Appendix J
Details of Sediment Sampling

Table J-1: Details of Sediment Sampling – RSE Investigation

Location ID	EPA ID	Earth Tech ID	Sampling Date	Sampling Depths (feet bgs)	Sample Type	pH	Petroleum Hydrocarbons	VOCs	SVOCs	PAHs	Metals	Dioxins and Furans
SD1	LK289	AA 3-SD1SS-S01-D000	02/23/2003	Surface	Regular	√	√	√	√	√	√	—
SD2	LK290	AA 3-SD2SS-S01-D000	02/23/2003	Surface	Regular	√	√	√	√	√	√	—
SD3	LK291	AA 3-SD3SS-S01-D000	02/23/2003	Surface	Regular	√	√	√	√	√	√	—
SD4	LK292	AA 3-SD4SS-S01-D000	02/23/2003	Surface	Regular	√	√	√	√	√	√	—

Table J-2: Sediment Samples Analytical Results - RSE Investigation

	Sample ID:	LK289	LK290	LK291	LK292
	Location ID:	AA3-SD1	AA3-SD2	AA3-SD3	AA3-SD4
	Sample Date:	2/23/2003	2/23/2003	2/23/2003	2/23/2003
PARAMETER	SampleType:	Regular	Regular	Regular	Regular
TPH (EPA Method 8015B DRO)	Units				
Gasoline	mg/kg	13U	14U	11U	11U
Motor Oils	mg/kg	20	11U	11U	11U
PHC as diesel fuel	mg/kg	12U	11U	11U	11U
VOCs (EPA Method 8260B)					
1,1,1,2-Tetrachloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1,1-Trichloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1,2,2-Tetrachloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1,2-Trichloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1-Dichloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,1-Dichloroethene	ug/kg	5.9U	6.1U	5.5U	5.6U
1,2,3-Trichloropropane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,2-Dichloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,2-Dichloropropane	ug/kg	5.9U	6.1U	5.5U	5.6U
1,2-Dichlorotetrafluoroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
2-Butanone	ug/kg	120U	120U	110U	110U
2-Hexanone	ug/kg	59UJ	61UJ	55UJ	56UJ
4-Methyl-2-Pentanone	ug/kg	59UJ	61UJ	55UJ	56UJ
Acetone	ug/kg	120UJ	120UJ	110UJ	110UJ
Benzene	ug/kg	5.9U	6.1U	5.5U	5.6U
Bromodichloromethane	ug/kg	5.9U	6.1U	5.5U	5.6U
Bromoform	ug/kg	5.9U	6.1U	5.5U	5.6U
Bromomethane	ug/kg	5.9U	6.1U	5.5U	5.6U
2-Methoxy-2-Methyl- Butane	ug/kg	5.9U	6.1U	5.5U	5.6U
Carbon Disulfide	ug/kg	5.9U	6.1U	5.5U	5.6U
Carbon Tetrachloride	ug/kg	5.9UJ	6.1UJ	5.5UJ	5.6UJ
Chlorobenzene	ug/kg	5.9U	6.1U	5.5U	5.6U
Chlorodibromomethane	ug/kg	5.9U	6.1U	5.5U	5.6U
Chloroethane	ug/kg	5.9U	6.1U	5.5U	5.6U
Chloroform	ug/kg	5.9U	6.1U	5.5U	5.6U
Chloromethane	ug/kg	5.9U	6.1U	5.5U	5.6U
Cis-1,2-Dichloroethene	ug/kg	5.9U	6.1U	5.5U	5.6U
Cis-1,3-Dichloropropene	ug/kg	5.9U	6.1U	5.5U	5.6U
Dichlorodifluoromethane	ug/kg	5.9U	6.1U	5.5U	5.6U
Diisopropyl Ether	ug/kg	5.9U	6.1U	5.5U	5.6U
Ethylbenzene	ug/kg	5.9U	6.1U	5.5U	5.6U
Methyl Tert-Butyl Ether	ug/kg	5.9U	6.1U	5.5U	5.6U
Methylene Chloride	ug/kg	5.9U	6.1U	5.5U	5.6U
2-Ethoxy-2-Methyl-Propane	ug/kg	5.9U	6.1U	5.5U	5.6U
Styrene	ug/kg	5.9U	6.1U	5.5U	5.6U
Tert-Butyl Alcohol	ug/kg	24UJ	24UJ	22UJ	23UJ
Tetrachloroethene	ug/kg	5.9U	6.1U	5.5U	5.6U
Toluene	ug/kg	5.9U	6.1U	5.5U	5.6U
Total Xylenes	ug/kg	18U	18U	17U	17U
Trans-1,2-Dichloroethene	ug/kg	5.9U	6.1U	5.5U	5.6U
Trans-1,3-Dichloropropene	ug/kg	5.9U	6.1U	5.5U	5.6U
Trichloroethene	ug/kg	5.9U	6.1U	5.5U	5.6U
Trichlorofluoromethane	ug/kg	5.9UJ	6.1UJ	5.5UJ	5.6UJ
Vinyl Chloride	ug/kg	5.9U	6.1U	5.5U	5.6U

Table J-2: Sediment Samples Analytical Results - RSE Investigation

	Sample ID:	LK289	LK290	LK291	LK292
	Location ID:	AA3-SD1	AA3-SD2	AA3-SD3	AA3-SD4
	Sample Date:	2/23/2003	2/23/2003	2/23/2003	2/23/2003
SVOCs (EPA Method 8270C)					
1,2,4-Trichlorobenzene	ug/kg	590U	560U	550U	550U
1,2-Dichlorobenzene	ug/kg	590U	560U	550U	550U
1,3-Dichlorobenzene	ug/kg	590U	560U	550U	550U
1,4-Dichlorobenzene	ug/kg	590U	560U	550U	550U
2,4,5-Trichlorophenol	ug/kg	590U	560U	550U	550U
2,4,6-Trichlorophenol	ug/kg	590U	560U	550U	550U
2,4-Dichlorophenol	ug/kg	590U	560U	550U	550U
2,4-Dimethylphenol	ug/kg	590U	560U	550U	550U
2,4-Dinitrophenol	ug/kg	3000U	2800U	2700U	2700U
2,4-Dinitrotoluene	ug/kg	590U	560U	550U	550U
2,6-Dinitrotoluene	ug/kg	590U	560U	550U	550U
2-Chloronaphthalene	ug/kg	590U	560U	550U	550U
2-Chlorophenol	ug/kg	590U	560U	550U	550U
2-Methylphenol	ug/kg	590U	560U	550U	550U
2-Nitroaniline	ug/kg	3000U	2800U	2700U	2700U
2-Nitrophenol	ug/kg	590U	560U	550U	550U
3,3'-Dichlorobenzidine	ug/kg	1200U	1100U	1100U	1100U
3-Nitroaniline	ug/kg	3000U	2800U	2700U	2700U
4,6-Dinitro-2-Methylphenol	ug/kg	3000U	2800U	2700U	2700U
4-Bromophenyl Phenyl Ether	ug/kg	590U	560U	550U	550U
4-Chloro-3-Methylphenol	ug/kg	590U	560U	550U	550U
4-Chloroaniline	ug/kg	1200U	1100U	1100U	1100U
4-Chlorophenyl Phenyl Ether	ug/kg	590U	560U	550U	550U
4-Methylphenol	ug/kg	590U	560U	550U	550U
4-Nitroaniline	ug/kg	3000U	2800U	2700U	2700U
4-Nitrophenol	ug/kg	3000U	2800U	2700U	2700U
Bis(2-Chloro-1-Methylethyl)Ether	ug/kg	590U	560U	550U	550U
Bis(2-Chloroethoxy)Methane	ug/kg	590U	560U	550U	550U
Bis(2-Chloroethyl)Ether	ug/kg	190U	180U	180U	180U
Bis(2-Ethylhexyl)Phthalate	ug/kg	590U	560U	550U	550U
Butyl Benzyl Phthalate	ug/kg	590U	560U	550U	550U
Carbazole	ug/kg	590U	560U	550U	550U
Dibenzofuran	ug/kg	590U	560U	550U	550U
Diethyl Phthalate	ug/kg	590U	560U	550U	550U
Dimethyl Phthalate	ug/kg	590U	560U	550U	550U
Di-N-Butyl Phthalate	ug/kg	590U	560U	550U	550U
Di-N-Octyl Phthalate	ug/kg	590U	560U	550U	550U
Hexachlorobenzene	ug/kg	590U	560U	550U	550U
Hexachlorobutadiene	ug/kg	590U	560U	550U	550U
Hexachlorocyclopentadiene	ug/kg	3000U	2800U	2700U	2700U
Hexachloroethane	ug/kg	590U	560U	550U	550U
Isophorone	ug/kg	590U	560U	550U	550U
Nitrobenzene	ug/kg	590U	560U	550U	550U
N-Nitroso-Di-N-Propylamine	ug/kg	46U	44U	43U	43U
N-Nitrosodiphenylamine	ug/kg	3000U	2800U	2700U	2700U
Pentachlorophenol	ug/kg	2000U	1900U	1900U	1900U
Phenol	ug/kg	590U	560U	550U	550U
PAH Compounds (Method PAH-SIM)					
2-Methylnaphthalene	ug/kg	30U	28U	27U	27U
Acenaphthene	ug/kg	30U	28U	27U	27U
Acenaphthylene	ug/kg	30U	28U	27U	27U

Table J-2: Sediment Samples Analytical Results - RSE Investigation

	Sample ID:	LK289	LK290	LK291	LK292
	Location ID:	AA3-SD1	AA3-SD2	AA3-SD3	AA3-SD4
	Sample Date:	2/23/2003	2/23/2003	2/23/2003	2/23/2003
Anthracene	ug/kg	30U	28U	27U	27U
Benz(A)Anthracene	ug/kg	30UJ	28UJ	27UJ	27UJ
Benzo(A)Pyrene	ug/kg	30U	28U	27U	27U
Benzo(B)Fluoranthene	ug/kg	30U	28U	27U	27U
Benzo(G,H,I)Perylene	ug/kg	30U	28U	27U	27U
Benzo(K)Fluoranthene	ug/kg	30U	28U	27U	27U
Chrysene	ug/kg	30UJ	28UJ	27UJ	27UJ
Dibenz(A,H)Anthracene	ug/kg	30U	28U	27U	27U
Fluoranthene	ug/kg	30U	28U	27U	27U
Fluorene	ug/kg	30U	28U	27U	27U
Indeno(1,2,3-Cd)Pyrene	ug/kg	30U	28U	27U	27U
Naphthalene	ug/kg	30U	28U	27U	27U
Phenanthrene	ug/kg	30U	28U	27U	27U
Pyrene	ug/kg	30U	28U	27U	27U
Metals (EPA Method 6010B)					
Aluminum	mg/kg	3050	2420	2120	1750
Antimony	mg/kg	3.6U	3.4U	3.3U	3.3U
Arsenic	mg/kg	1.8	1.4	0.94UJ	1.4
Barium	mg/kg	85.7	39.6	25.6	110
Beryllium	mg/kg	0.24U	0.22U	0.22U	0.22U
Cadmium	mg/kg	0.26	0.17UJ	0.16UJ	0.23
Calcium	mg/kg	4570	3250	2620	3020
Chromium	mg/kg	4.4	2.8	2.7	2.5
Cobalt	mg/kg	2	1.6	1.2	1.4
Copper	mg/kg	2.5	1.8	1.5	1.3
Iron	mg/kg	5050	3830	2700	2890
Lead	mg/kg	1.9	1.2	1	1.5
Magnesium	mg/kg	1610	1330	1030	898
Manganese	mg/kg	120	82.8	54.6	130
Mercury	mg/kg	0.24U	0.22U	0.22U	0.006
Nickel	mg/kg	2.8	1.8	2.1	1.6
Potassium	mg/kg	821	699	418	422
Selenium	mg/kg	0.36U	0.34U	0.33U	0.17
Silver	mg/kg	0.59U	0.56U	0.55U	0.55U
Sodium	mg/kg	120U	23.1	47.7	110U
Thallium	mg/kg	0.47U	0.45U	0.44U	0.44U
Vanadium	mg/kg	13.9	9.4	7.5	7.9
Zinc	mg/kg	13.5	9.9	7.6	7.3
Miscellaneous					
Moisture (ASTM D 2216)	%	15.6	11	8.6	8.6
pH (EPA Method 9045)	pH	8.88	8.8	8.78	8.89

NOTES:

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
PHC= petroleum hydrocarbons
VOCs = volatile organic compounds
SVOCs = semivolatile organic compounds

pH = the negative log of the hydrogen ion concentration
AA3 = Anomaly Area 3
RSE = Removal Site Evaluation
PAHs = polynuclear aromatic hydrocarbons
% = percentage

U = indicates the analyte was not detected at or above the stated limit.
UJ = indicates the analyte was not detected at or above the stated limit. The sample detection limit is an estimated value.
J = indicates an estimated value.