B	114	74.7
7740-41-7	Beryllium	1B	0.19B	0.21B	0.22B	0.35B	0.2B	0.46B	0.44B	0.46B	0.34B	0.39B
18540-29-9	Chromium	6.4	23	5.3	1.3B	18.3	2.8	12.3	38.2	5.5	5.8	7.2
7740-48-4	Cobalt	6.4B	5.3B	5.8B	15.8	7.1B	11.6	11.5	12.9	3.3B	13	9.6B
7439-92-1	Lead	11	37.5	16.8J	1.8J	43.9J	11	25.3	37.8	0.97J	2.3J	6.4
7439-97-6	Mercury	0.06B	0.17	--	--	0.12	0.27	0.26J	0.78	--	--	--
7440-02-0	Nickel	8.1B	14.9	6.5B	1.9B	5.5B	2.5B	49.1	233	2.8B	4.3B	8.1B
7440-62-2	Vanadium	40.7	44.6	33.6	89.7	27	53.1	128	577	24.4	88.6	111J

J - estimated value.

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Note:

1. No soil sampling was required at SWMUs 14, 17, 18, 33, 44A

Table 7-2
Maximum Detections in Subsurface Soil
SCYI RFI
(Page 1 of 1)

CAS Number	Chemical	SWMU-2	SWMU-3	SWMU-34	SWMU-35	SWMU-36	SWMU-38	SWMU-39	SWMU-40	SWMU-43	SWMU-44	SWMU-45
VOCs (ug/kg)												
67-64-1	Acetone	250 DJ	1200 J	35 J	160 J	130 J	--	160 J	1700 DJ	390 J	2000	160 J
78-93-3	2-Butanone	--	--	--	8 J	18 J	--	13.7	300 J	32 J	--	--
75-15-0	Carbon Disulfide	--	3 J	--	--	--	--	9.9	50 J	--	--	--
100-41-4	Ethylbenzene	--	--	--	--	25 J	--	--	--	--	--	--
75-09-2	Methylene Chloride	--	48 J	--	--	6 J	--	10 J	--	23 J	--	9 J
BNAs (ug/kg)												
83-32-9	Acenaphthene	--	--	3500 DJ	--	63 J	--	--	--	--	--	--
120-12-7	Anthracene	--	--	--	--	100 J	--	--	--	--	--	--
50-32-8	Benzo(a)pyrene	--	1000 J	--	--	400 J	--	--	2600 J	--	--	--
191-24-2	Benzo(ghi)perylene	--	1600 J	--	--	230 J	--	--	2000 J	--	--	--
205-99-2	Benzo(b)fluoranthene	--	--	--	--	540	--	--	--	--	--	--
207-08-9	Benzo(k)fluoranthene	--	--	--	--	200 J	--	--	--	--	--	--
117-81-7	bis(2-Ethylhexyl)phthalate	--	--	14000 BD	--	--	--	--	--	--	--	--
84-74-2	Di-n-butyl phthalate	--	--	--	--	--	--	--	--	150 J	--	--
86-74-8	Carbazole	--	--	--	--	61 J	--	--	--	--	--	--
218-01-9	Chrysene	--	2300	270 J	--	460	--	240 J	140 J	--	--	--
132-64-9	Dibenzofuran	--	--	3100 DJ	--	22 J	--	--	--	--	--	--
86-73-7	Fluorene	--	500	8100 DJ	--	65 J	--	--	4200	--	--	--
206-44-0	Fluoranthene	--	--	560 J	--	1000	--	--	--	--	--	--
193-39-5	Indeno(1,2,3-c,d)pyrene	--	--	--	--	260 J	--	--	--	--	--	--
91-57-6	2-Methylnapthalene	--	450	110000 D	--	--	--	--	330 J	--	140 J	--
91-20-3	Napthalene	--	49 J	28000 D	--	--	--	--	87 J	--	44 J	--
85-01-8	Phenanthrene	--		15000 DJ	--	430	--	--	9600	--	--	3200
129-00-0	Pyrene	--	2600	1700 DJ	--	1200	--	94 J	480 J	170 J	--	--
108-95-2	Phenol	--	--	--	--	--	--	--	70 J	--	--	--
Metals (mg/kg)												
7740-36-0	Antimony	--	--	--	--	--	--	--	--	--	--	--
7740-38-2	Arsenic	3.5 J	4.4	6.1 J	1.5 BJ	1.8 B	1.3 BJ	1.7 BJ	3.9 J	11	5.5 J	4.7
7740-39-3	Barium	91.7	263	65	203	287	311	261	309	30.7 B	155	29.6 B
7740-41-7	Beryllium	0.17 B	0.53 B	0.18 B	0.4 B	0.6 B	0.41 B	0.79 B	0.73 B	0.46 B	0.33 B	0.3 B
7740-43-9	Cadmium	--	--	--	--	--	--	--	--	--	--	--
18540-29-9	Chromium	4.5	6.5	14.7	16.6	10.2	5.9	14.1	29	5.5	6.2	4
7740-48-4	Cobalt	6.7 B	22.4	5.2 B	17.5	20.1	14.6	25.3	19.4	3.3 B	13	5.8 B
7439-92-1	Lead	2.3	6	183 J	3.4 J	5.7	5.3	4.6	91.4 J	0.97 J	2.1 J	1.8
7439-97-6	Mercury	--	0.08 B	--	--	0.08 B	0.51	0.55	1	--	--	0.05 B
7440-02-0	Nickel	2.2 B	4.3 B	2.3 B	4.1 B	5.1 B	4.9 B	48.2	141	2.8 B	3.1 B	1.5 B
7782-49-2	Selenium	--	--	--	--	--	--	1.7 J	7.6 J	--	--	--
7440-62-2	Vanadium	49.8	119	36.7	97.4	166 J	116	175	472	24.4	96.5	32.9 J

J - estimated value.

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Note:

1. No soil sampling was required at SWMUs 14, 17, 18, 33, 44A

Table 7-3
Detections in Surface and Subsurface Soil above RBSLs
SCYI RFI
(Page 1 of 1)

	Surface Soil			Subsurface Soil				Migration to groundwater			
SWMU	Chemical	Location	Concentration	Chemical	Location	Depth (ft bgl)	Concentration	Chemical	Location	Depth (ft bgl)	Concentration
Slop Oil Tank (SWMU 35)	Arsenic	35-01	2.1	--	--	--	--	--	--	--	--
Dissolved Air Flotation Unit (SWMU 36)	--	--	--	Benzo(a)pyrene	36-02	3-3.5	400	--	--	--	--
Dewatering Chamber (SWMU 38)	--	--	--	--	--	--	--	--	--	--	--
Hazardous Waste Mixing Box (SWMU 39)	--	--	--	--	--	--	--	--	--	--	--
Northeast Refinery Area (SWMU 40)	Arsenic	40-02	2.4	Benzo(a)pyrene	40-03	3-3.5	2600	Chromium	40-02	0-2	38.2
	Arsenic	40-03	3.4	Arsenic	40-03	3-3.5	3.9	Nickel	40-02	0-2	153
	--	--	--	--	--	--	--	Nickel	40-03	0-2	233
	--	--	--	--	--	--	--	Nickel	40-03	3-3.5	141
	--	--	--	--	--	--	--	Selenium	40-03	3-3.5	7.6
West API Seperator (SWMU 2)	Arsenic	2-02	3.3	Arsenic	2-05	3-3.5	3.5	--	--	--	--
	--	--	--	Arsenic	2-08	2.5-3	3.2	--	--	--	--
East API Seperator (SWMU 3)	Benzo(a)pyrene	03-08	2.30	Benzo(a)pyrene	03-01	3.5-4	1000	Methylene chloride	3-01	3-3.5	48
	Arsenic	03-03	2.5	Arsenic	03-01	3.5-4	4.4	--	--	--	--
	Arsenic	03-08	2.5	--	--	--	--	--	--	--	--
Watery Oil Seperator (SWMU 83)	--	--	--	Arsenic	43-03	7-7.5	11	Methylene chloride	43-03	7-7.5	23
	--	--	--	Arsenic	43-01	6-6.5	5.6J	--	--	--	--
	--	--	--	Arsenic	43-01	6-6.5	4.8J	--	--	--	--
Ballast Basin Skimmer Area (SWMU 44)	--	--	--	Arsenic	44-03	6.5-7	5.5J	--	--	--	--
East Aisle Ditch (SWMU 45)	Arsenic	45-01	6.4	Arsenic	45-04	3-3.5	2.1B	--	--	--	--
	Arsenic	45-02	5.5	Arsenic	45-05	3-3.5	4.3	--	--	--	--
	Arsenic	45-04	6.1	Arsenic	45-05	5-5.5	3.6	--	--	--	--
	Arsenic	45-12	3.4	Arsenic	45-06	5-5.5	4.2	--	--	--	--
	Arsenic	45-05	7.3	Arsenic	45-08	3-3.5	2.3B	--	--	--	--
	--	--	--	Arsenic	45-09	3-3.5	4.7	--	--	--	--
Barge Dock Sump (SWMU 34)	Arsenic	34-02	4.1J	Arsenic	34-02	3-3.5	3.9J	2-methylnaphthalene	34-04	7.5-8	100,000D
	--	--	--	Arsenic	34-05	7.5-8	6.1J	--	--	--	--
	--	--	--	Arsenic	34-06	7.5-8	4	--	--	--	--
	--	--	--	Arsenic	34-07	4.5-5	5.6J	--	--	--	--
	--	--	--	Arsenic	38-08	4-4.5	2.7J	--	--	--	--

Concentrations shown above are in ug/kg for benzo(a)pyrene and methylene chloride, and 2-methylnaphthalene.

Concentrations shown above are in mg/kg for arsenic, chromium, nickel, and selenium.

Table 7-4
Maximum Detections in Groundwater
SCYI RFI
(Page 1 of 2)

CAS Number	Chemical	SWMU-2	SWMU-3	SWMU-14	SWMU-17	SWMU-18	SWMU-33	SWMU-34
VOCs (ug/L)								
67-64-1	Acetone	--	--	--	--	--	--	--
71-43-2	Benzene	--	--	--	--	--	60	--
75-15-0	Carbon Disulfide	--	14 D	--	--	--	0.4 J	9
156-59-2	1,2-Dichloroethene	--	--	4 J	--	--	--	--
100-41-4	Ethylbenzene	--	--	--	--	--	110	--
108-88-3	Toluene	--	--	--	--	--	--	0.3
1330-20-7	Xylene	--	--	--	--	--	130	--
BNAs (ug/L)								
83-32-9	Acenaphthene	--	--	--	--	--	2.7	--
218-01-9	Chrysene	--	--	--	--	--	--	--
132-64-9	Dibenzofuran	--	--	--	--	--	1.1 J	--
86-73-7	Fluorene	--	--	--	--	--	4.4	--
91-57-6	2-Methylnapthalene	60.1	--	--	--	--	60.1	10 J
91-20-3	Napthalene	21.9	--	--	--	--	21.9	--
85-01-8	Phenanthrene	4.1	1 J	--	--	--	4.1	1 J
129-00-0	Pyrene	--	--	--	--	--	--	--
Metals (ug/L)								
7740-36-0	Antimony	--	--	--	--	--	--	--
7740-38-2	Arsenic	3.1 B	2.9 B	--	12.3 J	--	5.4 B	34
7740-39-3	Barium	153 B	541	800	488	355	186 B	262
7740-41-7	Beryllium	--	--	--	--	--	--	--
7740-43-9	Cadmium	0.35 B	2 BJ	3.5 BJ	3.2 BJ	1.8 BJ	1.2 B	3 BJ
18540-29-9	Chromium	--	--	3.9 B	4.9 B	--	0.74 B	7.2 B
7740-48-4	Cobalt	0.73 B	--	--	--	4.4 B	1.4 B	4.6 B
7439-92-1	Lead	--		2.8 BJ	--	--	--	--
7439-97-6	Mercury	0.11 B	0.20 B	--	--	--	--	--
7440-02-0	Nickel	2.6 B	7.6 B	--	17 B	13.5 B	--	6.7 B
	Selenium	--	--	--	--	--	--	--
7440-62-2	Vanadium	4.8 B	--	--	--	--	2.5 B	4.4 B

J - estimated value.

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Maximum detected concentrations are based on the most recent data at locations at which confirmatory sampling was performed (SWMUs 14, 17, 33, 34, and 40)

No groundwater sampling was required at SWMUs 35, 36, and 44A.

Table 7-4
Maximum Detections in Groundwater
SCYI RFI
(Page 2 of 2)

CAS Number	Chemical	SWMU-38	SWMU-39	SWMU-40	SWMU-43	SWMU-44	SWMU-45
VOCs (ug/L)							
67-64-1	Acetone	--	--	17	4 J	31 J	10 J
71-43-2	Benzene	--	--	--	--	--	--
75-15-0	Carbon Disulfide	--	--	8	6	--	8
156-59-2	1,2-Dichloroethene	--	--	--	--	--	--
100-41-4	Ethylbenzene	--	--	--	--	--	--
108-88-3	Toluene	--	--	0.2 J	--	--	--
1330-20-7	Xylene	--	--	3 J	--	--	--
BNAs (ug/L)							
83-32-9	Acenaphthene	--	--	0.75 J	--	--	--
218-01-9	Chrysene	--	--	--	--	--	5 J
132-64-9	Dibenzofuran	--	--	--	--	--	--
86-73-7	Fluorene	--	--	5.3	--	--	7 J
91-57-6	2-Methylnapthalene	--	--	36.9	--	--	2 J
91-20-3	Napthalene	--	--	--	--	--	--
85-01-8	Phenanthrene	--	--	7.3	--	--	8 J
129-00-0	Pyrene	--	--	--	--	--	5 J
Metals (ug/L)							
7740-36-0	Antimony	--	--	--	--	--	--
7740-38-2	Arsenic	5.6 BJ	--	7.1 B	10	--	--
7740-39-3	Barium	286	--	547	121	413	268
7740-41-7	Beryllium	--	--	--	--	--	--
7740-43-9	Cadmium	2.4 BJ	--	3.3 BJ	--	2.7 BJ	--
18540-29-9	Chromium	--	--	4.9 B	5.6 B	4.4 B	--
7740-48-4	Cobalt	4 B	--	34.3 B	--	4.7 B	7.3 B
7439-92-1	Lead	--	--	--	--	--	--
7439-97-6	Mercury	--	--	0.23	0.12 B	--	--
7440-02-0	Nickel	6.5 B	--	44.6	4.9 B	--	--
	Selenium	--	--	7.4 J	--	--	--
7440-62-2	Vanadium	3.4 B	--	2.1 B	1.1 B	--	12.1 B

J - estimated value.

B - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL). Detections may be the result of instrument noise and other lab artifacts, especially near the IDL.

Maximum detected concentrations are based on the most recent data at wells at which confirmatory sampling was performed (SWMUs 14, 17, 33, 34, and 40)

No groundwater sampling was required at SWMUs 35, 36, and 44A.

Table 7-5
Detections in Groundwater above Screening Levels
SCYI RFI
(Page 1 of 1)

SWMU	Chemical	Well Number	Concentration (ug/L)	Screening Level (ug/L)
North Aeration Basin (SWMU 17)	Arsenic	AB-1	12.3 J	10
Northeast Refinery Area (SWMU 40)	2-Methylnaphthalene	40-21	36.9	24
Main Dock Sump (SWMU 33)	Benzene	MDS-4	60	5
	Naphthalene	MDS-4	21.9	6.5
	2-Methylnaphthalene	MDS-4	60.1	24
Barge Dock Sump (SWMU 34)	Arsenic	BDS-2	34	10

Table 7-6
Flora and Fauna in the Yabucoa Area including Endangered and Threatened Species
SCYI RFI
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Common Name	Scientific Name	Biologic Resource Description	Endangered (E) or Threatened (T) on State (S) or Federal (F) lists
Area 16 on Figure 7-2			
Pelagic fish	Pentaceros pectoralis & Sebastes species	Fish	
Reef fish		Fish	
Caribbean spiny lobster		Invertebrate	
Octopus	Octopus cyahea	Invertebrate	
Queen conch		Invertebrate	
Dolphins	Coryphaena hippurus	Marine Mammals	
Whales		Marine Mammals	
Area 17 on Figure 7-2			
Pelagic fish		Fish	
Dolphins		Marine Mammals	
Whales		Marine Mammals	
Area 27 on Figure 7-2			
Pterocarpus swamp		Plant	
Area 28 on Figure 7-2			
Nursery fish		Fish	
Snook		Fish	
Tarpon		Fish	
Blue land crab		Invertebrate	
Area 32 on Figure 7-2			
Green sea turtle		Reptile	(E)(T)-(S)(F)
Hawksbill sea turtle	Eretmochelys imbricata	Reptile	(E)(E)-(S)(F)
Leatherback sea turtle	Dermochelys coriacea	Reptile	(E)(E)-(S)(F)
Area 229 on Figure 7-2			
Brown pelican	Pelecanus occidentalis	Bird	(E)(E)-(S)(F)
Area 263 on Figure 7-2			
American Coot	Fulica americana	Bird	
Blue-winged teal	Anas discors	Bird	
Brown pelican	Pelecanus occidentalis	Bird	(E)(E)-(S)(F)
Caribbean coot	Fulica Caribea	Bird	(T)-(S)
Common moorhen	Gallinula chloropus	Bird	
Common snipe	Gallinago gallinago	Bird	
Glossy ibis	Plegadis falcinellus	Bird	
Green-winged teal	Anas crecca	Bird	
Least grebe	Tachybaptus dominicus	Bird	(T)-(S)
Lesser scaup	Aythya affins	Bird	
Masked duck	Oxyura dominica	Bird	(T)-(S)
Northern pintail	Anas acuta	Bird	
Osprey	Pandion haliaetus	Bird	
Purple Gallinule	Porphyrula martinica	Bird	
Ruddy duck	Oxyura jamaicensis	Bird	(T)-(S)
Wading birds		Bird	
West Indian whistling-duck	Dendrocygna arborea	Bird	(T)-(S)
White-cheeked pintail	Anas bahamensis	Bird	
Area 264 on Figure 7-2			
Native Stream Fish		Fish	
Nursery fish		Fish	

Table 7-6
Flora and Fauna in the Yabucoa Area including Endangered and Threatened Species
SCYI RFI
(Page 2 of 2)

Common Name	Scientific Name	Biologic Resource Description	Endangered (E) or Threatened (T) on State (S) or Federal (F) lists
Area 264 on Figure 7-2			
Snook	Megalops atlanticus	Fish	
Tarpon		Fish	
Floating aquatic vegetation		Plant	
Blue land crab	Callinectes sapidus	Invertebrate	
Native stream shrimp		Invertebrate	
Additional Species on USFSWS Endangered Species List			
Guajon	Eleutherodactylus cooki	Amphibians	(E)-(F)
Manatee, West Indian	Trichechus manatus	Mammals	(E)-(F)
Ortegon	Coccolobra rugosa	Plants	(E)-(F)
Boa, Puerto Rican	Epicrates inornatus	Reptiles	(E)-(F)

Table 7-7
Maximum Concentrations of VOCs, BNAs, and Metals in Surface Soil
SCYI RFI
(Page 1 of 1)

Compound	Max Concentration	Location of maximum	EPA Region 5 Ecological Screening Levels[1]
VOCs (ug/kg)			
Acetone	2600 DJ	SWMU-40	2500
2-Butanone	150 J	SWMU-40	8.96E+04
Carbon Disulfide	67 J	SWMU-40	94.1
Methylene Chloride	20 J	SWMU-43	1.04E+04
Toluene	14 J	SWMU-40	5450
Xylene	21	SWMU-36	1.00E+04
BNAs (ug/kg)			
Benzo (a) pyrene	230 J	SWMU-3	1520
Benzo (b) fluoranthene	82.1	SWMU-39	5.98E+04
Benzo (ghi) perylene	1500	SWMU-45	1.19E+05
Bis (2-Ethylhexyl) phthalate	706	SWMU-39	925
Chrysene	300 J	SWMU-3	4730
Di-n-butyl phthalate	170 J	SWMU-40	150
Fluorene	570 J	SWMU-36	1.22E+05
2-Methylnapthalene	1300	SWMU-36	3240
Napthalene	260 J	SWMU-36	99.4
Fluoranthene	39 J	SWMU-2	1.22E+05
Phenanthrene	1800	SWMU-36	4.57E+04
Phenol	180 J	SWMU-3	1.20E+05
Pyrene	410 J	SWMU-36	7.85E+04
Metals (mg/kg)			
Arsenic	11	SWMU-43	5700
Barium	297	SUMU-36	1040
Beryllium	0.46 B	SWMU-39, SWMU-43	1060
Chromium	38.2	SWMU-40	400
Cobalt	15.8	SWMU-35	140
Lead	37.5	SWMU-3	53.7
Mercury	0.78	SWMU-40	100
Nickel	49.1	SWMU-39	1.36E+04
Vanadium	577	SWMU-40	1590

1. From EPA, Region 5 (EPA, 2003a).