Table 2-1
Construction Details Of Production Wells
SCYI RFI
(Page 1 of 1)

Well ID	Construction Date	Construction Method	Land Surface Elevation (ft amsl, approximate)	Well Depth (ft bgl)	Casing Diameter (inch)	Screen Slot Size (inch)	Screen Length (ft)	Casing/ Screen Material	Depth to Top and Bottom of Screen (ft bgl)	
									Top	Bottom
PW-1	01-Jan-70	--	13.1	190.5	12	--	108	Steel	82.5	190.5
PW-2	08-Apr-70	CT	14.1	150	12	0.060	35	Steel/SST	115	150
PW-3	20-Jun-70	--	16.4	156	12	0.060	35	Steel/SST	120	155
PW-4	01-Jun-88	MR	22.0	175	16	0.040	80	Steel/SST	90	170
PW-6	10-Jun-71	CT	20.0	177	12	0.060	15	Steel/SST	52	67
							25	Steel/SST	87	112
							15	Steel/SST	162	177
PW-8*	01-Aug-71	--	23.0	151	12	0.060	30	Steel/SST	50	80
TW-2	--	--	25.0	151	8	--	20	Steel/SST	120	140
TW-4	21-Jun-87	--	21.6	202	8	0.040	40	Steel	111	151
							120	PVC	72	192

Notes: amsl = above mean sea level
bgl = below ground level
MR = Mud Rotary
-- = Not Available
SST=Stainless Steel
CT = Cable Tool
* Well PW-8 was abandoned between 1988 and 1989.

Table 2-2
Groundwater Levels at USGS Nested Monitoring Wells
SCYI RFI
(Page 1 of 1)

Well Number	Well name	Depth to water (ft bgl)				Ground elevation (ft amsl)	Screened interval (ft bgl)	Total depth (ft bgl)
		28-29 Apr 90	21-Apr-90	31-Jul-90	22-23 Aug 90			
34	Martorell 1	7.5	8.1	--	--	69	20 to 35	35
35	Martorell 2	9.7	10.0	--	--	69	55 to 75	75
36	Limones 1	--	9.6	--	--	39	101 to 121	121
37	Limones 2	--	5.6	--	--	39	15 to 35	35
38	Limones 3	--	8.9	--	--	39	57 to 77	77
39	Juan Martin 1	26.5	--	--	21.3	29.5	150 to 170	170
40	Juan Martin 2	26.7	--	--	22.3	29.5	109 to 129	129
41	Juan Martin 3	12.3	--	--	13.0	29.5	16 to 36	36
44	Harbor 1	--	--	16.5	16.0	8.3	79 to 99	99
45	Harbor 2	--	--	9.1	9.3	8.3	17 to 37	37
46	Harbor 3	--	--	16.4	16.0	8.3	125 to 145	145

Notes & abbreviations:
1. Water level data supplied by Mr. Joe Troester of the USGS, Puerto Rico, 1997.
2. Wells within each cluster are within about 10 to 20 ft of each other.
3. Ground elevations estimated from USGS topographic maps.
4. Well construction details from USGS (1996a).
5. bgl - below ground level
6. amsl - above mean sea level

Table 2-3
Groundwater Elevations Summary at the Northeast Refinery Area (SWMU 40)
September 20, 1996
SCYI RFI
(Page 1 of 1)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft)	Ground Elevation (ft)	Water Level (ft amsl)
Northeast Refinery Area (SWMU 40)	40-08	20-Sep-96	12.71	- -	- -	25.00	22.54	12.29
	40-09	20-Sep-96	5.19	5.04	0.15	18.06	15.45	13.00
	40-10	20-Sep-96	6.73	5.90	0.83	18.33	15.63	12.31
	40-11	20-Sep-96	6.25	6.24	0.01	18.56	16.39	12.32
	40-12	20-Sep-96	7.61	7.61	sheen	18.76	16.40	11.15
	40-13	20-Sep-96	4.14	- -	- -	17.14	15.01	13.00
	40-14	20-Sep-96	9.05	- -	- -	19.74	17.64	10.69
	40-15	20-Sep-96	10.17	10.17	sheen	21.35	18.84	11.18
	40-16	20-Sep-96	6.54	6.54	sheen	17.94	14.82	11.40
	40-17	20-Sep-96	6.05	- -	- -	18.68	16.42	12.63
	40-18	20-Sep-96	7.46	7.46	sheen	19.18	16.95	11.72
	40-19	20-Sep-96	7.79	- -	- -	19.06	16.14	11.27
	40-20	20-Sep-96	9.23	- -	- -	21.29	18.40	12.06
Equalization Basin	RA-1	20-Sep-96	7.93	**	**	23.17	na	15.24
	RA-2	20-Sep-96	11.47	**	**	24.81	na	13.34
	RA-3	20-Sep-96	11.02	**	**	24.38	na	13.36
	RA-4	20-Sep-96	12.70	**	**	26.53	na	13.83
	RA-5	20-Sep-96	12.42	**	**	24.96	23.94	12.54
	RA-6	20-Sep-96	11.75	**	**	24.50	22.10	12.75
	RA-7	20-Sep-96	11.51	**	**	24.48	23.44	12.97
Old Construction Well	OCW	20-Sep-96	8.10	**	**	19.02	15.70	10.92

Notes:

Depth to water shown was below top of casing.

If free product was measured, water levels (ft amsl) were adjusted using a product density of 0.85.

- - = no product or sheen

** Water level measurement only

amsl - above mean sea level

Table 2-4
Groundwater Elevation Summary
January 28, 1997
SCYI RFI
(Page 1 of 2)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
Refinery Area								
Northeast Refinery Area (SWMU 40)	40-08	28-Jan-97	14.06	--	--	25.00	22.54	10.94
	40-09	28-Jan-97	8.42	6.85	1.57	18.06	15.45	10.97
	40-10	28-Jan-97	9.00	8.13	0.87	18.33	15.63	10.07
	40-11	28-Jan-97	8.17	8.17	Sheen	18.56	16.39	10.39
	40-12	28-Jan-97	9.30	--	--	18.76	16.40	9.46
	40-13	28-Jan-97	5.96	--	--	17.14	15.01	11.18
	40-14	28-Jan-97	10.14	- -	- -	19.74	17.64	9.60
	40-15	28-Jan-97	11.59	11.59	Sheen	21.35	18.84	9.76
	40-16	28-Jan-97	8.57	- -	- -	17.94	14.82	9.37
	40-17	28-Jan-97	7.52	- -	- -	18.68	16.42	11.16
	40-18	28-Jan-97	8.04	8.02	0.02	19.18	16.95	11.16
	40-19	28-Jan-97	8.80	- -	- -	19.06	16.14	10.26
	40-20	28-Jan-97	11.85	- -	- -	21.29	18.40	9.44
Equalization Basin	RA-5	28-Jan-97	13.97	13.97	Sheen	24.96	23.94	10.99
Tank Farm Area								
East API Separator (SWMU 3)	03-07	28-Jan-97	6.17	- -	- -	13.89	12.35	7.72
	03-09	28-Jan-97	11.32	7.02	Sheen	14.56	11.06	3.24
	03-10	28-Jan-97	8.54	- -	- -	14.64	11.40	6.10
Watery Oil Separator (SWMU 43)	WOS-1	28-Jan-97	8.12	- -	- -	14.00	12.40	5.88
	WOS-2	28-Jan-97	7.64	7.41	0.23	13.24	12.45	5.80
	WOS-3	28-Jan-97	10.80	- -	- -	15.54	12.65	4.74
East Aisle Ditch (SWMU 45)	45-01	28-Jan-97	2.40	**	Sheen	11.53	10.61	9.13
	45-02	28-Jan-97	4.66	**	- -	13.13	10.60	8.47
	45-09	28-Jan-97	5.68	**	- -	12.39	10.41	6.71
	45-10	28-Jan-97	4.07	**	Sheen	12.46	10.66	8.39

Notes: Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.85.
- - No product or sheen
** Water level measurement only

Table 2-4
Groundwater Elevation Summary
January 28, 1997
SCYI RFI
(Page 2 of 2)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
				Dock Area				
Main Dock Sump (SWMU 33)	MDS-1	28-Jan-97	11.59	10.78	0.81	11.51	8.90	0.61
	MDS-2	28-Jan-97	11.41	10.98	0.43	11.40	8.98	0.36
	MDS-3	28-Jan-97	14.70	- -	- -	15.41	15.24	0.71
	MDS-4	28-Jan-97	10.90	- -	- -	11.62	9.25	0.72
	MDS-5	28-Jan-97	11.15	10.87	0.28	11.58	9.60	0.67
	MDS-6	28-Jan-97	10.08	9.20	0.88	9.88	7.88	0.55
	MDS-7	28-Jan-97	10.21	9.87	0.34	10.46	7.46	0.54
	MDS-8	28-Jan-97	13.23	- -	- -	13.87	10.90	0.64
	MDS-6R	28-Jan-97	9.95	9.32	0.63	9.98	8.18	0.03
	16.5" recov	28-Jan-97	9.60	9.59	0.01	10.28	8.81	0.68
Barge Dock Sump (SWMU 34)	BDS-1	28-Jan-97	5.03	- -	- -	5.96	4.08	0.93
	BDS-2	28-Jan-97	10.43	10.41	0.02	11.59	8.72	1.16
	BDS-3	28-Jan-97	11.72	11.24	0.48	12.52	9.46	1.21
	BDS-4	28-Jan-97	8.27	- -	- -	9.41	7.97	1.14
	BDS-5	28-Jan-97	6.29	- -	Sheen	7.31	5.13	1.02
	BDS-6	28-Jan-97	5.74	- -	Sheen	6.74	4.80	1.00
	BDS-7	28-Jan-97	9.16	- -	- -	10.36	7.63	1.20
	MW-1	28-Jan-97	11.31	- -	- -	12.65	9.53	1.34
	MW-9	28-Jan-97	10.69	10.67	0.02	11.87	9.08	1.20
Upgradient well	DA-1	28-Jan-97	11.91	- -	- -	17.92	14.84	6.01
Old Construction Well	OCW	28-Jan-97	9.25	- -	- -	19.02	15.7	9.77

Notes: Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.85.
- - No product or sheen
** Water level measurement only

Table 2-5
Surface Water Elevation Summary at the Northeast Refinery Area
September 20, 1996 and January 28, 1997
SCYI RFI
(Page 1 of 1)

Location	Staff Gauge ID.	Top of Staff Gauge (ft amsl)	Top of Water Surface (ft amsl) 20-Sep-96	Top of Water Surface (ft amsl) 28-Jan-97
Santiago Creek	SG-1	16.16	11.66	--
	SG-2	14.29	11.46	9.71
	SG-3	14.57	--	--
Lajas Creek	SG-4	13.67	10.98	8.44

-- not available
amsl - above mean sea level

Table 2-6
Stream Gauge Measurements in Lajas and Santiago Creeks
June 2003 - July 2004
SCYI RFI
(Page 1 of 1)

	Surface Water Elevation, LC-1 (ft amsl)	Groundwater Elevation, 40-11 (ft amsl)	Groundwater & Surface Water Elevation Difference (ft)	Groundwater Discharge(-) or Recharge(+)
Lajas Creek - Surface Water Gauge LC-1 and Well 40-11				
6/26/2003	9.82	9.74	0.08	Recharge
9/25/2003	9.87	9.90	-0.03	Discharge
12/12/2003	9.15	11.85	-2.70	Discharge
3/26/2004	9.55	9.71	-0.16	Discharge
6/30/2004	9.73	10.28	-0.55	Discharge
7/8/2004	9.84	10.77	-0.93	Discharge

	Surface Water Elevation, LC-2	Groundwater Elevation, 40-12 (ft amsl)	Groundwater & Surface Water Elevation Difference (ft)	Groundwater Discharge(-) or Recharge(+)
Lajas Creek - Surface Water Gauge LC-2 and Well 40-12				
6/26/2003	8.17	8.64	-0.47	Discharge
9/25/2003	8.69	8.74	-0.05	Discharge
12/12/2003	7.98	10.65	-2.67	Discharge
3/26/2004	8.32	9.11	-0.79	Discharge
6/30/2004	8.41	9.13	-0.72	Discharge

	Surface Water Elevation, SC-1 (ft amsl)	Groundwater Elevation, 40-15 (ft amsl)	Groundwater & Surface Water Elevation Difference (ft)	Groundwater Discharge(-) or Recharge(+)
Santiago Creek - Surface Water Gauge SC-1 and Well 40-15				
6/26/2003	8.97	8.80	0.17	Recharge
9/25/2003	8.81	8.93	-0.12	Discharge
12/12/2003	9.31	11.50	-2.19	Discharge
3/26/2004	9.85	9.57	0.28	Recharge
6/30/2004	9.91	9.57	0.34	Recharge

	Surface Water Elevation, SC-2 (ft amsl)	Groundwater Elevation, 40-14A (ft amsl)	Groundwater & Surface Water Elevation Difference (ft)	Groundwater Discharge(-) or Recharge(+)
Santiago Creek - Surface Water Gauge SC-2 and Well 40-14A				
6/26/2003	9.76	8.22	1.54	Recharge
9/25/2003	8.72	8.31	0.41	Recharge
12/12/2003	11.18	9.48	1.70	Recharge
3/26/2004	9.66	9.21	0.45	Recharge
6/30/2004	9.82	9.22	0.60	Recharge

Table 4-1
Construction Details of RFI Wells
SCYI RFI
(Page 1 of 2)

Well ID	SWMU ID	Construction Date	Construction Method	Elevation of Top of Casing (ft amsl)	Land Surface Elevation (ft amsl)	Well Depth (ft bgl)	TD (ft below TOC)	Casing Diameter (inch)	Borehole Diameter (inch)	Casing Length (ft below TOC)	Stick-Up Height (ft agl)	Screen Slot Size (inch)	Screen Length (ft)	Casing/ Screen Material	Elevation Of Screen (ft amsl)		Depth of Screen (ft bgl)	
															Top	Bottom	Top	Bottom
02-09	2	7-Feb-03	HSA	18.39	18.29	19.5	19.8	2	8	9.3	0.10	0.020	10	PVC	9.1	-0.9	9.2	19.2
03-07	3	8-Jul-96	HSA	13.89	12.35	6	7.5	1.25	8	2.54	1.54	0.020	5	PVC	11.35	6.35	1.0	6.0
03-09	3	9-Jul-96	HSA	14.56	11.06	10	13.5	1.25	8	6.5	3.50	0.020	7	PVC	8.06	1.06	3.0	10.0
03-10A	3	19-Jun-96	HSA	14.64	11.82	11	13.8	1.25	8	9.24	2.82	0.020	5	PVC	5.4	0.4	6.4	11.4
03-10B	3	11-Feb-03	HSA	14.31	11.82	35.4	38.2	2	8	27.9	2.49	0.020	10	PVC	-13.6	-23.6	25.4	35.4
03-11	3	12-Feb-03	DP	12.82	10.33	11.3	13.0	1	2	5.8	2.49	0.020	7	PVC	7.1	0.1	3.3	10.3
FRB-1	14	9-Jul-96	HSA	25.37	22.3	16	19.1	2	8	9.07	3.07	0.020	10	PVC	16.3	6.3	6.0	16.0
FRB-2	14	1-Jul-96	HSA	25.29	22.45	17	19.8	2	8	9.84	2.84	0.020	10	PVC	15.45	5.45	7.0	17.0
AB-1	17&18	1-Jul-96	HSA	24.64	22.8	13	14.8	2	8	9.84	1.84	0.020	5	PVC	14.8	9.8	8.0	13.0
AB-2	17&18	1-Jul-96	HSA	25.22	22.51	17	19.7	2	8	14.71	2.71	0.020	5	PVC	10.51	5.51	12.0	17.0
38-02	38	10-Jul-96	HSA	22.84	19.97	11	13.9	2	8	8.87	2.87	0.020	5	PVC	13.97	8.97	6.0	11.0
40-08	40	25-Jun-96	HSA	24.92	22.84	22	24.1	2	8	14.46	2.08	0.020	10	PVC	10.46	0.46	12.4	22.4
40-09	40	25-Jun-96	HSA	18.06	15.45	13	15.6	2	8	10.61	2.61	0.020	5	PVC	7.45	2.45	8.0	13.0
40-10	40	26-Jun-96	HSA	18.33	15.63	14	16.7	2	8	11.7	2.70	0.020	5	PVC	6.63	1.63	9.0	14.0
40-11	40	17-Jul-96	HSA	18.56	16.39	18	20.2	2	8	10.17	2.17	0.020	10	PVC	8.39	-1.61	8.0	18.0
40-12	40	17-Jul-96	HSA	18.76	16.4	15	17.4	2	8	7.36	2.36	0.020	10	PVC	11.4	1.4	5.0	15.0
40-13	40	18-Jul-96	HSA	17.14	15.01	18	20.1	2	8	10.13	2.13	0.020	10	PVC	7.01	-2.99	8.0	18.0
40-14A	40	28-Jul-96	HSA	19.64	17.83	18	19.8	2	8	10.1	1.81	0.020	10	PVC	9.54	-0.46	8.3	18.3
40-14B	40	13-Feb-03	HSA	19.09	17.69	38.5	40.5	2	8	30.3	1.40	0.020	10	PVC	-11.2	-21.2	28.8	38.8
40-15	40	28-Jul-96	HSA	21.35	18.84	18	20.5	2	8	10.51	2.51	0.020	10	PVC	10.84	0.84	8.0	18.0
40-16	40	29-Jul-96	HSA	17.68	15.28	15	17.4	2	8	8.12	2.40	0.020	10	PVC	9.56	-0.44	5.7	15.7
40-17	40	30-Jul-96	HSA	18.68	16.42	15	17.3	2	8	7.26	2.26	0.020	10	PVC	11.42	1.42	5.0	15.0
40-18	40	29-Jul-96	HSA	19.18	16.95	15	17.2	2	8	7.23	2.23	0.020	10	PVC	11.95	1.95	5.0	15.0
40-19	40	6-Aug-96	HSA	19.06	16.14	14	16.9	2	8	6.92	2.92	0.020	10	PVC	12.14	2.14	4.0	14.0
40-20	40	5-Aug-96	HSA	21.29	18.4	16	18.9	2	8	10.89	2.89	0.020	8	PVC	10.4	2.4	8.0	16.0
40-21	40	1-Feb-05	HSA	--	--	14	17.2	2	8	7	3.00	0.020	12	PVC	--	--	4.0	16.0
WOS-1	43	15-Jul-96	T	14	12.4	5	6.6	2	2	3.6	1.60	0.020	3	PVC	10.4	7.4	2.0	5.0
WOS-2	43	15-Jul-96	T	13.24	12.45	9	9.8	2	2	4.79	0.79	0.020	5	PVC	8.45	3.45	4.0	9.0
WOS-3	43	7-Aug-96	T	15.54	12.63	10	12.9	2	2	8.89	2.91	0.020	4	PVC	6.65	2.65	6.0	10.0
WOS-4A	43	4-Feb-03	HSA	15.26	13.20	15.8	18.4	2	8	8.2	2.06	0.020	10	PVC	7.1	-2.9	6.1	16.1
WOS-4B	43	5-Feb-03	HSA	15.76	13.27	36.6	39.9	2	8	29.6	2.49	0.020	10	PVC	-13.8	-23.8	27.1	37.1
WOS-5	43	3-Feb-03	HSA	16.11	13.42	15.8	18.8	2	8	8.6	2.69	0.020	10	PVC	7.5	-2.5	5.9	15.9
45-01	45	1-Jul-96	HSA	11.53	10.61	5	5.9	1.25	8	0.92	0.92	0.020	5	PVC	10.61	5.61	0.0	5.0
45-02	45	1-Jul-96	HSA	13.13	10.6	5	7.5	1.25	8	2.53	2.53	0.020	5	PVC	10.6	5.6	0.0	5.0
45-09	45	30-Jun-96	HSA	12.39	10.41	6	8.0	1.25	8	1.98	1.98	0.020	5	PVC	10.41	5.4	0.0	5.0
45-10	45	27-Jun-96	HSA	12.46	10.66	5	6.8	1.25	8	1.8	1.80	0.020	5	PVC	10.66	5.66	0.0	5.0
MDS-1	33	18-Jun-96	HSA	8.48	8.94	11	10.5	2	8	8.61	-0.46	0.020	5	PVC	-0.1	-5.1	9.1	14.1
MDS-2	33	18-Jun-96	HSA	8.75	9.12	11	10.6	2	8	8.42	-0.37	0.020	5	PVC	0.33	-4.67	8.8	13.8
MDS-3	33	18-Jun-96	HSA	14.89	15.25	20	19.6	2	8	10.17	-0.36	0.020	10	PVC	4.72	-5.28	10.5	20.5
MDS-4	33	19-Jun-96	HSA	8.64	9.02	12.5	12.1	2	8	9.87	-0.38	0.020	5	PVC	-1.23	-6.23	10.3	15.3
MDS-5	33	1-Aug-96	HSA	9.27	9.65	15	14.6	2	8	6.98	-0.38	0.020	10	PVC	2.3	-7.7	7.4	17.4
MDS-6	33	1-Aug-96	HSA	7.52	7.94	15	14.6	2	8	7	-0.42	0.020	10	PVC	0.52	-9.48	7.4	17.4
MDS-6R	33	14-Aug-96	HSA	8.43	8.71	25	24.7	2	8	6.3	-0.28	0.020	15	PVC	2.13	-12.87	6.6	21.6

Table 4-1
Construction Details of RFI Wells
SCYI RFI
(Page 2 of 2)

Well ID	SWMU ID	Construction Date	Construction Method	Elevation of Top of Casing (ft amsl)	Land Surface Elevation (ft amsl)	Well Depth (ft bgl)	TD (ft below TOC)	Casing Diameter (inch)	Borehole Diameter (inch)	Casing Length (ft below TOC)	Stick-Up Height (ft agl)	Screen Slot Size (inch)	Screen Length (ft)	Casing/ Screen Material	Elevation Of Screen (ft amsl)		Depth of Screen (ft bgl)	
															Top	Bottom	Top	Bottom
MDS-7	33	31-Jul-96	HSA	7.09	7.45	15	14.6	2	8	8	-0.36	0.020	10	PVC	-0.91	-10.91	8.4	18.4
MDS-8	33	6-Aug-96	HSA	10.6	11	17	16.6	2	8	9.97	-0.40	0.020	10	PVC	0.6	-9.4	10.4	20.4
MDS-9R	33	25-Mar-98	MR	7.92	9.38	30	28.0	10	16	5	-1.46	0.030	20	PVC	2.92	-17.08	6.5	26.5
MDS-10R	33	26-Mar-98	MR	7.21	8.69	30	28.0	10	16	5	-1.48	0.030	20	PVC	2.2	-17.8	6.5	26.5
BDS-1	34	17-Jun-96	HSA	5.96	4.08	13	14.9	2	8	4.88	1.88	0.020	10	PVC	1.08	-8.92	3.0	13.0
BDS-2	34	17-Jun-96	HSA	11.55	8.77	11	13.8	2	8	8.87	2.78	0.020	5	PVC	2.68	-2.32	6.1	11.1
BDS-3	34	30-Jun-96	HSA	12.52	9.46	16	19.1	2	8	9.06	3.06	0.020	10	PVC	3.46	-6.54	6.0	16.0
BDS-4	34	4-Aug-96	HSA	9.41	7.97	14	15.4	2	8	5.44	1.44	0.020	10	PVC	3.97	-6.03	4.0	14.0
BDS-5	34	4-Aug-96	HSA	7.29	5.23	14	16.1	2	8	6.18	2.06	0.020	10	PVC	1.11	-8.89	4.1	14.1
BDS-6	34	4-Aug-96	HSA	8	4.5	13	16.5	2	8	4.94	3.50	0.020	10	PVC	3.1	-6.9	1.4	11.4
BDS-7	34	4-Aug-96	HSA	10.21	7.53	13	15.7	2	8	5.73	2.68	0.020	10	PVC	4.48	-5.52	3.1	13.1
MW-RA8	NA	11-Jul-96	HSA	28.79	26.32	15	17.47	2	8	7.47	2.47	0.020	10	PVC	21.32	11.32	5.0	15.0
RA-9	NA	13-Feb-04	HSA	--	--	16.2	16.2	2	8	6	0.00	0.020	10	PVC	--	--	6.0	16.0
RA-10	NA	12-Feb-04	HSA	--	--	16.2	16.2	2	8	6	0.00	0.020	10	PVC	--	--	6.0	16.0
DA-1	NA	1-Jul-96	HSA	17.92	14.84	17	20.1	2	8	10.08	3.08	0.020	10	PVC	7.84	-2.16	7.0	17.0

Abbreviations:

amsl = above mean sea level
bgl = below ground level
TD = Total Well Depth
TOC = Top of Casing
agl = above ground level
DP = Direct-Push
HSA = Hollow Stem Auger
T = Tripod
MR = Mud Rotary
NA = Not Applicable
-- Not Available

Notes:
1. Bottom cup of wells below screen area is 0.25 ft long.
2. Well 40-19 was destroyed in early 1997 due to floods, and well 40-20 was destroyed in early 1997 due to agricultural activities.

Table 4-2
Construction Details of Existing Facility Wells
SCYI RFI
(Page 1 of 1)

Well ID	SWMU ID	Construction Date	Construction Method	Elevation of Top of Casing (ft amsl)	Land Surface Elevation (ft amsl)	Well Depth (ft bgl)	TD (ft below TOC)	Casing Diameter (inch)	Casing Length (ft below TOC)	Stick-Up Height (ft agl)	Screen Slot Size (inch)	Screen Length (ft)	Casing/ Screen Material	Elevation of Screen (ft amsl)		Depth of Screen (ft bgl)	
														Top	Bottom	Top	Bottom
RA-1	--	06-Sep-91	HSA	22.12	20.14	25.0	27.0	4	7.4	1.98	0.020	20	304 SST	14.72	-5.28	5.42	25.42
RA-2	--	12-Sep-91	HSA	24.75	22.94	28.0	29.8	4	10	1.81	0.020	20	304 SST	14.75	-5.25	8.19	28.19
RA-2A	--	23-May-97	HSA	24.94	22.56	18.0	20.4	2	10.38	2.38	0.020	10	PVC	14.56	4.56	8.00	18.00
RA-3	--	13-Sep-91	HSA	24.29	22.69	28.0	29.6	4	10	1.60	0.020	20	304 SST	14.29	-5.71	8.40	28.40
RA-3A	--	23-May-97	HSA	23.63	22.41	20.0	21.2	2	11.22	1.22	0.020	10	PVC	12.41	2.41	10.00	20.00
RA-4	--	18-Sep-91	HSA	26.45	24.87	28.0	29.6	4	10	1.58	0.020	20	304 SST	16.45	-3.55	8.42	28.42
RA-4A	--	23-May-97	HSA	26.58	24.64	20.0	21.9	2	11.94	1.94	0.020	10	PVC	14.64	4.64	10.00	20.00
RA-5	--	09-Sep-91	HSA	24.89	23.85	28.5	29.5	4	9.04	1.04	0.020	20	304 SST	15.85	-4.15	8.00	28.00
RA-6	--	10-Sep-91	HSA	24.44	22.03	27.0	29.4	4	9.41	2.41	0.020	20	304 SST	15.03	-4.97	7.00	27.00
RA-7	--	14-Sep-91	HSA	24.39	23.34	28.5	29.6	4	9.05	1.05	0.020	20	304 SST	15.34	-4.66	8.00	28.00
OIB-2	--	01-Sep-96	HSA	23.81	22.74	14.6	15.64	2	--	1.07	--	--	PVC	--	--	--	--
BB-1	44	01-Nov-81	HSA	13.90	11.04	26.5	29.4	2	5	2.86	0.020	15	PVC	8.90	-6.10	2.14	17.14
BB-2	44	01-Nov-81	HSA	15.55	14.51	24	25.0	2	4.3	1.04	0.020	20	PVC	11.25	-8.75	3.26	23.26
BB-3	44	01-Nov-81	HSA	16.93	14.33	25	27.6	2	5.7	2.60	0.020	15	PVC	11.23	-3.77	3.10	18.10
BB-4	44	01-Jul-85	HSA	17.62	15.25	30	32.4	2	10	2.37	0.020	20	316 SST	7.62	-12.38	7.63	27.63
BB-5	44	01-Jul-85	HSA	17.01	15.01	30	32.0	2	6.85	2.00	0.020	22	317 SST	10.16	-11.84	4.85	26.85
OW-1	--	01-Sep-96	HSA	16.78	12.99	6.7	10.52	4	--	3.79	--	--	PVC	--	--	--	--
OW-2	--	01-Sep-96	HSA	16.32	12.99	11.0	14.32	4	--	3.33	--	--	PVC	--	--	--	--
SB-1	--	01-Nov-81	HSA	14.03	11.55	26.5	29.0	2	4.25	2.48	0.020	20	PVC	9.78	-10.22	1.77	21.77
SB-4	--	01-Nov-81	HSA	17.70	14.14	26	29.6	2	11.17	3.56	0.020	15	PVC	6.53	-8.47	7.61	22.61
SB-5	--	01-Jul-85	HSA	19.73	17.73	30	32.0	2	10	2.00	0.020	20	316 SST	9.73	-10.27	8	28
SB-6	--	01-Jul-85	HSA	20.25	18.25	30	32.0	2	10	2.00	0.020	20	316 SST	10.25	-9.75	8	28
SB-7	--	01-Jul-85	HSA	20.40	18.40	30	32.0	2	10	2.00	0.020	20	316 SST	10.4	-9.6	8	28
P-1	--	01-Jul-85	HSA	13.06	12.06	20	21.0	2	4.13	1.00	0.020	15	PVC	8.93	-6.07	3.13	18.13
TE-1A	--	03-Oct-85	HSA	15.95	14.52	28.9	30.3	4	8.9	1.43	0.020	20	PVC	7.05	-12.95	7.47	27.47
16.5"recovery	33	01-Sep-96	--	10.28	8.81	--	16.31	4	--	1.47	--	--	PVC	--	--	--	--
MW-1	34	01-Sep-96	HSA	12.65	9.53	--	--	--	--	3.12	--	--	PVC	--	--	--	--
MW-9	34	01-Sep-96	HSA	11.87	9.08	18.6	21.41	2	--	2.79	--	--	PVC	--	--	--	--
OCW	40	1970	--	19.02	15.7	88	91.3	10	36.32	3.32	--	55	Steel	-17.3	-72.3	33	88

Abbreviations:

amsl = above mean sea level
bgl = below ground level
TD = Total Well Depth
TOC = Top of Casing
agl = above ground level
HSA = Hollow Stem Auger
-- Not Available
316 SST = 316 Stainless Steel, 304 SST = 304 Stainless Steel

Notes:

1. Wells RA-2, RA-3, and RA-4 were abandoned in October 2004.
2. Well 16.5" recovery has a 4" PVC casing/screen and sand pack installed within the original large diameter 16.5" well casing.
3. Well MW-1 was destroyed in early 1997 due to vehicular traffic.
4. The Old Construction Well (Well OCW) was abandoned in February 2005.

Table 4-3
Site-Wide Groundwater Elevation Summary
(August 31 - September 1, 1996)
SCYI RFI
(Page 1 of 3)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
				Refinery Area				
Final Retention Basin (SWMU 14)	FRB-1	1-Sep-96	13.31	- -	- -	25.37	22.30	12.06
	FRB-2	1-Sep-96	12.46	- -	- -	25.29	22.45	12.83
N. Aeration Basin (SWMU 17)	AB-1	1-Sep-96	12.70	- -	- -	24.64	22.80	11.94
S. Aeration Basin (SWMU 18)	AB-2	1-Sep-96	13.83	- -	- -	25.22	22.51	11.39
Dewatering Chamber (SWMU 38)	38-02	1-Sep-96	8.43	- -	- -	22.84	19.97	14.41
Disposal Area (SWMU 40)	40-08	1-Sep-96	14.74	--	--	25.00	22.54	10.26
	40-09	1-Sep-96	8.47	7.70	0.77	18.06	15.45	10.24
	40-10	1-Sep-96	8.90	8.55	0.35	18.33	15.63	9.73
	40-11	1-Sep-96	8.88	8.84	0.04	18.56	16.39	9.71
	40-12	1-Sep-96	9.72	9.72	Sheen	18.76	16.40	9.04
	40-13	1-Sep-96	7.34	7.34	Sheen	17.14	15.01	9.80
	40-14	1-Sep-96	11.07	- -	- -	19.74	17.64	8.67
	40-15	1-Sep-96	12.07	12.07	Sheen	21.35	18.84	9.28
	40-16	1-Sep-96	9.23	9.23	Sheen	17.94	14.82	8.71
	40-17	1-Sep-96	8.35	- -	- -	18.68	16.42	10.33
	40-18	1-Sep-96	9.40	9.40	Sheen	19.18	16.95	9.78
	40-19	1-Sep-96	9.27	- -	- -	19.06	16.14	9.79
	40-20	1-Sep-96	12.07	- -	- -	21.29	18.40	9.22
Equalization Basin	RA-1	1-Sep-96	9.41	**	**	23.17	na	13.76
	RA-2	1-Sep-96	13.66	**	**	24.81	na	11.15
	RA-3	1-Sep-96	13.16	**	**	24.38	na	11.22
	RA-4	1-Sep-96	15.12	**	**	26.53	na	11.41
	RA-5	1-Sep-96	14.71	14.71	Sheen	24.96	23.94	10.25
	RA-6	1-Sep-96	13.88	**	**	24.50	22.10	10.62
	RA-7	1-Sep-96	13.93	**	**	24.48	23.44	10.55
Oil Impoundment Basin	OIB-2	1-Sep-96	12.04	**	**	23.81	22.81	11.77
Upgradient Well	RA-8	1-Sep-96	9.25	- -	- -	28.79	26.32	19.54

Notes: Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.85.
- - No product or sheen
na - not available
** Water level measurement only

Table 4-3
Site-Wide Groundwater Elevation Summary
(August 31 - September 1, 1996)
SCYI RFI
(Page 2 of 3)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
Tank Farm Area								
East API Separator (SWMU 3)	03-07	31-Aug-96	7.07	- -	- -	13.89	12.35	6.82
	03-09	31-Aug-96	11.22	11.22	Sheen	14.56	11.06	3.34
	03-10	31-Aug-96	8.70	- -	- -	14.64	11.40	5.94
Watery Oil Separator (SWMU 43)	WOS-1	31-Aug-96	8.12	- -	- -	14.00	12.40	5.88
	WOS-2	31-Aug-96	7.57	6.80	0.77	13.24	12.45	6.32
	WOS-3	31-Aug-96	12.27	- -	- -	15.54	12.65	3.27
Ballast Basin (SWMU 44)	BB-1	1-Sep-96	7.15	**	**	13.90	na	6.75
	BB-2	31-Aug-96	12.49	**	**	15.55	14.51	3.06
	BB-3	31-Aug-96	14.30	**	**	16.93	na	2.63
	BB-4	31-Aug-96	14.84	**	**	17.62	15.27	2.78
	BB-5	31-Aug-96	13.92	**	**	17.01	na	3.09
East Aisle Ditch (SWMU 45)	45-01	31-Aug-96	2.46	5.11	Sheen	11.53	10.61	9.07
	45-02	31-Aug-96	5.11	- -	- -	13.13	10.60	8.02
	45-09	31-Aug-96	5.80	- -	- -	12.39	10.41	6.59
	45-10	31-Aug-96	4.46	4.46	Sheen	12.46	10.66	8.00
Tank Farm Area (SW)	OW-1	1-Sep-96	6.82	**	**	16.78	12.99	9.96
	OW-2	1-Sep-96	8.65	**	**	16.32	12.99	7.67
New Oily Sludge Basin	SB-1	31-Aug-96	9.01	**	**	14.05	na	5.04
	SB-4	31-Aug-96	14.43	**	**	17.54	na	3.11
	SB-5	31-Aug-96	11.04	**	**	19.57	na	8.53
	SB-6	31-Aug-96	12.92	**	**	20.09	na	7.17
	SB-7	31-Aug-96	11.91	**	**	20.24	na	8.33
	P-1	31-Aug-96	6.34	**	**	12.90	na	6.56
Dock Area								
Main Dock Sump (SWMU 33)	MDS-1	1-Sep-96	11.25	10.56	0.69	11.51	8.90	0.85
	MDS-2	1-Sep-96	10.80	10.40	0.40	11.40	8.98	0.94
	MDS-3	1-Sep-96	14.54	- -	- -	15.41	15.24	0.87

Notes: Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.85.
- - No product or sheen
na - not available
** Water level measurement only

Table 4-3
Site-Wide Groundwater Elevation Summary
(August 31 - September 1, 1996)
SCYI RFI
(Page 3 of 3)

Location	Well ID.	Date	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
	MDS-4	1-Sep-96	10.75	10.75	Sheen	11.62	9.25	0.87
	MDS-5	1-Sep-96	10.82	10.70	0.12	11.58	9.60	0.86
	MDS-6	1-Sep-96	9.42	8.92	0.50	9.88	7.88	0.89
	MDS-7	1-Sep-96	9.67	9.59	0.08	10.46	7.46	0.86
	MDS-8	1-Sep-96	12.95	- -	- -	13.87	10.90	0.92
	MDS-6R	1-Sep-96	9.12	- -	- -	9.98	8.18	0.86
	16.5" recov	1-Sep-96	9.39	9.39	Sheen	10.28	8.81	0.89
Barge Dock Sump (SWMU 34)	BDS-1	1-Sep-96	4.89	- -	- -	5.96	4.08	1.07
	BDS-2	1-Sep-96	10.42	10.42	Sheen	11.59	8.72	1.17
	BDS-3	1-Sep-96	11.77	11.28	0.49	12.52	9.46	1.17
	BDS-4	1-Sep-96	8.29	- -	- -	9.41	7.97	1.12
	BDS-5	1-Sep-96	6.22	6.22	Sheen	7.31	5.13	1.09
	BDS-6	1-Sep-96	5.63	5.63	Sheen	6.74	4.80	1.11
	BDS-7	1-Sep-96	9.17	- -	- -	10.36	7.63	1.19
	MW-1	1-Sep-96	11.40	- -	- -	12.65	9.53	1.25
	MW-9	1-Sep-96	10.74	10.66	0.08	11.87	9.08	1.20
Upgradient well	DA-1	1-Sep-96	13.41	- -	- -	17.92	14.84	4.51
Old Construction Well	OCW	- -	- -	- -	- -	19.02	15.70	- -

Notes: Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.85.
- - No product or sheen
na - not available
** Water level measurement only

Table 4-4
Groundwater Elevation Summary (April 2003)
SCYI RFI
(Page 1 of 3)

Location	Well ID.	Date	Time	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Well Depth (ft TOC)	Stick-up (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
					Refinery Area						
Final Retention Basin (SWMU 14)	FRB-1	22-Apr-03	7:55	12.23	0.00	0.00	19.32	2.87	25.37	22.30	13.14
	FRB-2	22-Apr-03	8:09	12.73	0.00	0.00	20.48	2.74	25.29	22.45	12.56
N. Aeration Basin (SWMU 17)	AB-1	22-Apr-03	8:14	11.26	0.00	0.00	15.50	1.60	24.64	22.80	13.38
S. Aeration Basin (SWMU 18)	AB-2	22-Apr-03	8:17	12.51	0.00	0.00	19.73	1.90	25.22	22.51	12.71
Dewatering Chamber (SWMU 38)	38-02	22-Apr-03	7:48	8.04	0.00	0.00	26.19	2.24	22.84	19.97	14.80
Disposal Area (SWMU 40)	40-08	22-Apr-03	8:56	13.27	0.00	0.00	25.15	2.13	24.92	22.84	11.65
(Northeast Refinery Area)	40-09	22-Apr-03	9:52	5.24	5.24	sheen	14.90	2.98	18.06	15.45	12.82
	40-10	22-Apr-03	9:45	7.55	5.55	2.00	15.45	1.63	18.33	15.63	12.62
	40-11	22-Apr-03	9:40	6.28	6.28	sheen	20.02	1.31	18.56	16.39	12.28
	40-12	22-Apr-03	9:35	7.38	7.38	sheen	17.76	1.89	18.76	16.40	11.38
	40-13	22-Apr-03	9:17	5.49	0.00	0.00	20.39	1.46	17.14	15.01	11.65
	40-14 A	22-Apr-03	9:24	9.14	0.00	0.00	20.48	1.91	19.64	17.83	10.50
	40-14 B	22-Apr-03	9:26	7.78	0.00	0.00	40.50	2.00	19.09	17.69	11.31
	40-15	22-Apr-03	9:14	9.84	0.00	0.00	20.37	2.44	21.35	18.84	11.51
	40-16	22-Apr-03	9:20	5.31	0.00	0.00	17.67	2.30	17.68	15.28	12.37
	40-17	22-Apr-03	9:04	6.76	0.00	0.00	17.67	1.04	18.68	16.42	11.92
	40-18	22-Apr-03	9:10	13.38	0.00	0.00	17.16	1.58	19.18	16.95	5.80
Equalization Basin	RA-1	22-Apr-03	7:35	9.03	0.00	0.00	13.36	2.65	22.12	20.14	13.09
	RA-2	22-Apr-03	8:31	12.15	0.00	0.00	30.35	1.82	24.75	22.94	12.60
	RA-2A	22-Apr-03	8:28	13.68	0.00	0.00	20.40	2.38	24.94	22.56	11.26
	RA-3	22-Apr-03	8:20	12.48	0.00	0.00	28.95	1.72	24.29	22.69	11.81
	RA-3A	22-Apr-03	8:24	11.80	0.00	0.00	21.20	1.22	23.63	22.41	11.83
	RA-4	22-Apr-03	8:34	13.84	0.00	0.00	15.79	1.68	26.45	24.87	12.61
	RA-4A	22-Apr-03	8:37	13.20	0.00	0.00	21.90	1.94	26.58	24.64	13.38
	RA-5	22-Apr-03	10:45	12.95	12.95	sheen	30.06	1.34	24.89	23.85	11.94
	RA-6	22-Apr-03	8:48	7.77	0.00	0.00	31.40	2.54	24.44	22.03	16.67
	RA-7	22-Apr-03	8:53	12.48	0.00	0.00	28.88	2.02	24.39	23.34	11.91
Oil Impoundment Basin	OIB-2	22-Apr-03	8:41	11.99	0.00	0.00	15.62	1.05	23.81	22.74	11.82
Upgradient Well	RA-8	22-Apr-03	7:25	7.30	0.00	0.00	18.21	2.63	28.79	26.32	21.49
					Tank Farm Area						
East API Separator (SWMU 3)	03-07	22-Apr-03	8:35	3.10	0.00	0.00	7.59	1.50	13.89	12.35	10.79
	03-09	22-Apr-03	8:39	9.06	9.06	sheen	15.10	3.48	14.56	11.06	5.50
	03-10A	22-Apr-03	8:37	5.50	0.00	0.00	10.51	2.71	14.63	11.82	9.13
	3-10B	22-Apr-03	8:33	8.08	0.00	0.00	38.18	2.83	14.31	11.82	6.23
	3-11	22-Apr-03	8:30	7.35	0.00	0.00	13.00	1.75	12.82	10.33	5.47
West API Separator (SWMU 2)	02-09	22-Apr-03	8:18	8.31	0.00	0.00	19.70	0.31	18.39	18.39	10.08
Watery Oil Separator (SWMU 43)	WOS-1	22-Apr-03	11:43	5.65	0.00	0.00	9.50	1.59	14.00	12.40	8.35
	WOS-2	22-Apr-03	12:03	5.36	5.64	0.28	8.80	0.77	13.24	12.45	8.13

Table 4-4
Groundwater Elevation Summary (April 2003)
SCYI RFI
(Page 2 of 3)

Location	Well ID.	Date	Time	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Well Depth (ft TOC)	Stick-up (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
	WOS-3	22-Apr-03	11:40	8.45	0.00	0.00	13.68	2.95	15.54	12.63	7.09
	WOS-4A	22-Apr-03	11:23	10.35	0.00	0.00	18.40	2.65	15.26	13.20	4.91
	WOS-4B	22-Apr-03	11:20	10.94	0.00	0.00	39.85	3.27	15.76	13.27	4.82
	WOS-5	22-Apr-03	11:36	10.61	0.00	0.00	18.83	3.00	16.11	13.42	5.50
Ballast Basin (SWMU 44)	BB-1	22-Apr-03	Well not found						13.74	na	na
	BB-2	22-Apr-03	12:20	10.99	0.00	0.00	19.40	0.90	15.55	14.51	4.56
	BB-3	22-Apr-03	13:31	13.38	0.00	0.00	23.83	2.57	16.93	14.33	3.55
	BB-4	22-Apr-03	12:40	12.98	0.00	0.00	22.10	2.36	17.62	15.25	4.64
	BB-5	22-Apr-03	12:36	12.35	0.00	0.00	22.77	1.69	17.01	na	4.66
East Aisle Ditch (SWMU 45)	45-01	22-Apr-03	13:06	1.59	0.00	0.00	3.15	0.90	11.53	10.61	9.94
	45-02	22-Apr-03	13:11	3.68	0.00	0.00	6.26	2.43	13.13	10.60	9.45
	45-09	22-Apr-03	11:30	3.90	3.86	0.04	7.90	1.98	12.39	10.41	8.53
	45-10	22-Apr-03	9:12	3.27	0.00	0.00	5.81	1.62	12.46	10.66	9.19
Tank Farm Area (SW)	OW-1	22-Apr-03	8:05	3.59	0.00	0.00	18.88	3.28	16.78	12.99	13.19
	OW-2	22-Apr-03	8:00	6.85	0.00	0.00	16.37	3.80	16.32	12.99	9.47
Tide wells 4 inches	TE-1A	22-Apr-03	12:45	11.81	0.00	0.00	26.35	1.73	15.95	14.52	4.14
2 inches	TE-1B	22-Apr-03	12:47	dry	0.00	0.00	9.56	1.70	15.83	14.46	dry
New Oily Sludge Basin	SB-1	22-Apr-03	9:20	4.64	0.00	0.00	22.14	2.68	14.03	11.56	9.39
	SB-2R	22-Apr-03	9:40	3.90	0.00	0.00	20.13	3.37	16.60	13.44	12.70
	SB-4	22-Apr-03	10:00	12.65	0.00	0.00	23.25	2.67	17.54	na	4.89
	SB-5	22-Apr-03	9:53	8.26	0.00	0.00	24.31	1.59	19.57	na	11.31
	SB-6	22-Apr-03	9:48	9.43	0.00	0.00	26.04	2.08	20.09	na	10.66
	SB-7	22-Apr-03	9:27	9.05	0.00	0.00	28.36	2.10	20.24	na	11.19
	P-1	22-Apr-03	9:05	3.32	0.00	0.00	17.60	1.76	12.90	na	9.58
Dock Area											
Main Dock Sump (SWMU 33)	MDS-1	22-Apr-03	11:40	9.36	8.49	0.87	11.60	-0.46	8.48	8.94	-0.11
	MDS-2	22-Apr-03	10:41	7.77	0.00	0.00	11.72	0.00	8.75	9.12	0.98
	MDS-3	22-Apr-03	10:44	13.75	0.00	0.00	19.80	0.00	14.89	15.25	1.14
	MDS-4	22-Apr-03	10:48	7.62	7.58	0.04	11.98	0.00	8.64	9.02	1.06
	MDS-5	22-Apr-03	11:49	9.22	8.59	0.63	15.58	0.00	9.27	9.65	0.60
	MDS-6	22-Apr-03	10:56	6.83	6.64	0.19	14.50	0.00	7.52	7.94	0.86
	MDS-7	22-Apr-03	10:38	6.22	0.00	0.00	14.18	0.00	7.09	7.45	0.87
	MDS-8	22-Apr-03	10:30	9.54	0.00	0.00	16.09	0.00	10.60	11.00	1.06
	MDS-6R	22-Apr-03	11:03	7.60	7.60	sheen	23.57	0.00	8.43	8.71	0.83
	MDS-9R	22-Apr-03	11:45	7.02	7.02	sheen	25.64	-1.46	7.92	9.38	0.90
	MDS-10R	22-Apr-03	11:08	6.35	6.35	sheen	26.48	-1.47	7.21	8.69	0.86
	MDS-LD	22-Apr-03	10:52	8.51	8.51	sheen	10.30	0.84	8.79	9.60	0.28
Barge Dock Sump (SWMU 34)	BDS-1	22-Apr-03	12:10	4.75	0.00	0.00	14.39	1.82	5.96	4.08	1.21
	BDS-2	22-Apr-03	12:23	9.68	9.68	sheen	11.89	2.64	11.55	8.76	1.87
	BDS-3	22-Apr-03	12:20	10.48	0.00	0.00	19.30	3.01	12.52	9.46	2.04
	BDS-4	22-Apr-03	12:16	7.85	0.00	0.00	15.31	1.77	9.41	7.97	1.56

Table 4-4
Groundwater Elevation Summary (April 2003)
SCYI RFI
(Page 3 of 3)

Location	Well ID.	Date	Time	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Well Depth (ft TOC)	Stick-up (ft)	Top of Casing (ft amsl)	Ground Elevation (ft)	Water Level (ft amsl)
	BDS-5	22-Apr-03	12:13	5.77	0.00	0.00	15.31	2.02	7.29	5.23	1.52
	BDS-6	22-Apr-03	12:06	6.56	0.00	0.00	14.20	3.10	8.00	4.48	1.44
	BDS-7	22-Apr-03	11:58	8.26	0.00	0.00	9.27	2.59	10.21	7.53	1.95
	MW-9	22-Apr-03	12:03	9.91	0.00	0.00	21.42	2.67	11.87	9.08	1.96
Upgradient well	DA-1	22-Apr-03	12:32	11.09	0.00	0.00	20.00	2.85	17.92	14.84	6.83
Old Construction Well	OCW	22-Apr-03	9:26	10.50	0.00	0.00	91.3	2.89	19.02	15.70	8.52

Notes:
1. Depth to water shown was below top of casing. Water levels at wells with free product were adjusted using a product density of 0.92 for the Northeast Refinery Area and 0.88 for all other areas.
2. 'na' indicates not available
3. Wells 40-19 and 40-20, which were installed during 1996 RFI activities, were destroyed. Well 40-19 was destroyed due to flooding and well 40-20 was destroyed due to agricultural activities.

TABLE 4-5
Water Levels at Nested Wells for Vertical Gradient Evaluation (2003)
SCYI RFI
(Page 1 of 3)

Location	Well	Screen Elevation, top/bottom (ft amsl)	22-Apr-03			8-May-03		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction		Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	10.50	0.81	Up	10.54	-1.07	Down
	40-14B	-11.2/-21.2	11.31			9.47		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	9.13	-2.90	Down	--	--	--
	03-10B	-13.6/-23.6	6.23			--		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	4.91	-0.09	Down	--	--	--
	WOS-4B	-13.8/-23.8	4.82			--		

Location	Well	Screen Elevation, top/bottom (ft amsl)	12-Jun-03		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	8.82	0.54	Up
	40-14B	-11.2/-21.2	9.36		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	6.06	-2.81	Down
	03-10B	-13.6/-23.6	3.25		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	3.08	-0.05	Down
	WOS-4B	-13.8/-23.8	3.03		

Location	Well	Screen Elevation, top/bottom (ft amsl)	25-Sep-03		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	8.31	0.61	Up
	40-14B	-11.2/-21.2	8.92		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	5.91	-2.57	Down
	03-10B	-13.6/-23.6	3.34		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	2.90	0.05	Up
	WOS-4B	-13.8/-23.8	2.95		

TABLE 4-5
Water Levels at Nested Wells for Vertical Gradient Evaluation (2003)
SCYI RFI
(Page 2 of 3)

Location	Well	Screen Elevation, top/bottom (ft amsl)	12-Dec-03		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	9.48	0.41	Up
	40-14B	-11.2/-21.2	9.89		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	7.66	-2.37	Down
	03-10B	-13.6/-23.6	5.29		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	5.88	-0.03	Down
	WOS-4B	-13.8/-23.8	5.85		

Location	Well	Screen Elevation, top/bottom (ft amsl)	26-Mar-04		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	9.21	-0.08	Down
	40-14B	-11.2/-21.2	9.13		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	7.06	--	--
	03-10B	-13.6/-23.6	--		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	2.88	-0.06	Down
	WOS-4B	-13.8/-23.8	2.82		

Location	Well	Screen Elevation, top/bottom (ft amsl)	30-Jun-04		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	9.22	0.05	Up
	40-14B	-11.2/-21.2	9.27		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	5.06	-1.86	Down
	03-10B	-13.6/-23.6	3.2		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	3.01	0.03	Up
	WOS-4B	-13.8/-23.8	3.04		

TABLE 4-5
Water Levels at Nested Wells for Vertical Gradient Evaluation (2003)
SCYI RFI
(Page 3 of 3)

Location	Well	Screen Elevation, top/bottom (ft amsl)	10-Sep-04		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	9.74	0.07	Up
	40-14B	-11.2/-21.2	9.81		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	7.78	-3.59	Down
	03-10B	-13.6/-23.6	4.19		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	4.03	-0.08	Down
	WOS-4B	-13.8/-23.8	3.95		

Location	Well	Screen Elevation, top/bottom (ft amsl)	31-Dec-04		
			Water Level (ft amsl)	Water Level Difference (ft)/ Vertical Gradient Direction	
Northeast Refinery Area	40-14A	9.6/-0.4	9.58	-0.30	Down
	40-14B	-11.2/-21.2	9.28		
East API Separator - (SWMU 3 - Tank Farm)	03-10A	5.4/0.4	5.71	-2.56	Down
	03-10B	-13.6/-23.6	3.15		
Watery Oil Separator - (SWMU 43 - Tank Farm)	WOS-4A	7.1/-2.9	3.1	0.16	Up
	WOS-4B	-13.8/-23.8	3.26		

Vertical Gradient Direction Summary

Location	Apr-03	May-03	Jun-03	Sep-03	Dec-03	Mar-04	Jun-04	Sep-04	Dec-04
Northeast Refinery Area	Up	Down	Up	Up	Up	Down	Up	Up	Down
East API Separator - (SWMU 3 - Tank Farm)	Down	--	Down	Down	Down	--	Down	Down	Down
Watery Oil Separator - (SWMU 43 - Tank Farm)	Down	--	Down	Up	Down	Down	Up	Down	Up

Table 5-1
Metal Concentrations in Background Soil Samples
SCYI RFI
(Page 1 of 2)

Sample ID	BG-01(0-0.5)	BG-01(3-3.5)	BG-2(0.5-1)	BG-2(3-3.5)	BG-3(0-0.5)	BG-3(3-3.5)	BG-4(0-0.5)	BG-4(3-3.5)	BG-5(0-0.5)	BG-5(3-3.5)
Lab ID	BQV511	BQV512	BQV532	BQV533	BQV534	BQV535	N37144-24	N37144-26	N37144-6	N37144-8
Sample Date	10-Jul-96	10-Jul-96	22-Jul-96	22-Jul-96	22-Jul-96	22-Jul-96	15-Apr-03	15-Apr-03	16-Apr-03	16-Apr-03
Metals (Reporting units are in mg/kg)										
Antimony	9.2 UJ	8.9 UJ	7.7 UJ	8.5 UJ	8.5 UJ	7.9 UJ	0.51 U	0.49 U	0.57 U	0.50 U
Arsenic	2.6 B	0.93 UJ	1.2 UJ	1.3 UJ	4.1 J	1.2 UJ	0.60 U	2.3	0.66 U	0.59 U
Barium	147	126	66.6	53.9	158	82.2	86.1	6.6 B	105	129
Beryllium	0.24 B	0.26 B	0.05 U	0.05 U	0.14 B	0.1 B	0.23 B	0.06 B	0.13 B	0.08 B
Cadmium	0.8 B	0.48 U	0.42 U	0.46 U	0.46 U	0.42 U	0.08 B	0.14 B	0.13 B	0.10 B
Chromium	10.9	3.2	2.7	4.8	18.6	31	2.3	2.1	2.7	0.75 B
Cobalt	9.3 B	7.6 B	3.8 B	7 B	12 B	17.3	3.9 B	1.8 B	3.8 B	5.4 B
Lead	45.6	3.4	2.7 J	2.3	4.9 J	1.9	1.4	0.41 U	5.2	0.41 U
Mercury	1.7	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.03 UJ	0.03 BJ	0.04 UN	0.03 UJ
Nickel	30.6	2 B	1.6 B	2.6 B	9.7 B	12.5	1.4 B	0.49 B	2.1 B	1.2 B
Selenium	0.99 U	0.96 U	1.1 U	1.2 UJ	1.2 U	1.1 UJ	0.80 U	0.77 U	0.88 U	0.78 U
Vanadium	85.6 J	98 J	26.1	74.2	113	154	32.8	20.2	15.3	22.3

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.

Table 5-1
Metal Concentrations in Background Soil Samples
SCYI RFI
(Page 2 of 2)

Sample ID	BG-6(0-0.5)	BG-6(0-0.5)D	BG-6(3-3.5)	BG-7(0-0.5)	BG-7(3-3.5)	BG-8(0-0.5)	BG-8(3-3.5)	BG-9(0-0.5)	BG-9(3-3.5)
Lab ID	N37144-17	N37144-19	N37144-1	N37144-3	N37144-5	N37144-9	N37144-21	N37144-11	N37144-13
Sample Date	15-Apr-03	15-Apr-03	15-Apr-03	16-Apr-03	16-Apr-03	16-Apr-03	16-Apr-03	15-Apr-03	15-Apr-03
Metals (Reporting units are in mg/kg)									
Antimony	0.53 U	0.54 U	0.60 U	0.53 U	0.56 U	0.50 U	0.48 U	0.50 U	0.97 B
Arsenic	0.62 U	0.63 U	0.70 U	0.62 U	0.66 U	1.3 B	1.8 B	0.58 U	0.66 U
Barium	134	138	113	117	116	42 B	7.4 B	60.9	183
Beryllium	0.16 B	0.18 B	0.43 B	0.12 B	0.20 B	0.09 B	0.05 B	0.15 B	0.28 B
Cadmium	0.15 B	0.24 B	0.55 B	0.10 B	0.15 B	0.17 B	0.06 U	0.06 U	0.07 U
Chromium	5.6	6.5	5.5	1.4 B	5.2	2.3	1.8 B	4.6	3.9
Cobalt	8.7 B	10.1 B	13.0 B	9.4 B	11.3 B	3.3 B	1.9 B	9.7 B	13.1
Lead	9.4	12.1	1.6	1.4	1.8	1.3	0.39 U	2.2	3
Mercury	0.04 UJ	0.04 UJ	0.03 UJ	0.06 BJ	0.03 UJ	0.04 UJ	0.03 UJ	0.04 UJ	0.06 BJ
Nickel	5.1 B	5.8 B	5.9 B	0.9 B	2.8 B	1.3 B	0.48 B	2.6 B	2.4 B
Selenium	0.82 U	0.84 U	0.93 U	1.1	0.90 B	0.79 U	0.75 U	1.1	1.7
Vanadium	47.2	54.5	74.4	39.3	76.5	20.8	25.5	58.2	96.8

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.

Table 5-2
Concentrations of Metals in Soil Samples collected by Geraghty & Miller, Inc. in June 1992
SCYI RFI
(Page 1 of 1)

Sample ID	SUN-BS-1	SUN-BS-3	SUN-BS-3	SUN-BS-4	SUN-BS-5
Lab ID					
Sample Date	25-Jun-92	25-Jun-92	25-Jun-92	25-Jun-92	25-Jun-92
Reporting units are in mg/kg					
Antimony	3.7 BN	2.8 UN	2.8 UN	3.2 UN	2.8 UN
Arsenic	8.7 N	1.1 BWN	2.6 N	3.6 N	1.7 BN
Barium	28.6 B	71.8	36 B	102	116
Beryllium	0.24 U	0.21 U	0.21 U	0.25 U	0.22 U
Cadmium	0.71 U	0.64 U	0.64 U	0.74 U	0.65 U
Chromium	3.8	2.4	1.9 B	22.2	7
Cobalt	5.6 B	9.6 B	3.6 B	9.5 B	9.7 B
Lead	1.3	5.1	0.83	247	4.3
Mercury	0.06 U	0.05 U	0.05 U	1.3	0.05 U
Nickel	2.1 U	1.9 U	1.9 U	13.1	3 B
Selenium	0.48 U	0.43 U	0.43 U	2.2	0.43 U
Vanadium	44.6 E	52 E	24.7 E	87.5 E	56.3 E

Any values exceeding Region III RBCs are shown shaded.

-- not available

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.

E - Inductively coupled plasma (IPC) serial dilution result not within control limits or graphite furnace atomic absorption (GFAA) interface present

N - Spike sample recovery not within control limits

W - post-digestion spike for furnace atomic absorption (AA) out of control limits

Table 5-3
Background Levels of Metals in Soil
SCYI RFI
(Page 1 of 1)

Metal	Concentration (mg/kg)
Antimony	9.2
Arsenic	8.7
Barium	183
Beryllium	0.4
Cadmium	0.8
Chromium	31
Cobalt	17
Lead	32
Mercury	1.7
Nickel	28
Selenium	2.2
Vanadium	139

Table 5-4
BTEX Concentrations in Groundwater
SCYI RFI
Upgradient Wells (DA-1 and RA-8)
(Page 1 of 1)

Sample ID	EPA	DA - 1	RA - 8
Lab ID	MCLs	BRO836	BRO835
Sample Date		23-Aug-96	22-Aug-96
Reporting units are in ug/L			
Benzene	5	ND	ND
Toluene	1000	ND	ND
Ethylbenzene	700	ND	ND
Xylenes (total)	10,000	ND	ND

Any values exceeding EPA maximum contaminant levels (MCLs) are shown shaded.

ND - not detected

Table 5-5
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Final Retention Basin (SWMU 14)
(Page 1 of 1)

Well ID Lab ID Sample Date	MCL or RBSL[1]	FRB-1 BRO801 23-Aug-96	FRB-2 BRO804 23-Aug-96
VOCs (Reporting units are in ug/L)			
Acetone	*5,500*	10 U	10 U
Benzene	**5**	10 U	10 U
Bromodichloromethane	**80**[2]	10 U	10 U
Bromoform	**80**[2]	10 U	10 U
Bromomethane	*8.7*	10 U	10 U
2-Butanone	*7,000*	10 U	10 U
Carbon disulfide	*1,000*	10 U	10 U
Carbon tetrachloride	**5**	10 U	10 U
Chlorobenzene	**100**	10 U	10 U
Chloroethane	*4.6*	10 U	10 U
Chloroform	**80**[2]	10 U	10 U
Chloromethane	*160*	10 U	10 UJ
Dibromochloromethane	**80**[2]	10 U	10 U
1,1-Dichloroethane	*810*	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**	2 J	4 J
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 U
Methylene chloride	**5**	10 U	10 U
4-Methyl-2-Pentanone	*2,000*	10 U	10 U
Styrene	**100**	10 U	10 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U	10 U
Tetrachloroethene	**5**	10 U	10 U
Toluene	**1,000**	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)	**10,000**	10 U	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-6
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
Final Retention Basin (SWMU 14)
(Page 1 of 3)

Well ID	MCL	FRB-1	FRB-2
Lab ID	or RBSL[1]	BRO801	BRO804
Sample Date		23-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	730	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	*0.01*	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	*3.4*	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	--	10 U	10 U
1,2-Dichlorobenzene	**600**	10 U	10 U
1,3-Dichlorobenzene	*180*	10 U	10 U
1,4-Dichlorobenzene	**75**	10 U	10 U
3,3'-Dichlorobenzidine	*0.15*	10 UJ	10 UJ

Table 5-6
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
Final Retention Basin (SWMU 14)
(Page 2 of 3)

Well ID	MCL	FRB-1	FRB-2
Lab ID	or RBSL[1]	BRO801	BRO804
Sample Date		23-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	*3.6E+05*	10 U	10 U
2,4-Dimethylphenol	*730*	10 U	10 U
4,6-Dinitro-o-cresol	*3.6*	26 U	26 U
2,4-Dinitrophenol	*73*	26 UJ	26 U
2,4-Dinitrotoluene	*73*	10 U	10 U
2,6-Dinitrotoluene	*36*	10 U	10 U
Di-n-octyl phthalate	--	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	*71*	10 U	10 U
2-Methylnaphthalene	24	10 U	10 U
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	*6.2*	10 U	10 U
2-Nitroaniline	*110*	26 U	26 U
3-Nitroaniline	*3.2*	26 U	26 U
4-Nitroaniline	*3.2*	26 UJ	26 UJ
Nitrobenzene	*3.4*	10 U	10 U

Table 5-6
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
Final Retention Basin (SWMU 14)
(Page 3 of 3)

Well ID	MCL	FRB-1	FRB-2
Lab ID	or RBSL[1]	BRO801	BRO804
Sample Date		23-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)	*0.27*	10 UJ	10 UJ
Pentachlorophenol	**1**	26 U	26 U
Phenanthrene	730	10 U	10 U
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	*3,600*	26 U	26 U
2,4,6-Trichlorophenol	*3.6*	10 U	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown.
-- MCL/ RBSL not available
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of dibenzofuran and 2-methylnaphthalene, which are from Region 3 risk based screening levels (Oct 2006) and acenaphthylene, benzo(ghi)perylene, and phenanthrene, which are from TNRCC (2006).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-7
Metal Concentrations in Groundwater
SCYI RFI
Final Retention Basin (SWMU 14)
(Page 1 of 1)

Well ID	MCL	FRB-1	FRB-2	FRB-2	FRB-2	FRB-2
Lab ID	or RBSL[1]	BRO801	BRO804	BTW411	N36548-5	N36548-5A
Sample Date		23-Aug-96	23-Aug-96	31-Jan-97	8-Apr-03	8-Apr-03
		Dissolved	Dissolved	Dissolved	Total	Dissolved
Metals (Reporting units are in ug/L)						
Antimony	**6**	33.4 U	54.7 B	45.8 U	2.3 U	2.3 U
Arsenic	**10**	5.2 U	5.2 U	---	---	---
Barium	**2000**	666	800	---	---	---
Beryllium	**4**	0.2 U	0.2 U	---	---	---
Cadmium	**5**	3.5 BJ	1.8 BJ	---	---	---
Chromium	**100**	3.9 B	3.7 U	---	---	---
Cobalt	*730*	3.7 U	3.7 U	---	---	---
Lead	**15**	2.7 U	2.8 BJ	---	---	---
Mercury	**2**	0.1 U	0.1 U	---	---	---
Nickel	*730*	6 U	6 U	---	---	---
Selenium	**50**	4.7 U	4.7 UJ	---	---	---
Vanadium	*36*	2.8 U	2.8 U	---	---	---

Any results that exceed MCLs or RBSLs are shown shaded.

--- not sampled

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

J - estimated based on data validation

UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate

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.

BJ - concentration between IDL and CRDL; the detection is an estimate

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (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 5-8
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
North Aeration Basin (SWMU 17)
(Page 1 of 1)

Well ID Lab ID Sample Date	MCL or RBSL[1]	AB-1 BRO805 23-Aug-96	AB-1 BRO806 23-Aug-96 (duplicate)
VOCs (Reporting units are in ug/L)			
Acetone	*5,500*	10 U	10 U
Benzene	**5**	10 U	10 U
Bromodichloromethane	**80**[2]	10 U	10 U
Bromoform	**80**[2]	10 U	10 U
Bromomethane	*8.7*	10 U	10 U
2-Butanone	*7,000*	10 U	10 U
Carbon disulfide	*1,000*	10 U	10 U
Carbon tetrachloride	**5**	10 U	10 U
Chlorobenzene	**100**	10 U	10 U
Chloroethane	*4.6*	10 U	10 U
Chloroform	**80**[2]	10 U	10 U
Chloromethane	*160*	10 UJ	10 UJ
Dibromochloromethane	**80**[2]	10 U	10 U
1,1-Dichloroethane	*810*	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 U
Methylene chloride	**5**	10 U	10 U
4-Methyl-2-Pentanone	*2,000*	10 U	10 U
Styrene	**100**	10 U	10 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U	10 U
Tetrachloroethene	**5**	10 U	10 U
Toluene	**1,000**	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)	**10,000**	10 U	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-9
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
South Aeration Basin (SWMU 18)
(Page 1 of 1)

Well ID	MCL	AB-2
Lab ID	or RBSL[1]	BRO807
Sample Date		26-Aug-96
VOCs (Reporting units are in ug/L)		
Acetone	*5,500*	10 U
Benzene	**5**	10 U
Bromodichloromethane	**80**[2]	10 U
Bromoform	**80**[2]	10 U
Bromomethane	*8.7*	10 U
2-Butanone	*7,000*	10 U
Carbon disulfide	*1,000*	10 U
Carbon tetrachloride	**5**	10 U
Chlorobenzene	**100**	10 U
Chloroethane	*4.6*	10 U
Chloroform	**80**[2]	10 U
Chloromethane	*160*	10 UJ
Dibromochloromethane	**80**[2]	10 U
1,1-Dichloroethane	*810*	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	*2,000*	10 U
Styrene	**100**	10 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U
Tetrachloroethene	**5**	10 U
Toluene	**1,000**	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)	**10,000**	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-10
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
North Aeration Basin (SWMU 17)
(Page 1 of 3)

Well ID	MCL	AB-1	AB-1
Lab ID	or RBSL[1]	BRO805	BRO806
Sample Date		23-Aug-96	23-Aug-96
			(duplicate)
BNAs (Reporting units are in ug/L)			
Acenaphthene	*370*	12 U	11 U
Acenaphthylene	1,500	12 U	11 U
Anthracene	*1,800*	12 U	11 U
Benzo(a)anthracene	*0.092*	12 U	11 U
Benzo(b)fluoranthene	*0.092*	12 U	11 U
Benzo(k)fluoranthene	*0.92*	12 U	11 U
Benzo(ghi)perylene	730	12 U	11 U
Benzo(a)pyrene	**0.2**	12 U	11 U
bis(2-Chloroethoxy)methane	--	12 U	11 U
bis(2-Chloroethyl) ether	*0.01*	12 U	11 U
bis(2-Ethylhexyl)phthalate	**6**	12 U	11 U
4-Bromophenyl phenyl ether	--	12 U	11 U
Butyl benzyl phthalate	*7,300*	12 U	11 U
Carbazole	*3.4*	12 U	11 U
4-Chloroaniline	*150*	12 U	11 U
p-Chloro-m-cresol	--	12 U	11 U
2-Chloronaphthalene	*490*	12 U	11 U
2-Chlorophenol	*30*	12 U	11 U
4-Chlorophenyl phenyl ether	--	12 U	11 U
Chrysene	*9.2*	12 U	11 U
Dibenzo(a,h)anthracene	*0.0092*	12 U	11 U
Dibenzofuran	*12*	12 U	11 U
Di-n-butyl phthalate	--	12 U	11 U
1,2-Dichlorobenzene	**600**	12 U	11 U
1,3-Dichlorobenzene	*180*	12 U	11 U
1,4-Dichlorobenzene	**75**	12 U	11 U
3,3'-Dichlorobenzidine	*0.15*	12 UJ	11 UJ

Table 5-10
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
North Aeration Basin (SWMU 17)
(Page 2 of 3)

Well ID	MCL	AB-1	AB-1
Lab ID	or RBSL[1]	BRO805	BRO806
Sample Date		23-Aug-96	23-Aug-96
			(duplicate)
BNAs (Reporting units are in ug/L)			
2,4-Dichlorophenol	*110*	12 U	11 U
Diethyl phthalate	*2.9E+04*	12 U	11 U
Dimethyl phthalate	*3.6E+05*	12 U	11 U
2,4-Dimethylphenol	*730*	12 U	11 U
4,6-Dinitro-o-cresol	*3.6*	30 U	29 U
2,4-Dinitrophenol	*73*	30 U	29 U
2,4-Dinitrotoluene	*73*	12 U	11 U
2,6-Dinitrotoluene	*36*	12 U	11 U
Di-n-octyl phthalate	--	12 U	11 U
Fluoranthene	*1,500*	12 U	11 U
Fluorene	*240*	12 U	11 U
Hexachlorobenzene	**1**	12 U	11 U
Hexachlorobutadiene	*0.86*	12 U	11 U
Hexachlorocyclopentadiene	**50**	12 U	11 U
Hexachloroethane	*4.8*	12 U	11 U
Indeno(1,2,3-c,d)pyrene	*0.092*	12 U	11 U
Isophorone	*71*	12 U	11 U
2-Methylnaphthalene	24	12 U	11 U
2-Methylphenol	*1,800*	12 U	11 U
4-Methylphenol	*180*	12 U	11 U
N-Nitrosodiphenylamine	*14*	12 U	11 U
N-Nitrosodi-n-propylamine	*0.0096*	12 U	11 U
Naphthalene	*6.2*	12 U	11 U
2-Nitroaniline	*110*	30 U	29 U
3-Nitroaniline	*3.2*	30 U	29 U
4-Nitroaniline	*3.2*	30 UJ	29 UJ
Nitrobenzene	*3.4*	12 U	11 U

Table 5-10
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
North Aeration Basin (SWMU 17)
(Page 3 of 3)

Well ID	MCL	AB-1	AB-1
Lab ID	or RBSL[1]	BRO805	BRO806
Sample Date		23-Aug-96	23-Aug-96
			(duplicate)
BNAs (Reporting units are in ug/L)			
2-Nitrophenol	--	12 U	11 U
4-Nitrophenol	--	30 U	29 U
2,2'-oxybis(1-chloropropane)	*0.27*	12 UJ	11 UJ
Pentachlorophenol	**1**	30 U	29 U
Phenanthrene	730	12 U	11 U
Phenol	*1.1E+04*	12 U	11 U
Pyrene	*180*	12 U	11 U
1,2,4-Trichlorobenzene	**70**	12 U	11 U
2,4,5-Trichlorophenol	*3,600*	30 U	29 U
2,4,6-Trichlorophenol	*3.6*	12 U	11 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown.
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of dibenzofuran and 2-methylnaphthalene, which are from Region 3 risk based screening levels (Oct 2006) and acenaphthylene, benzo(ghi)perylene, and phenanthrene, which are from TNRCC (2006).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-11
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
South Aeration Basin (SWMU 18)
(Page 1 of 3)

Well ID	MCL	AB-2
Lab ID	or RBSL[1]	BRO807
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
Acenaphthene	*370*	11 U
Acenaphthylene	1,500	11 U
Anthracene	*1,800*	11 U
Benzo(a)anthracene	*0.092*	11 U
Benzo(b)fluoranthene	*0.092*	11 U
Benzo(k)fluoranthene	*0.92*	11 U
Benzo(ghi)perylene	730	11 U
Benzo(a)pyrene	**0.2**	11 U
bis(2-Chloroethoxy)methane	--	11 U
bis(2-Chloroethyl) ether	*0.01*	11 U
bis(2-Ethylhexyl)phthalate	**6**	11 U
4-Bromophenyl phenyl ether	--	11 U
Butyl benzyl phthalate	*7,300*	11 U
Carbazole	*3.4*	11 U
4-Chloroaniline	*150*	11 U
p-Chloro-m-cresol	--	11 U
2-Chloronaphthalene	*490*	11 U
2-Chlorophenol	*30*	11 U
4-Chlorophenyl phenyl ether	--	11 U
Chrysene	*9.2*	11 U
Dibenzo(a,h)anthracene	*0.0092*	11 U
Dibenzofuran	*12*	11 U
Di-n-butyl phthalate	--	11 U
1,2-Dichlorobenzene	**600**	11 U
1,3-Dichlorobenzene	*180*	11 U
1,4-Dichlorobenzene	**75**	11 U
3,3'-Dichlorobenzidine	*0.15*	11 UJ

Table 5-11
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
South Aeration Basin (SWMU 18)
(Page 2 of 3)

Well ID	MCL	AB-2
Lab ID	or RBSL[1]	BRO807
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
2,4-Dichlorophenol	*110*	11 U
Diethyl phthalate	*2.9E+04*	11 U
Dimethyl phthalate	*3.6E+05*	11 U
2,4-Dimethylphenol	*730*	11 U
4,6-Dinitro-o-cresol	*3.6*	27 U
2,4-Dinitrophenol	*73*	27 UJ
2,4-Dinitrotoluene	*73*	11 U
2,6-Dinitrotoluene	*36*	11 U
Di-n-octyl phthalate	--	11 U
Fluoranthene	*1,500*	11 U
Fluorene	*240*	11 U
Hexachlorobenzene	**1**	11 U
Hexachlorobutadiene	*0.86*	11 U
Hexachlorocyclopentadiene	**50**	11 U
Hexachloroethane	*4.8*	11 U
Indeno(1,2,3-c,d)pyrene	*0.092*	11 U
Isophorone	*71*	11 U
2-Methylnaphthalene	24	11 U
2-Methylphenol	*1,800*	11 U
4-Methylphenol	*180*	11 U
N-Nitrosodiphenylamine	*14*	11 U
N-Nitrosodi-n-propylamine	*0.0096*	11 U
Naphthalene	*6.2*	11 U
2-Nitroaniline	*110*	27 U
3-Nitroaniline	*3.2*	27 U
4-Nitroaniline	*3.2*	27 UJ
Nitrobenzene	*3.4*	11 U

Table 5-11
Base Neutral/Acid Extractable Organic Compound Concentrations in Groundwater
SCYI RFI
South Aeration Basin (SWMU 18)
(Page 3 of 3)

Well ID	MCL	AB-2
Lab ID	or RBSL[1]	BRO807
Sample Date		26-Aug-96
BNAs (Reporting units are in ug/L)		
2-Nitrophenol	--	11 U
4-Nitrophenol	--	27 U
2,2'-oxybis(1-chloropropane)	*0.27*	11 UJ
Pentachlorophenol	**1**	27 U
Phenanthrene	730	11 U
Phenol	*1.1E+04*	11 U
Pyrene	*180*	11 U
1,2,4-Trichlorobenzene	**70**	11 U
2,4,5-Trichlorophenol	*3,600*	27 U
2,4,6-Trichlorophenol	*3.6*	11 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown.
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of dibenzofuran and 2-methylnaphthalene, which are from Region 3 risk based screening levels (Oct 2006) and acenaphthylene, benzo(ghi)perylene, and phenanthrene, which are from TNRCC (2006).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-12
Metal Concentrations in Groundwater
SCYI RFI
North Aeration Basin (SWMU 17)
(Page 1 of 1)

Well ID	MCL	AB-1	AB-1	AB-1	AB-1	AB-1	AB-1
Lab ID	or RBSL[1]	BRO805	BRO806	BTW409	BTW410	N36548-7	N36548-7A
Sample Date		23-Aug-96	23-Aug-96	31-Jan-97	31-Jan-97	8-Apr-03	8-Apr-03
		Dissolved	Dissolved	Dissolved	Dissolved	Total	Dissolved
			(duplicate)		(duplicate)		
Metals (Reporting units are in ug/L)							
Antimony	**6**	33.4 U	33.4 U	---	---	---	---
Arsenic	**10**	12.3 J	11.4 J	---	---	---	---
Barium	**2000**	481	488	---	---	---	---
Beryllium	**4**	0.2 U	0.2 U	---	---	---	---
Cadmium	**5**	3.2 BJ	1.8 U	---	---	---	---
Chromium	**100**	4.9 B	3.7 U	---	---	---	---
Cobalt	*730*	3.7 U	3.7 U	---	---	---	---
Lead	**15**	15.9 J	2.7 UJ	2.2 UJ	2.2 U	1.9 U	1.9 U
Mercury	**2**	0.1 U	0.1 U	---	---	---	---
Nickel	*730*	12.4 B	17 B	---	---	---	---
Selenium	**50**	4.7 UJ	4.7 UJ	---	---	---	---
Vanadium	*36*	2.8 U	2.8 U	---	---	---	---

Any results that exceed MCLs or RBSLs are shown shaded.

--- not sampled

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

J - estimated based on data validation

UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate

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.

BJ - concentration between IDL and CRDL; the detection is an estimate

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (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 5-13
Metal Concentrations in Groundwater
SCYI RFI
South Aeration Basin (SWMU 18)
(Page 1 of 1)

Well ID	EPA	AB-2	AB-2	AB-2	AB-2	AB-2
Lab ID	MCLs	BRO807	BTW407	BTW407	N36548-6	N36548-6A
Sample Date		26-Aug-96	31-Jan-97	31-Jan-97	8-Apr-03	8-Apr-03
		Dissolved	Dissolved	Dissolved	Total	Dissolved
				(duplicate)		
Metals (Reporting units are in ug/L)						
Antimony	**6**	50.5 B	45.8 U	45.8 U	2.3 U	2.3 U
Arsenic	**10**	5.2 U	---	---	---	---
Barium	**2000**	355	---	---	---	---
Beryllium	**4**	0.2 U	---	---	---	---
Cadmium	**5**	1.8 BJ	---	---	---	---
Chromium	**100**	3.7 U	---	---	---	---
Cobalt	*730*	4.4 B	---	---	---	---
Lead	**15**	2.7 U	---	---	---	---
Mercury	**2**	0.1 U	---	---	---	---
Nickel	*730*	13.5 B	---	---	---	---
Selenium	**50**	4.7 UJ	---	---	---	---
Vanadium	*36*	2.8 U	---	---	---	---

Any results that exceed MCLs or RBSLs are shown shaded.

--- not sampled

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

J - estimated based on data validation

UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate

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.

BJ - concentration between IDL and CRDL; the detection is an estimate

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (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 5-14
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(1.5-2) BQV551 23-Jul-96	35-02(1.5-2) BQV555 23-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acetone	5.4E+07	5.8E+07	16,000	1900 D	11 UJ
Benzene	1,400	1,400	30	56 UJ	11 UJ
Bromodichloromethane	1,800	1,900	600	56 UJ	11 UJ
Bromoform	2.2E+05	1.0E+08	800	56 UJ	11 UJ
Bromomethane	13,000	13,000	200	56 UJ	11 UJ
2-Butanone	1.1E+08	1.0E+08	29,000	56 UJ	11 UJ
Carbon disulfide	7.2E+05	7.2E+05	32,000	56 UJ	11 UJ
Carbon tetrachloride	550	560	70	56 UJ	11 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	56 UJ	11 UJ
Chloroethane	6,500	6,500	--	56 UJ	11 UJ
Chloroform	470	470	600	56 UJ	11 UJ
Chloromethane	1.6E+05	1.6E+05	--	56 UJ	11 UJ
Dibromochloromethane	2,600	2,800	400	56 UJ	11 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	56 UJ	11 UJ
1,2-Dichloroethane	600	620	20	56 UJ	11 UJ
1,1-Dichloroethene	4.1E+05	4.2E+05	60	56 UJ	11 UJ
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	56 UJ	11 UJ
1,2-Dichloropropane	740	760	30	56 UJ	11 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	56 UJ	11 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	56 UJ	11 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	56 UJ	11 UJ
2-Hexanone	--	--	--	56 UJ	11 UJ
Methylene chloride	21,000	22,000	20	56 UJ	11 UJ
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	56 UJ	11 UJ
Styrene	1.7E+06	1.7E+06	4,000	56 UJ	11 UJ
1,1,2,2-Tetrachloroethane	930	990	3	56 UJ	11 UJ
Tetrachloroethene	1,300	1,700	60	56 UJ	11 UJ
Toluene	5.2E+05	5.2E+05	12,000	56 UJ	11 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	56 UJ	11 UJ
1,1,2-Trichloroethane	1,600	1,700	20	56 UJ	11 UJ
Trichloroethene	110	120	60	56 UJ	11 UJ
Vinyl chloride	750	930	10	56 UJ	11 UJ
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	56 UJ	11 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- RBSL not available
D - analyzed at a secondary dilution factor

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-15
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(3-3.5) BQV552 23-Jul-96	35-01(7-7.5) BQV553 23-Jul-96	35-02(3-3.5) BQV556 23-Jul-96	35-02(7-7.5) BQV557 23-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acetone	5.4E+07	5.8E+07	16,000	120 J	45 UJ	76 UJ	160 J
Benzene	1,400	1,400	30	12 UJ	12 UJ	12 UJ	13 UJ
Bromodichloromethane	1,800	1,900	600	12 UJ	12 UJ	12 UJ	13 UJ
Bromoform	2.2E+05	1.0E+08	800	12 UJ	12 UJ	12 UJ	13 UJ
Bromomethane	13,000	13,000	200	12 UJ	12 UJ	12 UJ	13 UJ
2-Butanone	1.1E+08	1.0E+08	29,000	12 UJ	12 UJ	8 J	13 UJ
Carbon disulfide	7.2E+05	7.2E+05	32,000	12 UJ	12 UJ	12 UJ	13 UJ
Carbon tetrachloride	550	560	70	12 UJ	12 UJ	12 UJ	13 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	12 UJ	12 UJ	12 UJ	13 UJ
Chloroethane	6,500	6,500	--	12 UJ	12 UJ	12 UJ	13 UJ
Chloroform	470	470	600	12 UJ	12 UJ	12 UJ	13 UJ
Chloromethane	1.6E+05	1.6E+05	--	12 UJ	12 UJ	12 UJ	13 UJ
Dibromochloromethane	2,600	2,800	400	12 UJ	12 UJ	12 UJ	13 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	12 UJ	12 UJ	12 UJ	13 UJ
1,2-Dichloroethane	600	620	20	12 UJ	12 UJ	12 UJ	13 UJ
1,1-Dichloroethene	4.1E+05	4.2E+05	60	12 UJ	12 UJ	12 UJ	13 UJ
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	12 UJ	12 UJ	12 UJ	13 UJ
1,2-Dichloropropane	740	760	30	12 UJ	12 UJ	12 UJ	13 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	12 UJ	12 UJ	12 UJ	13 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	12 UJ	12 UJ	12 UJ	13 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	12 UJ	12 UJ	12 UJ	13 UJ
2-Hexanone	--	--	--	12 UJ	12 UJ	12 UJ	13 UJ
Methylene chloride	21,000	22,000	20	12 UJ	12 UJ	12 UJ	13 UJ
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	12 UJ	12 UJ	12 UJ	13 UJ
Styrene	1.7E+06	1.7E+06	4,000	12 UJ	12 UJ	12 UJ	13 UJ
1,1,2,2-Tetrachloroethane	930	990	3	12 UJ	12 UJ	12 UJ	13 UJ
Tetrachloroethene	1,300	1,700	60	12 UJ	12 UJ	12 UJ	13 UJ
Toluene	5.2E+05	5.2E+05	12,000	12 UJ	12 UJ	12 UJ	13 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	12 UJ	12 UJ	12 UJ	13 UJ
1,1,2-Trichloroethane	1,600	1,700	20	12 UJ	12 UJ	12 UJ	13 UJ
Trichloroethene	110	120	60	12 UJ	12 UJ	12 UJ	13 UJ
Vinyl chloride	750	930	10	12 UJ	12 UJ	12 UJ	13 UJ
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	12 UJ	12 UJ	12 UJ	13 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-16
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(0-0.5) BQV550 23-Jul-96	35-02(0-0.5) BQV554 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	370 UJ	360 UJ
Acenaphthylene	2.9E+07	--	4.1E+05	370 UJ	360 UJ
Anthracene	1.0E+08	1.0E+08	1.2E+07	370 UJ	360 UJ
Benzo(a)anthracene	2,100	2.6E+07	2,000	370 UJ	360 UJ
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	370 UJ	360 UJ
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	370 UJ	360 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	370 UJ	360 UJ
Benzo(a)pyrene	210	2.6E+06	8,000	370 UJ	360 UJ
bis(2-Chloroethoxy)methane	--	--	--	370 UJ	360 UJ
bis(2-Chloroethyl) ether	580	740	0.4	370 UJ	360 UJ
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	380 UJ	360 UJ
4-Bromophenyl phenyl ether	--	--	--	370 UJ	360 UJ
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	370 UJ	360 UJ
Carbazole	86,000	1.0E+08	600	370 UJ	360 UJ
4-Chloroaniline	2.5E+06	1.0E+08	700	370 UJ	360 UJ
p-Chloro-m-cresol	--	--	--	370 UJ	360 UJ
2-Chloronaphthalene	2.3E+07	3.3E+07	--	370 UJ	360 UJ
2-Chlorophenol	2.4E+05	2.5E+05	4,000	370 UJ	360 UJ
4-Chlorophenyl phenyl ether	--	--	--	370 UJ	360 UJ
Chrysene	2.1E+05	1.0E+08	1.6E+05	370 UJ	360 UJ
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	370 UJ	360 UJ
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	370 UJ	360 UJ
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	370 UJ	360 UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	370 UJ	360 UJ
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	370 UJ	360 UJ
1,4-Dichlorobenzene	7,900	8,400	2,000	370 UJ	360 UJ
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	370 UJ	360 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	370 UJ	360 UJ
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	370 UJ	360 UJ
Dimethyl phthalate	1.0E+08	1.0E+08	--	370 UJ	360 UJ
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	370 UJ	360 UJ
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	890 UJ	880 UJ
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	890 UJ	880 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	370 UJ	360 UJ
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	370 UJ	360 UJ
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	370 UJ	360 UJ
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	370 UJ	360 UJ
Fluorene	2.6E+07	7.4E+07	5.6E+05	370 UJ	360 UJ
Hexachlorobenzene	1,100	1.2E+07	2,000	370 UJ	360 UJ
Hexachlorobutadiene	22,000	1.0E+08	2,000	370 UJ	360 UJ

Table 5-16
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(0-0.5) BQV550 23-Jul-96	35-02(0-0.5) BQV554 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	370 UJ	360 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	370 UJ	360 UJ
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	370 UJ	360 UJ
Isophorone	5.1E+05	1.0E+08	500	370 UJ	360 UJ
2-Methylnaphthalene	2.0E+06	--	1.7E+04	370 UJ	360 UJ
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	370 UJ	360 UJ
4-Methylphenol	3.1E+06	1.0E+08	--	370 UJ	360 UJ
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	370 UJ	360 UJ
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	370 UJ	360 UJ
Naphthalene	1.9E+05	1.9E+05	8.4E+04	370 UJ	360 UJ
2-Nitroaniline	1.8E+06	1.0E+08	--	890 UJ	880 UJ
3-Nitroaniline	82,000	1.0E+08	--	890 UJ	880 UJ
4-Nitroaniline	82,000	1.0E+08	--	890 UJ	880 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	370 UJ	360 UJ
2-Nitrophenol	--	--	--	370 UJ	360 UJ
4-Nitrophenol	--	--	--	890 UJ	880 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	370 UJ	360 UJ
Pentachlorophenol	9,000	1.0E+08	30	890 UJ	880 UJ
Phenanthrene	1.5E+07	--	4.2E+05	770 J	360 UJ
Phenol	1.0E+08	1.0E+08	1.0E+05	370 UJ	360 UJ
Pyrene	2.9E+07	1.0E+08	4.2E+06	370 UJ	360 UJ
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	370 UJ	360 UJ
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	890 UJ	880 UJ
2,4,6-Trichlorophenol	62,000	1.0E+08	200	370 UJ	360 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-17
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(3-3.5) BQV552 23-Jul-96	35-01(7-7.5) BQV553 23-Jul-96	35-02(3-3.5) BQV556 23-Jul-96	35-02(7-7.5) BQV557 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	390 UJ	440 UJ	390 UJ	420 UJ
Acenaphthylene	2.9E+07	--	4.1E+05	390 UJ	440 UJ	390 UJ	420 UJ
Anthracene	1.0E+08	1.0E+08	1.2E+07	390 UJ	440 UJ	390 UJ	420 UJ
Benzo(a)anthracene	2,100	2.6E+07	2,000	390 UJ	440 UJ	390 UJ	420 UJ
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	390 UJ	440 UJ	390 UJ	420 UJ
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	390 UJ	440 UJ	390 UJ	420 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	390 UJ	440 UJ	390 UJ	420 UJ
Benzo(a)pyrene	210	2.6E+06	8,000	390 UJ	440 UJ	390 UJ	420 UJ
bis(2-Chloroethoxy)methane	--	--	--	390 UJ	440 UJ	390 UJ	420 UJ
bis(2-Chloroethyl) ether	580	740	0.4	390 UJ	440 UJ	390 UJ	420 UJ
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	390 UJ	440 UJ	390 UJ	420 UJ
4-Bromophenyl phenyl ether	--	--	--	390 UJ	440 UJ	390 UJ	420 UJ
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	390 UJ	440 UJ	390 UJ	420 UJ
Carbazole	86,000	1.0E+08	600	390 UJ	440 UJ	390 UJ	420 UJ
4-Chloroaniline	2.5E+06	1.0E+08	700	390 UJ	440 UJ	390 UJ	420 UJ
p-Chloro-m-cresol	--	--	--	390 UJ	440 UJ	390 UJ	420 UJ
2-Chloronaphthalene	2.3E+07	3.3E+07	--	390 UJ	440 UJ	390 UJ	420 UJ
2-Chlorophenol	2.4E+05	2.5E+05	4,000	390 UJ	440 UJ	390 UJ	420 UJ
4-Chlorophenyl phenyl ether	--	--	--	390 UJ	440 UJ	390 UJ	420 UJ
Chrysene	2.1E+05	1.0E+08	1.6E+05	390 UJ	440 UJ	390 UJ	420 UJ
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	390 UJ	440 UJ	390 UJ	420 UJ
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	390 UJ	440 UJ	390 UJ	420 UJ
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	390 UJ	440 UJ	390 UJ	420 UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	390 UJ	440 UJ	390 UJ	420 UJ
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	390 UJ	440 UJ	390 UJ	420 UJ
1,4-Dichlorobenzene	7,900	8,400	2,000	390 UJ	440 UJ	390 UJ	420 UJ
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	390 UJ	440 UJ	390 UJ	420 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	390 UJ	440 UJ	390 UJ	420 UJ
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	390 UJ	440 UJ	390 UJ	420 UJ
Dimethyl phthalate	1.0E+08	1.0E+08	--	390 UJ	440 UJ	390 UJ	420 UJ
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	390 UJ	440 UJ	390 UJ	420 UJ
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	950 UJ	1100 UJ	940 UJ	1000 UJ
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	950 UJ	1100 UJ	940 UJ	1000 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	390 UJ	440 UJ	390 UJ	420 UJ
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	390 UJ	440 UJ	390 UJ	420 UJ
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	390 UJ	440 UJ	390 UJ	420 UJ
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	390 UJ	440 UJ	390 UJ	420 UJ
Fluorene	2.6E+07	7.4E+07	5.6E+05	390 UJ	440 UJ	390 UJ	420 UJ
Hexachlorobenzene	1,100	1.2E+07	2,000	390 UJ	440 UJ	390 UJ	420 UJ
Hexachlorobutadiene	22,000	1.0E+08	2,000	390 UJ	440 UJ	390 UJ	420 UJ

Table 5-17
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	35-01(3-3.5) BQV552 23-Jul-96	35-01(7-7.5) BQV553 23-Jul-96	35-02(3-3.5) BQV556 23-Jul-96	35-02(7-7.5) BQV557 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	390 UJ	440 UJ	390 UJ	420 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	390 UJ	440 UJ	390 UJ	420 UJ
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	390 UJ	440 UJ	390 UJ	420 UJ
Isophorone	5.1E+05	1.0E+08	500	390 UJ	440 UJ	390 UJ	420 UJ
2-Methylnaphthalene	2.0E+06	--	1.7E+04	390 UJ	440 UJ	390 UJ	420 UJ
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	390 UJ	440 UJ	390 UJ	420 UJ
4-Methylphenol	3.1E+06	1.0E+08	--	390 UJ	440 UJ	390 UJ	420 UJ
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	390 UJ	440 UJ	390 UJ	420 UJ
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	390 UJ	440 UJ	390 UJ	420 UJ
Naphthalene	1.9E+05	1.9E+05	8.4E+04	390 UJ	440 UJ	390 UJ	420 UJ
2-Nitroaniline	1.8E+06	1.0E+08	--	950 UJ	1100 UJ	940 UJ	1000 UJ
3-Nitroaniline	82,000	1.0E+08	--	950 UJ	1100 UJ	940 UJ	1000 UJ
4-Nitroaniline	82,000	1.0E+08	--	950 UJ	1100 UJ	940 UJ	1000 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	390 UJ	440 UJ	390 UJ	420 UJ
2-Nitrophenol	--	--	--	390 UJ	440 UJ	390 UJ	420 UJ
4-Nitrophenol	--	--	--	950 UJ	1100 UJ	940 UJ	1000 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	390 UJ	440 UJ	390 UJ	420 UJ
Pentachlorophenol	9,000	1.0E+08	30	950 UJ	1100 UJ	940 UJ	1000 UJ
Phenanthrene	1.5E+07	--	4.2E+05	390 UJ	440 UJ	390 UJ	420 UJ
Phenol	1.0E+08	1.0E+08	1.0E+05	390 UJ	440 UJ	390 UJ	420 UJ
Pyrene	2.9E+07	1.0E+08	4.2E+06	390 UJ	440 UJ	390 UJ	420 UJ
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	390 UJ	440 UJ	390 UJ	420 UJ
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	950 UJ	1100 UJ	940 UJ	1000 UJ
2,4,6-Trichlorophenol	62,000	1.0E+08	200	390 UJ	440 UJ	390 UJ	420 UJ

Any values exceeding RBSLs are shown shaded.
-- RBSL not available
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-18
Metal Concentrations in Surface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	35-01(0-0.5) BQV550 23-Jul-96	35-02(0-0.5) BQV554 23-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	7.4 UJ	7.4 UJ
Arsenic	1.6	1,300	29	8.7	2.1 BJ	1.6 BJ
Barium	67,000	9.6E+05	1,600	183	273	166
Beryllium	1,900	38,000	63	0.4	0.12 B	0.22 B
Cadmium	450	3,000	8	0.8	0.4 U	0.4 U
Chromium	450	450	38	31	0.82 U	1.3 B
Cobalt	1,900	1,900	1300	17	15.8	14.5
Lead	800	--	--	32	1.5	1.8 J
Mercury	310	5.8E+05	2	1.7	0.04 U	0.04 U
Nickel	20,000	22,000	130	28	1.6 B	1.9 B
Selenium	5,100	--	5	2.2	1 UJ	1 UJ
Vanadium	1,000	--	6,000	139	89.7	78.3

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-19
Metal Concentrations in Subsurface Soil
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	35-01(3-3.5) BQV552 23-Jul-96	35-01(7-7.5) BQV553 23-Jul-96	35-02(3-3.5) BQV556 23-Jul-96	35-02(7-7.5) BQV557 23-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	7.9 UJ	8.9 UJ	7.8 UJ	8.5 UJ
Arsenic	1.6	1,300	29	8.7	1.2 UJ	1.5 BJ	1.2 UJ	1.4 BJ
Barium	67,000	9.6E+05	1,600	183	159	171	195	203
Beryllium	1,900	38,000	63	0.4	0.21 B	0.27 B	0.26 B	0.4 B
Cadmium	450	3,000	8	0.8	0.43 U	0.48 U	0.42 U	0.46 U
Chromium	450	450	38	31	6.5	16.6	1.4 B	6.8
Cobalt	1,900	1,900	1300	17	9.4 B	13.3 B	14.6	17.5
Lead	800	--	--	32	1.6	3.1 J	1.6	3.4 J
Mercury	310	5.8E+05	2	1.7	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	20,000	22,000	130	28	2.2 B	4.1 B	2.3 B	3.9 B
Selenium	5,100	--	5	2.2	1.1 UJ	1.3 UJ	1.1 UJ	1.2 UJ
Vanadium	1,000	--	6,000	139	58.2	94.7	97.4	137

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown

J - estimated value

UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate

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

BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value

-- RBSL not available

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-20
Immunoassay Field Screening Results
SCYI RFI
Slop Oil Tank 103 (SWMU 35)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX				PAH			
	0-0.5	1.5-2.0	3.0-3.5	7.0-7.5	0-0.5	1.5-2.0	3.0-3.5	7.0-7.5
35-01		ND	**4.4**	**6.75**	ND		ND	ND
35-02		**2.84**	**4.7**	ND			0.75	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 5-21
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(1.5-2) BQO882 3-Jul-96	36-04(1.5-2) BQV529 17-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acetone	5.4E+07	5.8E+07	16,000	40 J	49 UJ
Benzene	1,400	1,400	30	12 UJ	11 U
Bromodichloromethane	1,800	1,900	600	12 UJ	11 U
Bromoform	2.2E+05	1.0E+08	800	12 UJ	11 U
Bromomethane	13,000	13,000	200	12 U	11 U
2-Butanone	1.1E+08	1.0E+08	29,000	12 U	11 U
Carbon disulfide	7.2E+05	7.2E+05	32,000	12 U	11 U
Carbon tetrachloride	550	560	70	12 UJ	11 U
Chlorobenzene	5.3E+05	5.4E+05	1,000	12 UJ	11 U
Chloroethane	6,500	6,500	--	12 U	11 U
Chloroform	470	470	600	12 U	11 U
Chloromethane	1.6E+05	1.6E+05	--	12 U	11 UJ
Dibromochloromethane	2,600	2,800	400	12 UJ	11 U
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	12 U	11 U
1,2-Dichloroethane	600	620	20	12 U	11 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	12 U	11 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	12 U	11 U
1,2-Dichloropropane	740	760	30	12 UJ	11 U
cis-1,3-Dichloropropene	1,800	1,900	4	12 UJ	11 U
trans-1,3-Dichloropropene	1,800	1,900	4	12 UJ	11 U
Ethylbenzene	4.0E+05	4.0E+05	13,000	12 UJ	11 U
2-Hexanone	--	--	--	12 UJ	11 UJ
Methylene chloride	21,000	22,000	20	6 J	11 U
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	12 UJ	11 U
Styrene	1.7E+06	1.7E+06	4,000	12 UJ	11 U
1,1,2,2-Tetrachloroethane	930	990	3	12 UJ	11 U
Tetrachloroethene	1,300	1,700	60	12 UJ	11 U
Toluene	5.2E+05	5.2E+05	12,000	4 J	11 U
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	12 U	11 U
1,1,2-Trichloroethane	1,600	1,700	20	12 UJ	11 U
Trichloroethene	110	120	60	12 UJ	11 U
Vinyl chloride	750	930	10	12 U	11 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	21	11 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-22
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(3-3.5) BQO883 3-Jul-96	36-02(7-7.5) BQO884 3-Jul-96	36-04(3-3.5) BQV530 17-Jul-96	36-04(7-7.5) BQV531 17-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acetone	5.4E+07	5.8E+07	16,000	30 J	130 J	49 UJ	65 UJ
Benzene	1,400	1,400	30	12 UJ	13 U	12 U	13 UJ
Bromodichloromethane	1,800	1,900	600	12 UJ	13 U	12 U	13 UJ
Bromoform	2.2E+05	1.0E+08	800	12 UJ	13 U	12 U	13 U
Bromomethane	13,000	13,000	200	12 U	13 U	12 U	13 U
2-Butanone	1.1E+08	1.0E+08	29,000	12 U	18 J	12 U	13 UJ
Carbon disulfide	7.2E+05	7.2E+05	32,000	12 U	13 U	12 U	13 UJ
Carbon tetrachloride	550	560	70	12 UJ	13 U	12 U	13 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	12 UJ	13 U	12 U	13 U
Chloroethane	6,500	6,500	--	12 U	13 U	12 U	13 U
Chloroform	470	470	600	12 U	13 U	12 U	13 U
Chloromethane	1.6E+05	1.6E+05	--	12 U	13 U	12 UJ	13 UJ
Dibromochloromethane	2,600	2,800	400	12 UJ	13 U	12 U	13 U
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	12 U	13 U	12 U	13 UJ
1,2-Dichloroethane	600	620	20	12 U	13 U	12 U	13 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	12 U	13 U	12 U	13 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	12 U	13 U	12 U	13 U
1,2-Dichloropropane	740	760	30	12 UJ	13 U	12 U	13 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	12 UJ	13 U	12 U	13 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	12 UJ	13 U	12 U	13 U
Ethylbenzene	4.0E+05	4.0E+05	13,000	25 J	13 U	12 U	13 U
2-Hexanone	--	--	--	12 UJ	13 U	12 UJ	13 UJ
Methylene chloride	21,000	22,000	20	12 U	6 J	12 U	13 UJ
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	12 UJ	13 U	12 U	13 U
Styrene	1.7E+06	1.7E+06	4,000	12 UJ	13 U	12 U	13 U
1,1,2,2-Tetrachloroethane	930	990	3	12 UJ	13 U	12 U	13 U
Tetrachloroethene	1,300	1,700	60	12 UJ	13 U	12 U	13 U
Toluene	5.2E+05	5.2E+05	12,000	12 UJ	13 U	12 U	13 U
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	12 UJ	13 U	12 U	13 U
1,1,2-Trichloroethane	1,600	1,700	20	12 UJ	13 U	12 U	13 U
Trichloroethene	110	120	60	12 UJ	13 U	12 U	13 UJ
Vinyl chloride	750	930	10	12 U	13 U	12 U	13 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	12 UJ	13 U	12 U	13 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-23
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(1-1.5) BQO881 3-Jul-96	36-04(1-1.5) BQV528 17-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	790 U	360 U
Acenaphthylene	2.9E+07	--	4.1E+05	790 U	360 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	790 U	360 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	790 U	360 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	790 U	360 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	790 U	360 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	790 U	360 U
Benzo(a)pyrene	210	2.6E+06	8,000	790 U	360 U
bis(2-Chloroethoxy)methane	--	--	--	790 U	360 U
bis(2-Chloroethyl) ether	580	740	0.4	790 U	360 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	790 UJ	2400 UJ
4-Bromophenyl phenyl ether	--	--	--	790 U	360 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	790 U	360 U
Carbazole	86,000	1.0E+08	600	790 U	360 U
4-Chloroaniline	2.5E+06	1.0E+08	700	790 U	360 U
p-Chloro-m-cresol	--	--	--	790 U	360 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	790 U	360 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	790 U	360 U
4-Chlorophenyl phenyl ether	--	--	--	790 U	360 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	270 J	360 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	790 U	360 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	790 U	360 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	790 U	360 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	790 U	360 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	790 U	360 U
1,4-Dichlorobenzene	7,900	8,400	2,000	790 U	360 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	790 UJ	360 U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	790 U	360 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	790 U	360 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	790 U	360 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	790 U	360 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	1900 U	880 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	1900 UJ	880 U
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	790 U	360 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	790 U	360 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	790 UJ	360 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	790 U	360 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	570 J	360 U
Hexachlorobenzene	1,100	1.2E+07	2,000	790 U	360 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	790 U	360 U

Table 5-23
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(1-1.5) BQO881 3-Jul-96	36-04(1-1.5) BQV528 17-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	790 UJ	360 U
Hexachloroethane	1.2E+05	1.0E+08	500	790 U	360 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	790 U	360 U
Isophorone	5.1E+05	1.0E+08	500	790 U	360 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	1300	360 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	790 U	360 U
4-Methylphenol	3.1E+06	1.0E+08	--	790 U	360 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	790 U	360 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	790 U	360 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	260 J	360 U
2-Nitroaniline	1.8E+06	1.0E+08	--	1900 U	880 U
3-Nitroaniline	82,000	1.0E+08	--	1900 U	880 U
4-Nitroaniline	82,000	1.0E+08	--	1900 UJ	880 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	790 U	360 U
2-Nitrophenol	--	--	--	790 U	360 U
4-Nitrophenol	--	--	--	1900 UJ	880 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	790 U	360 U
Pentachlorophenol	9,000	1.0E+08	30	1900 U	880 U
Phenanthrene	1.5E+07	--	4.2E+05	1800	360 U
Phenol	1.0E+08	1.0E+08	1.0E+05	790 U	360 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	410 J	170 J
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	790 U	360 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	1900 U	880 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	790 U	360 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-24
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(3-3.5) BQO883 3-Jul-96	36-02(7-7.5) BQO884 3-Jul-96	36-04(3-3.5) BQV530 17-Jul-96	36-04(7-7.5) BQV531 17-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	63 J	460 U	420 U	440 U
Acenaphthylene	2.9E+07	--	4.1E+05	430 U	460 U	420 U	440 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	100 J	460 U	420 U	440 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	430 U	460 U	420 U	440 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	540	460 U	420 U	440 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	200 J	460 U	420 UJ	440 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	230 J	460 U	420 U	440 U
Benzo(a)pyrene	210	2.6E+06	8,000	400 J	460 U	420 U	440 U
bis(2-Chloroethoxy)methane	--	--	--	430 U	460 U	420 U	440 U
bis(2-Chloroethyl) ether	580	740	0.4	430 U	460 U	420 U	440 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	600 U	460 U	420 UJ	440 UJ
4-Bromophenyl phenyl ether	--	--	--	430 U	460 U	420 U	440 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	430 U	460 U	420 U	440 U
Carbazole	86,000	1.0E+08	600	61 J	460 U	420 U	440 U
4-Chloroaniline	2.5E+06	1.0E+08	700	430 U	460 U	420 U	440 U
p-Chloro-m-cresol	--	--	--	430 U	460 U	420 U	440 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	430 U	460 U	420 U	440 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	430 U	460 U	420 U	440 U
4-Chlorophenyl phenyl ether	--	--	--	430 U	460 U	420 U	440 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	460	460 U	420 U	440 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	430 U	460 U	420 U	440 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	22 J	460 U	420 U	440 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	430 U	460 U	420 U	440 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	430 U	460 U	420 U	440 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	430 U	460 U	420 U	440 U
1,4-Dichlorobenzene	7,900	8,400	2,000	430 U	460 U	420 U	440 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	430 UJ	460 UJ	420 U	440 U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	430 U	460 U	420 U	440 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	430 U	460 U	420 U	440 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	430 U	460 U	420 U	440 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	430 U	460 U	420 U	440 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	1000 U	1100 U	1000 U	1100 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	1000 UJ	1100 UJ	1000 U	1100 U
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	430 U	460 U	420 U	440 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	430 U	460 U	420 U	440 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	430 U	460 U	420 U	440 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	1000	460 U	420 U	440 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	65 J	460 U	420 U	440 U
Hexachlorobenzene	1,100	1.2E+07	2,000	430 U	460 U	420 U	440 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	430 U	460 U	420 U	440 U

Table 5-24
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	36-02(3-3.5) BQO883 3-Jul-96	36-02(7-7.5) BQO884 3-Jul-96	36-04(3-3.5) BQV530 17-Jul-96	36-04(7-7.5) BQV531 17-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	430 UJ	460 UJ	420 U	440 U
Hexachloroethane	1.2E+05	1.0E+08	500	430 U	460 U	420 U	440 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	260 J	460 U	420 U	440 U
Isophorone	5.1E+05	1.0E+08	500	430 U	460 U	420 U	440 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	430 U	460 U	420 U	440 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	430 U	460 U	420 U	440 U
4-Methylphenol	3.1E+06	1.0E+08	--	430 U	460 U	420 U	440 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	430 U	460 U	420 U	440 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	430 U	460 U	420 U	440 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	430 U	460 U	420 U	440 U
2-Nitroaniline	1.8E+06	1.0E+08	--	1000 U	1100 U	1000 U	1100 U
3-Nitroaniline	82,000	1.0E+08	--	1000 U	1100 U	1000 U	1100 U
4-Nitroaniline	82,000	1.0E+08	--	1000 U	1100 UJ	1000 UJ	1100 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	430 U	460 U	420 U	440 U
2-Nitrophenol	--	--	--	430 U	460 U	420 U	440 U
4-Nitrophenol	--	--	--	1000 U	1100 UJ	1000 UJ	1100 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	430 U	460 U	420 U	440 U
Pentachlorophenol	9,000	1.0E+08	30	1000 U	1100 U	1000 U	1100 U
Phenanthrene	1.5E+07	--	4.2E+05	430	460 U	420 U	440 U
Phenol	1.0E+08	1.0E+08	1.0E+05	430 U	460 U	420 U	440 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	1200	460 U	420 U	440 U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	430 U	460 U	420 U	440 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	1000 U	1100 U	1000 U	1100 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	430 U	460 U	420 U	440 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-25
Metal Concentrations in Surface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	36-02(1-1.5) BQO881 3-Jul-96	36-04(1-1.5) BQV528 17-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	7.5 UJ	7.3 UJ
Arsenic	1.6	1,300	29	8.7	0.79 UJ	0.9 BJ
Barium	67,000	9.6E+05	1,600	183	199	297
Beryllium	1,900	38,000	63	0.4	0.35 B	0.08 B
Cadmium	450	3,000	8	0.8	0.4 U	0.4 U
Chromium	450	450	38	31	4.3	18.3
Cobalt	1,900	1,900	1300	17	7.1 B	5.9 B
Lead	800	--	--	32	15	43.9 J
Mercury	310	5.8E+05	2	1.7	0.12	0.08 B
Nickel	20,000	22,000	130	28	4 B	5.5 B
Selenium	5,100	--	5	2.2	0.81 UJ	0.79 UJ
Vanadium	1,000	--	6,000	139	27	23.7

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-26
Metal Concentrations in Subsurface Soil
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	36-02(3-3.5) BQO883 3-Jul-96	36-02(7-7.5) BQO884 3-Jul-96	36-04(3-3.5) BQV530 17-Jul-96	36-04(7-7.5) BQV531 17-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	8.4 UJ	9.4 UJ	8.5 UJ	8.9 UJ
Arsenic	1.6	1,300	29	8.7	1.8 B	0.98 U	0.93 BJ	1 BJ
Barium	67,000	9.6E+05	1,600	183	243	287	193	211
Beryllium	1,900	38,000	63	0.4	0.6 B	0.58 B	0.29 B	0.29 B
Cadmium	450	3,000	8	0.8	0.46 U	0.5 U	0.46 U	0.48 U
Chromium	450	450	38	31	8.7	6.6	6.8	10.2
Cobalt	1,900	1,900	1300	17	17.9	20.1	18.9	16
Lead	800	--	--	32	4.1	5.7	3.4 J	5.4 J
Mercury	310	5.8E+05	2	1.7	0.05 U	0.08 B	0.05 U	0.05 U
Nickel	20,000	22,000	130	28	4.7 B	3.5 B	3.5 B	5.1 B
Selenium	5,100	--	5	2.2	0.91 U	1 U	0.92 U	0.96 U
Vanadium	1,000	--	6,000	139	144	166 J	121	132

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-27
Immunoassay Field Screening Results
SCYI RFI
Dissolved Air Flotation Unit (SWMU 36)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX					PAH				
	0-0.5	0-2.0	1.5-2.0	3.0-3.5	7.0-7.5	0-0.5	0-2.0	1.0-1.5	3.0-3.5	7.0-7.5
36-01			ND	ND	ND			ND	ND	ND
36-02			**11**	**7**	ND			ND	ND	**> 25**
36-03	**7**			ND	ND	ND			ND	ND
36-04		ND		**> 35**	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 5-28
Volatile Organic Compound Concentrations in Surface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(1.5-2) BQV513 11-Jul-96	38-04(1.5-2) BQV537 22-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acetone	5.4E+07	5.8E+07	16,000	11 U	12 UJ
Benzene	1,400	1,400	30	11 U	12 UJ
Bromodichloromethane	1,800	1,900	600	11 U	12 UJ
Bromoform	2.2E+05	1.0E+08	800	11 U	12 UJ
Bromomethane	13,000	13,000	200	11 U	12 UJ
2-Butanone	1.1E+08	1.0E+08	29,000	11 U	12 UJ
Carbon disulfide	7.2E+05	7.2E+05	32,000	11 U	12 UJ
Carbon tetrachloride	550	560	70	11 UJ	12 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	11 U	12 UJ
Chloroethane	6,500	6,500	--	11 U	12 UJ
Chloroform	470	470	600	11 U	12 UJ
Chloromethane	1.6E+05	1.6E+05	--	11 U	12 UJ
Dibromochloromethane	2,600	2,800	400	11 U	12 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	11 U	12 UJ
1,2-Dichloroethane	600	620	20	11 U	12 UJ
1,1-Dichloroethene	4.1E+05	4.2E+05	60	11 U	12 UJ
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	11 U	12 UJ
1,2-Dichloropropane	740	760	30	11 U	12 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	11 U	12 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	11 U	12 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	11 U	12 UJ
2-Hexanone	--	--	--	11 UJ	12 UJ
Methylene chloride	21,000	22,000	20	11 U	12 UJ
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	11 U	12 UJ
Styrene	1.7E+06	1.7E+06	4,000	11 U	12 UJ
1,1,2,2-Tetrachloroethane	930	990	3	11 U	12 UJ
Tetrachloroethene	1,300	1,700	60	11 U	12 UJ
Toluene	5.2E+05	5.2E+05	12,000	11 U	12 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	11 U	12 UJ
1,1,2-Trichloroethane	1,600	1,700	20	11 U	12 UJ
Trichloroethene	110	120	60	11 U	12 UJ
Vinyl chloride	750	930	10	11 U	12 UJ
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	11 U	12 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-29
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(3.0-3.5) BQV515 11-Jul-96	38-02(7.0-7.5) BQV516 11-Jul-96	38-02(9-9.5) BQV517 11-Jul-96	38-04(3-3.5) BQV538 22-Jul-96	38-04(7-7.5) BQV539 23-Jul-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)								
Acetone	5.4E+07	5.8E+07	16,000	11 UJ	13 UJ	16 U	11 UJ	18 UJ
Benzene	1,400	1,400	30	11 UJ	13 U	14 U	11 UJ	12 UJ
Bromodichloromethane	1,800	1,900	600	11 UJ	13 U	14 U	11 UJ	12 UJ
Bromoform	2.2E+05	1.0E+08	800	11 UJ	13 U	14 U	11 UJ	12 UJ
Bromomethane	13,000	13,000	200	11 UJ	13 UJ	14 U	11 UJ	12 UJ
2-Butanone	1.1E+08	1.0E+08	29,000	11 UJ	13 UJ	14 UJ	11 UJ	12 UJ
Carbon disulfide	7.2E+05	7.2E+05	32,000	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Carbon tetrachloride	550	560	70	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	11 UJ	13 U	14 U	11 UJ	12 UJ
Chloroethane	6,500	6,500	--	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Chloroform	470	470	600	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Chloromethane	1.6E+05	1.6E+05	--	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Dibromochloromethane	2,600	2,800	400	11 UJ	13 U	14 U	11 UJ	12 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	11 UJ	13 UJ	14 U	11 UJ	12 UJ
1,2-Dichloroethane	600	620	20	11 UJ	13 UJ	14 U	11 UJ	12 UJ
1,1-Dichloroethene	4.1E+05	4.2E+05	60	11 UJ	13 UJ	14 U	11 UJ	12 UJ
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	11 UJ	13 UJ	14 U	11 UJ	12 UJ
1,2-Dichloropropane	740	760	30	11 UJ	13 U	14 U	11 UJ	12 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	11 UJ	13 U	14 U	11 UJ	12 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	11 UJ	13 U	14 U	11 UJ	12 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	11 UJ	13 U	14 U	11 UJ	12 UJ
2-Hexanone	--	--	--	11 UJ	13 UJ	14 UJ	11 UJ	12 UJ
Methylene chloride	21,000	22,000	20	11 UJ	13 UJ	14 U	11 UJ	12 UJ
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	11 UJ	13 U	14 U	11 UJ	12 UJ
Styrene	1.7E+06	1.7E+06	4,000	11 UJ	13 U	14 U	11 UJ	12 UJ
1,1,2,2-Tetrachloroethane	930	990	3	11 UJ	13 U	14 U	11 UJ	12 UJ
Tetrachloroethene	1,300	1,700	60	11 UJ	13 U	14 U	11 UJ	12 UJ
Toluene	5.2E+05	5.2E+05	12,000	11 UJ	13 U	14 U	11 UJ	12 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	11 UJ	13 UJ	14 U	11 UJ	12 UJ
1,1,2-Trichloroethane	1,600	1,700	20	11 UJ	13 U	14 U	11 UJ	12 UJ
Trichloroethene	110	120	60	11 UJ	13 U	14 U	11 UJ	12 UJ
Vinyl chloride	750	930	10	11 UJ	13 UJ	14 U	11 UJ	12 UJ
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	11 UJ	13 U	14 U	11 UJ	12 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown

UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate

-- RSBL not available

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-30
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(0.5-2) BQV514 11-Jul-96	38-04(1-1.5) BQV536 22-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	350 U	380 UJ
Acenaphthylene	2.9E+07	--	4.1E+05	350 U	380 UJ
Anthracene	1.0E+08	1.0E+08	1.2E+07	350 U	380 UJ
Benzo(a)anthracene	2,100	2.6E+07	2,000	350 U	380 UJ
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	350 U	380 UJ
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	350 U	380 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	350 U	380 UJ
Benzo(a)pyrene	210	2.6E+06	8,000	350 U	380 UJ
bis(2-Chloroethoxy)methane	--	--	--	350 U	380 UJ
bis(2-Chloroethyl) ether	580	740	0.4	350 U	380 UJ
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	350 U	380 UJ
4-Bromophenyl phenyl ether	--	--	--	350 U	380 UJ
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	350 U	380 UJ
Carbazole	86,000	1.0E+08	600	350 U	380 UJ
4-Chloroaniline	2.5E+06	1.0E+08	700	350 U	380 UJ
p-Chloro-m-cresol	--	--	--	350 U	380 UJ
2-Chloronaphthalene	2.3E+07	3.3E+07	--	350 U	380 UJ
2-Chlorophenol	2.4E+05	2.5E+05	4,000	350 U	380 UJ
4-Chlorophenyl phenyl ether	--	--	--	350 U	380 UJ
Chrysene	2.1E+05	1.0E+08	1.6E+05	350 U	380 UJ
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	350 U	380 UJ
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	350 U	380 UJ
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	350 U	440 UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	350 U	380 UJ
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	350 U	380 UJ
1,4-Dichlorobenzene	7,900	8,400	2,000	350 U	380 UJ
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	350 UJ	380 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	350 U	380 UJ
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	350 U	380 UJ
Dimethyl phthalate	1.0E+08	1.0E+08	--	350 U	380 UJ
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	350 U	380 UJ
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	850 U	920 UJ
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	850 UJ	920 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	350 U	380 UJ
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	350 U	380 UJ
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	350 U	380 UJ
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	350 U	380 UJ
Fluorene	2.6E+07	7.4E+07	5.6E+05	350 U	380 UJ
Hexachlorobenzene	1,100	1.2E+07	2,000	350 U	380 UJ
Hexachlorobutadiene	22,000	1.0E+08	2,000	350 U	380 UJ

Table 5-30
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(0.5-2) BQV514 11-Jul-96	38-04(1-1.5) BQV536 22-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	350 UJ	380 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	350 U	380 UJ
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	350 U	380 UJ
Isophorone	5.1E+05	1.0E+08	500	350 U	380 UJ
2-Methylnaphthalene	2.0E+06	--	1.7E+04	350 U	380 UJ
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	350 UJ	380 UJ
4-Methylphenol	3.1E+06	1.0E+08	--	350 U	380 UJ
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	350 U	380 UJ
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	350 U	380 UJ
Naphthalene	1.9E+05	1.9E+05	8.4E+04	350 U	380 UJ
2-Nitroaniline	1.8E+06	1.0E+08	--	850 U	920 UJ
3-Nitroaniline	82,000	1.0E+08	--	850 U	920 UJ
4-Nitroaniline	82,000	1.0E+08	--	850 UJ	920 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	350 U	380 UJ
2-Nitrophenol	--	--	--	350 U	380 UJ
4-Nitrophenol	--	--	--	850 UJ	920 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	350 U	380 UJ
Pentachlorophenol	9,000	1.0E+08	30	850 U	920 UJ
Phenanthrene	1.5E+07	--	4.2E+05	350 U	380 UJ
Phenol	1.0E+08	1.0E+08	1.0E+05	350 U	380 UJ
Pyrene	2.9E+07	1.0E+08	4.2E+06	350 UJ	380 UJ
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	350 U	380 UJ
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	850 U	920 UJ
2,4,6-Trichlorophenol	62,000	1.0E+08	200	350 U	380 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown

-- RBSL not available

UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-31
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(3.0-3.5) BQV515 11-Jul-96	38-02(7.0-7.5) BQV516 11-Jul-96	38-02(9-9.5) BQV517 11-Jul-96	38-04(3-3.5) BQV538 22-Jul-96	38-04(7-7.5) BQV539 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)								
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	360 U	440 U	430 U	350 UJ	370 UJ
Acenaphthylene	2.9E+07	--	4.1E+05	360 U	440 U	430 U	350 UJ	370 UJ
Anthracene	1.0E+08	1.0E+08	1.2E+07	360 U	440 U	430 U	350 UJ	370 UJ
Benzo(a)anthracene	2,100	2.6E+07	2,000	360 U	440 U	430 U	350 UJ	370 UJ
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	360 U	440 U	430 U	350 UJ	370 UJ
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	360 U	440 U	430 U	350 UJ	370 UJ
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	360 U	440 U	430 U	350 UJ	370 UJ
Benzo(a)pyrene	210	2.6E+06	8,000	360 U	440 U	430 U	350 UJ	370 UJ
bis(2-Chloroethoxy)methane	--	--	--	360 U	440 U	430 U	350 UJ	370 UJ
bis(2-Chloroethyl) ether	580	740	0.4	360 U	440 U	430 U	350 UJ	370 UJ
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	680 U	440 U	430 U	350 U	370 UJ
4-Bromophenyl phenyl ether	--	--	--	360 U	440 U	430 U	350 UJ	370 UJ
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	360 UJ	440 U	430 U	350 UJ	370 UJ
Carbazole	86,000	1.0E+08	600	360 U	440 U	430 U	350 UJ	370 UJ
4-Chloroaniline	2.5E+06	1.0E+08	700	360 U	440 U	430 U	350 UJ	370 UJ
p-Chloro-m-cresol	--	--	--	360 U	440 U	430 U	350 UJ	370 UJ
2-Chloronaphthalene	2.3E+07	3.3E+07	--	360 U	440 U	430 U	350 UJ	370 UJ
2-Chlorophenol	2.4E+05	2.5E+05	4,000	360 U	440 U	430 U	350 UJ	370 UJ
4-Chlorophenyl phenyl ether	--	--	--	360 U	440 U	430 U	350 UJ	370 UJ
Chrysene	2.1E+05	1.0E+08	1.6E+05	360 U	440 U	430 U	350 UJ	370 UJ
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	360 U	440 U	430 U	350 UJ	370 UJ
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	360 U	440 U	430 U	350 UJ	370 UJ
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	360 U	440 U	430 U	350 U	370 UJ
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	360 U	440 U	430 U	350 UJ	370 UJ
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	360 U	440 U	430 U	350 UJ	370 UJ
1,4-Dichlorobenzene	7,900	8,400	2,000	360 U	440 U	430 U	350 UJ	370 UJ
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	360 U	440 U	430 UJ	350 UJ	370 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	360 U	440 U	430 U	350 UJ	370 UJ
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	360 U	440 U	430 U	350 UJ	370 UJ
Dimethyl phthalate	1.0E+08	1.0E+08	--	360 U	440 U	430 U	350 UJ	370 UJ
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	360 U	440 U	430 U	350 UJ	370 UJ
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	870 U	1100 U	1100 U	850 UJ	890 UJ
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	870 UJ	1100 UJ	1100 UJ	850 UJ	890 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	360 U	440 U	430 U	350 UJ	370 UJ
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	360 U	440 U	430 U	350 UJ	370 UJ
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	360 U	440 U	430 U	350 UJ	370 UJ
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	360 U	440 U	430 U	60 UJ	370 UJ
Fluorene	2.6E+07	7.4E+07	5.6E+05	360 U	440 U	430 U	350 UJ	370 UJ
Hexachlorobenzene	1,100	1.2E+07	2,000	360 U	440 U	430 U	350 UJ	370 UJ
Hexachlorobutadiene	22,000	1.0E+08	2,000	360 U	440 U	430 U	350 UJ	370 UJ

Table 5-31
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	38-02(3.0-3.5) BQV515 11-Jul-96	38-02(7.0-7.5) BQV516 11-Jul-96	38-02(9-9.5) BQV517 11-Jul-96	38-04(3-3.5) BQV538 22-Jul-96	38-04(7-7.5) BQV539 23-Jul-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)								
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	360 UJ	440 UJ	430 UJ	350 UJ	370 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	360 U	440 U	430 U	350 UJ	370 UJ
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	360 U	440 U	430 U	350 UJ	370 UJ
Isophorone	5.1E+05	1.0E+08	500	360 U	440 U	430 U	350 UJ	370 UJ
2-Methylnaphthalene	2.0E+06	--	1.7E+04	360 U	440 U	430 U	350 UJ	370 UJ
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	360 U	440 U	430 UJ	350 UJ	370 UJ
4-Methylphenol	3.1E+06	1.0E+08	--	360 U	440 U	430 U	350 UJ	370 UJ
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	360 U	440 U	430 U	350 UJ	370 UJ
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	360 U	440 U	430 U	350 UJ	370 UJ
Naphthalene	1.9E+05	1.9E+05	8.4E+04	360 U	440 U	430 U	350 UJ	370 UJ
2-Nitroaniline	1.8E+06	1.0E+08	--	870 U	1100 U	1100 U	850 UJ	890 UJ
3-Nitroaniline	82,000	1.0E+08	--	870 U	1100 U	1100 U	850 UJ	890 UJ
4-Nitroaniline	82,000	1.0E+08	--	870 UJ	1100 UJ	1100 UJ	850 UJ	890 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	360 U	440 U	430 U	350 UJ	370 UJ
2-Nitrophenol	--	--	--	360 U	440 U	430 U	350 UJ	370 UJ
4-Nitrophenol	--	--	--	870 UJ	1100 U	1100 UJ	850 UJ	890 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	360 U	440 U	430 U	350 UJ	370 UJ
Pentachlorophenol	9,000	1.0E+08	30	870 U	1100 U	1100 U	850 UJ	890 UJ
Phenanthrene	1.5E+07	--	4.2E+05	360 U	440 U	430 U	350 UJ	370 UJ
Phenol	1.0E+08	1.0E+08	1.0E+05	360 U	440 U	430 U	350 UJ	370 UJ
Pyrene	2.9E+07	1.0E+08	4.2E+06	360 UJ	440 U	430 UJ	96 UJ	370 UJ
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	360 U	440 U	430 U	350 UJ	370 UJ
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	870 U	1100 U	1100 U	850 UJ	890 UJ
2,4,6-Trichlorophenol	62,000	1.0E+08	200	360 U	440 U	430 U	350 UJ	370 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown

-- RBSL not available

UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-32
Metal Concentrations in Surface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
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Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	38-02(0.5-2) BQV514 11-Jul-96	38-04(1-1.5) BQV536 22-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	7.3 UJ	7.6 U
Arsenic	1.6	1,300	29	8.7	0.91 UJ	1.2 UJ
Barium	67,000	9.6E+05	1,600	183	166	163
Beryllium	1,900	38,000	63	0.4	0.2 B	0.05 B
Cadmium	450	3,000	8	0.8	0.39 U	0.41 U
Chromium	450	450	38	31	1.5 B	2.8
Cobalt	1,900	1,900	1300	17	11.6	6.2 B
Lead	800	--	--	32	1.4	11
Mercury	310	5.8E+05	2	1.7	0.04 U	0.27
Nickel	20,000	22,000	130	28	2 B	2.5 B
Selenium	5,100	--	5	2.2	0.79 U	1.1 U
Vanadium	1,000	--	6,000	139	53.1	35.1

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-33
Metal Concentrations in Subsurface Soil
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	38-02(3.0-3.5) BQV515 11-Jul-96	38-02(7.0-7.5) BQV516 11-Jul-96	38-02(9-9.5) BQV517 11-Jul-96	38-04(3-3.5) BQV538 22-Jul-96	38-04(7-7.5) BQV539 23-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	7.2 UJ	8.9 UJ	8.8 UJ	7.1 U	7.4 U
Arsenic	1.6	1,300	29	8.7	0.76 UJ	0.93 UJ	0.92 UJ	1.1 UJ	1.3 BJ
Barium	67,000	9.6E+05	1,600	183	129	201	150	311	184
Beryllium	1,900	38,000	63	0.4	0.04 U	0.41 B	0.34 B	0.1 B	0.09 B
Cadmium	450	3,000	8	0.8	0.39 U	0.48 U	0.47 U	0.38 U	0.4 U
Chromium	450	450	38	31	5.9	3.6	3.9	2 B	2 B
Cobalt	1,900	1,900	1300	17	5.9 B	11.4 B	14.6	6.7 B	13.7
Lead	800	--	--	32	5.3	3.6	2.7	3.9	1.5
Mercury	310	5.8E+05	2	1.7	0.51	0.05 U	0.05 U	0.04 B	0.04 U
Nickel	20,000	22,000	130	28	4.9 B	2.5 B	3 B	1.3 U	1.3 U
Selenium	5,100	--	5	2.2	0.78 U	0.96 U	0.94 UJ	1 UJ	1 U
Vanadium	1,000	--	6,000	139	42.8	110	116	26.5	75.2

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-34
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Well ID	MCL	38-02
Lab ID	or RBSL[1]	BRO800
Sample Date		23-Aug-96
VOCs (Reporting units are in ug/L)		
Acetone	*5,500*	10 U
Benzene	**5**	10 U
Bromodichloromethane	**80**[2]	10 U
Bromoform	**80**[2]	10 U
Bromomethane	*8.7*	10 U
2-Butanone	*7,000*	10 U
Carbon disulfide	*1,000*	10 U
Carbon tetrachloride	**5**	10 U
Chlorobenzene	**100**	10 U
Chloroethane	*4.6*	10 U
Chloroform	**80**[2]	10 U
Chloromethane	*160*	10 UJ
Dibromochloromethane	**80**[2]	10 U
1,1-Dichloroethane	*810*	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	*2,000*	10 U
Styrene	**100**	10 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U
Tetrachloroethene	**5**	10 U
Toluene	**1,000**	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)	**10,000**	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:
1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-35
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 3)

Well ID	MCL	38-02
Lab ID	or RBSL[1]	BRO800
Sample Date		23-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	730	10 U
Benzo(a)pyrene	**0.2**	10 U
bis(2-Chloroethoxy)methane	--	10 U
bis(2-Chloroethyl) ether	*0.01*	10 U
bis(2-Ethylhexyl)phthalate	**6**	10 U
4-Bromophenyl phenyl ether	--	10 U
Butyl benzyl phthalate	*7,300*	10 U
Carbazole	*3.4*	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	--	10 U
1,2-Dichlorobenzene	**600**	10 U
1,3-Dichlorobenzene	*180*	10 U
1,4-Dichlorobenzene	**75**	10 U
3,3'-Dichlorobenzidine	*0.15*	10 UJ

Table 5-35
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 2 of 3)

Well ID	MCL	38-02
Lab ID	or RBSL[1]	BRO800
Sample Date		23-Aug-96
BNAs (Reporting units are in ug/L)		
2,4-Dichlorophenol	*110*	10 U
Diethyl phthalate	*2.9E+04*	10 U
Dimethyl phthalate	*3.6E+05*	10 U
2,4-Dimethylphenol	*730*	10 U
4,6-Dinitro-o-cresol	*3.6*	26 U
2,4-Dinitrophenol	*73*	26 UJ
2,4-Dinitrotoluene	*73*	10 U
2,6-Dinitrotoluene	*36*	10 U
Di-n-octyl phthalate	--	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	*71*	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	*6.2*	10 U
2-Nitroaniline	*110*	26 U
3-Nitroaniline	*3.2*	26 U
4-Nitroaniline	*3.2*	26 UJ
Nitrobenzene	*3.4*	10 U

Table 5-35
Base Neutral/Acid Extractable Compound Concentrations in Groundwater
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 3 of 3)

Well ID	MCL	38-02	
Lab ID	or RBSL[1]	BRO800	
Sample Date		23-Aug-96	
BNAs (Reporting units are in ug/L)			
2-Nitrophenol	--	10	U
4-Nitrophenol	--	26	U
2,2'-oxybis(1-chloropropane)	*0.27*	10	UJ
Pentachlorophenol	**1**	26	U
Phenanthrene	730	10	U
Phenol	*1.1E+04*	10	U
Pyrene	*180*	10	U
1,2,4-Trichlorobenzene	**70**	10	U
2,4,5-Trichlorophenol	*3,600*	26	U
2,4,6-Trichlorophenol	*3.6*	10	U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown.
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of dibenzofuran and 2-methylnaphthalene, which are from Region 3 risk based screening levels (Oct 2006) and acenaphthylene, benzo(ghi)perylene, and phenanthrene, which are from TNRCC (2006).
2. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-36
Metal Concentrations in Groundwater
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Well ID	MCL	38-02
Lab ID	or RBSL[1]	BRO800
Sample Date		23-Aug-96
		Dissolved
Metals (Reporting units are in ug/L)		
Antimony	**6**	33.4 U
Arsenic	**10**	5.6 BJ
Barium	**2000**	286
Beryllium	**4**	0.2 U
Cadmium	**5**	2.4 BJ
Chromium	**100**	3.7 U
Cobalt	*730*	4 B
Lead	**15**	2.7 U
Mercury	**2**	0.1 U
Nickel	*730*	6.5 B
Selenium	**50**	4.7 U
Vanadium	*36*	3.4 B

Any results that exceed MCLs or RBSLs are shown shaded.

--- not sampled

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.

BJ - concentration between IDL and CRDL; the detection is an estimate

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (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 5-37
Immunoassay Field Screening Results
SCYI RFI
Dewatering Chamber (SWMU 38)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX							PAH						
	0-0.5	0-2.0	0.5-1.5	1.5-2.0	3.0-3.5	7.0-7.5	7.5-8.0	0-0.5	0-2.0	0.5-1.5	1.5-2.0	3.0-3.5	7.0-7.5	7.5-8.0
38-01		**> 35**			ND	**> 35**			**> 25**			ND	ND	
38-02			**> 35**		**> 35**	**>35**				ND		ND	ND	
38-03	**> 35**				ND		**> 35**	ND				ND		ND
38-04				**2.84**	ND	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 5-38
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	39-01(3.0-3.5) BQO871 28-Jun-96	39-01(11-11.5) BQO872 28-Jun-96	39-01(15-15.5) BQO873 28-Jun-96	39-01 (1.5-2) N37144-14A 15-Apr-03	39-02(11-11.5) BQO874 28-Jun-96	39-03(11-11.5) BQO876 28-Jun-96	39-03 (1.5-2) N37144-16A 15-Apr-03
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)										
Acetone	5.4E+07	5.8E+07	16,000	89 J	38 J	46 J	11 UJ	85 J	160 J	78.1
Benzene	1,400	1,400	30	11 UJ	13 U	12 U	1.1 U	13 U	13 UJ	1.2 U
Bromodichloromethane	1,800	1,900	600	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Bromoform	2.2E+05	1.0E+08	800	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Bromomethane	13,000	13,000	200	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
2-Butanone	1.1E+08	1.0E+08	29,000	11 U	13 U	12 U	11 U	13 U	13 U	13.7
Carbon disulfide	7.2E+05	7.2E+05	32,000	11 U	13 U	12 U	5.7 U	13 U	13 U	9.9
Carbon tetrachloride	550	560	70	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Chlorobenzene	5.3E+05	5.4E+05	1,000	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Chloroethane	6,500	6,500	--	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
Chloroform	470	470	600	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
Chloromethane	1.6E+05	1.6E+05	--	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
Dibromochloromethane	2,600	2,800	400	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
1,2-Dichloroethane	600	620	20	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
1,2-Dichloropropane	740	760	30	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
cis-1,3-Dichloropropene	1,800	1,900	4	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
trans-1,3-Dichloropropene	1,800	1,900	4	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Ethylbenzene	4.0E+05	4.0E+05	13,000	11 UJ	13 U	12 U	1.1 U	13 U	13 UJ	1.2 U
2-Hexanone	--	--	--	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Methylene chloride	21,000	22,000	20	10 J	7 J	7 J	5.7 U	8 J	8 J	6 U
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Styrene	1.7E+06	1.7E+06	4,000	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
1,1,2,2-Tetrachloroethane	930	990	3	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Tetrachloroethene	1,300	1,700	60	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Toluene	5.2E+05	5.2E+05	12,000	11 UJ	13 U	12 U	1.1 U	13 U	13 UJ	1.2 U
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
1,1,2-Trichloroethane	1,600	1,700	20	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Trichloroethene	110	120	60	11 UJ	13 U	12 U	5.7 U	13 U	13 UJ	6 U
Vinyl chloride	750	930	10	11 U	13 U	12 U	5.7 U	13 U	13 U	6 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	11 UJ	13 U	12 U	2.3 U	13 U	13 UJ	2.4 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown

UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate

-- RSBL not available

J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-39
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	39-01(1.0-1.5) BQO870 28-Jun-96	39-03 (1-1.5) N37144-15A 15-Apr-03
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	370 U	73 U
Acenaphthylene	2.9E+07	--	4.1E+05	370 U	73 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	370 U	73 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	370 U	73 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	370 U	82.1
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	370 U	73 U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	370 U	73 U
Benzo(a)pyrene	210	2.6E+06	8,000	370 U	49.4 J
bis(2-Chloroethoxy)methane	--	--	--	370 U	73 U
bis(2-Chloroethyl) ether	580	740	0.4	370 U	73 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	370 U	706
4-Bromophenyl phenyl ether	--	--	--	370 U	73 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	370 U	73 U
Carbazole	86,000	1.0E+08	600	370 U	73 U
4-Chloroaniline	2.5E+06	1.0E+08	700	370 U	180 U
p-Chloro-m-cresol	--	--	--	370 U	180 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	370 U	73 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	370 U	180 U
4-Chlorophenyl phenyl ether	--	--	--	370 U	73 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	370 U	82.1
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	370 U	73 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	370 U	73 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	370 U	73 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	370 U	73 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	370 U	73 U
1,4-Dichlorobenzene	7,900	8,400	2,000	370 U	73 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	370 UJ	180 U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	370 U	180 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	370 U	73 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	370 U	73 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	370 U	180 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	900 U	730 UJ
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	900 UJ	730 U
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	370 U	73 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	370 U	73 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	370 U	73 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	370 U	73 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	370 U	73 U
Hexachlorobenzene	1,100	1.2E+07	2,000	370 U	73 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	370 U	73 U

Table 5-39
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	39-01(1.0-1.5) BQO870 28-Jun-96	39-03 (1-1.5) N37144-15A 15-Apr-03
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	370 UJ	730 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	370 U	180 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	370 U	73 U
Isophorone	5.1E+05	1.0E+08	500	370 U	73 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	370 U	73 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	370 U	180 U
4-Methylphenol	3.1E+06	1.0E+08	--	370 U	180 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	370 U	180 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	370 U	73 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	370 U	73 U
2-Nitroaniline	1.8E+06	1.0E+08	--	900 U	180 U
3-Nitroaniline	82,000	1.0E+08	--	900 U	180 U
4-Nitroaniline	82,000	1.0E+08	--	900 U	180 U
Nitrobenzene	1.0E+05	1.3E+05	100	370 U	73 U
2-Nitrophenol	--	--	--	370 U	180 U
4-Nitrophenol	--	--	--	900 U	730 U
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	370 U	73 U
Pentachlorophenol	9,000	1.0E+08	30	900 U	730 U
Phenanthrene	1.5E+07	--	4.2E+05	370 U	73 U
Phenol	1.0E+08	1.0E+08	1.0E+05	370 U	180 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	370 U	102
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	370 U	73 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	370 U	180 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	900 U	180 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown

UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat

-- RBSL not available

J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-40
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	39-01(3.0-3.5) BQO871 28-Jun-96	39-01(11-11.5) BQO872 28-Jun-96	39-01(15-15.5) BQO873 28-Jun-96	39-02(11-11.5) BQO874 28-Jun-96	39-03(11-11.5) BQO876 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	2.9E+07	5.6E+07	5.7E+05	400 U	460 U	430 U	410 U	470 U
Acenaphthylene	2.9E+07	--	4.1E+05	400 U	460 U	430 U	410 U	470 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	400 U	460 U	430 U	410 U	470 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	400 U	460 U	430 U	410 U	470 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	400 U	460 U	430 U	410 U	470 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	400 U	460 U	430 U	410 U	470 U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	400 U	460 U	430 U	410 U	470 U
Benzo(a)pyrene	210	2.6E+06	8,000	400 U	460 U	430 U	410 U	470 U
bis(2-Chloroethoxy)methane	--	--	--	400 U	460 U	430 U	410 U	470 U
bis(2-Chloroethyl) ether	580	740	0.4	400 U	460 U	430 U	410 U	470 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	400 U	460 UJ	430 U	410 U	470 U
4-Bromophenyl phenyl ether	--	--	--	400 U	460 U	430 U	410 U	470 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	400 U	460 U	430 U	410 U	470 U
Carbazole	86,000	1.0E+08	600	400 U	460 U	430 U	410 U	470 U
4-Chloroaniline	2.5E+06	1.0E+08	700	400 U	460 U	430 U	410 U	470 U
p-Chloro-m-cresol	--	--	--	400 U	460 U	430 U	410 U	470 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	400 U	460 U	430 U	410 U	470 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	400 U	460 U	430 U	410 U	470 U
4-Chlorophenyl phenyl ether	--	--	--	400 U	460 U	430 U	410 U	470 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	240 J	460 U	430 U	410 U	470 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	400 U	460 U	430 U	410 U	470 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	400 U	460 U	430 U	410 U	470 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	400 U	460 U	430 U	410 U	470 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	400 U	460 U	430 U	410 U	470 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	400 U	460 U	430 U	410 U	470 U
1,4-Dichlorobenzene	7,900	8,400	2,000	400 U	460 U	430 U	410 U	470 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	400 UJ	460 UJ	430 UJ	410 UJ	470 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	400 U	460 U	430 U	410 U	470 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	400 U	460 U	430 U	410 U	470 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	400 U	460 U	430 U	410 U	470 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	400 U	460 U	430 U	410 U	470 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	960 U	1100 U	1000 U	990 U	1100 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	960 UJ	1100 UJ	1000 UJ	990 UJ	1100 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	400 U	460 U	430 U	410 U	470 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	400 U	460 U	430 U	410 U	470 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	400 U	460 UJ	430 U	410 U	470 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	400 U	460 U	430 U	410 U	470 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	400 U	460 U	430 U	410 U	470 U
Hexachlorobenzene	1,100	1.2E+07	2,000	400 U	460 U	430 U	410 U	470 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	400 U	460 U	430 U	410 U	470 U

Table 5-40
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	39-01(3.0-3.5) BQO871 28-Jun-96	39-01(11-11.5) BQO872 28-Jun-96	39-01(15-15.5) BQO873 28-Jun-96	39-02(11-11.5) BQO874 28-Jun-96	39-03(11-11.5) BQO876 28-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)								
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	400 UJ	460 UJ	430 UJ	410 UJ	470 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	400 U	460 U	430 U	410 U	470 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	400 U	460 U	430 U	410 U	470 U
Isophorone	5.1E+05	1.0E+08	500	400 U	460 U	430 U	410 U	470 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	400 U	460 U	430 U	410 U	470 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	400 U	460 U	430 U	410 U	470 U
4-Methylphenol	3.1E+06	1.0E+08	--	400 U	460 U	430 U	410 U	470 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	400 U	460 U	430 U	410 U	470 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	400 U	460 U	430 U	410 U	470 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	400 U	460 U	430 U	410 U	470 U
2-Nitroaniline	1.8E+06	1.0E+08	--	960 U	1100 U	1000 U	990 U	1100 U
3-Nitroaniline	82,000	1.0E+08	--	960 U	1100 U	1000 U	990 U	1100 U
4-Nitroaniline	82,000	1.0E+08	--	960 U	1100 UJ	1000 UJ	990 UJ	1100 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	400 U	460 U	430 U	410 U	470 U
2-Nitrophenol	--	--	--	400 U	460 U	430 U	410 U	470 U
4-Nitrophenol	--	--	--	960 U	1100 UJ	1000 UJ	990 UJ	1100 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	400 U	460 U	430 U	410 U	470 U
Pentachlorophenol	9,000	1.0E+08	30	960 U	1100 U	1000 U	990 U	1100 U
Phenanthrene	1.5E+07	--	4.2E+05	400 U	460 U	430 U	410 U	470 U
Phenol	1.0E+08	1.0E+08	1.0E+05	400 U	460 U	430 U	410 U	470 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	94 J	460 U	430 U	410 U	470 U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	400 U	460 U	430 U	410 U	470 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	960 U	1100 U	1000 U	990 U	1100 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	400 U	460 U	430 U	410 U	470 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-41
Metal Concentrations in Surface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	39-01(1.0-1.5) BQO870 28-Jun-96	39-03 (1-1.5) N37144-15 15-Apr-03
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 UJ	0.52 U
Arsenic	1.6	1,300	29	8.7	0.96 BJ	0.61 U
Barium	67,000	9.6E+05	1,600	183	221	128
Beryllium	1,900	38,000	63	0.4	0.46 B	0.16 B
Cadmium	450	3,000	8	0.8	0.39 U	0.38 B
Chromium	450	450	38	31	6.4	12.3
Cobalt	1,900	1,900	1300	17	11.5	9.2 B
Lead	800	--	--	32	11	25.3
Mercury	310	5.8E+05	2	1.7	0.04 B	0.26 J
Nickel	20,000	22,000	130	28	13.8	49.1
Selenium	5,100	--	5	2.2	0.79 U	0.81 U
Vanadium	1,000	--	6,000	139	76	128

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown

J - estimated value

UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate

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

BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value

-- RBSL not available

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-42
Metal Concentrations in Subsurface Soil
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	39-01(3.0-3.5) BQO871 28-Jun-96	39-01(11-11.5) BQO872 28-Jun-96	39-01(15-15.5) BQO873 28-Jun-96	39-02(11-11.5) BQO874 28-Jun-96	39-03(11-11.5) BQO876 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 UJ	8.2 UJ	8.4 UJ	8.4 UJ	9.1 UJ
Arsenic	1.6	1,300	29	8.7	1.7 BJ	0.85 U	1.6 BJ	1.6 BJ	0.95 U
Barium	67,000	9.6E+05	1,600	183	124	84	129	147	261
Beryllium	1,900	38,000	63	0.4	0.3 B	0.41 B	0.5 B	0.51 B	0.79 B
Cadmium	450	3,000	8	0.8	0.43 U	0.44 U	0.45 U	0.45 U	0.49 U
Chromium	450	450	38	31	14.1	2.2 B	12.2	3.5	7.3
Cobalt	1,900	1,900	1300	17	11.4 B	7.9 B	25.3	12.1 B	16.6
Lead	800	--	--	32	4.6	2.3	3	2.9	5
Mercury	310	5.8E+05	2	1.7	0.55	0.05 U	0.05 U	0.05 U	0.05 U
Nickel	20,000	22,000	130	28	48.2	1.5 U	7.1 B	1.7 B	4.5 B
Selenium	5,100	--	5	2.2	1.7 J	0.88 U	0.9 UJ	0.9 U	0.98 U
Vanadium	1,000	--	6,000	139	175	91.2	159	95.8	167

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-43
Immunoassay Field Screening Results
SCYI RFI
Hazardous Waste Mixing Box (SWMU 39)
(Page 1 of 1)

Sample Location \ Depth (ft)	BTEX			PAH		
	1.0-1.5	3.0-3.5	11.0-11.5	1.0-1.5	3.0-3.5	11.0-11.5
39-01	**> 35**	ND	**5.2**	ND	**> 25**	0.8
39-02	ND	**8**		**> 25**	**> 25**	
39-03	**9**	ND		**> 25**	**> 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 5-44
Volatile Organic Compounds in Surface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(1.5-2) BQO875 28-Jun-96	40-02(1.5-2.0) BQO825 25-Jun-96	40-03(1.5-2) BQO859 26-Jun-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)						
Acetone	5.4E+07	5.8E+07	16,000	11 U	2600 DJ	640 J
Benzene	1,400	1,400	30	11 U	68 UJ	56 U
Bromodichloromethane	1,800	1,900	600	11 U	68 UJ	56 U
Bromoform	2.2E+05	1.0E+08	800	11 U	68 UJ	56 UJ
Bromomethane	13,000	13,000	200	11 U	68 UJ	56 U
2-Butanone	1.1E+08	1.0E+08	29,000	11 U	290 U	150 J
Carbon disulfide	7.2E+05	7.2E+05	32,000	11 U	67 J	23 J
Carbon tetrachloride	550	560	70	11 U	68 UJ	56 U
Chlorobenzene	5.3E+05	5.4E+05	1,000	11 U	68 UJ	56 UJ
Chloroethane	6,500	6,500	--	11 U	68 U	56 U
Chloroform	470	470	600	11 U	68 U	56 U
Chloromethane	1.6E+05	1.6E+05	--	11 U	68 UJ	56 U
Dibromochloromethane	2,600	2,800	400	11 U	68 UJ	56 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	11 U	68 U	56 U
1,2-Dichloroethane	600	620	20	11 U	68 UJ	56 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	11 U	68 U	56 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	11 U	68 UJ	56 U
1,2-Dichloropropane	740	760	30	11 U	68 UJ	56 U
cis-1,3-Dichloropropene	1,800	1,900	4	11 U	68 UJ	56 U
trans-1,3-Dichloropropene	1,800	1,900	4	11 U	68 UJ	56 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	11 U	68 UJ	56 UJ
2-Hexanone	--	--	--	11 U	68 UJ	56 UJ
Methylene chloride	21,000	22,000	20	6 J	68 U	56 U
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	11 U	68 UJ	56 UJ
Styrene	1.7E+06	1.7E+06	4,000	11 U	68 UJ	56 UJ
1,1,2,2-Tetrachloroethane	930	990	3	11 U	68 UJ	56 UJ
Tetrachloroethene	1,300	1,700	60	11 U	68 UJ	56 UJ
Toluene	5.2E+05	5.2E+05	12,000	11 U	14 J	56 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	11 U	68 UJ	56 U
1,1,2-Trichloroethane	1,600	1,700	20	11 U	68 UJ	56 UJ
Trichloroethene	110	120	60	11 U	68 UJ	56 U
Vinyl chloride	750	930	10	11 U	68 U	56 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	11 U	68 UJ	56 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
J - estimated value
DJ - analyzed at a secondary dilution factor; the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-45
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(3.0-3.5) BQO855 27-Jun-96	40-01(11.5- 12.0) BQO854 27-Jun-96	40-01(11.5-12) BQO862 27-Jun-96	40-02(3.0-3.5) BQO823 25-Jun-96	40-02(14.5-15.0) BQO820 25-Jun-96	40-03(3.0-3.5) BQO857 25-Jun-96	40-03(12.5-13) BQO858 25-Jun-96	40-04(11.5-13.0) BQO852 27-Jun-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)											
Acetone	5.4E+07	5.8E+07	16,000	24 J	54 J	18 J	140 UJ	84 UJ	1700 DJ	170 J	95 J
Benzene	1,400	1,400	30	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Bromodichloromethane	1,800	1,900	600	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Bromoform	2.2E+05	1.0E+08	800	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Bromomethane	13,000	13,000	200	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
2-Butanone	1.1E+08	1.0E+08	29,000	11 U	14 UJ	10 U	23 U	16 U	300 J	10 J	10 J
Carbon disulfide	7.2E+05	7.2E+05	32,000	1 J	14 UJ	10 U	18 J	16 UJ	50 J	13 U	14 U
Carbon tetrachloride	550	560	70	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Chlorobenzene	5.3E+05	5.4E+05	1,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Chloroethane	6,500	6,500	--	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
Chloroform	470	470	600	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
Chloromethane	1.6E+05	1.6E+05	--	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
Dibromochloromethane	2,600	2,800	400	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
1,2-Dichloroethane	600	620	20	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
1,2-Dichloropropane	740	760	30	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
cis-1,3-Dichloropropene	1,800	1,900	4	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
trans-1,3-Dichloropropene	1,800	1,900	4	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Ethylbenzene	4.0E+05	4.0E+05	13,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
2-Hexanone	--	--	--	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Methylene chloride	21,000	22,000	20	11 U	14 UJ	14 U	12 UJ	16 UJ	64 U	13 U	14 U
4-Methyl-2-Pentanone	4.7E+07	1.0E+08	--	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Styrene	1.7E+06	1.7E+06	4,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
1,1,2,2-Tetrachloroethane	930	990	3	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Tetrachloroethene	1,300	1,700	60	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Toluene	5.2E+05	5.2E+05	12,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
1,1,2-Trichloroethane	1,600	1,700	20	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Trichloroethene	110	120	60	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ
Vinyl chloride	750	930	10	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	11 U	14 UJ	10 U	12 UJ	16 UJ	64 U	13 U	14 UJ

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limits shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
J - estimated value
-- RBSL not available
DJ - analyzed at a secondary dilution factor; the detection is an estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for 2-butanone is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report

Table 5-45
Volatile Organic Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 2 of 2)

Sample ID	Direct Contact	Outdoor	Migration to	40-05(11.5-12)	40-06(13.5-14)	40-07(12.5-13.0	40-08(14.5-15)	40-09(8.0-8.5)	40-10(5.5-6.0)
Lab ID	Industrial	Inhalation	Groundwater	BQO865	BQO864	BQO818	BQO856	BQO863	BQO853
Sample Date	RBSL[1]	RBSL[2]	RBSL[3]	27-Jun-96	25-Jun-96	25-Jun-96	26-Jun-96	26-Jun-96	27-Jun-96
VOCs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Acetone	5.4E+07	5.8E+07	16,000	43 J	39 J	1400 U	15 J	270 J	180 J
Benzene	1,400	1,400	30	12 UJ	14 U	1400 U	14 U	32 U	120 U
Bromodichloromethane	1,800	1,900	600	12 UJ	14 U	1400 U	14 U	32 U	120 U
Bromoform	2.2E+05	1.0E+08	800	12 UJ	14 U	1400 U	14 U	32 U	120 U
Bromomethane	13,000	13,000	200	12 UJ	14 U	1400 UJ	14 U	32 U	120 U
2-Butanone	1.1E+08	1.1E+08	29,000	12 UJ	14 U	1400 U	14 U	69 J	120 U
Carbon disulfide	7.2E+05	7.2E+05	32,000	12 UJ	14 U	1400 U	14 U	7 J	120 U
Carbon tetrachloride	550	560	70	12 UJ	14 U	1400 U	14 U	32 U	120 U
Chlorobenzene	5.3E+05	5.4E+05	1,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
Chloroethane	6,500	6,500	--	12 UJ	14 U	1400 UJ	14 U	32 U	120 U
Chloroform	470	470	600	12 UJ	14 U	1400 U	14 U	32 U	120 U
Chloromethane	1.6E+05	1.6E+05	--	12 UJ	14 U	1400 U	14 U	32 U	120 U
Dibromochloromethane	2,600	2,800	400	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,1-Dichloroethane	1.7E+06	1.8E+06	23,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,2-Dichloroethane	600	620	20	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,1-Dichloroethene	4.1E+05	4.2E+05	60	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,2-Dichloroethene (total)	1.5E+05	1.5E+05	400	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,2-Dichloropropane	740	760	30	12 UJ	14 U	1400 U	14 U	32 U	120 U
cis-1,3-Dichloropropene	1,800	1,900	4	12 UJ	14 U	1400 U	14 U	32 U	120 U
trans-1,3-Dichloropropene	1,800	1,900	4	12 UJ	14 U	1400 U	14 U	32 U	120 U
Ethylbenzene	4.0E+05	4.0E+05	13,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
2-Hexanone	--	--	--	12 UJ	14 U	1400 U	14 U	32 U	120 U
Methylene chloride	21,000	22,000	20	12 UJ	14 U	1400 U	14 U	34 U	120 U
4-Methyl-2-Pentanone	4.7E+07	1.1E+08	--	12 UJ	14 U	1400 U	14 U	32 U	120 U
Styrene	1.7E+06	1.7E+06	4,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,1,2,2-Tetrachloroethane	930	990	3	12 UJ	14 U	1400 U	14 U	32 U	120 U
Tetrachloroethene	1,300	1,700	60	12 UJ	14 U	1400 U	14 U	32 U	120 U
Toluene	5.2E+05	5.2E+05	12,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,1,1-Trichloroethane	1.2E+06	1.2E+06	2,000	12 UJ	14 U	1400 U	14 U	32 U	120 U
1,1,2-Trichloroethane	1,600	1,700	20	12 UJ	14 U	1400 U	14 U	32 U	120 U
Trichloroethene	110	120	60	12 UJ	14 U	1400 U	14 U	32 U	120 U
Vinyl chloride	750	930	10	12 UJ	14 U	1400 UJ	14 U	32 U	120 U
Xylene (total)	4.2E+05	9.0E+05	1.9E+05	12 UJ	14 U	1400 U	14 U	32 U	130

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for but not detected at the concentration shown
J - estimated value
-- RBSL not available
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
DJ - analyzed at a secondary dilution factor; the detection is an 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 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 5-46
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(0.5-1.5) BQO861 27-Jun-96	40-02(0.5-1.5) BQO824 25-Jun-96	40-03(1-1.5) BQO860 25-Jun-96	40-03(1.5-2) BQO859 26-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	350 U	390 U	2000 U	370 U
Acenaphthylene	2.9E+07	--	4.1E+05	350 U	390 U	2000 U	370 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	350 U	390 U	2000 U	370 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	350 U	390 U	2000 U	370 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	350 U	390 U	2000 U	370 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	350 U	390 U	2000 U	370 U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	350 U	390 U	2000 U	370 U
Benzo(a)pyrene	210	2.6E+06	8,000	350 U	390 U	2000 U	370 U
bis(2-Chloroethoxy)methane	--	--	--	350 U	390 U	2000 U	370 U
bis(2-Chloroethyl) ether	580	740	0.4	350 U	390 U	2000 U	370 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	350 U	680 U	2000 U	290 J
4-Bromophenyl phenyl ether	--	--	--	350 U	390 U	2000 U	370 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	350 U	390 U	2000 U	370 U
Carbazole	86,000	1.0E+08	600	350 U	390 U	2000 U	370 U
4-Chloroaniline	2.5E+06	1.0E+08	700	350 U	390 U	2000 U	370 U
p-Chloro-m-cresol	--	--	--	350 U	390 U	2000 U	370 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	350 U	390 U	2000 U	370 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	350 U	390 U	2000 U	370 U
4-Chlorophenyl phenyl ether	--	--	--	350 U	390 U	2000 U	370 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	350 U	140 J	2000 U	370 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	350 U	390 U	2000 U	370 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	350 U	390 U	2000 U	370 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	350 U	390 U	2000 U	170 J
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	350 U	390 U	2000 U	370 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	350 U	390 U	2000 U	370 U
1,4-Dichlorobenzene	7,900	8,400	2,000	350 U	390 U	2000 U	370 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	350 U	390 U	2000 U	370 U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	350 U	390 U	2000 U	370 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	350 U	390 U	2000 U	370 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	350 U	390 U	2000 U	370 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	840 U	390 U	4900 U	890 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	840 U	950 U	4900 U	890 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	350 UJ	950 U	2000 UJ	370 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	350 U	390 U	2000 U	370 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	350 U	390 U	2000 U	370 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	350 U	390 U	2000 U	370 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	350 U	390 U	2000 U	370 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	350 U	390 U	2000 U	370 U
Hexachlorobenzene	1,100	1.2E+07	2,000	350 U	390 U	2000 U	370 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	350 U	390 U	2000 U	370 U

Table 5-46
Base Neutral/Acid Extractable Compound Concentrations in Surface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(0.5-1.5) BQO861 27-Jun-96	40-02(0.5-1.5) BQO824 25-Jun-96	40-03(1-1.5) BQO860 25-Jun-96	40-03(1.5-2) BQO859 26-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)							
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	350 U	390 U	2000 UJ	370 U
Hexachloroethane	1.2E+05	1.0E+08	500	350 U	390 U	2000 U	370 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	350 U	390 U	2000 U	370 U
Isophorone	5.1E+05	1.0E+08	500	350 U	390 U	2000 U	370 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	350 U	180 J	2000 U	370 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	350 U	390 UJ	2000 U	370 U
4-Methylphenol	3.1E+06	1.0E+08	--	350 U	390 U	2000 U	370 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	350 U	390 U	2000 U	370 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	350 U	390 U	2000 U	370 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	350 U	45 J	2000 U	370 U
2-Nitroaniline	1.8E+06	1.0E+08	--	840 U	950 U	4900 U	890 U
3-Nitroaniline	82,000	1.0E+08	--	840 U	950 U	4900 U	890 U
4-Nitroaniline	82,000	1.0E+08	--	840 U	950 U	4900 UJ	890 U
Nitrobenzene	1.0E+05	1.3E+05	100	350 U	390 U	2000 U	370 U
2-Nitrophenol	--	--	--	350 U	390 U	2000 U	370 U
4-Nitrophenol	--	--	--	840 UJ	950 U	4900 UJ	890 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	350 UJ	390 U	2000 UJ	370 UJ
Pentachlorophenol	9,000	1.0E+08	30	840 U	950 U	4900 UJ	890 U
Phenanthrene	1.5E+07	--	4.2E+05	350 U	390 U	2000 U	370 U
Phenol	1.0E+08	1.0E+08	1.0E+05	350 U	57 J	2000 U	370 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	350 U	170 J	2000 U	370 U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	350 U	390 U	2000 U	370 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	840 U	950 U	4900 U	890 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	350 U	390 U	2000 U	370 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 6)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(3-3.5) BQO855 27-Jun-96	40-01(11.5-12) BQO854 27-Jun-96	40-02(3.0-3.5) BQO821 25-Jun-96	40-02(14.5-15.0) BQO819 25-Jun-96	40-03(3-3.5) BQO857 25-Jun-96	40-03(12.5-13) BQO858 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	2.9E+07	5.6E+07	5.7E+05	350 U	470 U	380 U	520 U	4200 U	430 U
Acenaphthylene	2.9E+07	--	4.1E+05	350 U	470 U	380 U	520 U	4200 U	430 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	350 U	470 U	380 U	520 U	4200 U	430 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	350 U	470 U	380 U	520 U	4200 UJ	430 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	350 U	470 U	380 U	520 U	4200 UJ	430 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	350 U	470 U	380 U	520 U	4200 UJ	430 U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	350 U	470 U	380 U	520 U	2000 J	430 U
Benzo(a)pyrene	210	2.6E+06	8,000	350 U	470 U	380 U	520 U	2600 J	430 U
bis(2-Chloroethoxy)methane	--	--	--	350 U	470 U	380 U	520 U	4200 U	430 U
bis(2-Chloroethyl) ether	580	740	0.4	350 U	470 U	380 U	520 U	4200 U	430 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	350 UJ	470 UJ	480 U	520 U	4200 UJ	430 U
4-Bromophenyl phenyl ether	--	--	--	350 U	470 U	380 U	520 U	4200 U	430 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	350 U	470 U	380 U	520 U	4200 UJ	430 U
Carbazole	86,000	1.0E+08	600	350 U	470 U	380 U	520 U	4200 U	430 U
4-Chloroaniline	2.5E+06	1.0E+08	700	350 U	470 U	380 U	520 U	4200 U	430 U
p-Chloro-m-cresol	--	--	--	350 U	470 U	380 U	520 U	4200 U	430 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	350 U	470 U	380 U	520 U	4200 U	430 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	350 U	470 U	380 U	520 U	4200 U	430 U
4-Chlorophenyl phenyl ether	--	--	--	350 U	470 U	380 U	520 U	4200 U	430 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	350 U	470 U	140 J	520 U	4200 UJ	430 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	350 U	470 U	380 U	520 U	4200 UJ	430 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	350 U	470 U	380 U	520 U	4200 U	430 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	350 U	470 U	380 U	520 U	4200 U	430 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	350 U	470 U	380 U	520 U	4200 U	430 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	350 U	470 U	380 U	520 U	4200 U	430 U
1,4-Dichlorobenzene	7,900	8,400	2,000	350 U	470 U	380 U	520 U	4200 U	430 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	350 UJ	470 UJ	380 U	520 U	4200 UJ	430 U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	350 U	470 U	380 U	520 U	4200 U	430 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	350 U	470 U	380 U	520 U	4200 U	430 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	350 U	470 U	380 U	520 U	4200 U	430 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	850 U	470 U	380 U	520 U	4200 U	430 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	850 U	1100 U	930 U	1300 U	10000 U	1000 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	350 UJ	1100 UJ	930 U	1300 U	10000 U	1000 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	350 U	470 U	380 U	520 U	4200 U	430 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	350 U	470 U	380 U	520 U	4200 U	430 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	350 UJ	470 UJ	380 U	520 U	4200 UJ	430 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	350 U	470 U	380 U	520 U	4200 U	430 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	350 U	470 U	380 U	520 U	4200 U	430 U
Hexachlorobenzene	1,100	1.2E+07	2,000	350 U	470 U	380 U	520 U	4200 U	430 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	350 U	470 U	380 U	520 U	4200 U	430 U

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-01(3-3.5) BQO855 27-Jun-96	40-01(11.5-12) BQO854 27-Jun-96	40-02(3.0-3.5) BQO821 25-Jun-96	40-02(14.5-15.0) BQO819 25-Jun-96	40-03(3-3.5) BQO857 25-Jun-96	40-03(12.5-13) BQO858 25-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	350 UJ	470 UJ	380 U	520 U	4200 UJ	430 U
Hexachloroethane	1.2E+05	1.0E+08	500	350 U	470 U	380 U	520 U	4200 U	430 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	350 U	470 U	380 U	520 U	4200 UJ	430 U
Isophorone	5.1E+05	1.0E+08	500	350 U	470 U	380 U	520 U	4200 U	430 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	350 U	470 U	330 J	260 J	4200 U	430 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	350 U	470 U	380 UJ	520 UJ	4200 U	430 U
4-Methylphenol	3.1E+06	1.0E+08	--	350 U	470 U	380 U	520 U	4200 U	430 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	350 U	470 U	380 U	520 U	4200 U	430 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	350 U	470 U	380 U	520 U	4200 U	430 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	350 U	470 U	87 J	83 J	4200 U	430 U
2-Nitroaniline	1.8E+06	1.0E+08	--	850 U	1100 U	930 U	1300 U	10000 U	1000 U
3-Nitroaniline	82,000	1.0E+08	--	850 U	1100 U	930 U	1300 U	10000 U	1000 U
4-Nitroaniline	82,000	1.0E+08	--	850 UJ	1100 UJ	930 U	1300 U	10000 UJ	1000 U
Nitrobenzene	1.0E+05	1.3E+05	100	350 U	470 U	380 U	520 U	4200 U	430 U
2-Nitrophenol	--	--	--	350 U	470 U	380 U	520 U	4200 U	430 U
4-Nitrophenol	--	--	--	850 UJ	1100 UJ	930 U	1300 U	10000 U	1000 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	350 UJ	470 UJ	380 U	520 U	4200 U	430 UJ
Pentachlorophenol	9,000	1.0E+08	30	850 U	1100 U	930 U	1300 U	10000 U	1000 U
Phenanthrene	1.5E+07	--	4.2E+05	350 U	470 U	83 J	520 U	4200 U	430 U
Phenol	1.0E+08	1.0E+08	1.0E+05	350 U	470 U	70 J	520 U	4200 U	430 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	350 U	470 U	380 UJ	520 U	4200 UJ	430 U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	350 U	470 U	380 U	520 U	4200 U	430 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	850 U	1100 U	930 U	1300 U	10000 U	1000 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	350 U	470 U	380 U	520 U	4200 U	430 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-04(11.5-13) BQO852 27-Jun-96	40-05(11.5-12) BQO868 27-Jun-96	40-06(13.5-14) BQO869 25-Jun-96	40-07(12.5-13.0) BQO817 25-Jun-96	40-08(14.5-15) BQO856 26-Jun-96	
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	460 U	410 U	490 U	2000 U	460 U	U
Acenaphthylene	2.9E+07	--	4.1E+05	460 U	410 U	490 U	2000 U	460 U	U
Anthracene	1.0E+08	1.0E+08	1.2E+07	460 U	410 U	490 U	2000 U	460 U	U
Benzo(a)anthracene	2,100	2.6E+07	2,000	460 U	410 U	490 U	2000 U	460 U	U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	460 U	410 UJ	490 U	2000 U	460 U	U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	460 U	410 U	490 U	2000 U	460 U	U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	460 U	410 U	490 U	2000 U	460 U	U
Benzo(a)pyrene	210	2.6E+06	8,000	460 U	410 U	490 U	2000 U	460 U	U
bis(2-Chloroethoxy)methane	--	--	--	460 U	410 U	490 U	2000 U	460 U	U
bis(2-Chloroethyl) ether	580	740	0.4	460 U	410 U	490 U	2000 U	460 U	U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	790 UJ	410 U	490 UJ	2000 U	460 U	U
4-Bromophenyl phenyl ether	--	--	--	460 U	410 U	490 U	2000 U	460 U	U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	460 U	410 U	490 U	2000 U	460 U	U
Carbazole	86,000	1.0E+08	600	460 U	410 U	490 U	2000 U	460 U	U
4-Chloroaniline	2.5E+06	1.0E+08	700	460 U	410 U	490 U	2000 U	460 U	U
p-Chloro-m-cresol	--	--	--	460 U	410 UJ	490 U	2000 U	460 U	U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	460 U	410 U	490 U	2000 U	460 U	U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	460 U	410 U	490 U	2000 U	460 U	U
4-Chlorophenyl phenyl ether	--	--	--	460 U	410 U	490 U	2000 U	460 U	U
Chrysene	2.1E+05	1.0E+08	1.6E+05	460 U	410 U	490 U	2000 U	460 U	U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	460 UJ	410 U	490 UJ	2000 U	460 U	U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	460 U	410 U	490 U	2000 U	460 U	U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	460 U	410 U	490 U	2000 U	460 U	U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	460 U	410 U	490 U	2000 U	460 U	U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	460 U	410 U	490 U	2000 U	460 U	U
1,4-Dichlorobenzene	7,900	8,400	2,000	460 U	410 UJ	490 U	2000 U	460 U	U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	460 UJ	410 U	490 UJ	2000 U	460 U	U
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	460 U	410 U	490 U	2000 U	460 U	U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	460 U	410 U	490 U	2000 U	460 U	U
Dimethyl phthalate	1.0E+08	1.0E+08	--	460 U	410 U	490 U	2000 U	460 U	U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	460 U	410 U	490 U	2000 U	460 U	U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	1100 U	990 U	1200 U	4900 U	1100 U	U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	1100 UJ	990 UJ	1200 UJ	4900 U	1100 UJ	UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	460 U	410 U	490 U	2000 U	460 U	U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	460 U	410 U	490 U	2000 U	460 U	U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	460 UJ	410 U	490 UJ	2000 U	460 U	U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	460 U	410 U	490 U	2000 U	460 U	U
Fluorene	2.6E+07	7.4E+07	5.6E+05	460 U	410 U	490 U	4200	460 U	U
Hexachlorobenzene	1,100	1.2E+07	2,000	460 U	410 U	490 U	2000 U	460 U	U
Hexachlorobutadiene	22,000	1.0E+08	2,000	460 U	410 U	490 U	2000 U	460 U	U

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-04(11.5-13) BQO852 27-Jun-96	40-05(11.5-12) BQO868 27-Jun-96	40-06(13.5-14) BQO869 25-Jun-96	40-07(12.5-13.0) BQO817 25-Jun-96	40-08(14.5-15) BQO856 26-Jun-96	
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)									
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	460 UJ	410 UJ	490 UJ	2000 U	460 U	U
Hexachloroethane	1.2E+05	1.0E+08	500	460 U	410 U	490 U	2000 U	460 U	U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	460 U	410 U	490 U	2000 U	460 U	U
Isophorone	5.1E+05	1.0E+08	500	460 U	410 U	490 U	2000 U	460 U	U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	460 U	410 U	490 U	2000 U	460 U	U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	460 U	410 U	490 U	2000 UJ	460 U	U
4-Methylphenol	3.1E+06	1.0E+08	--	460 U	410 U	490 U	2000 U	460 U	U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	460 U	410 U	490 U	2000 U	460 U	U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	460 U	410 UJ	490 U	2000 U	460 U	U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	460 U	410 U	490 U	2000 U	460 U	U
2-Nitroaniline	1.8E+06	1.0E+08	--	1100 U	990 U	1200 U	4900 U	1100 U	U
3-Nitroaniline	82,000	1.0E+08	--	1100 U	990 U	1200 U	4900 U	1100 U	U
4-Nitroaniline	82,000	1.0E+08	--	1100 UJ	990 UJ	1200 UJ	4900 U	1100 U	U
Nitrobenzene	1.0E+05	1.3E+05	100	460 U	410 U	490 U	2000 U	460 U	U
2-Nitrophenol	--	--	--	460 U	410 U	490 U	2000 U	460 U	U
4-Nitrophenol	--	--	--	1100 UJ	990 UJ	1200 UJ	4900 U	1100 UJ	UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	460 UJ	410 U	490 UJ	2000 U	460 UJ	UJ
Pentachlorophenol	9,000	1.0E+08	30	1100 U	990 U	1200 U	4900 U	1100 U	U
Phenanthrene	1.5E+07	--	4.2E+05	460 U	410 U	490 U	8800	460 U	U
Phenol	1.0E+08	1.0E+08	1.0E+05	460 U	410 U	490 U	2000 U	460 U	U
Pyrene	2.9E+07	1.0E+08	4.2E+06	460 U	410 U	490 U	480 J	460 U	U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	460 U	410 U	490 U	2000 U	460 U	U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	1100 U	990 U	1200 U	4900 U	1100 U	U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	460 U	410 U	490 U	2000 U	460 U	U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
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Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-09(8-8.5) BQO863 26-Jun-96	40-10 (5.5-6 0) BQO853 27-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Acenaphthene	2.9E+07	5.6E+07	5.7E+05	420 U	1900 U
Acenaphthylene	2.9E+07	--	4.1E+05	420 U	1900 U
Anthracene	1.0E+08	1.0E+08	1.2E+07	420 U	1900 U
Benzo(a)anthracene	2,100	2.6E+07	2,000	420 U	1900 U
Benzo(b)fluoranthene	2,100	2.6E+07	5,000	420 UJ	1900 U
Benzo(k)fluoranthene	21,000	1.0E+08	4.9E+04	420 U	1900 U
Benzo(ghi)perylene	1.5E+07	--	4.6E+07	420 U	1900 U
Benzo(a)pyrene	210	2.6E+06	8,000	420 U	1900 U
bis(2-Chloroethoxy)methane	--	--	--	420 U	1900 U
bis(2-Chloroethyl) ether	580	740	0.4	420 U	1900 U
bis(2-Ethylhexyl)phthalate	1.2E+05	1.0E+08	3.6E+06	420 U	1900 U
4-Bromophenyl phenyl ether	--	--	--	420 U	1900 U
Butyl benzyl phthalate	1.0E+08	1.0E+08	9.3E+05	420 U	1900 U
Carbazole	86,000	1.0E+08	600	420 U	1900 U
4-Chloroaniline	2.5E+06	1.0E+08	700	420 U	1900 U
p-Chloro-m-cresol	--	--	--	420 U	1900 U
2-Chloronaphthalene	2.3E+07	3.3E+07	--	420 U	1900 U
2-Chlorophenol	2.4E+05	2.5E+05	4,000	420 U	1900 U
4-Chlorophenyl phenyl ether	--	--	--	420 U	1900 U
Chrysene	2.1E+05	1.0E+08	1.6E+05	420 U	1900 U
Dibenzo(a,h)anthracene	210	2.6E+06	2,000	420 U	1900 U
Dibenzofuran	1.6E+06	1.0E+08	3.3E+04	420 U	1900 U
Di-n-butyl phthalate	6.2E+07	1.0E+08	2.3E+06	420 U	1900 U
1,2-Dichlorobenzene	6.0E+05	6.0E+05	1.7E+04	420 U	1900 U
1,3-Dichlorobenzene	6.0E+05	6.0E+05	--	420 U	1900 U
1,4-Dichlorobenzene	7,900	8,400	2,000	420 U	1900 U
3,3'-Dichlorobenzidine	3,800	4.2E+07	7	420 U	1900 UJ
2,4-Dichlorophenol	1.8E+06	1.0E+08	1,000	420 U	1900 U
Diethyl phthalate	1.0E+08	1.0E+08	4.7E+05	420 U	1900 U
Dimethyl phthalate	1.0E+08	1.0E+08	--	420 U	1900 U
2,4-Dimethylphenol	1.2E+07	1.0E+08	9,000	420 U	1900 U
4,6-Dinitro-o-cresol	62,000	1.0E+08	--	1000 U	4700 U
2,4-Dinitrophenol	1.2E+06	1.0E+08	200	1000 UJ	4700 UJ
2,4-Dinitrotoluene	1.2E+06	1.0E+08	0.8	420 U	1900 U
2,6-Dinitrotoluene	6.2E+05	1.0E+08	0.7	420 U	1900 U
Di-n-octyl phthalate	2.5E+07	1.0E+08	1.0E+07	420 U	1900 U
Fluoranthene	2.2E+07	1.0E+08	4.3E+06	420 U	1900 U
Fluorene	2.6E+07	7.4E+07	5.6E+05	420 U	1900 U
Hexachlorobenzene	1,100	1.2E+07	2,000	420 U	1900 U
Hexachlorobutadiene	22,000	1.0E+08	2,000	420 U	1900 U

Table 5-47
Base Neutral/Acid Extractable Compound Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 6 of 6)

Sample ID Lab ID Sample Date	Direct Contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	40-09(8-8.5) BQO863 26-Jun-96	40-10 (5.5-6 0) BQO853 27-Jun-96
BNAs (Reporting units are in ug/kg. Sample depths in feet are shown in parentheses as part of the sample ID.)					
Hexachlorocyclopentadiene	3.7E+06	1.0E+08	4.0E+05	420 UJ	1900 UJ
Hexachloroethane	1.2E+05	1.0E+08	500	420 U	1900 U
Indeno(1,2,3-c,d)pyrene	2,100	2.6E+07	1.4E+04	420 U	1900 U
Isophorone	5.1E+05	1.0E+08	500	420 U	1900 U
2-Methylnaphthalene	2.0E+06	--	1.7E+04	250 J	1900 U
2-Methylphenol	3.1E+07	1.0E+08	1.5E+04	420 U	1900 U
4-Methylphenol	3.1E+06	1.0E+08	--	420 U	1900 U
N-Nitrosodiphenylamine	3.5E+05	1.0E+08	1,000	420 U	1900 U
N-Nitrosodi-n-propylamine	250	2.7E+06	0.05	420 U	1900 U
Naphthalene	1.9E+05	1.9E+05	8.4E+04	32 J	1900 U
2-Nitroaniline	1.8E+06	1.0E+08	--	1000 U	4700 U
3-Nitroaniline	82,000	1.0E+08	--	1000 U	4700 U
4-Nitroaniline	82,000	1.0E+08	--	1000 UJ	4700 UJ
Nitrobenzene	1.0E+05	1.3E+05	100	420 U	1900 U
2-Nitrophenol	--	--	--	420 U	1900 U
4-Nitrophenol	--	--	--	1000 UJ	4700 UJ
2,2'-oxybis(1-chloropropane)	7,400	9,000	--	420 U	1900 U
Pentachlorophenol	9,000	1.0E+08	30	1000 U	4700 U
Phenanthrene	1.5E+07	--	4.2E+05	400 J	9600
Phenol	1.0E+08	1.0E+08	1.0E+05	420 U	1900 U
Pyrene	2.9E+07	1.0E+08	4.2E+06	420 U	1900 U
1,2,4-Trichlorobenzene	2.2E+05	2.2E+05	5,000	420 U	1900 U
2,4,5-Trichlorophenol	6.2E+07	1.0E+08	2.7E+05	1000 U	4700 U
2,4,6-Trichlorophenol	62,000	1.0E+08	200	420 U	1900 U

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimat
-- RBSL not available
J - estimated value

Notes:

1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004), except for acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which were adapted from TNRCC (March 2006).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004)
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20, except for dibenzofuran, acenaphthylene, benzo(ghi)perylene, 2-methylnaphthalene and phenanthrene, which are from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the repor

Table 5-48
Metal Concentrations in Surface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 1)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	40-01(0.5-1.5) BQO861 27-Jun-96	40-02(0.5-1.5) BQO824 25-Jun-96	40-03(1.0-1.5) BQO860 25-Jun-96	40-03(1.5-2) BQO859 26-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 UJ	7.9 U	8.5 UJ	7.5 UJ
Arsenic	1.6	1,300	29	8.7	0.73 U	2.4 J	1.9 BJ	3.4 J
Barium	67,000	9.6E+05	1,600	183	177	107	138	30.7 B
Beryllium	1,900	38,000	63	0.4	0.22 B	0.44 B	0.33 B	0.15 B
Cadmium	450	3,000	8	0.8	0.38 U	0.43 U	0.46 U	0.41 U
Chromium	450	450	38	31	1.5 B	38.2	24	3.5
Cobalt	1,900	1,900	1300	17	2.8 B	10.1 B	12.9	3.2 B
Lead	800	--	--	32	12.8	24.3 J	37.8	2.3
Mercury	310	5.8E+05	2	1.7	0.04 U	0.31	0.78	0.05 U
Nickel	20,000	22,000	130	28	3.3 B	153	233	1.4 B
Selenium	5,100	--	5	2.2	0.75 UJ	0.86 UJ	4.8	0.81 U
Vanadium	1,000	--	6,000	139	20.6	577	466	24.9

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-49
Metal Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 2)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	40-01(3.0-3.5) BQO855 27-Jun-96	40-01(11.5-12.0) BQO854 27-Jun-96	40-02(3.0-3.5) BQO821 25-Jun-96	40-02(14.5-15.0) BQO819 25-Jun-96	40-03(3.0-3.5) BQO857 25-Jun-96	40-03(12.5-13.0) BQO858 25-Jun-96	40-04(11.5-13.0) BQO852 27-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	7.1 U	9.6 U	7.7 U	10.6 U	8.6 U	8.7 U	9.4 U
Arsenic	1.6	1,300	29	8.7	0.75 UJ	1 UJ	1.9 BJ	1.1 UJ	3.9 J	0.91 UJ	0.99 UJ
Barium	67,000	9.6E+05	1,600	183	136	227	128	249	106	192	309
Beryllium	1,900	38,000	63	0.4	0.23 B	0.66 B	0.36 B	0.61 B	0.46 B	0.54 B	0.54 B
Cadmium	450	3,000	8	0.8	0.38 U	0.52 U	0.42 U	0.57 U	0.46 U	0.47 U	0.51 U
Chromium	450	450	38	31	1.9 B	4.8	17.7	6	29	4	5.7
Cobalt	1,900	1,900	1300	17	4.4 B	17.1	9.4 B	17	11.4 B	16.8	14.2
Lead	800	--	--	32	12.1 J	5.3 J	29.8 J	5.2 J	91.4 J	2.3 J	5.7 J
Mercury	310	5.8E+05	2	1.7	0.04 U	0.06 U	0.4	0.06 U	1	0.05 U	0.06 U
Nickel	20,000	22,000	130	28	7.3 B	3 B	106	5.1 B	141	2.9 B	4 B
Selenium	5,100	--	5	2.2	0.77 UJ	1 U	0.84 U	1.1 U	7.6 J	0.94 U	1 UJ
Vanadium	1,000	--	6,000	139	11.9	130	302	142	472	108	111

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-49
Metal Concentrations in Subsurface Soil
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 2 of 2)

Sample ID Lab ID Sample Date	Direct contact Industrial RBSL[1]	Outdoor Inhalation RBSL[2]	Migration to Groundwater RBSL[3]	Background Level	40-05(11.5-12) BQO868 27-Jun-96	40-06(13.5-14) BQO869 25-Jun-96	40-07(12.5-13.0) BQO817 25-Jun-96	40-08(14.5-15.0) BQO856 26-Jun-96	40-09(8.0-8.5) BQO863 26-Jun-96	40-10(5.5-6.0) BQO853 27-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	8.4 UJ	10 UJ	8.1 U	9.3 U	9.1 UJ	7.8 U
Arsenic	1.6	1,300	29	8.7	0.88 UJ	1 B	1.5 BJ	0.98 UJ	1.2 BJ	0.82 UJ
Barium	67,000	9.6E+05	1,600	183	98.9	204	60.3	73.1	180	125
Beryllium	1,900	38,000	63	0.4	0.36 B	0.73 B	0.21 B	0.3 B	0.54 B	0.27 B
Cadmium	450	3,000	8	0.8	0.45 U	0.54 U	0.44 U	0.5 U	0.49 U	0.42 U
Chromium	450	450	38	31	1.5 B	7.1	2.3 B	1.2 B	11.4	2.1 B
Cobalt	1,900	1,900	1300	17	7 B	14.3 B	7.4 B	5.3 B	19.4	10.7 B
Lead	800	--	--	32	1.5 J	5.3	1.1 J	1.2 J	3.5	1.8 J
Mercury	310	5.8E+05	2	1.7	0.05 U	0.06 U	0.05 U	0.06 U	0.05 U	0.05 U
Nickel	20,000	22,000	130	28	2 B	3.9 B	2.6 B	11.9	6.4 B	2.2 B
Selenium	5,100	--	5	2.2	0.91 U	1.1 UJ	0.87 UJ	1 UJ	0.98 UJ	0.84 U
Vanadium	1,000	--	6,000	139	47	170	60.1	59.6	165	67.7

Any values exceeding RBSLs are shown shaded.

U - compound was analyzed for, but not detected at or above the reporting limit shown
J - estimated value
UJ - analyte was not detected at or above the reporting limit shown; the reporting limit is an estimate
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
BJ - concentration is between the instrument detection limit (IDL) and contract required detection limit (CRDL); the detection is an estimated value
-- RBSL not available

Notes:
1. Direct-contact industrial soil RBSLs were obtained from EPA Region 9 PRGs (Oct 2004).
2. Outdoor inhalation RBSLs were obtained from EPA Region 9 pathway-specific tables for PRGs (Oct 2004).
3. Migration to groundwater RBSLs were obtained from EPA (2002) for a DAF of 20. The RBSL for cobalt is from TNRCC (March 2006).
4. A detailed discussion concerning selection of RBSLs is provided in Section 5.1.2 of the report.

Table 5-50
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 1 of 2)

Well ID	MCL	40-08	40-11	40-12	40-12	40-14	40-14A	40-15	40-14B	40-16	40-17
Lab ID	or RBSL[1]	BRO808	N40627-4	BRO841	N40627-5	BRO840	N36804-5	BRO833	N36804-4	BRO834	BRO842
Sample Date		26-Aug-96	4-Jun-03	19-Sep-96	4-Jun-03	19-Sep-96	8-Apr-03	19-Sep-96	8-Apr-03	19-Sep-96	20-Sep-96
VOCs (Reporting units are in ug/L)											
Acetone	*5,500*	10 U	17	10 UJ	7	10 UJ	5 U	10 U	5 U	10 UJ	10 UJ
Benzene	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Bromodichloromethane	**80**[2]	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Bromoform	**80**[2]	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Bromomethane	*8.7*	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
2-Butanone	*7,000*	10 U	5 U	10 UJ	5 U	10 UJ	5 U	10 U	5 U	10 UJ	10 UJ
Carbon disulfide	*1,000*	10 U	1 U	10 U	1 U	10 U	8	10 U	6	10 U	10 U
Carbon tetrachloride	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Chlorobenzene	**100**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Chloroethane	*4.6*	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Chloroform	**80**[2]	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Chloromethane	*160*	10 UJ	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Dibromochloromethane	**80**[2]	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,1-Dichloroethane	*810*	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,2-Dichloroethane	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,1-Dichloroethene	**7**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,2-Dichloroethene (total)	**70**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,2-Dichloropropane	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
cis-1,3-Dichloropropene	0.44	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
trans-1,3-Dichloropropene	0.44	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Ethylbenzene	**700**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
2-Hexanone	--	10 U	5 U	10 UJ	5 U	10 UJ	5 U	10 U	5 U	10 UJ	10 UJ
Methylene chloride	**5**	10 U	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U	10 U
4-Methyl-2-Pentanone	*2,000*	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	10 U
Styrene	**100**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Tetrachloroethene	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Toluene	**1,000**	10 U	0.1 J	10 U	0.2 J	10 U	1 U	10 U	0.1 J	10 U	10 U
1,1,1-Trichloroethane	**200**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
1,1,2-Trichloroethane	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Trichloroethene	**5**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Vinyl chloride	**2**	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U
Xylene (total)	**10,000**	3 J	0.5 J	10 U	0.8 J	10 U	1 U	10 U	1 U	10 U	10 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.

Table 5-50
Volatile Organic Compound Concentrations in Groundwater
SCYI RFI
North East Refinery Area (SWMU 40)
(Page 2 of 2)

Sample ID	MCL	40-18	40-19	40-20	40-20	40-21	40-21
Lab ID	or RBSL[1]	BRO832	BRO831	BRO826	BRO827	N91847-10C	N91847-11C
Sample Date		19-Sep-96	19-Sep-96	18-Sep-96	18-Sep-96	23-Feb-05	23-Feb-05
					(duplicate)		(duplicate)
VOCs (Reporting units are in ug/L)							
Acetone	*5,500*	10 UJ	10 U	10 U	10 U	5 U	5 U
Benzene	**5**	10 U	10 U	10 U	10 U	1 U	1 U
Bromodichloromethane	**80**[2]	10 U	10 U	10 U	10 U	1 U	1 U
Bromoform	**80**[2]	10 U	10 U	10 U	10 U	1 U	1 U
Bromomethane	*8.7*	10 U	10 U	10 U	10 U	1 U	1 U
2-Butanone	*7,000*	10 UJ	10 U	10 U	10 U	5 U	5 U
Carbon disulfide	*1,000*	10 U	10 U	10 U	10 U	5 U	5 U
Carbon tetrachloride	**5**	10 U	10 U	10 U	10 U	1 U	1 U
Chlorobenzene	**100**	10 U	10 U	10 U	10 U	1 U	1 U
Chloroethane	*4.6*	10 U	10 U	10 U	10 U	1 U	1 U
Chloroform	**80**[2]	10 U	10 U	10 U	10 U	1 U	1 U
Chloromethane	*160*	10 U	10 U	10 UJ	10 UJ	1 U	1 U
Dibromochloromethane	**80**[2]	10 U	10 U	10 U	10 U	1 U	1 U
1,1-Dichloroethane	*810*	10 U	10 U	10 U	10 U	1 U	1 U
1,2-Dichloroethane	**5**	10 U	10 U	10 U	10 U	1 U	1 U
1,1-Dichloroethene	**7**	10 U	10 U	10 U	10 U	1 U	1 U
1,2-Dichloroethene (total)	**70**	10 U	10 U	10 U	10 U	1 U	1 U
1,2-Dichloropropane	**5**	10 U	10 U	10 U	10 U	1 U	1 U
cis-1,3-Dichloropropene	0.44	10 U	10 U	10 U	10 U	1 U	1 U
trans-1,3-Dichloropropene	0.44	10 U	10 U	10 U	10 U	1 U	1 U
Ethylbenzene	**700**	10 U	10 U	10 U	10 U	1 U	1 U
2-Hexanone	--	10 UJ	10 U	10 U	10 U	5 U	5 U
Methylene chloride	**5**	10 U	10 U	10 U	10 U	2 U	2 U
4-Methyl-2-Pentanone	*2,000*	10 U	10 U	10 U	10 U	5 U	5 U
Styrene	**100**	10 U	10 U	10 U	10 U	1 U	1 U
1,1,2,2-Tetrachloroethane	*0.055*	10 U	10 U	10 U	10 U	1 U	1 U
Tetrachloroethene	**5**	10 U	10 U	10 U	10 U	1 U	1 U
Toluene	**1,000**	10 U	10 U	10 U	10 U	1 U	1 U
1,1,1-Trichloroethane	**200**	10 U	10 U	10 U	10 U	1 U	1 U
1,1,2-Trichloroethane	**5**	10 U	10 U	10 U	10 U	1 U	1 U
Trichloroethene	**5**	10 U	10 U	10 U	10 U	1 U	1 U
Vinyl chloride	**2**	10 U	10 U	10 U	10 U	1 U	1 U
Xylene (total)	**10,000**	10 U	10 U	10 U	10 U	1 U	1 U

Any results that exceed MCLs or RBSLs are shown shaded.

U - compound was analyzed for, but not detected at the concentration shown
UJ - analyte was not detected at or above the reporting limits shown; the reporting limit is an estimate
-- MCL/ RBSL not available
J - estimated value

Notes:

1. EPA Maximum Contaminant Levels (MCLs) are shown in bold. For compounds without MCLs, EPA Region 9 PRGs (Oct 2004) are shown in italics, with the exception of cis- and trans- 1,3-dichloropropene, which are from Region 3 risk-based screening levels for tap water (Oct 2006).
2. MCL is for total trihalomethanes (bromodichloromethane, bromoform, chloroform, and dibromochloromethane).
3. A detailed discussion concerning selection of screening levels is provided in Section 5.1.2 of this report.