APPENDIX B

Results of Physical Testing

Appendix B
Physical Testing Results

Soil retrieved using a California Modified Split Spoon sampler from the investigation locations was sent to PTS Laboratories, Inc. (PTS) in Santa Fe Springs, California. Following retrieval at the drill site, the soil core was sealed, labeled, and placed on ice for transportation and storage at PTS. All core was submitted to the lab under standard chain-of-custody documentation. Following arrival at the PTS, the core soil samples were placed in frozen storage until retrieved for physical analysis.

Selected soil core samples were identified for physical testing to evaluate physical properties. The testing included grain size analysis, Atterberg Limits, moisture content, dry bulk density, effective porosity, vertical and horizontal hydraulic conductivity, and air permeability. The physical testing results are summarized in Tables B-1 and B-2. In addition, selected soil samples were analyzed for total organic carbon, and these results are summarized in Table B-3. The PTS reports are attached at the end of this appendix.

B.1 Grain Size Analysis

Grain size distribution tests were performed on selected soil samples. Results of the testing are summarized in Table B-1 and shown on the particle size analysis curves in the attached laboratory reports. Particle size distribution of sediments is determined by using laser light diffraction to measure the amount and patterns of light scattered by a particle's surface. The procedure is a modification of ASTM D4464-85 used to measure particle sizes of catalytic material. The procedure has been extended to include measurement of unconsolidated soils and sediments. Local, state, and federal agencies have recognized the method as an alternative to ASTM D422 (hydrometer) and the pipette method.

B.2 Atterberg Limits

To help classify the soils, Atterberg Limits of selected samples were determined in accordance with ASTM Methodology D-4318. The test results, including liquid limits and plasticity indices, are presented in Table B-1.

B.3 Moisture Content

Moisture content was determined by ASTM Methodology D-2216. Test results are presented in Table B-2.

B.4 Bulk density

Bulk density was calculated by API RP40 and is defined as the total mass of dried sample per total volume. Test results are presented in Table B-2.

B.5 Effective and Air Filled Porosity

Effective porosity was calculated using API RP 40 Methodology. Air filled porosity was calculated by subtracting moisture content from the effective porosity. Estimated porosity results are presented in Table B-2.

B.6 Hydraulic Conductivity

Constant head permeability tests were performed on selected samples representing various soil types in order to evaluate their vertical and horizontal permeability characteristics. The hydraulic conductivity of the soil was measured under saturated conditions. The test results are presented in Table B-2.

B.7 Permeability to Air

Air permeability was determined API RP40. The test results are presented in Table B-2.

B.8 Total Organic Carbon

Total organic carbon was analyzed using the Walkley Black method. The test results are presented in Table B-3.

The following tables and attachment complete this appendix:

Table B-1	Summary of Physical Testing Results – Soil Classification Properties
Table B-2	Summary of Physical Testing Results – Physical Properties
Table B-3	Summary of Soil Analytical Results – Total Organic Carbon

Attachment: PTS Laboratories, Inc. Reports

TABLE B-1: SUMMARY OF PHYSICAL TESTING RESULTS - Soil Classification Properties
Hitachi GST; San Jose, California

					Atterberg Limits		Grain Size Distribution (wt. percent)							
					Liquid	Plasticity	%	Sand Size			%	Fines		%
Sample No.	**Boring Number**	**Depth (feet bgs)**	**Stratigraphic Unit**	**Soil Type (1)**	Limit	Index	**Gravel**	Coarse	Medium	Fine	**Sand**	Silt	Clay	**Fines**
EW-1-6.5-7	EW-1	7.0	Vadose	ML/SM	22	7	**0**	0	4	47	**50**	37	13	**50**
EW-1-10-10.5	EW-1	10.5	Vadose	CL	29	18	**0**	0	0	9	**9**	67	23	**91**
EW-1-21.5-22	EW-1	22.0	Vadose	CL/SC	29	16	**0**	0	3	37	**40**	41	20	**60**
EW-1-32-32.5	EW-1	32.5	A Aquifer	SM	19	NP	**0**	0	18	58	**76**	17	7	**24**
EW-1-37-37.5	EW-1	37.5	A/B Aquitard	CL	44	23	**0**	0	0	4	**4**	70	26	**96**
EW-6-17-17.5	EW-6	17.5	Vadose	ML	35	NP	**0**	0	2	19	**21**	53	27	**79**
EW-8-33.5-34	EW-8	34.0	A Aquifer	ML/SM	10	NP	**0**	0	7	53	**60**	30	10	**40**
EW-8-37-37.5	EW-8	37.5	A/B Aquitard	CL	44	25	**0**	0	0	5	**5**	63	32	**95**
EW-10-8-8.5	EW-10	8.5	Vadose	ML/SM	24	NP	**0**	0	8	50	**58**	29	13	**42**
EW-10-16-16.5	EW-10	16.5	Vadose	CL	31	16	**0**	0	0	2	**2**	73	24	**98**
EW-10-22.5-23	EW-10	23.0	Vadose	CL	29	11	**0**	0	0	29	**29**	51	19	**71**
EW-10-35-35.5	EW-10	35.5	A Aquifer	SM	20	NP	**0**	0	14	66	**80**	14	5	**20**
EW-10-36-36.5	EW-10	36.5	A/B Aquitard	CL	28	11	**0**	0	4	19	**24**	54	22	**76**
EW-15-11-11.5	EW-15	11.5	Vadose	ML/SM	13	NP	**0**	0	12	51	**62**	27	11	**38**
EW-15-19-19.5	EW-15	19.5	Vadose	CL	31	19	**0**	0	0	16	**16**	55	29	**84**
EW-15-23-23.5	EW-15	23.5	Vadose	CL	31	18	**0**	0	2	21	**22**	54	24	**78**
EW-15-34.5-35	EW-15	35.0	A Aquifer	ML	29	NP	**0**	0	2	11	**12**	67	21	**88**
EW-15-37-37.5	EW-15	37.5	A/B Aquitard	CL	40	21	**0**	0	0	2	**2**	61	37	**98**

Notes:

Methodologies for particle size and Atterberg Limits were ASTM D4464M/D422 and ASTM D4318, respectively.

(1) Unified Soil Classification System (UCSC) soil classification

"--" means not tested

NP = Non-Plastic

TABLE B-2: SUMMARY OF PHYSICAL TESTING RESULTS - Physical Properties
Hitachi GST; San Jose, California

Sample No.	Boring Number	Depth (feet bgs)	Soil Type	Moisture Content (% wt.)	Dry Bulk Density (g/cc)	POROSITY Total (% Vb)	POROSITY Effective (% Vb)	POROSITY Air-Filled (% Vb)	POROSITY Water-Filled (% Vb)	Sample Orientation	Hydraulic Conductivity (1) (cm/s)	Permeability to Air (millidarcy)
EW-1-6.5-7	EW-1	7.0	ML/SM	11	1.58	41	--	23	18	V	--	--
EW-1-10-10.5	EW-1	10.5	CL	24	1.57	41	--	4	38	V	--	--
EW-1-21.5-22	EW-1	22.0	CL/SC	18	1.75	35	--	3	32	V	--	--
EW-1-32-32.5	EW-1	32.5	SM	23	1.76	43	31	--	--	H	4.1 x 10-5	--
EW-1-37-37.5	EW-1	37.5	CL	27	1.67	45	13	--	--	V	9.1 x 10-7	--
EW-6-17-17.5	EW-6	17.5	ML	22	1.65	39	--	2	37	V	--	--
EW-8-33.5-34	EW-8	34.0	ML/SM	24	1.47	41	34	--	--	V	--	--
EW-8-37-37.5	EW-8	37.5	CL	34	1.35	46	15	--	--	V	--	--
EW-10-8-8.5	EW-10	8.5	ML/SM	9	1.57	42	--	28	14	V	--	1,138
EW-10-16-16.5	EW-10	16.5	CL	26	1.53	43	--	0.03	0.39	V	--	0.215
EW-10-22.5-23	EW-10	23.0	CL	21	1.59	41	--	0.08	0.33	V	--	0.086
EW-10-35-35.5	EW-10	35.5	SM	25	1.48	40	33	--	--	H	1.0 x 10-3	--
EW-10-36-36.5	EW-10	36.5	CL	36	1.28	41	14	--	--	V	1.1 x 10-6	--
EW-15-11-11.5	EW-15	11.5	ML/SM	8	1.63	39	--	0.26	0.13	V	--	--
EW-15-19-19.5	EW-15	19.5	CL	20	1.61	40	--	0.08	0.32	V	--	--
EW-15-23-23.5	EW-15	23.5	CL	23	1.66	38	--	0.01	0.38	V	--	--
EW-15-34.5-35	EW-15	35.0	ML	34	1.51	45	19	--	--	H	5.5 x 10-6	--
EW-15-37-37.5	EW-15	37.5	CL	40	1.29	43	10	--	--	V	8.8 x 10-7	--

Notes:
Methodology for Physical Properties Data: ASTM D2216, API RP40, ASTM D425M, ASTM D5084.
(1) Permeability to water and conductivity measured at saturated conditions.
(2) Sample Orientation: H = horizontal; V = vertical.
(3) Effective Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids; ASTM D425M
(4) Water = 0.9981 grams/cubic centimeter (g/cc)
Vb = Bulk Volume, cc

TABLE B-3: SUMMARY OF SOIL ANALYTICAL RESULTS - Total Organic Carbon
Hitachi GST; San Jose, California

Sample No.	Boring Number	Depth (feet bgs)	Stratigraphic Unit	Soil Type	Total Organic Carbon (mg/kg)
EW-1-32-32.5	EW-1	32.5	A Aquifer	SM	820
EW-1-37-37.5	EW-1	37.5	A/B Aquitard	CL	4,450
EW-8-33.5-34	EW-8	34.0	A Aquifer	ML\SM	2,150
EW-8-37-37.5	EW-8	37.5	A/B Aquitard	CL	7,100
EW-10-35-35.5	EW-10	35.5	A Aquifer	SM	1,650
EW-10-36-36.5	EW-10	36.5	A/B Aquitard	CL	3,450
EW-15-34.5-35	EW-15	35.0	A Aquifer	ML	3,250
EW-15-37-37.5	EW-15	37.5	A/B Aquitard	CL	4,950

Notes:
1) Analyzed using the Walkley Black method.
2) mg/kg = milligrams per kilogram, or parts per million

PTS File No: 37347
Client: ENVIRON

PTS Laboratories

PHYSICAL PROPERTIES DATA - CAL-EPA DTSC Vapor Intrusion PACKAGE

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

		METHODOLOGY:	API RP40/ASTM D2216		API RP40		API RP40			WALKLEY-BLACK	
							POROSITY (2)			TOTAL	FRACTION
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	MOISTURE CONTENT, % weight	MOISTURE CONTENT, cm^3/cm^3	DENSITY DRY BULK, g/cm^3	DENSITY GRAIN, g/cm^3	TOTAL, cm^3/cm^3	AIR FILLED, cm^3/cm^3	WATER FILLED, cm^3/cm^3	ORGANIC CARBON, mg/kg	ORGANIC CARBON, g/g
EW-6-17-17.5	17-17.5	V	22.2	0.366	1.65	2.69	0.387	0.021	0.366	2750	2.75E-03
EW-15-11-11.5	11-11.5	V	7.8	0.127	1.63	2.68	0.392	0.264	0.127	1500	1.50E-03
EW-15-19-19.5	19-19.5	V	20.1	0.324	1.61	2.68	0.401	0.077	0.324	2950	2.95E-03
EW-15-23-23.5	23-23.5	V	22.6	0.375	1.66	2.69	0.383	0.008	0.375	2550	2.55E-03
EW-1-6.5-7	6.5-7	V	11.3	0.179	1.58	2.69	0.413	0.234	0.179	1800	1.80E-03
EW-1-10-10.5	10-10.5	V	24.1	0.378	1.57	2.68	0.414	0.036	0.378	2250	2.25E-03
EW-1-21.5-22	21.5-22	V	18.3	0.320	1.75	2.68	0.347	0.027	0.320	2000	2.00E-03
EW-10-8-8.5	8-8.5	V	8.7	0.136	1.57	2.68	0.415	0.279	0.136	1800	1.80E-03
EW-10-16-16.5	16-16.5	V	25.6	0.393	1.53	2.68	0.427	0.034	0.393	2150	2.15E-03
EW-10-22.5-23	22.5-23	V	20.8	0.331	1.59	2.69	0.408	0.077	0.331	1800	1.80E-03

(1) Sample Orientation: H = horizontal; V = vertical (2) Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids, native sample Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

PTS File No: 37347
Client: ENVIRON

PHYSICAL PROPERTIES DATA - DRAINAGE (EFFECTIVE) POROSITY

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

		METHODS:	API RP 40 / ASTM D2216	ASTM D425M	ASTM D425M	ASTM D425M
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	MOISTURE CONTENT, % weight	DENSITY BULK, g/cc	TOTAL POROSITY, %Vb	EFFECTIVE POROSITY, %Vb
EW-15-34.5-35	34.5-35	H	33.9	1.51	44.7	19.2
EW-15-37-37.5	37-37.5	V	39.6	1.29	42.7	9.9
EW-8-33.5-34	33.5-34	V	23.9	1.47	40.6	33.7
EW-8-37-37.5	37-37.5	V	33.8	1.35	46.1	15.4
EW-1-32-32.5	32-32.5	H	23.2	1.76	43.4	30.6
EW-1-37-37.5	37-37.5	V	27.2	1.67	45.4	13.4
EW-10-35-35.5	35-35.5	H	24.5	1.48	40.0	32.5
EW-10-36-36.5	36-36.5	V	36.3	1.28	40.9	13.6

(1) Sample Orientation: H = horizontal; V = vertical; Vb = Bulk Volume

PTS File No: 37347
Client: ENVIRON

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

		METHODS:	API RP 40; ASTM D5084; EPA 910(	
			25 PSI CONFINING STRESS	
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	EFFECTIVE (2,3) PERMEABILITY TO WATER, millidarcy	HYDRAULIC CONDUCTIVITY (2,3), cm/s
EW-15-34.5-35	34.5-35	H	5.78	5.50E-06
EW-15-37-37.5	37-37.5	V	0.914	8.77E-07
EW-1-32-32.5	32-32.5	H	41.9	4.05E-05
EW-1-37-37.5	37-37.5	V	0.943	9.10E-07
EW-10-35-35.5	35-35.5	H	1066	1.03E-03
EW-10-36-36.5	36-36.5	V	1.11	1.07E-06

(1) Sample Orientation: H = horizontal; V = vertical (2) Native State or Effective = With as-received pore fluids in place (3) Permeability to water and hydraulic conductivity measured at saturated conditio

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PTS File No: 37347
Client: ENVIRON

PHYSICAL PROPERTIES DATA - PERMEABILITY TO AIR

(METHODOLOGY: API RP40

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	25 PSI CONFINING STRESS EFFECTIVE (2) PERMEABILITY TO AIR millidarcy
EW-10-8-8.5	8-8.5	V	1138
EW-10-16-16.5	16-16.5	V	0.215
EW-10-22.5-23	22.5-23	V	0.086

(1) Sample Orientation: H = horizontal; V = vertical (2) Native State or Effective = With as-received pore fluids in pla

PTS File No: 37347
Client: ENVIRON

ORGANIC CARBON DATA - TOC

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

			METHOD: WALKLEY-BLACK
SAMPLE ID.	DEPTH, ft.	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg
EW-15-34.5-35	34.5-35	SOIL	3250
EW-15-37-37.5	37-37.5	SOIL	4950
EW-8-33.5-34	33.5-34	SOIL	2150
EW-8-37-37.5	37-37.5	SOIL	7100
EW-1-32-32.5	32-32.5	SOIL	820
EW-1-37-37.5	37-37.5	SOIL	4450
EW-10-35-35.5	35-35.5	SOIL	1650
EW-10-36-36.5	36-36.5	SOIL	3450

PTS File No: 37347
Client: ENVIRON

PTS Laboratories

ATTERBERG LIMITS DATA - FINE FRACTION < No. 40 SIEVE

(METHODOLOGY: ASTM D4318, D2487, USDA)

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

	METHODS:	ASTM D 4318			ASTM D 4318	ASTM D 2487	USDA
		ATTERBERG LIMITS			USCS	USCS	USDA
SAMPLE ID.	DEPTH, ft.	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	CLASSIFICATION (1) (Fines: <#40 Sieve)	CLASSIFICATION, Group Symbol: Name	SOIL TEXTURE SCHEME (2)
EW-6-17-17.5	17-17.5	35.0	N/A	NON-PLASTIC	NP	ML: Silt with sand	Silt loam
EW-15-11-11.5	11-11.5	12.7	N/A	NON-PLASTIC	NP	SM: Silty sand	Sandy loam
EW-15-19-19.5	19-19.5	31.3	12.8	18.5	CL	CL: Lean clay with sand	Silty clay loam
EW-15-23-23.5	23-23.5	31.1	13.2	17.9	CL	CL: Lean clay with sand	Silt loam
EW-15-34.5-35	34.5-35	28.9	N/A	NON-PLASTIC	NP	ML: Silt	Silt loam
EW-15-37-37.5	37-37.5	40.1	19.0	21.1	CL	CL: Lean clay	Silty clay loam
EW-8-33.5-34	33.5-34	10.0	N/A	NON-PLASTIC	NP	SM: Silty sand	Sandy loam
EW-8-37-37.5	37-37.5	43.8	19.0	24.8	CL	CL: Lean clay	Silty clay loam
EW-1-6.5-7	6.5-7	21.5	14.6	6.9	CL-ML	SC-SM: Silty, clayey sand	Loam
EW-1-10-10.5	10-10.5	29.4	11.5	17.9	CL	CL: Lean clay	Silt loam
EW-1-21.5-22	21.5-22	28.9	12.8	16.1	CL	CL: Sandy lean clay	Loam
EW-1-32-32.5	32-32.5	18.6	N/A	NON-PLASTIC	NP	SM: Silty sand	Sandy loam
EW-1-37-37.5	37-37.5	44.1	20.7	23.4	CL	CL: Lean clay	Silt loam
EW-10-8-8.5	8-8.5	23.5	N/A	NON-PLASTIC	NP	SM: Silty sand	Sandy loam
EW-10-16-16.5	16-16.5	30.9	14.5	16.4	CL	CL: Lean clay	Silt loam
EW-10-22.5-23	22.5-23	29.4	18.5	10.9	CL	CL: Lean clay with sand	Silt loam
EW-10-35-35.5	35-35.5	20.1	N/A	NON-PLASTIC	NP	SM: Silty sand	Loamy sand
EW-10-36-36.5	36-36.5	28.4	17.5	10.9	CL	CL: Lean clay with sand	Silt loam

(1) Silt assumed as fine fraction for NON-PLASTIC (NP) samples
(2) Sand considered to be >No. 200 sieve for USDA SOIL TEXTURE SCHEME

PTS Laboratories, Inc.

ENVIRON
PTS File No: 37347

PARTICLE SIZE SUMMARY
(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Hitachi GST
PROJECT NO: 03-11903E

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
EW-6-17-17.5	17-17.5	Silt	0.017	0.00	0.00	1.62	19.25	52.52	26.60	79.13
EW-15-11-11.5	11-11.5	Fine sand	0.126	0.00	0.00	11.65	50.81	26.93	10.61	37.54
EW-15-19-19.5	19-19.5	Silt	0.015	0.00	0.00	0.00	15.59	55.06	29.35	84.41
EW-15-23-23.5	23-23.5	Silt	0.022	0.00	0.00	1.64	20.53	53.64	24.19	77.83
EW-15-34.5-35	34.5-35	Silt	0.020	0.00	0.00	1.56	10.85	66.67	20.91	87.59
EW-15-37-37.5	37-37.5	Silt	0.008	0.00	0.00	0.00	1.81	60.87	37.32	98.19
EW-8-33.5-34	33.5-34	Fine sand	0.101	0.00	0.00	7.00	52.50	29.95	10.55	40.51
EW-8-37-37.5	37-37.5	Silt	0.010	0.00	0.00	0.00	5.45	62.69	31.86	94.55
EW-1-6.5-7	6.5-7	Fine sand	0.075	0.00	0.00	3.75	46.56	36.63	13.07	49.70
EW-1-10-10.5	10-10.5	Silt	0.017	0.00	0.00	0.00	9.30	67.23	23.47	90.70
EW-1-21.5-22	21.5-22	Silt	0.047	0.00	0.00	3.17	36.63	40.59	19.61	60.20
EW-1-32-32.5	32-32.5	Fine sand	0.190	0.00	0.00	17.80	58.31	17.39	6.50	23.89
EW-1-37-37.5	37-37.5	Silt	0.015	0.00	0.00	0.00	3.90	69.96	26.14	96.10
EW-10-8-8.5	8-8.5	Fine sand	0.111	0.00	0.00	8.09	49.93	28.90	13.08	41.98
EW-10-16-16.5	16-16.5	Silt	0.016	0.00	0.00	0.00	2.47	73.47	24.06	97.53
EW-10-22.5-23	22.5-23	Silt	0.038	0.00	0.00	0.00	29.34	51.48	19.17	70.66
EW-10-35-35.5	35-35.5	Fine sand	0.207	0.00	0.00	14.34	65.83	14.43	5.40	19.83
EW-10-36-36.5	36-36.5	Silt	0.018	0.00	0.00	4.12	19.45	54.04	22.40	76.44

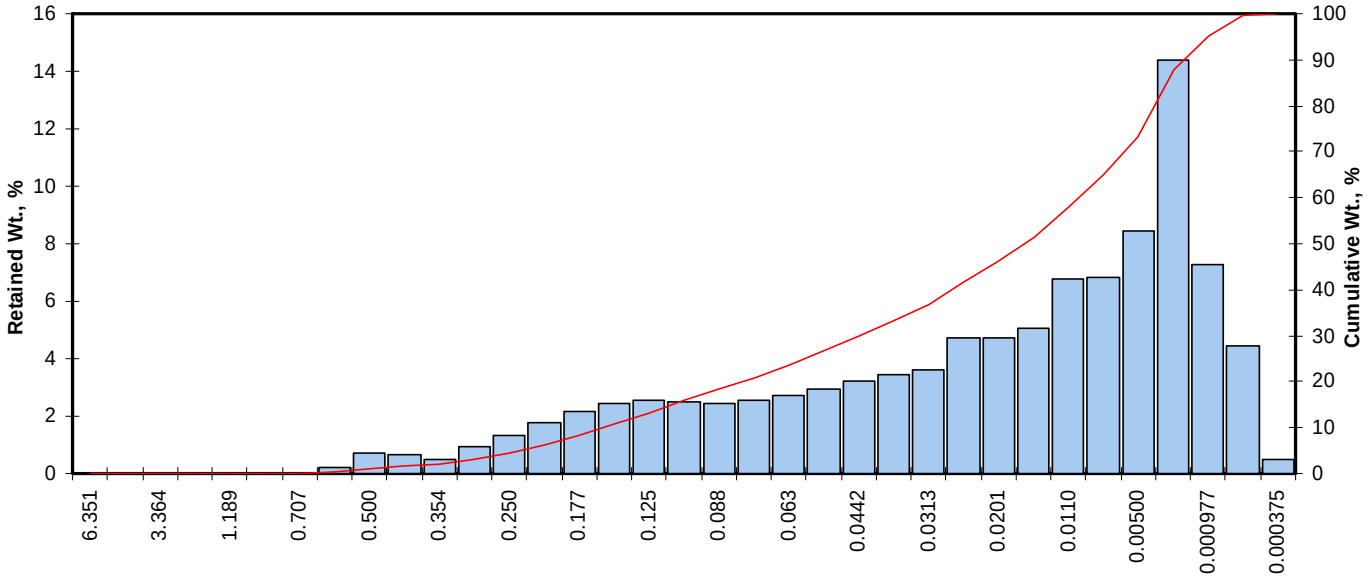
(1) Based on Mean from Trask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-6-17-17.5
Project No:	03-11903E	**Depth, ft:**	17-17.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.01	0.01	0.01
0.0234	0.595	0.75	30	0.23	0.23	0.24
0.0197	0.500	1.00	35	0.71	0.71	0.95
0.0166	0.420	1.25	40	0.67	0.67	1.62
0.0139	0.354	1.50	45	0.48	0.48	2.10
0.0117	0.297	1.75	50	0.94	0.94	3.04
0.0098	0.250	2.00	60	1.32	1.32	4.36
0.0083	0.210	2.25	70	1.80	1.80	6.16
0.0070	0.177	2.50	80	2.18	2.18	8.34
0.0059	0.149	2.75	100	2.47	2.47	10.81
0.0049	0.125	3.00	120	2.55	2.55	13.36
0.0041	0.105	3.25	140	2.49	2.49	15.85
0.0035	0.088	3.50	170	2.47	2.47	18.32
0.0029	0.074	3.75	200	2.55	2.55	20.87
0.0025	0.063	4.00	230	2.74	2.74	23.61
0.0021	0.053	4.25	270	2.97	2.97	26.58
0.00174	0.0442	4.50	325	3.24	3.24	29.82
0.00146	0.0372	4.75	400	3.44	3.44	33.26
0.00123	0.0313	5.00	450	3.59	3.59	36.85
0.000986	0.0250	5.32	500	4.72	4.72	41.58
0.000790	0.0201	5.64	635	4.74	4.74	46.32
0.000615	0.0156	6.00		5.04	5.04	51.36
0.000435	0.0110	6.50		6.76	6.76	58.12
0.000308	0.00781	7.00		6.82	6.82	64.94
0.000197	0.00500	7.65		8.46	8.46	73.40
0.000077	0.00195	9.00		14.40	14.40	87.80
0.000038	0.000977	10.00		7.25	7.25	95.05
0.000019	0.000488	11.00		4.46	4.46	99.51
0.000015	0.000375	11.38		0.49	0.49	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.09	0.0093	0.235
10	2.67	0.0062	0.157
16	3.26	0.0041	0.104
25	4.12	0.0023	0.058
40	5.21	0.0011	0.027
50	5.90	0.0007	0.017
60	6.64	0.0004	0.010
75	7.80	0.0002	0.005
84	8.64	0.0001	0.003
90	9.30	0.0001	0.002
95	9.99	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.90	5.90	5.90
Median, in.	0.0007	0.0007	0.0007
Median, mm	0.017	0.017	0.017
Mean, phi	5.01	5.95	5.94
Mean, in.	0.0012	0.0006	0.0006
Mean, mm	0.031	0.016	0.016
Sorting	3.579	2.689	2.542
Skewness	0.964	0.019	0.027
Kurtosis	0.171	0.470	0.881
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

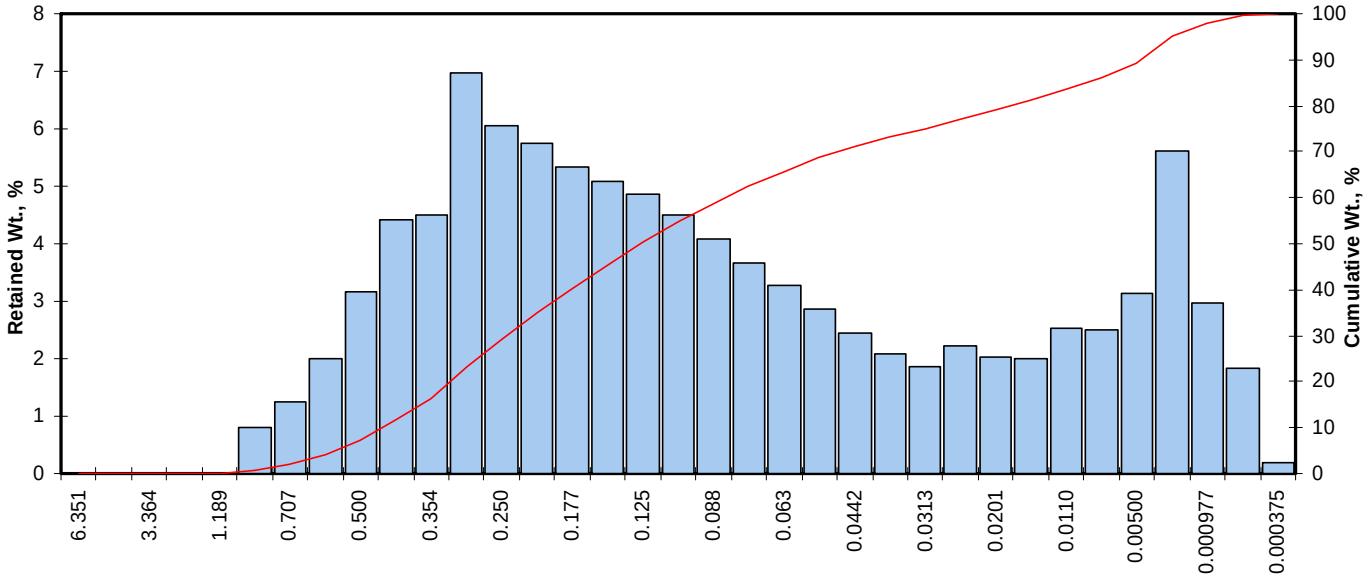
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	1.62
Fine Sand	200	19.25
Silt	>0.005 mm	52.52
Clay	<0.005 mm	26.60
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-15-11-11.5
Project No:	03-11903E	**Depth, ft:**	11-11.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.01	0.01	0.01
0.0331	0.841	0.25	20	0.81	0.81	0.82
0.0278	0.707	0.50	25	1.25	1.25	2.07
0.0234	0.595	0.75	30	2.00	2.00	4.07
0.0197	0.500	1.00	35	3.16	3.16	7.23
0.0166	0.420	1.25	40	4.42	4.42	11.65
0.0139	0.354	1.50	45	4.50	4.50	16.15
0.0117	0.297	1.75	50	6.96	6.96	23.11
0.0098	0.250	2.00	60	6.06	6.06	29.17
0.0083	0.210	2.25	70	5.75	5.75	34.92
0.0070	0.177	2.50	80	5.34	5.34	40.26
0.0059	0.149	2.75	100	5.08	5.08	45.34
0.0049	0.125	3.00	120	4.86	4.86	50.20
0.0041	0.105	3.25	140	4.51	4.51	54.72
0.0035	0.088	3.50	170	4.08	4.08	58.80
0.0029	0.074	3.75	200	3.66	3.66	62.46
0.0025	0.063	4.00	230	3.27	3.27	65.73
0.0021	0.053	4.25	270	2.86	2.86	68.59
0.00174	0.0442	4.50	325	2.44	2.44	71.03
0.00146	0.0372	4.75	400	2.08	2.08	73.11
0.00123	0.0313	5.00	450	1.87	1.87	74.98
0.000986	0.0250	5.32	500	2.21	2.21	77.19
0.000790	0.0201	5.64	635	2.03	2.03	79.22
0.000615	0.0156	6.00		2.01	2.01	81.23
0.000435	0.0110	6.50		2.54	2.54	83.77
0.000308	0.00781	7.00		2.49	2.49	86.26
0.000197	0.00500	7.65		3.13	3.13	89.39
0.000077	0.00195	9.00		5.61	5.61	95.00
0.000038	0.000977	10.00		2.97	2.97	97.97
0.000019	0.000488	11.00		1.83	1.83	99.80
0.000015	0.000375	11.38		0.20	0.20	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.82	0.0222	0.565
10	1.16	0.0177	0.449
16	1.49	0.0140	0.356
25	1.83	0.0111	0.282
40	2.49	0.0070	0.178
50	2.99	0.0050	0.126
60	3.58	0.0033	0.083
75	5.00	0.0012	0.031
84	6.55	0.0004	0.011
90	7.79	0.0002	0.005
95	9.00	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	2.99	2.99	2.99
Median, in.	0.0050	0.0050	0.0050
Median, mm	0.126	0.126	0.126
Mean, phi	2.68	4.02	3.68
Mean, in.	0.0062	0.0024	0.0031
Mean, mm	0.156	0.062	0.078
Sorting	3.006	2.527	2.503
Skewness	0.744	0.407	0.439
Kurtosis	0.282	0.618	1.055
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

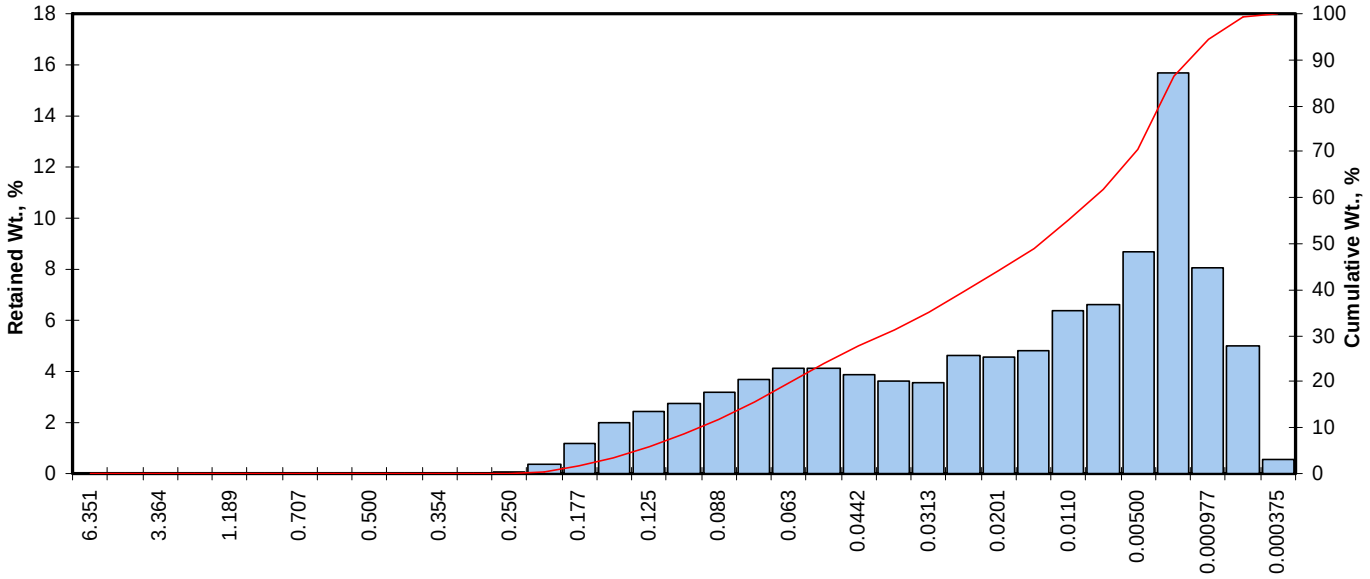
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	11.65
Fine Sand	200	50.81
Silt	>0.005 mm	26.93
Clay	<0.005 mm	10.61
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-15-19-19.5
Project No:	03-11903E	**Depth, ft:**	19-19.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.04	0.04	0.04
0.0083	0.210	2.25	70	0.38	0.38	0.42
0.0070	0.177	2.50	80	1.16	1.16	1.58
0.0059	0.149	2.75	100	1.97	1.97	3.55
0.0049	0.125	3.00	120	2.42	2.42	5.97
0.0041	0.105	3.25	140	2.74	2.74	8.72
0.0035	0.088	3.50	170	3.17	3.17	11.89
0.0029	0.074	3.75	200	3.70	3.70	15.59
0.0025	0.063	4.00	230	4.10	4.10	19.69
0.0021	0.053	4.25	270	4.14	4.14	23.83
0.00174	0.0442	4.50	325	3.90	3.90	27.73
0.00146	0.0372	4.75	400	3.65	3.65	31.38
0.00123	0.0313	5.00	450	3.57	3.57	34.96
0.000986	0.0250	5.32	500	4.60	4.60	39.56
0.000790	0.0201	5.64	635	4.59	4.59	44.15
0.000615	0.0156	6.00		4.79	4.79	48.94
0.000435	0.0110	6.50		6.37	6.37	55.31
0.000308	0.00781	7.00		6.64	6.64	61.96
0.000197	0.00500	7.65		8.69	8.69	70.65
0.000077	0.00195	9.00		15.70	15.71	86.35
0.000038	0.000977	10.00		8.08	8.08	94.44
0.000019	0.000488	11.00		5.01	5.01	99.45
0.000015	0.000375	11.38		0.55	0.55	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.90	0.0053	0.134
10	3.35	0.0039	0.098
16	3.78	0.0029	0.073
25	4.32	0.0020	0.050
40	5.35	0.0010	0.025
50	6.08	0.0006	0.015
60	6.85	0.0003	0.009
75	8.02	0.0002	0.004
84	8.80	0.0001	0.002
90	9.45	0.0001	0.001
95	10.11	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	6.08	6.08	6.08
Median, in.	0.0006	0.0006	0.0006
Median, mm	0.015	0.015	0.015
Mean, phi	5.22	6.29	6.22
Mean, in.	0.0011	0.0005	0.0005
Mean, mm	0.027	0.013	0.013
Sorting	3.599	2.511	2.348
Skewness	0.940	0.081	0.099
Kurtosis	0.238	0.436	0.800
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

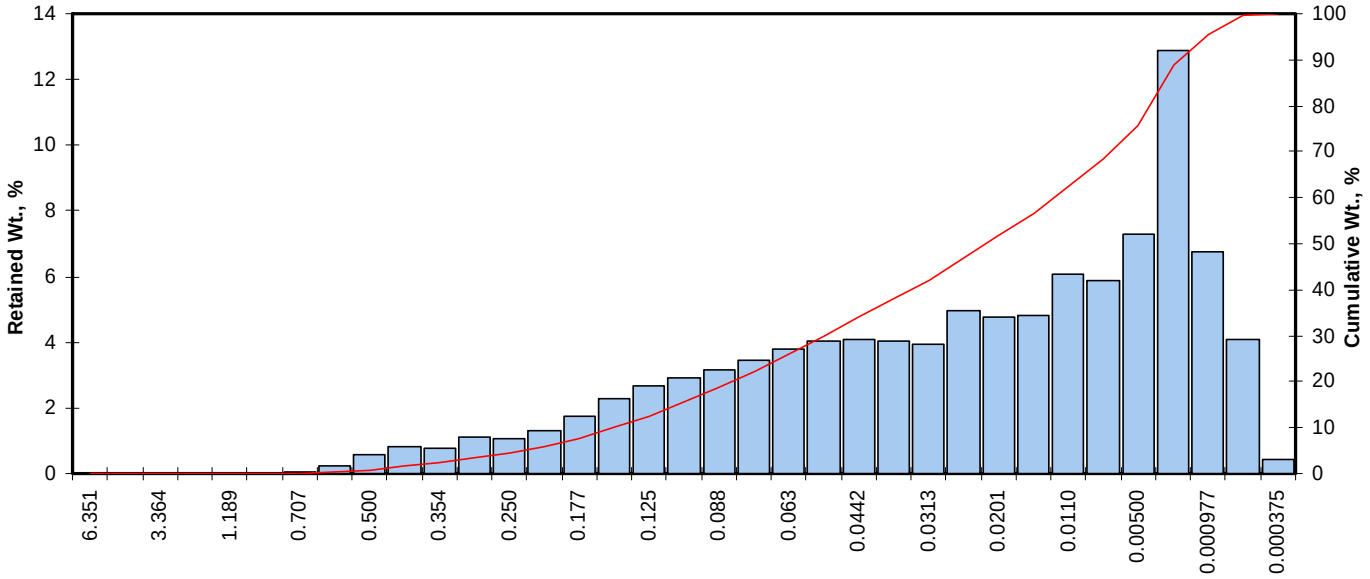
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	15.59
Silt	>0.005 mm	55.06
Clay	<0.005 mm	29.35
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-15-23-23.5
Project No:	03-11903E	**Depth, ft:**	23-23.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.04	0.04	0.04
0.0234	0.595	0.75	30	0.22	0.22	0.26
0.0197	0.500	1.00	35	0.56	0.56	0.82
0.0166	0.420	1.25	40	0.82	0.82	1.64
0.0139	0.354	1.50	45	0.78	0.78	2.42
0.0117	0.297	1.75	50	1.12	1.12	3.54
0.0098	0.250	2.00	60	1.06	1.06	4.60
0.0083	0.210	2.25	70	1.33	1.33	5.93
0.0070	0.177	2.50	80	1.76	1.76	7.69
0.0059	0.149	2.75	100	2.28	2.28	9.97
0.0049	0.125	3.00	120	2.67	2.67	12.64
0.0041	0.105	3.25	140	2.92	2.92	15.56
0.0035	0.088	3.50	170	3.15	3.15	18.72
0.0029	0.074	3.75	200	3.45	3.45	22.17
0.0025	0.063	4.00	230	3.79	3.79	25.96
0.0021	0.053	4.25	270	4.01	4.01	29.97
0.00174	0.0442	4.50	325	4.08	4.08	34.05
0.00146	0.0372	4.75	400	4.01	4.01	38.06
0.00123	0.0313	5.00	450	3.95	3.95	42.02
0.000986	0.0250	5.32	500	4.96	4.96	46.98
0.000790	0.0201	5.64	635	4.77	4.77	51.75
0.000615	0.0156	6.00		4.82	4.82	56.57
0.000435	0.0110	6.50		6.08	6.08	62.65
0.000308	0.00781	7.00		5.88	5.88	68.54
0.000197	0.00500	7.65		7.27	7.27	75.81
0.000077	0.00195	9.00		12.90	12.91	88.72
0.000038	0.000977	10.00		6.76	6.76	95.48
0.000019	0.000488	11.00		4.08	4.08	99.56
0.000015	0.000375	11.38		0.44	0.44	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.08	0.0093	0.237
10	2.75	0.0058	0.148
16	3.28	0.0040	0.103
25	3.94	0.0026	0.065
40	4.87	0.0013	0.034
50	5.52	0.0009	0.022
60	6.28	0.0005	0.013
75	7.57	0.0002	0.005
84	8.50	0.0001	0.003
90	9.19	0.0001	0.002
95	9.93	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.52	5.52	5.52
Median, in.	0.0009	0.0009	0.0009
Median, mm	0.022	0.022	0.022
Mean, phi	4.83	5.89	5.77
Mean, in.	0.0014	0.0007	0.0007
Mean, mm	0.035	0.017	0.018
Sorting	3.526	2.610	2.495
Skewness	0.851	0.143	0.132
Kurtosis	0.205	0.505	0.885

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)

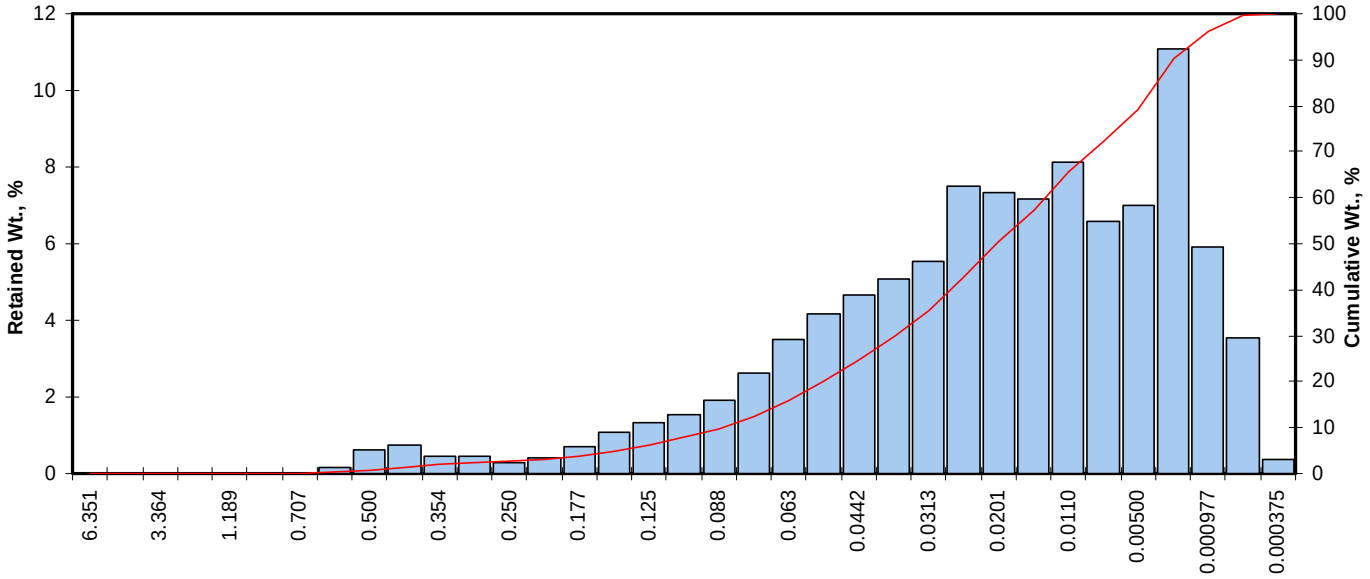
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	1.64
Fine Sand	200	20.53
Silt	>0.005 mm	53.64
Clay	<0.005 mm	24.19
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-15-34.5-35
Project No:	03-11903E	**Depth, ft:**	34.5-35

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.01	0.01	0.01
0.0234	0.595	0.75	30	0.18	0.18	0.19
0.0197	0.500	1.00	35	0.64	0.64	0.83
0.0166	0.420	1.25	40	0.73	0.73	1.56
0.0139	0.354	1.50	45	0.47	0.47	2.03
0.0117	0.297	1.75	50	0.44	0.44	2.47
0.0098	0.250	2.00	60	0.30	0.30	2.77
0.0083	0.210	2.25	70	0.41	0.41	3.18
0.0070	0.177	2.50	80	0.70	0.70	3.88
0.0059	0.149	2.75	100	1.09	1.09	4.97
0.0049	0.125	3.00	120	1.35	1.35	6.32
0.0041	0.105	3.25	140	1.53	1.53	7.85
0.0035	0.088	3.50	170	1.92	1.92	9.77
0.0029	0.074	3.75	200	2.64	2.64	12.41
0.0025	0.063	4.00	230	3.50	3.50	15.91
0.0021	0.053	4.25	270	4.16	4.16	20.07
0.00174	0.0442	4.50	325	4.65	4.65	24.72
0.00146	0.0372	4.75	400	5.07	5.07	29.80
0.00123	0.0313	5.00	450	5.54	5.54	35.34
0.000986	0.0250	5.32	500	7.50	7.50	42.84
0.000790	0.0201	5.64	635	7.34	7.34	50.18
0.000615	0.0156	6.00		7.18	7.18	57.36
0.000435	0.0110	6.50		8.11	8.11	65.47
0.000308	0.00781	7.00		6.60	6.60	72.07
0.000197	0.00500	7.65		7.01	7.01	79.09
0.000077	0.00195	9.00		11.10	11.10	90.19
0.000038	0.000977	10.00		5.91	5.91	96.10
0.000019	0.000488	11.00		3.53	3.53	99.63
0.000015	0.000375	11.38		0.37	0.37	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.76	0.0058	0.148
10	3.52	0.0034	0.087
16	4.01	0.0025	0.062
25	4.51	0.0017	0.044
40	5.20	0.0011	0.027
50	5.63	0.0008	0.020
60	6.16	0.0005	0.014
75	7.27	0.0003	0.006
84	8.24	0.0001	0.003
90	8.98	0.0001	0.002
95	9.81	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.63	5.63	5.63
Median, in.	0.0008	0.0008	0.0008
Median, mm	0.020	0.020	0.020
Mean, phi	5.31	6.13	5.96
Mean, in.	0.0010	0.0006	0.0006
Mean, mm	0.025	0.014	0.016
Sorting	2.599	2.120	2.129
Skewness	0.836	0.233	0.209
Kurtosis	0.219	0.665	1.050

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)

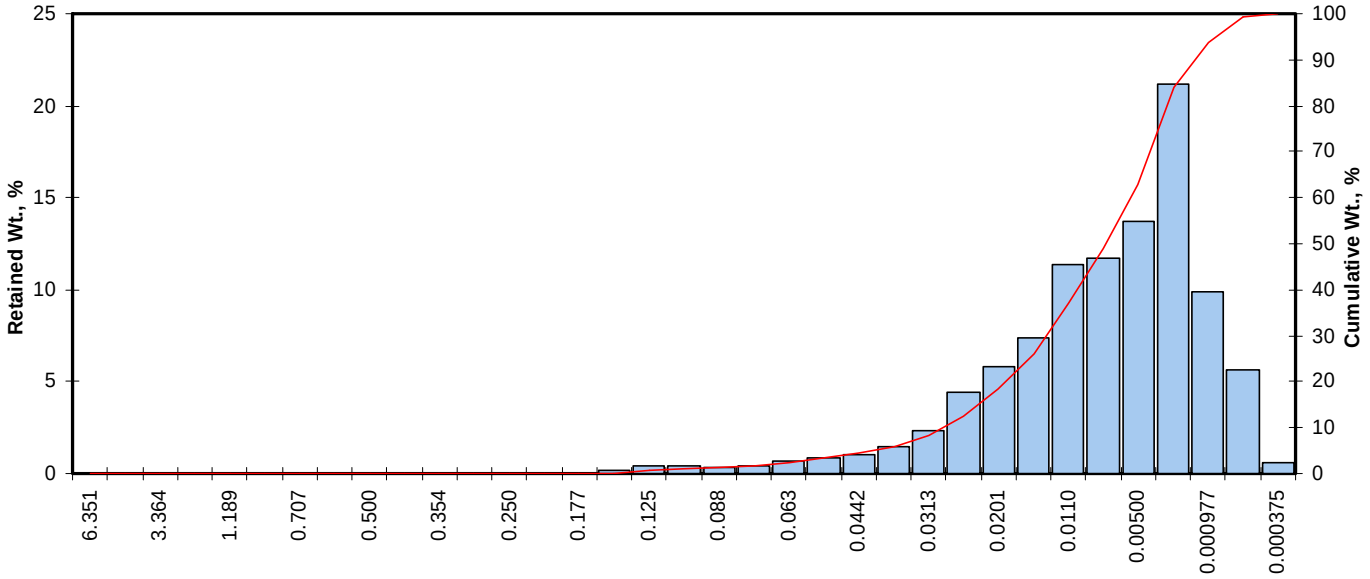
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	1.56
Fine Sand	200	10.85
Silt	>0.005 mm	66.67
Clay	<0.005 mm	20.91
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-15-37-37.5
Project No:	03-11903E	**Depth, ft:**	37-37.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.01	0.01	0.01
0.0059	0.149	2.75	100	0.14	0.14	0.15
0.0049	0.125	3.00	120	0.46	0.46	0.61
0.0041	0.105	3.25	140	0.46	0.46	1.07
0.0035	0.088	3.50	170	0.32	0.32	1.39
0.0029	0.074	3.75	200	0.42	0.42	1.81
0.0025	0.063	4.00	230	0.71	0.71	2.52
0.0021	0.053	4.25	270	0.88	0.88	3.40
0.00174	0.0442	4.50	325	1.03	1.03	4.43
0.00146	0.0372	4.75	400	1.48	1.48	5.91
0.00123	0.0313	5.00	450	2.33	2.33	8.24
0.000986	0.0250	5.32	500	4.40	4.40	12.64
0.000790	0.0201	5.64	635	5.83	5.83	18.47
0.000615	0.0156	6.00		7.41	7.41	25.88
0.000435	0.0110	6.50		11.40	11.40	37.28
0.000308	0.00781	7.00		11.70	11.70	48.98
0.000197	0.00500	7.65		13.70	13.70	62.68
0.000077	0.00195	9.00		21.20	21.20	83.88
0.000038	0.000977	10.00		9.87	9.87	93.75
0.000019	0.000488	11.00		5.65	5.65	99.40
0.000015	0.000375	11.38		0.60	0.60	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.60	0.0016	0.041
10	5.13	0.0011	0.029
16	5.50	0.0009	0.022
25	5.96	0.0006	0.016
40	6.62	0.0004	0.010
50	7.05	0.0003	0.008
60	7.52	0.0002	0.005
75	8.43	0.0001	0.003
84	9.01	0.0001	0.002
90	9.62	0.0001	0.001
95	10.22	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.05	7.05	7.05
Median, in.	0.0003	0.0003	0.0003
Median, mm	0.008	0.008	0.008
Mean, phi	6.72	7.26	7.19
Mean, in.	0.0004	0.0003	0.0003
Mean, mm	0.009	0.007	0.007
Sorting	2.358	1.754	1.729
Skewness	0.903	0.120	0.124
Kurtosis	0.242	0.603	0.931

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)

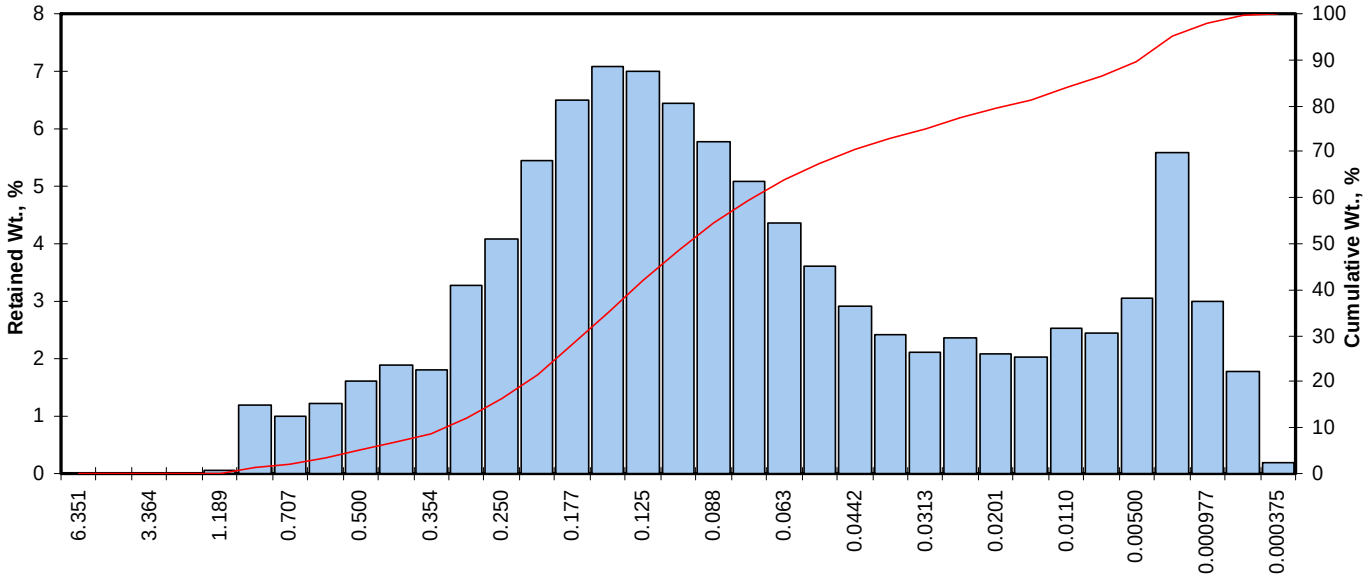
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	1.81
Silt	>0.005 mm	60.87
Clay	<0.005 mm	37.32
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-8-33.5-34
Project No:	03-11903E	**Depth, ft:**	33.5-34

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.07	0.07	0.07
0.0331	0.841	0.25	20	1.20	1.20	1.27
0.0278	0.707	0.50	25	0.99	0.99	2.26
0.0234	0.595	0.75	30	1.23	1.23	3.49
0.0197	0.500	1.00	35	1.61	1.61	5.10
0.0166	0.420	1.25	40	1.90	1.90	7.00
0.0139	0.354	1.50	45	1.81	1.81	8.81
0.0117	0.297	1.75	50	3.28	3.28	12.09
0.0098	0.250	2.00	60	4.07	4.07	16.16
0.0083	0.210	2.25	70	5.43	5.43	21.59
0.0070	0.177	2.50	80	6.50	6.50	28.09
0.0059	0.149	2.75	100	7.09	7.09	35.18
0.0049	0.125	3.00	120	7.00	7.00	42.18
0.0041	0.105	3.25	140	6.45	6.45	48.63
0.0035	0.088	3.50	170	5.77	5.77	54.40
0.0029	0.074	3.75	200	5.09	5.09	59.49
0.0025	0.063	4.00	230	4.37	4.37	63.86
0.0021	0.053	4.25	270	3.60	3.60	67.47
0.00174	0.0442	4.50	325	2.91	2.91	70.38
0.00146	0.0372	4.75	400	2.42	2.42	72.80
0.00123	0.0313	5.00	450	2.11	2.11	74.91
0.000986	0.0250	5.32	500	2.37	2.37	77.28
0.000790	0.0201	5.64	635	2.08	2.08	79.36
0.000615	0.0156	6.00		2.04	2.04	81.40
0.000435	0.0110	6.50		2.54	2.54	83.94
0.000308	0.00781	7.00		2.45	2.45	86.39
0.000197	0.00500	7.65		3.06	3.06	89.45
0.000077	0.00195	9.00		5.57	5.57	95.02
0.000038	0.000977	10.00		3.00	3.00	98.02
0.000019	0.000488	11.00		1.79	1.79	99.81
0.000015	0.000375	11.38		0.19	0.19	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.98	0.0199	0.505
10	1.59	0.0131	0.332
16	1.99	0.0099	0.252
25	2.38	0.0076	0.192
40	2.92	0.0052	0.132
50	3.31	0.0040	0.101
60	3.78	0.0029	0.073
75	5.01	0.0012	0.031
84	6.51	0.0004	0.011
90	7.78	0.0002	0.005
95	9.00	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	3.31	3.31	3.31
Median, in.	0.0040	0.0040	0.0040
Median, mm	0.101	0.101	0.101
Mean, phi	3.17	4.25	3.94
Mean, in.	0.0044	0.0021	0.0026
Mean, mm	0.111	0.053	0.065
Sorting	2.489	2.261	2.344
Skewness	0.764	0.417	0.418
Kurtosis	0.246	0.771	1.248
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

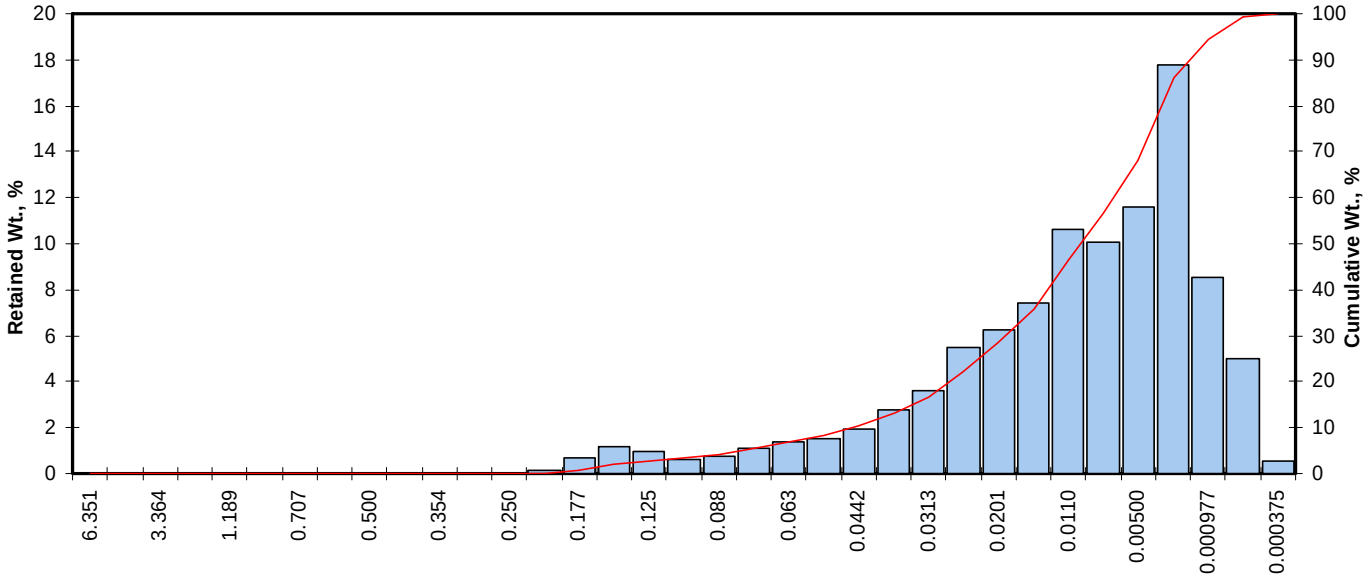
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	7.00
Fine Sand	200	52.50
Silt	>0.005 mm	29.95
Clay	<0.005 mm	10.55
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-8-37-37.5
Project No:	03-11903E	**Depth, ft:**	37-37.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.01	0.01	0.01
0.0083	0.210	2.25	70	0.15	0.15	0.16
0.0070	0.177	2.50	80	0.68	0.68	0.84
0.0059	0.149	2.75	100	1.15	1.15	1.99
0.0049	0.125	3.00	120	0.95	0.95	2.94
0.0041	0.105	3.25	140	0.65	0.65	3.59
0.0035	0.088	3.50	170	0.75	0.75	4.34
0.0029	0.074	3.75	200	1.11	1.11	5.45
0.0025	0.063	4.00	230	1.36	1.36	6.81
0.0021	0.053	4.25	270	1.51	1.51	8.32
0.00174	0.0442	4.50	325	1.96	1.96	10.28
0.00146	0.0372	4.75	400	2.75	2.75	13.03
0.00123	0.0313	5.00	450	3.59	3.59	16.62
0.000986	0.0250	5.32	500	5.49	5.49	22.11
0.000790	0.0201	5.64	635	6.27	6.27	28.39
0.000615	0.0156	6.00		7.44	7.44	35.83
0.000435	0.0110	6.50		10.60	10.60	46.43
0.000308	0.00781	7.00		10.10	10.10	56.54
0.000197	0.00500	7.65		11.60	11.60	68.14
0.000077	0.00195	9.00		17.80	17.81	85.95
0.000038	0.000977	10.00		8.54	8.54	94.49
0.000019	0.000488	11.00		4.98	4.98	99.47
0.000015	0.000375	11.38		0.53	0.53	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.65	0.0031	0.080
10	4.46	0.0018	0.045
16	4.96	0.0013	0.032
25	5.47	0.0009	0.023
40	6.20	0.0005	0.014
50	6.68	0.0004	0.010
60	7.19	0.0003	0.007
75	8.17	0.0001	0.003
84	8.85	0.0001	0.002
90	9.47	0.0001	0.001
95	10.10	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	6.68	6.68	6.68
Median, in.	0.0004	0.0004	0.0004
Median, mm	0.010	0.010	0.010
Mean, phi	6.26	6.90	6.83
Mean, in.	0.0005	0.0003	0.0003
Mean, mm	0.013	0.008	0.009
Sorting	2.549	1.948	1.952
Skewness	0.907	0.117	0.089
Kurtosis	0.218	0.657	0.980
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

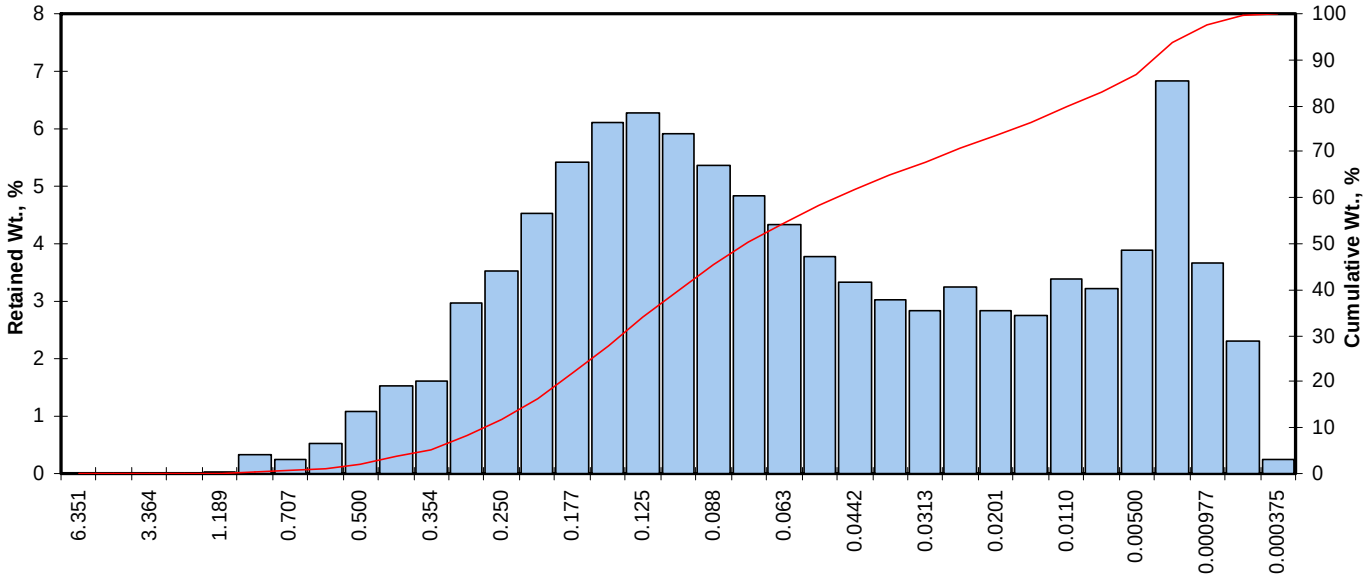
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	5.45
Silt	>0.005 mm	62.69
Clay	<0.005 mm	31.86
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-1-6.5-7
Project No:	03-11903E	**Depth, ft:**	6.5-7

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.03	0.03	0.03
0.0331	0.841	0.25	20	0.33	0.33	0.36
0.0278	0.707	0.50	25	0.26	0.26	0.62
0.0234	0.595	0.75	30	0.54	0.54	1.16
0.0197	0.500	1.00	35	1.07	1.07	2.23
0.0166	0.420	1.25	40	1.52	1.52	3.75
0.0139	0.354	1.50	45	1.60	1.60	5.35
0.0117	0.297	1.75	50	2.98	2.98	8.33
0.0098	0.250	2.00	60	3.53	3.53	11.86
0.0083	0.210	2.25	70	4.52	4.52	16.38
0.0070	0.177	2.50	80	5.41	5.41	21.79
0.0059	0.149	2.75	100	6.12	6.12	27.91
0.0049	0.125	3.00	120	6.28	6.28	34.19
0.0041	0.105	3.25	140	5.91	5.91	40.10
0.0035	0.088	3.50	170	5.36	5.36	45.46
0.0029	0.074	3.75	200	4.84	4.84	50.30
0.0025	0.063	4.00	230	4.32	4.32	54.62
0.0021	0.053	4.25	270	3.77	3.77	58.39
0.00174	0.0442	4.50	325	3.33	3.33	61.72
0.00146	0.0372	4.75	400	3.04	3.04	64.76
0.00123	0.0313	5.00	450	2.82	2.82	67.59
0.000986	0.0250	5.32	500	3.26	3.26	70.85
0.000790	0.0201	5.64	635	2.84	2.84	73.69
0.000615	0.0156	6.00		2.74	2.74	76.43
0.000435	0.0110	6.50		3.39	3.39	79.82
0.000308	0.00781	7.00		3.21	3.21	83.03
0.000197	0.00500	7.65		3.90	3.90	86.93
0.000077	0.00195	9.00		6.84	6.84	93.77
0.000038	0.000977	10.00		3.67	3.67	97.44
0.000019	0.000488	11.00		2.31	2.31	99.75
0.000015	0.000375	11.38		0.25	0.25	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.45	0.0145	0.367
10	1.87	0.0108	0.274
16	2.23	0.0084	0.213
25	2.63	0.0064	0.161
40	3.25	0.0042	0.105
50	3.73	0.0030	0.075
60	4.37	0.0019	0.048
75	5.81	0.0007	0.018
84	7.16	0.0003	0.007
90	8.25	0.0001	0.003
95	9.34	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	3.73	3.73	3.73
Median, in.	0.0030	0.0030	0.0030
Median, mm	0.075	0.075	0.075
Mean, phi	3.48	4.69	4.37
Mean, in.	0.0035	0.0015	0.0019
Mean, mm	0.090	0.039	0.048
Sorting	3.012	2.466	2.428
Skewness	0.713	0.390	0.405
Kurtosis	0.265	0.600	1.016
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

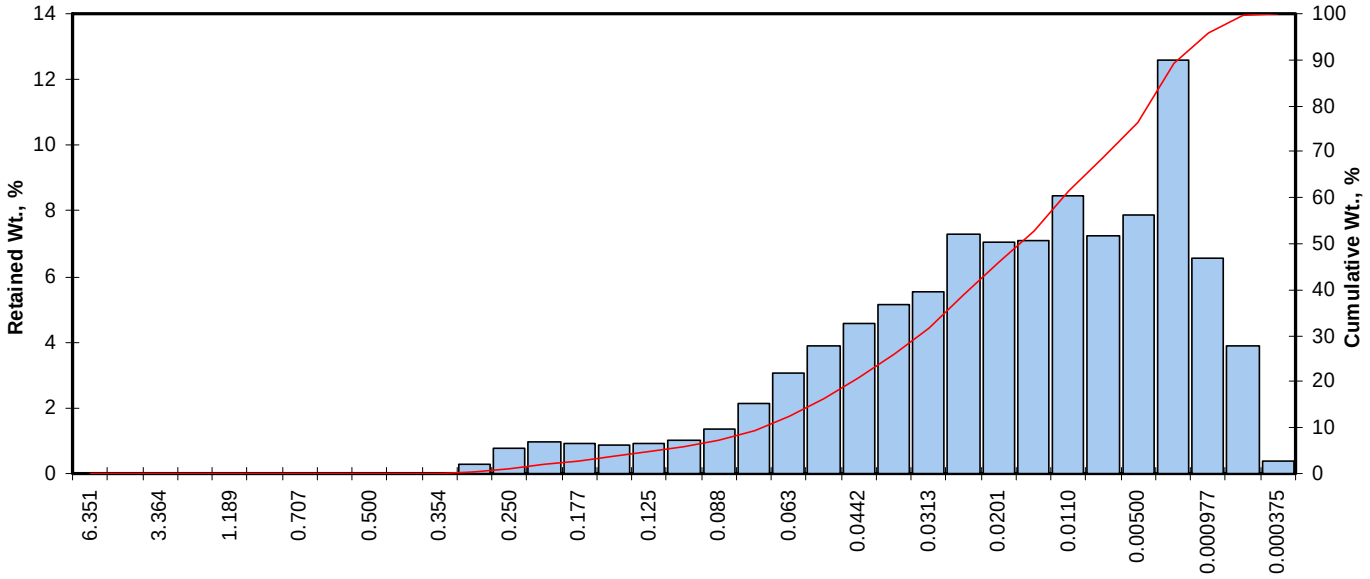
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	3.75
Fine Sand	200	46.56
Silt	>0.005 mm	36.63
Clay	<0.005 mm	13.07
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-1-10-10.5
Project No:	03-11903E	**Depth, ft:**	10-10.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.01	0.01	0.01
0.0117	0.297	1.75	50	0.27	0.27	0.28
0.0098	0.250	2.00	60	0.77	0.77	1.05
0.0083	0.210	2.25	70	0.99	0.99	2.04
0.0070	0.177	2.50	80	0.91	0.91	2.95
0.0059	0.149	2.75	100	0.89	0.89	3.84
0.0049	0.125	3.00	120	0.93	0.93	4.77
0.0041	0.105	3.25	140	1.00	1.00	5.77
0.0035	0.088	3.50	170	1.37	1.37	7.14
0.0029	0.074	3.75	200	2.15	2.15	9.30
0.0025	0.063	4.00	230	3.08	3.08	12.38
0.0021	0.053	4.25	270	3.87	3.87	16.25
0.00174	0.0442	4.50	325	4.57	4.57	20.82
0.00146	0.0372	4.75	400	5.13	5.13	25.96
0.00123	0.0313	5.00	450	5.55	5.55	31.51
0.000986	0.0250	5.32	500	7.27	7.27	38.78
0.000790	0.0201	5.64	635	7.04	7.04	45.83
0.000615	0.0156	6.00		7.10	7.10	52.93
0.000435	0.0110	6.50		8.47	8.48	61.41
0.000308	0.00781	7.00		7.22	7.22	68.63
0.000197	0.00500	7.65		7.89	7.89	76.53
0.000077	0.00195	9.00		12.60	12.61	89.13
0.000038	0.000977	10.00		6.57	6.57	95.71
0.000019	0.000488	11.00		3.88	3.88	99.59
0.000015	0.000375	11.38		0.41	0.41	100.00
TOTALS				**99.90**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.06	0.0047	0.120
10	3.81	0.0028	0.071
16	4.23	0.0021	0.053
25	4.70	0.0015	0.038
40	5.38	0.0009	0.024
50	5.85	0.0007	0.017
60	6.42	0.0005	0.012
75	7.52	0.0002	0.005
84	8.45	0.0001	0.003
90	9.13	0.0001	0.002
95	9.89	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.85	5.85	5.85
Median, in.	0.0007	0.0007	0.0007
Median, mm	0.017	0.017	0.017
Mean, phi	5.51	6.34	6.18
Mean, in.	0.0009	0.0005	0.0005
Mean, mm	0.022	0.012	0.014
Sorting	2.654	2.107	2.089
Skewness	0.835	0.232	0.207
Kurtosis	0.236	0.622	0.995
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

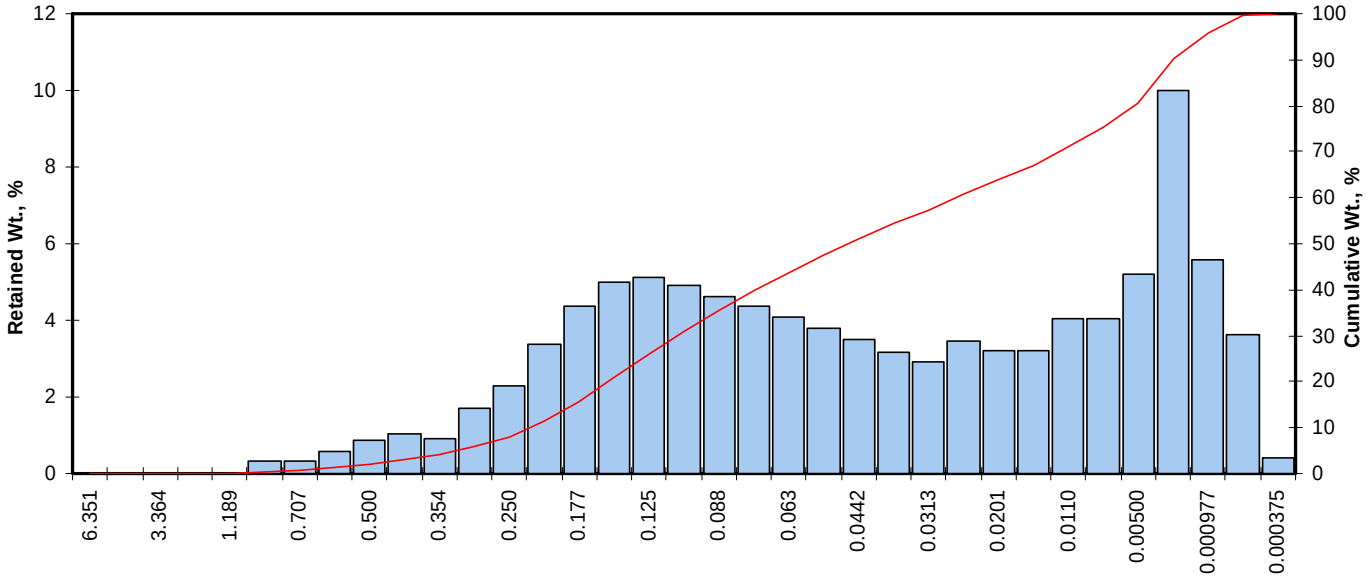
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	9.30
Silt	>0.005 mm	67.23
Clay	<0.005 mm	23.47
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-1-21.5-22
Project No:	03-11903E	**Depth, ft:**	21.5-22

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.01	0.01	0.01
0.0331	0.841	0.25	20	0.33	0.33	0.34
0.0278	0.707	0.50	25	0.35	0.35	0.69
0.0234	0.595	0.75	30	0.57	0.57	1.26
0.0197	0.500	1.00	35	0.88	0.88	2.14
0.0166	0.420	1.25	40	1.03	1.03	3.17
0.0139	0.354	1.50	45	0.93	0.93	4.10
0.0117	0.297	1.75	50	1.69	1.69	5.79
0.0098	0.250	2.00	60	2.28	2.28	8.06
0.0083	0.210	2.25	70	3.36	3.36	11.42
0.0070	0.177	2.50	80	4.37	4.37	15.79
0.0059	0.149	2.75	100	5.02	5.02	20.81
0.0049	0.125	3.00	120	5.12	5.12	25.93
0.0041	0.105	3.25	140	4.90	4.90	30.83
0.0035	0.088	3.50	170	4.61	4.61	35.44
0.0029	0.074	3.75	200	4.36	4.36	39.80
0.0025	0.063	4.00	230	4.10	4.10	43.90
0.0021	0.053	4.25	270	3.81	3.81	47.70
0.00174	0.0442	4.50	325	3.49	3.49	51.19
0.00146	0.0372	4.75	400	3.16	3.16	54.35
0.00123	0.0313	5.00	450	2.90	2.90	57.25
0.000986	0.0250	5.32	500	3.44	3.44	60.69
0.000790	0.0201	5.64	635	3.22	3.22	63.91
0.000615	0.0156	6.00		3.21	3.21	67.12
0.000435	0.0110	6.50		4.03	4.03	71.15
0.000308	0.00781	7.00		4.03	4.03	75.18
0.000197	0.00500	7.65		5.21	5.21	80.39
0.000077	0.00195	9.00		10.00	10.00	90.38
0.000038	0.000977	10.00		5.58	5.58	95.96
0.000019	0.000488	11.00		3.63	3.63	99.59
0.000015	0.000375	11.38		0.41	0.41	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.63	0.0127	0.322
10	2.14	0.0089	0.226
16	2.51	0.0069	0.176
25	2.95	0.0051	0.129
40	3.76	0.0029	0.074
50	4.41	0.0018	0.047
60	5.26	0.0010	0.026
75	6.98	0.0003	0.008
84	8.13	0.0001	0.004
90	8.95	0.0001	0.002
95	9.83	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	4.41	4.41	4.41
Median, in.	0.0018	0.0018	0.0018
Median, mm	0.047	0.047	0.047
Mean, phi	3.87	5.32	5.02
Mean, in.	0.0027	0.0010	0.0012
Mean, mm	0.068	0.025	0.031
Sorting	4.033	2.812	2.648
Skewness	0.682	0.323	0.322
Kurtosis	0.270	0.457	0.835
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

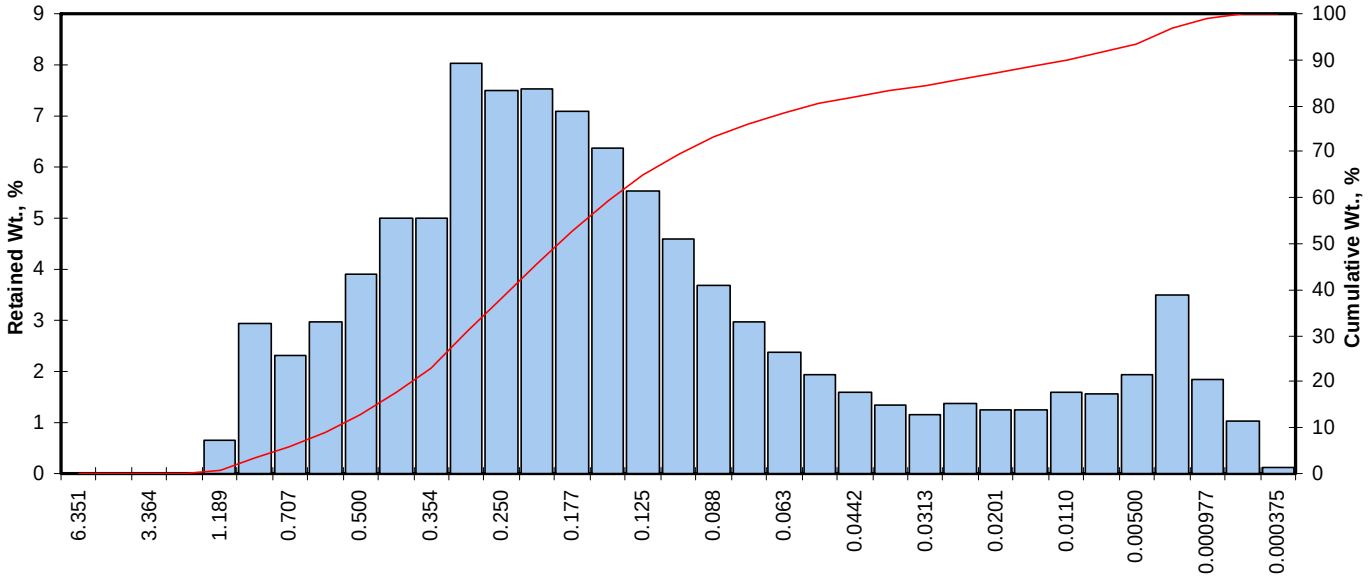
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	3.17
Fine Sand	200	36.63
Silt	>0.005 mm	40.59
Clay	<0.005 mm	19.61
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-1-32-32.5
Project No:	03-11903E	**Depth, ft:**	32-32.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.66	0.66	0.66
0.0331	0.841	0.25	20	2.94	2.94	3.60
0.0278	0.707	0.50	25	2.32	2.32	5.92
0.0234	0.595	0.75	30	2.96	2.96	8.88
0.0197	0.500	1.00	35	3.92	3.92	12.80
0.0166	0.420	1.25	40	5.00	5.00	17.80
0.0139	0.354	1.50	45	5.00	5.00	22.80
0.0117	0.297	1.75	50	8.02	8.02	30.82
0.0098	0.250	2.00	60	7.50	7.50	38.32
0.0083	0.210	2.25	70	7.54	7.54	45.86
0.0070	0.177	2.50	80	7.09	7.09	52.94
0.0059	0.149	2.75	100	6.38	6.38	59.32
0.0049	0.125	3.00	120	5.53	5.53	64.85
0.0041	0.105	3.25	140	4.59	4.59	69.44
0.0035	0.088	3.50	170	3.70	3.70	73.14
0.0029	0.074	3.75	200	2.97	2.97	76.11
0.0025	0.063	4.00	230	2.39	2.39	78.50
0.0021	0.053	4.25	270	1.94	1.94	80.44
0.00174	0.0442	4.50	325	1.58	1.58	82.02
0.00146	0.0372	4.75	400	1.33	1.33	83.35
0.00123	0.0313	5.00	450	1.17	1.17	84.52
0.000986	0.0250	5.32	500	1.36	1.36	85.88
0.000790	0.0201	5.64	635	1.25	1.25	87.13
0.000615	0.0156	6.00		1.26	1.26	88.39
0.000435	0.0110	6.50		1.60	1.60	89.99
0.000308	0.00781	7.00		1.56	1.56	91.55
0.000197	0.00500	7.65		1.95	1.95	93.50
0.000077	0.00195	9.00		3.51	3.51	97.01
0.000038	0.000977	10.00		1.84	1.84	98.85
0.000019	0.000488	11.00		1.04	1.04	99.89
0.000015	0.000375	11.38		0.11	0.11	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.40	0.0298	0.757
10	0.82	0.0223	0.566
16	1.16	0.0176	0.447
25	1.57	0.0133	0.337
40	2.06	0.0095	0.241
50	2.40	0.0075	0.190
60	2.78	0.0057	0.146
75	3.66	0.0031	0.079
84	4.89	0.0013	0.034
90	6.50	0.0004	0.011
95	8.22	0.0001	0.003

Measure	Trask	Inman	Folk-Ward
Median, phi	2.40	2.40	2.40
Median, in.	0.0075	0.0075	0.0075
Median, mm	0.190	0.190	0.190
Mean, phi	2.26	3.02	2.81
Mean, in.	0.0082	0.0048	0.0056
Mean, mm	0.208	0.123	0.142
Sorting	2.062	1.864	2.117
Skewness	0.861	0.337	0.413
Kurtosis	0.232	1.098	1.536
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

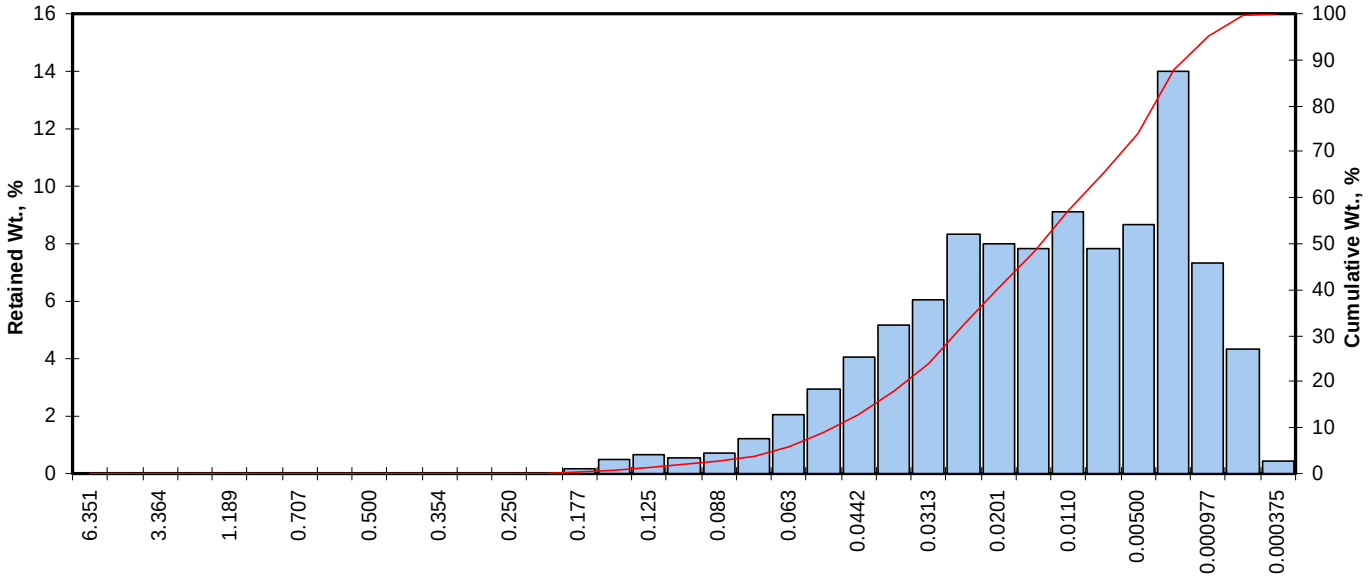
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	17.80
Fine Sand	200	58.31
Silt	>0.005 mm	17.39
Clay	<0.005 mm	6.50
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-1-37-37.5
Project No:	03-11903E	**Depth, ft:**	37-37.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.02	0.02	0.02
0.0070	0.177	2.50	80	0.17	0.17	0.19
0.0059	0.149	2.75	100	0.51	0.51	0.70
0.0049	0.125	3.00	120	0.64	0.64	1.34
0.0041	0.105	3.25	140	0.58	0.58	1.92
0.0035	0.088	3.50	170	0.73	0.73	2.65
0.0029	0.074	3.75	200	1.25	1.25	3.90
0.0025	0.063	4.00	230	2.04	2.04	5.93
0.0021	0.053	4.25	270	2.93	2.93	8.86
0.00174	0.0442	4.50	325	4.03	4.03	12.89
0.00146	0.0372	4.75	400	5.16	5.16	18.05
0.00123	0.0313	5.00	450	6.08	6.08	24.13
0.000986	0.0250	5.32	500	8.31	8.31	32.44
0.000790	0.0201	5.64	635	7.99	7.99	40.43
0.000615	0.0156	6.00		7.83	7.83	48.25
0.000435	0.0110	6.50		9.13	9.13	57.38
0.000308	0.00781	7.00		7.82	7.82	65.20
0.000197	0.00500	7.65		8.66	8.66	73.86
0.000077	0.00195	9.00		14.00	14.00	87.85
0.000038	0.000977	10.00		7.33	7.33	95.18
0.000019	0.000488	11.00		4.36	4.36	99.54
0.000015	0.000375	11.38		0.46	0.46	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.89	0.0027	0.068
10	4.32	0.0020	0.050
16	4.65	0.0016	0.040
25	5.03	0.0012	0.031
40	5.62	0.0008	0.020
50	6.10	0.0006	0.015
60	6.67	0.0004	0.010
75	7.76	0.0002	0.005
84	8.63	0.0001	0.003
90	9.29	0.0001	0.002
95	9.98	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	6.10	6.10	6.10
Median, in.	0.0006	0.0006	0.0006
Median, mm	0.015	0.015	0.015
Mean, phi	5.83	6.64	6.46
Mean, in.	0.0007	0.0004	0.0004
Mean, mm	0.018	0.010	0.011
Sorting	2.569	1.988	1.917
Skewness	0.813	0.273	0.274
Kurtosis	0.267	0.531	0.917
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

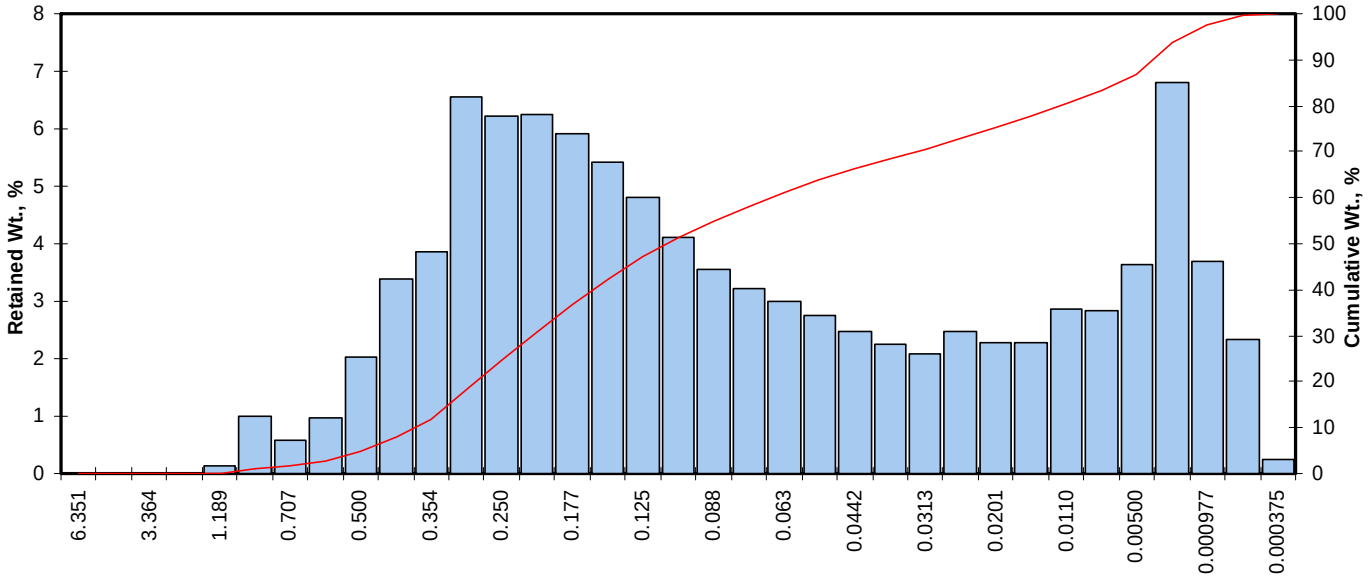
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	3.90
Silt	>0.005 mm	69.96
Clay	<0.005 mm	26.14
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-10-8-8.5
Project No:	03-11903E	**Depth, ft:**	8-8.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.13	0.13	0.13
0.0331	0.841	0.25	20	0.99	0.99	1.12
0.0278	0.707	0.50	25	0.59	0.59	1.71
0.0234	0.595	0.75	30	0.97	0.97	2.68
0.0197	0.500	1.00	35	2.02	2.02	4.70
0.0166	0.420	1.25	40	3.39	3.39	8.09
0.0139	0.354	1.50	45	3.85	3.85	11.94
0.0117	0.297	1.75	50	6.56	6.56	18.50
0.0098	0.250	2.00	60	6.23	6.23	24.73
0.0083	0.210	2.25	70	6.25	6.25	30.98
0.0070	0.177	2.50	80	5.91	5.91	36.89
0.0059	0.149	2.75	100	5.43	5.43	42.32
0.0049	0.125	3.00	120	4.80	4.80	47.12
0.0041	0.105	3.25	140	4.11	4.11	51.23
0.0035	0.088	3.50	170	3.56	3.56	54.79
0.0029	0.074	3.75	200	3.23	3.23	58.02
0.0025	0.063	4.00	230	3.00	3.00	61.02
0.0021	0.053	4.25	270	2.75	2.75	63.77
0.00174	0.0442	4.50	325	2.48	2.48	66.25
0.00146	0.0372	4.75	400	2.25	2.25	68.50
0.00123	0.0313	5.00	450	2.09	2.09	70.59
0.000986	0.0250	5.32	500	2.48	2.48	73.07
0.000790	0.0201	5.64	635	2.27	2.27	75.34
0.000615	0.0156	6.00		2.27	2.27	77.61
0.000435	0.0110	6.50		2.85	2.85	80.46
0.000308	0.00781	7.00		2.82	2.82	83.28
0.000197	0.00500	7.65		3.64	3.64	86.92
0.000077	0.00195	9.00		6.81	6.81	93.73
0.000038	0.000977	10.00		3.69	3.69	97.42
0.000019	0.000488	11.00		2.32	2.32	99.74
0.000015	0.000375	11.38		0.26	0.26	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.02	0.0194	0.492
10	1.37	0.0152	0.386
16	1.65	0.0125	0.318
25	2.01	0.0098	0.248
40	2.64	0.0063	0.160
50	3.18	0.0044	0.111
60	3.92	0.0026	0.066
75	5.59	0.0008	0.021
84	7.13	0.0003	0.007
90	8.26	0.0001	0.003
95	9.34	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	3.18	3.18	3.18
Median, in.	0.0044	0.0044	0.0044
Median, mm	0.111	0.111	0.111
Mean, phi	2.90	4.39	3.99
Mean, in.	0.0053	0.0019	0.0025
Mean, mm	0.134	0.048	0.063
Sorting	3.460	2.736	2.629
Skewness	0.648	0.444	0.463
Kurtosis	0.297	0.521	0.952
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

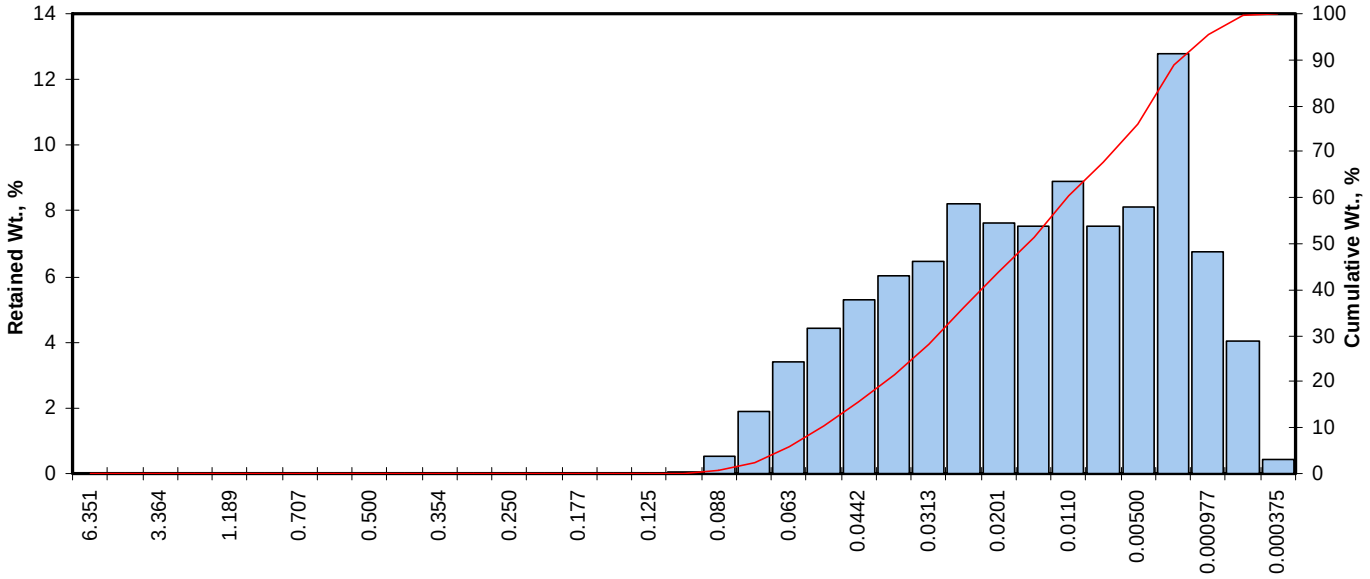
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	8.09
Fine Sand	200	49.93
Silt	>0.005 mm	28.90
Clay	<0.005 mm	13.08
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-10-16-16.5
Project No:	03-11903E	**Depth, ft:**	16-16.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.04	0.04	0.04
0.0035	0.088	3.50	170	0.54	0.54	0.58
0.0029	0.074	3.75	200	1.89	1.89	2.47
0.0025	0.063	4.00	230	3.38	3.38	5.85
0.0021	0.053	4.25	270	4.42	4.42	10.27
0.00174	0.0442	4.50	325	5.28	5.28	15.55
0.00146	0.0372	4.75	400	6.02	6.02	21.57
0.00123	0.0313	5.00	450	6.47	6.47	28.04
0.000986	0.0250	5.32	500	8.21	8.21	36.25
0.000790	0.0201	5.64	635	7.62	7.62	43.87
0.000615	0.0156	6.00		7.53	7.53	51.40
0.000435	0.0110	6.50		8.89	8.89	60.29
0.000308	0.00781	7.00		7.52	7.52	67.81
0.000197	0.00500	7.65		8.13	8.13	75.94
0.000077	0.00195	9.00		12.80	12.80	88.74
0.000038	0.000977	10.00		6.78	6.78	95.52
0.000019	0.000488	11.00		4.05	4.05	99.57
0.000015	0.000375	11.38		0.43	0.43	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.94	0.0026	0.065
10	4.23	0.0021	0.053
16	4.52	0.0017	0.044
25	4.88	0.0013	0.034
40	5.48	0.0009	0.022
50	5.93	0.0006	0.016
60	6.48	0.0004	0.011
75	7.57	0.0002	0.005
84	8.50	0.0001	0.003
90	9.19	0.0001	0.002
95	9.92	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.93	5.93	5.93
Median, in.	0.0006	0.0006	0.0006
Median, mm	0.016	0.016	0.016
Mean, phi	5.67	6.51	6.32
Mean, in.	0.0008	0.0004	0.0005
Mean, mm	0.020	0.011	0.013
Sorting	2.538	1.990	1.902
Skewness	0.816	0.289	0.311
Kurtosis	0.279	0.504	0.913
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

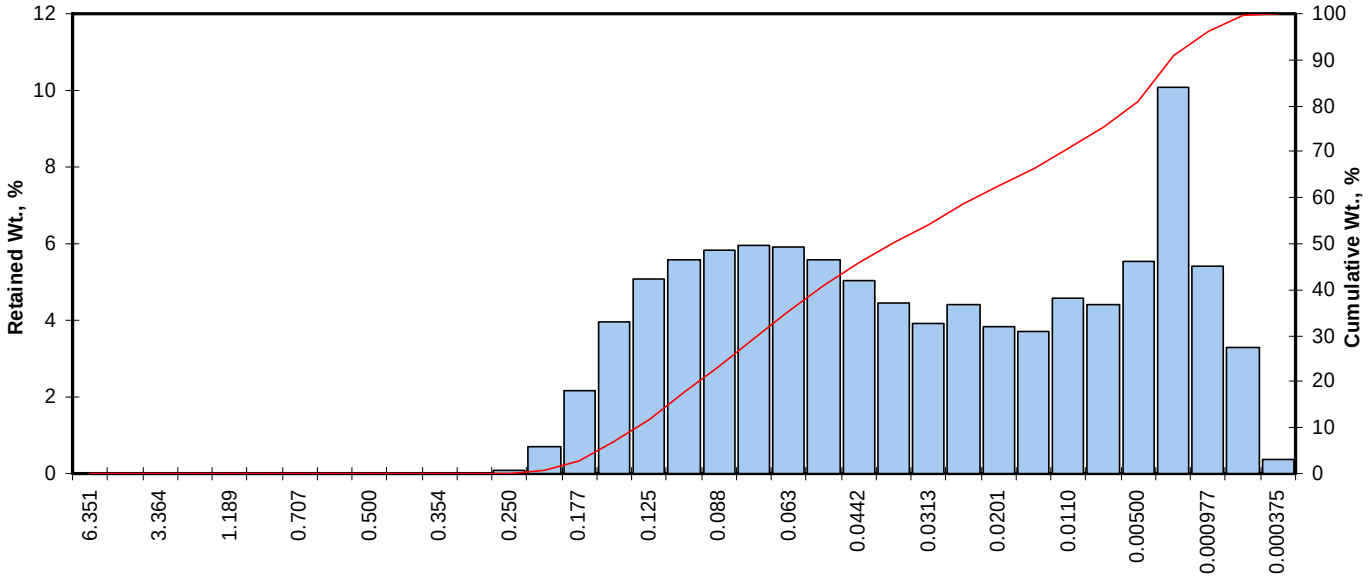
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	2.47
Silt	>0.005 mm	73.47
Clay	<0.005 mm	24.06
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-10-22.5-23
Project No:	03-11903E	**Depth, ft:**	22.5-23

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.08	0.08	0.08
0.0083	0.210	2.25	70	0.69	0.69	0.77
0.0070	0.177	2.50	80	2.16	2.16	2.93
0.0059	0.149	2.75	100	3.94	3.94	6.87
0.0049	0.125	3.00	120	5.09	5.09	11.95
0.0041	0.105	3.25	140	5.60	5.60	17.55
0.0035	0.088	3.50	170	5.83	5.83	23.38
0.0029	0.074	3.75	200	5.97	5.97	29.34
0.0025	0.063	4.00	230	5.92	5.92	35.26
0.0021	0.053	4.25	270	5.60	5.60	40.86
0.00174	0.0442	4.50	325	5.06	5.06	45.92
0.00146	0.0372	4.75	400	4.45	4.45	50.36
0.00123	0.0313	5.00	450	3.93	3.93	54.29
0.000986	0.0250	5.32	500	4.42	4.42	58.71
0.000790	0.0201	5.64	635	3.85	3.85	62.56
0.000615	0.0156	6.00		3.72	3.72	66.28
0.000435	0.0110	6.50		4.58	4.58	70.85
0.000308	0.00781	7.00		4.42	4.42	75.27
0.000197	0.00500	7.65		5.56	5.56	80.83
0.000077	0.00195	9.00		10.10	10.10	90.92
0.000038	0.000977	10.00		5.41	5.41	96.33
0.000019	0.000488	11.00		3.31	3.31	99.64
0.000015	0.000375	11.38		0.36	0.36	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.63	0.0064	0.161
10	2.90	0.0053	0.134
16	3.18	0.0043	0.110
25	3.57	0.0033	0.084
40	4.21	0.0021	0.054
50	4.73	0.0015	0.038
60	5.43	0.0009	0.023
75	6.97	0.0003	0.008
84	8.07	0.0001	0.004
90	8.88	0.0001	0.002
95	9.75	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	4.73	4.73	4.73
Median, in.	0.0015	0.0015	0.0015
Median, mm	0.038	0.038	0.038
Mean, phi	4.44	5.63	5.33
Mean, in.	0.0018	0.0008	0.0010
Mean, mm	0.046	0.020	0.025
Sorting	3.250	2.445	2.302
Skewness	0.688	0.367	0.389
Kurtosis	0.290	0.457	0.858
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

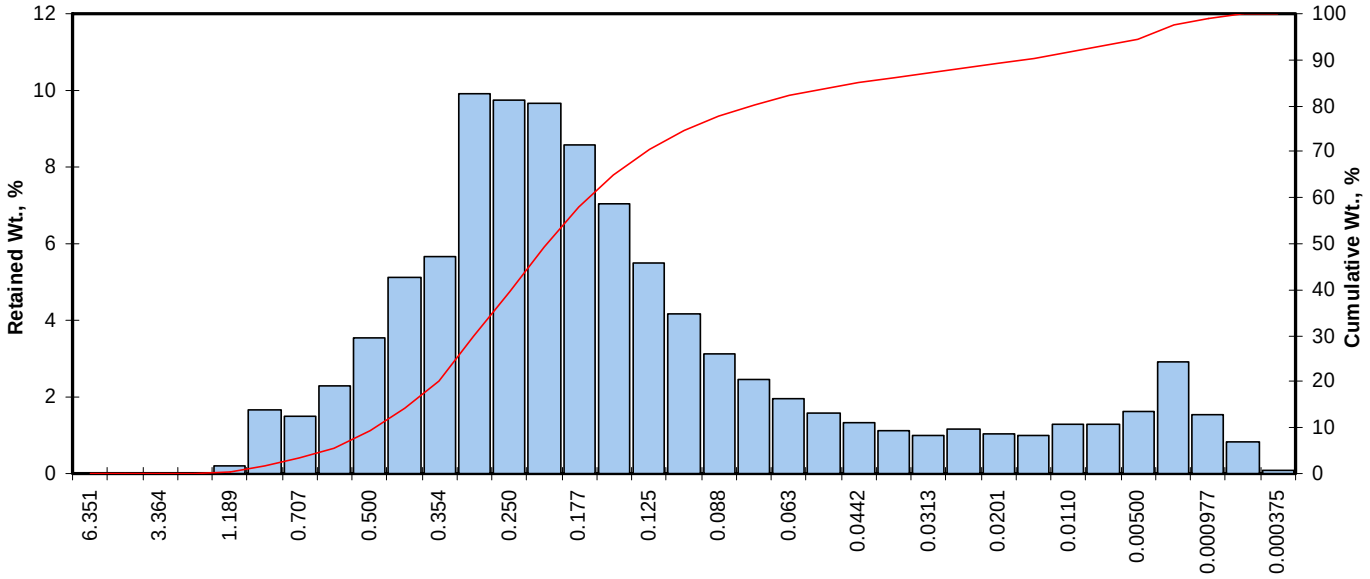
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	29.34
Silt	>0.005 mm	51.48
Clay	<0.005 mm	19.17
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-10-35-35.5
Project No:	03-11903E	**Depth, ft:**	35-35.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.20	0.20	0.20
0.0331	0.841	0.25	20	1.66	1.66	1.86
0.0278	0.707	0.50	25	1.51	1.51	3.37
0.0234	0.595	0.75	30	2.29	2.29	5.66
0.0197	0.500	1.00	35	3.56	3.56	9.22
0.0166	0.420	1.25	40	5.12	5.12	14.34
0.0139	0.354	1.50	45	5.65	5.65	19.99
0.0117	0.297	1.75	50	9.93	9.93	29.93
0.0098	0.250	2.00	60	9.74	9.74	39.67
0.0083	0.210	2.25	70	9.68	9.68	49.35
0.0070	0.177	2.50	80	8.58	8.58	57.93
0.0059	0.149	2.75	100	7.02	7.02	64.96
0.0049	0.125	3.00	120	5.48	5.48	70.44
0.0041	0.105	3.25	140	4.15	4.15	74.59
0.0035	0.088	3.50	170	3.14	3.14	77.73
0.0029	0.074	3.75	200	2.44	2.44	80.17
0.0025	0.063	4.00	230	1.95	1.95	82.12
0.0021	0.053	4.25	270	1.58	1.58	83.70
0.00174	0.0442	4.50	325	1.32	1.32	85.02
0.00146	0.0372	4.75	400	1.14	1.14	86.16
0.00123	0.0313	5.00	450	1.02	1.02	87.18
0.000986	0.0250	5.32	500	1.17	1.17	88.35
0.000790	0.0201	5.64	635	1.03	1.03	89.38
0.000615	0.0156	6.00		1.02	1.02	90.40
0.000435	0.0110	6.50		1.31	1.31	91.71
0.000308	0.00781	7.00		1.28	1.28	92.99
0.000197	0.00500	7.65		1.61	1.61	94.60
0.000077	0.00195	9.00		2.93	2.93	97.53
0.000038	0.000977	10.00		1.54	1.54	99.07
0.000019	0.000488	11.00		0.84	0.84	99.91
0.000015	0.000375	11.38		0.09	0.09	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.68	0.0246	0.625
10	1.04	0.0192	0.487
16	1.32	0.0157	0.400
25	1.63	0.0128	0.324
40	2.01	0.0098	0.249
50	2.27	0.0082	0.207
60	2.57	0.0066	0.168
75	3.28	0.0040	0.103
84	4.31	0.0020	0.051
90	5.86	0.0007	0.017
95	7.83	0.0002	0.004

Measure	Trask	Inman	Folk-Ward
Median, phi	2.27	2.27	2.27
Median, in.	0.0082	0.0082	0.0082
Median, mm	0.207	0.207	0.207
Mean, phi	2.23	2.82	2.63
Mean, in.	0.0084	0.0056	0.0063
Mean, mm	0.213	0.142	0.161
Sorting	1.776	1.492	1.829
Skewness	0.879	0.366	0.461
Kurtosis	0.235	1.397	1.769
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

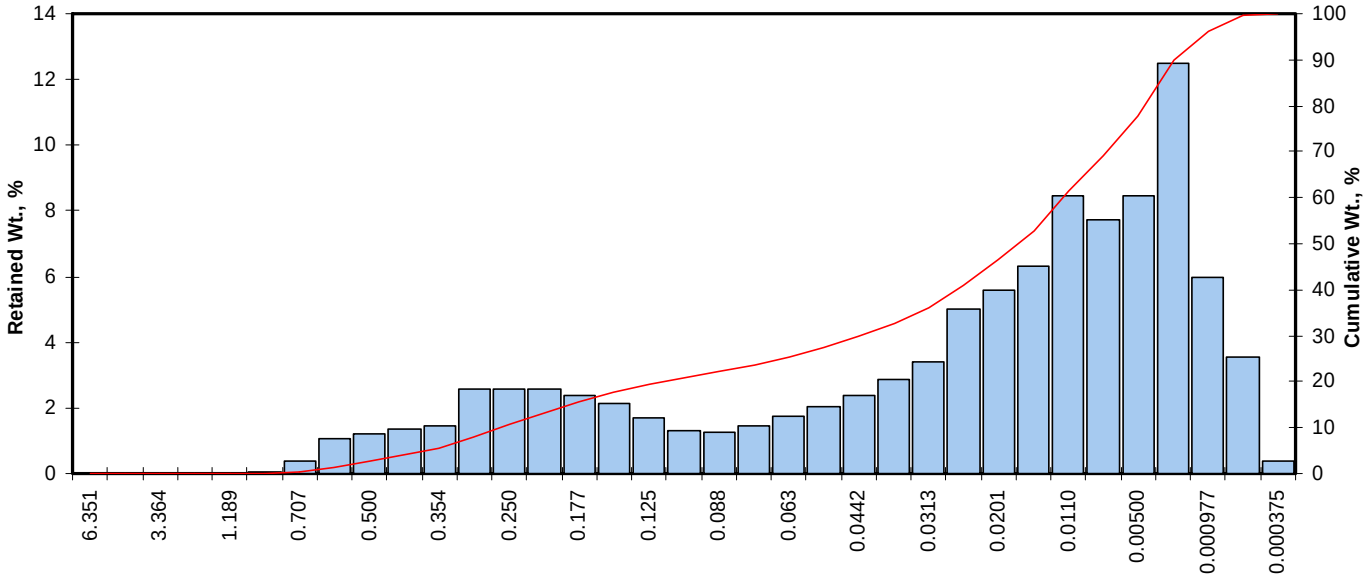
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	14.34
Fine Sand	200	65.83
Silt	>0.005 mm	14.43
Clay	<0.005 mm	5.40
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	ENVIRON	**PTS File No:**	37347
Project:	Hitachi GST	**Sample ID:**	EW-10-36-36.5
Project No:	03-11903E	**Depth, ft:**	36-36.5

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.03	0.03	0.03
0.0278	0.707	0.50	25	0.41	0.41	0.44
0.0234	0.595	0.75	30	1.09	1.09	1.53
0.0197	0.500	1.00	35	1.22	1.22	2.75
0.0166	0.420	1.25	40	1.37	1.37	4.12
0.0139	0.354	1.50	45	1.44	1.44	5.56
0.0117	0.297	1.75	50	2.59	2.59	8.15
0.0098	0.250	2.00	60	2.59	2.59	10.74
0.0083	0.210	2.25	70	2.59	2.59	13.33
0.0070	0.177	2.50	80	2.40	2.40	15.73
0.0059	0.149	2.75	100	2.12	2.12	17.85
0.0049	0.125	3.00	120	1.70	1.70	19.55
0.0041	0.105	3.25	140	1.32	1.32	20.87
0.0035	0.088	3.50	170	1.24	1.24	22.10
0.0029	0.074	3.75	200	1.46	1.46	23.56
0.0025	0.063	4.00	230	1.77	1.77	25.33
0.0021	0.053	4.25	270	2.04	2.04	27.37
0.00174	0.0442	4.50	325	2.39	2.39	29.76
0.00146	0.0372	4.75	400	2.87	2.87	32.63
0.00123	0.0313	5.00	450	3.40	3.40	36.03
0.000986	0.0250	5.32	500	5.01	5.01	41.04
0.000790	0.0201	5.64	635	5.57	5.57	46.61
0.000615	0.0156	6.00		6.33	6.33	52.94
0.000435	0.0110	6.50		8.46	8.46	61.40
0.000308	0.00781	7.00		7.74	7.74	69.14
0.000197	0.00500	7.65		8.47	8.47	77.60
0.000077	0.00195	9.00		12.50	12.50	90.10
0.000038	0.000977	10.00		5.98	5.98	96.08
0.000019	0.000488	11.00		3.54	3.54	99.62
0.000015	0.000375	11.38		0.38	0.38	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.40	0.0149	0.378
10	1.93	0.0103	0.263
16	2.53	0.0068	0.173
25	3.95	0.0025	0.065
40	5.25	0.0010	0.026
50	5.83	0.0007	0.018
60	6.42	0.0005	0.012
75	7.45	0.0002	0.006
84	8.34	0.0001	0.003
90	8.99	0.0001	0.002
95	9.82	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.83	5.83	5.83
Median, in.	0.0007	0.0007	0.0007
Median, mm	0.018	0.018	0.018
Mean, phi	4.83	5.44	5.57
Mean, in.	0.0014	0.0009	0.0008
Mean, mm	0.035	0.023	0.021
Sorting	3.356	2.903	2.727
Skewness	1.097	-0.137	-0.095
Kurtosis	0.113	0.450	0.987

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	4.12
Fine Sand	200	19.45
Silt	>0.005 mm	54.04
Clay	<0.005 mm	22.40
	Total	**100**

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APPENDIX C

Cone Penetrometer Testing (CPT) Logs

Appendix C
Cone Penetration Testing (CPT) Logs

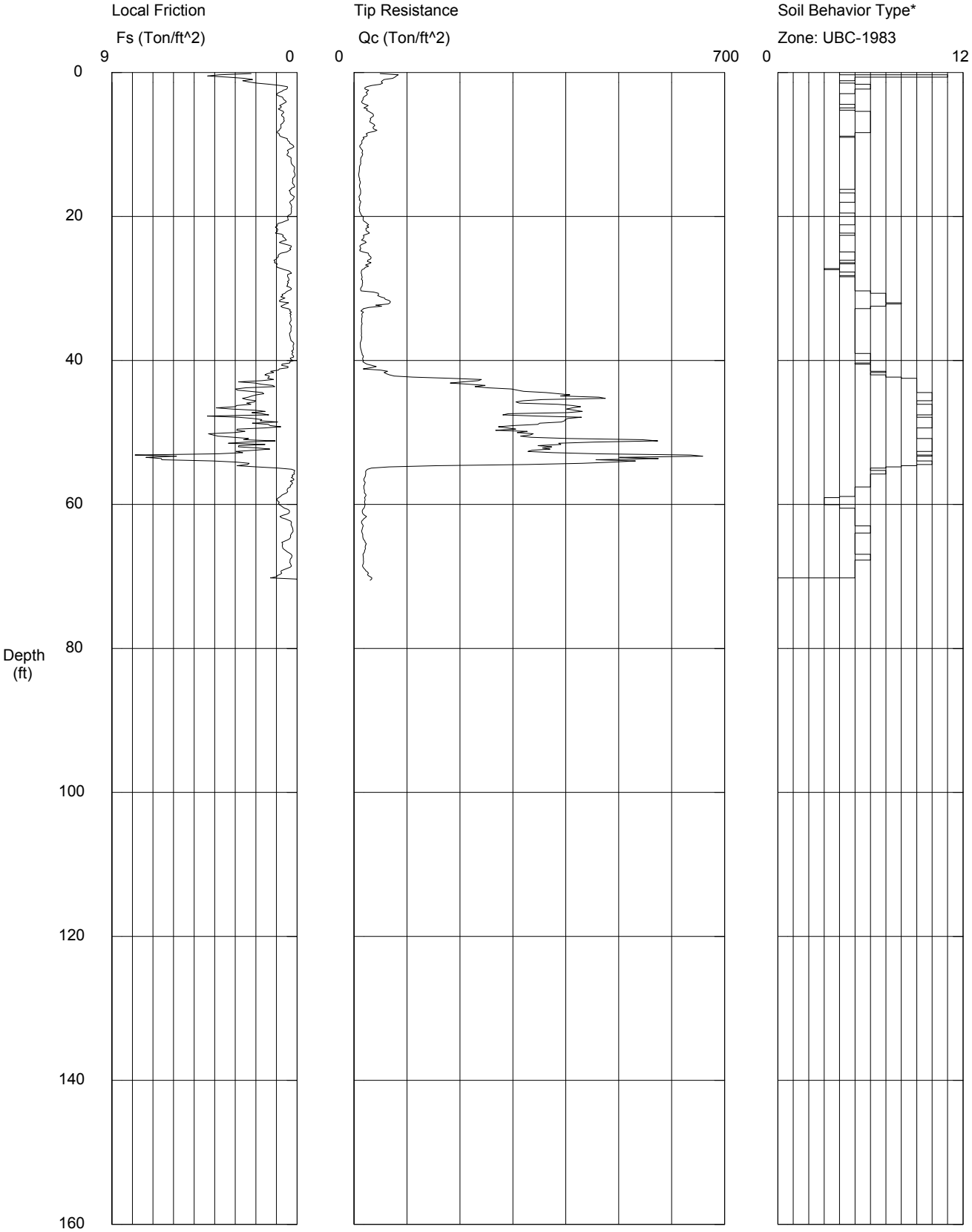
Cone penetration test (CPT) soundings were advanced in April 2007 by Holguin, Fahan & Associates, Inc. of Orange, California. The following CPT sounding logs are included in this Appendix.

CPT-1
CPT-2
CPT-3
CPT-4
CPT-5
CPT-6
CPT-7
CPT-8

Environ

Operator: ML-CW
Sounding: CPT-01
Cone Used: DSG0705

CPT Date/Time: 4/18/2007 7:08:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.54 feet

Depth Increment = 0.164 feet

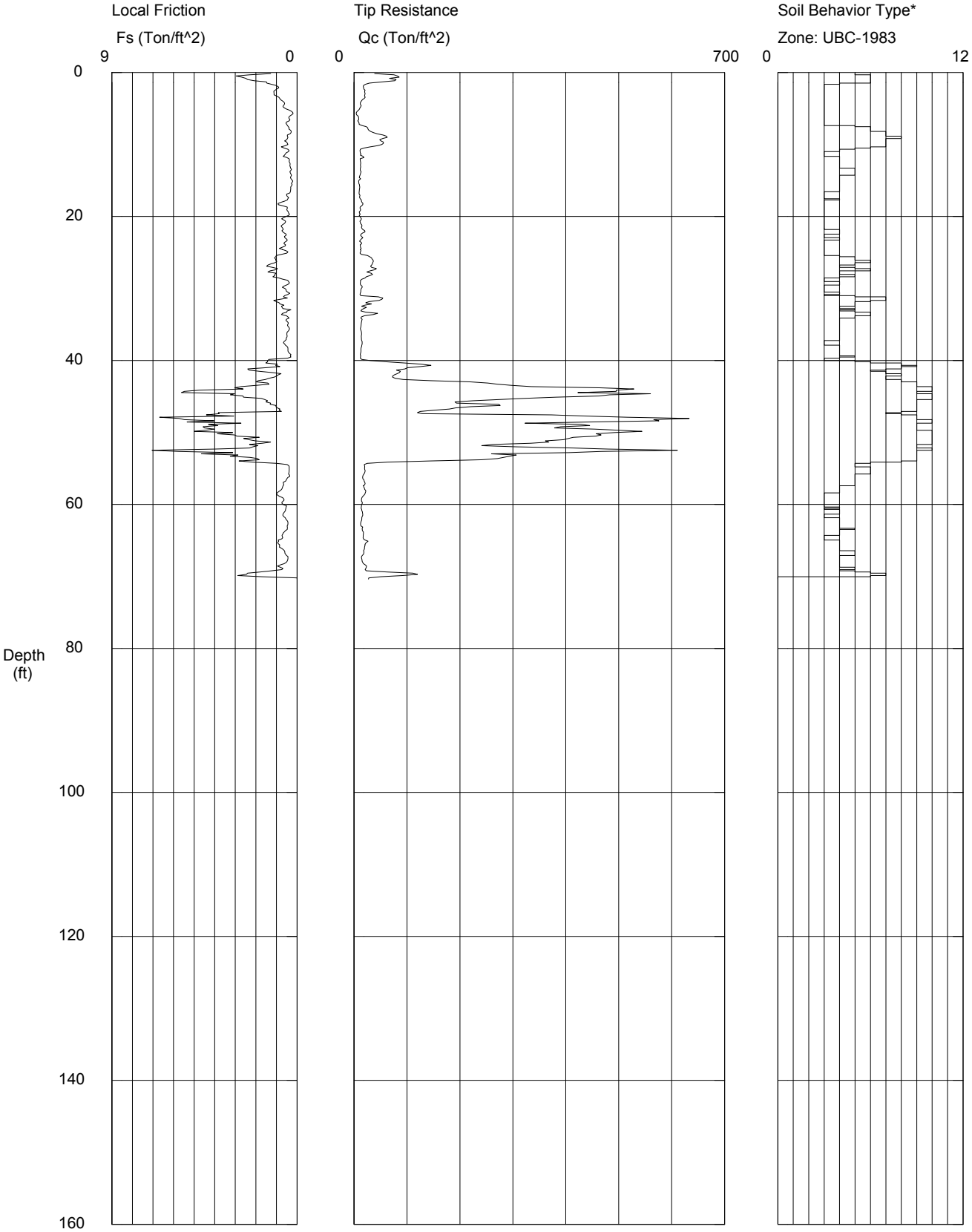
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-02
Cone Used: DSG0705

CPT Date/Time: 4/17/2007 1:05:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.37 feet

Depth Increment = 0.164 feet

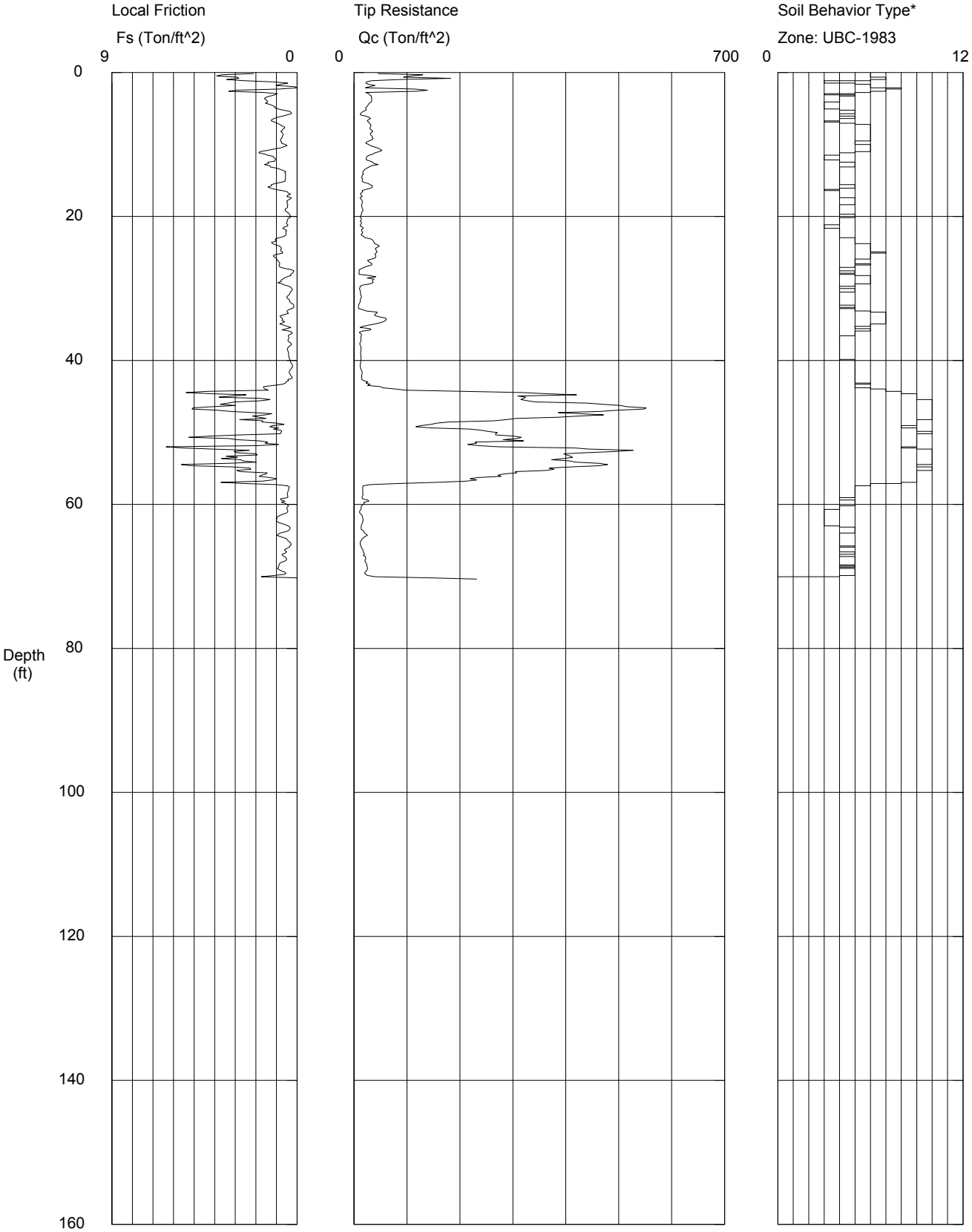
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-03
Cone Used: DSG0705

CPT Date/Time: 4/19/2007 7:52:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.37 feet

Depth Increment = 0.164 feet

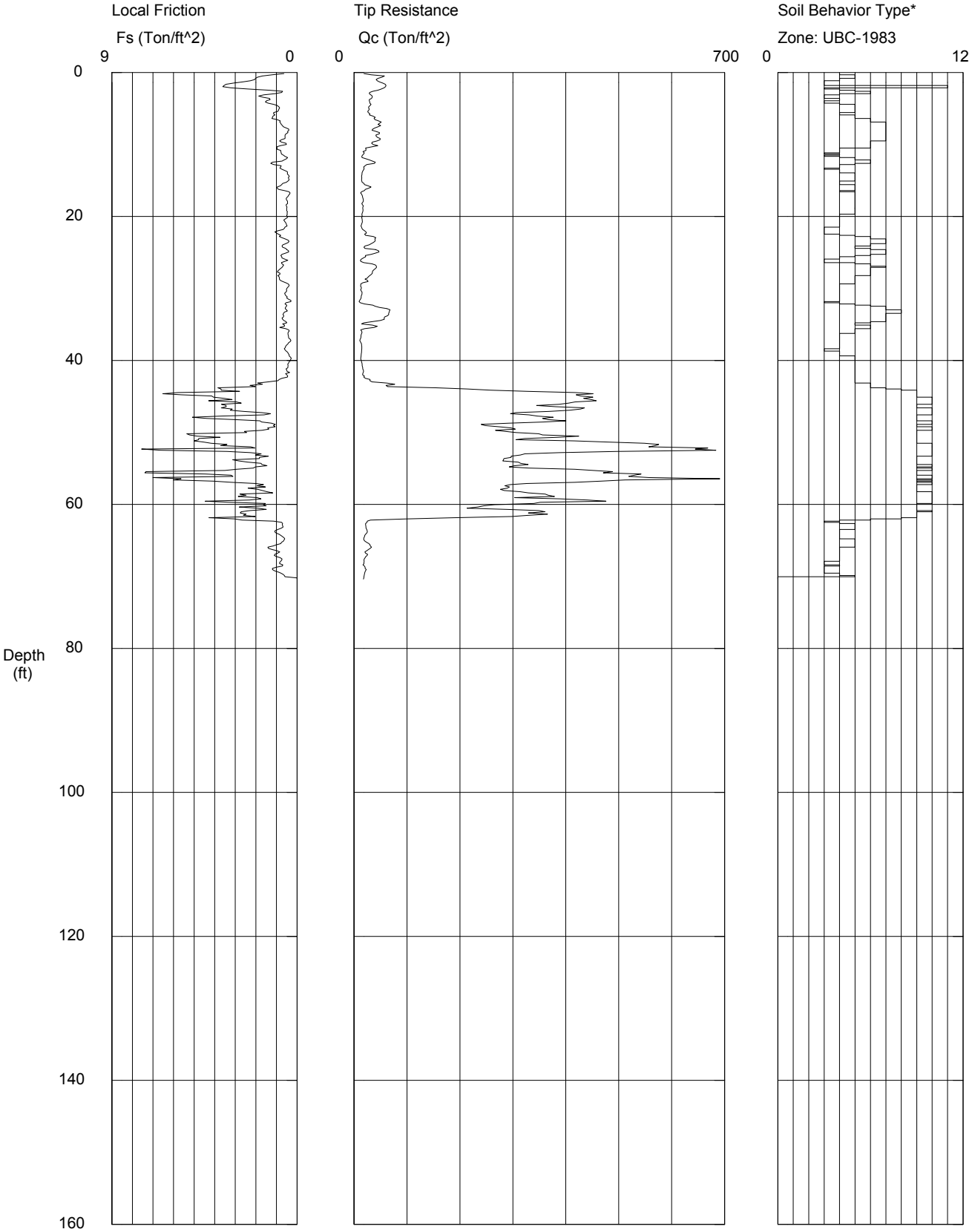
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-04
Cone Used: DSG0705

CPT Date/Time: 4/18/2007 3:37:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.37 feet

Depth Increment = 0.164 feet

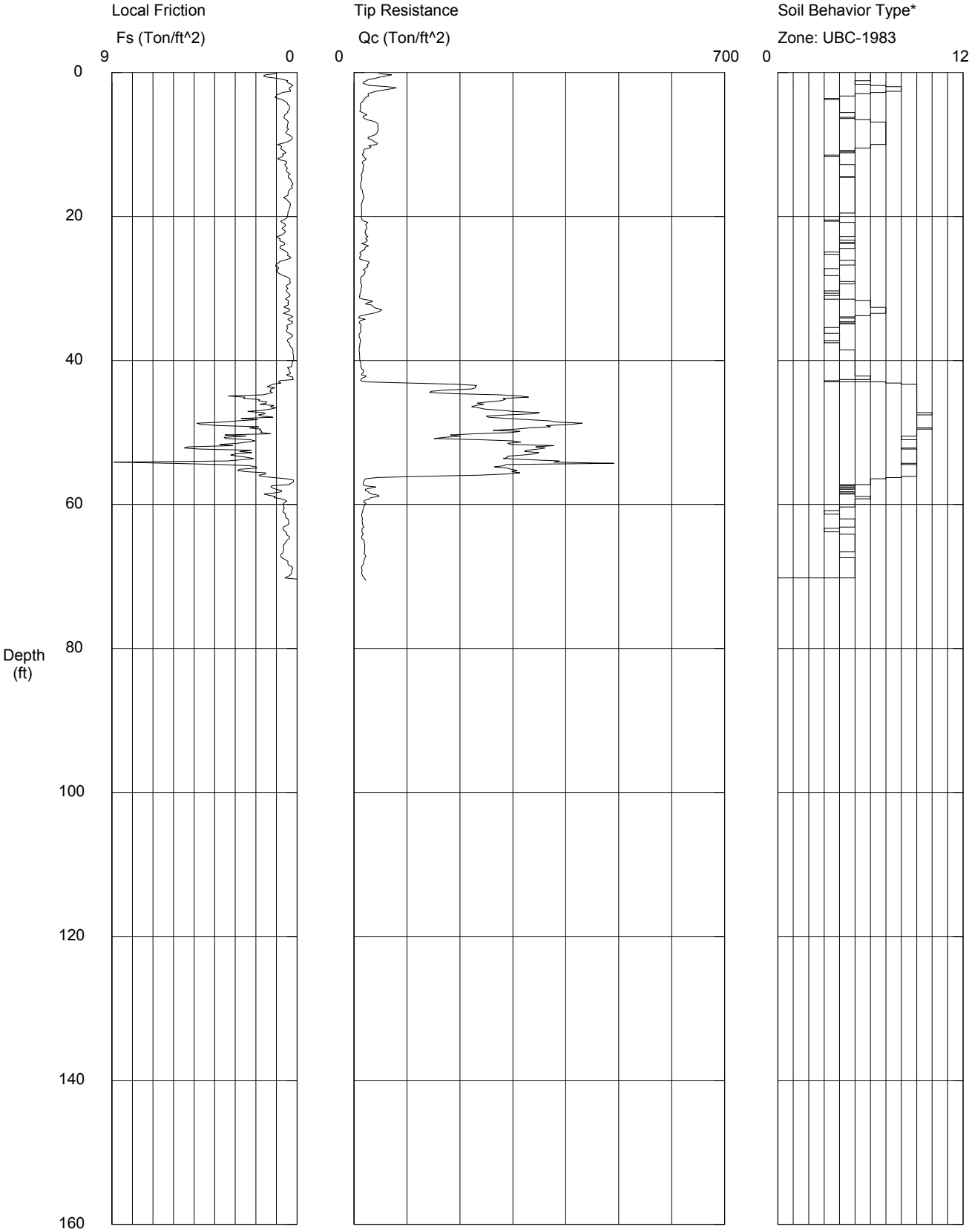
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-05
Cone Used: DSG0705

CPT Date/Time: 4/18/2007 1:49:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.54 feet

Depth Increment = 0.164 feet

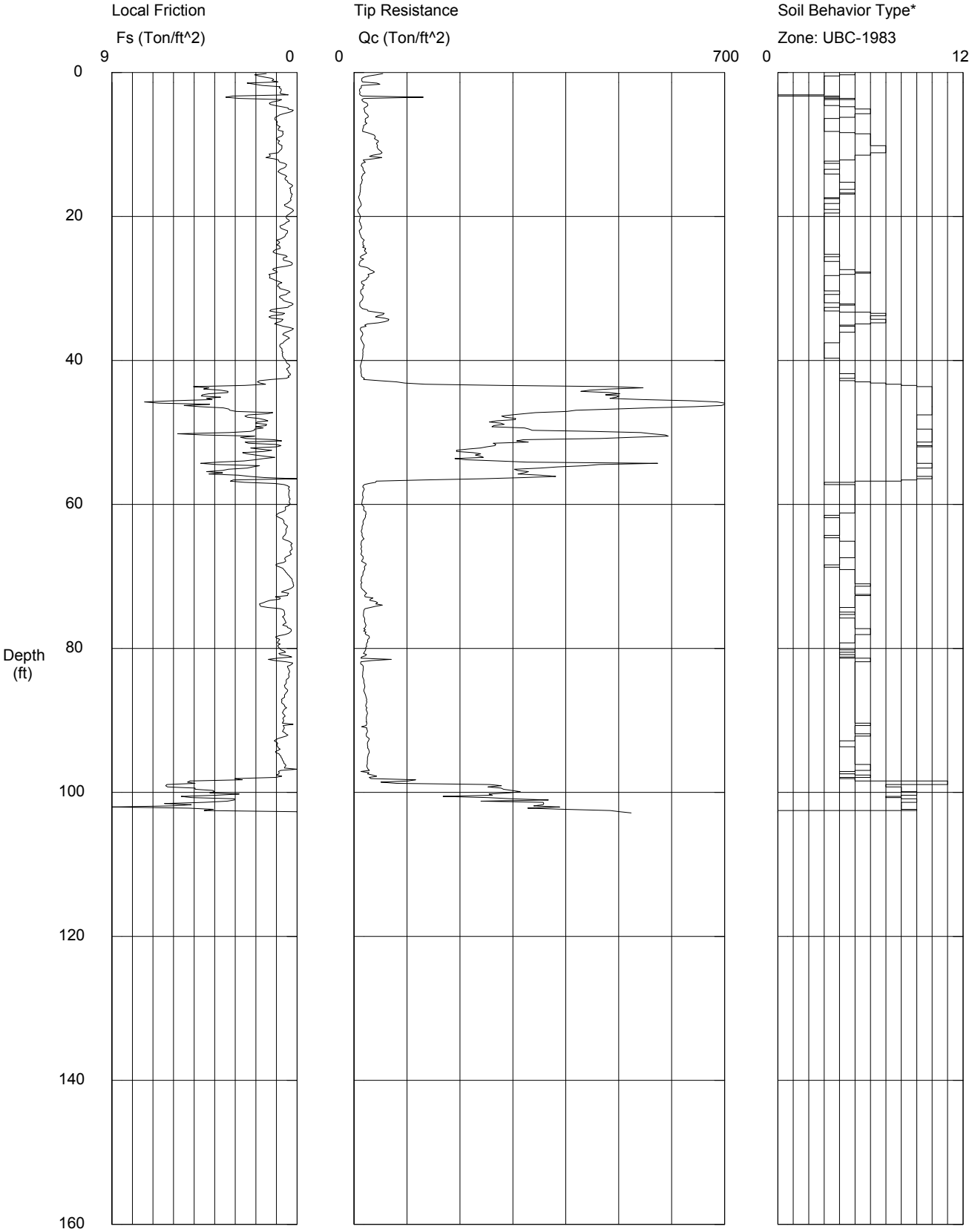
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-06
Cone Used: DSG0705

CPT Date/Time: 4/17/2007 8:58:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 102.85 feet

Depth Increment = 0.164 feet

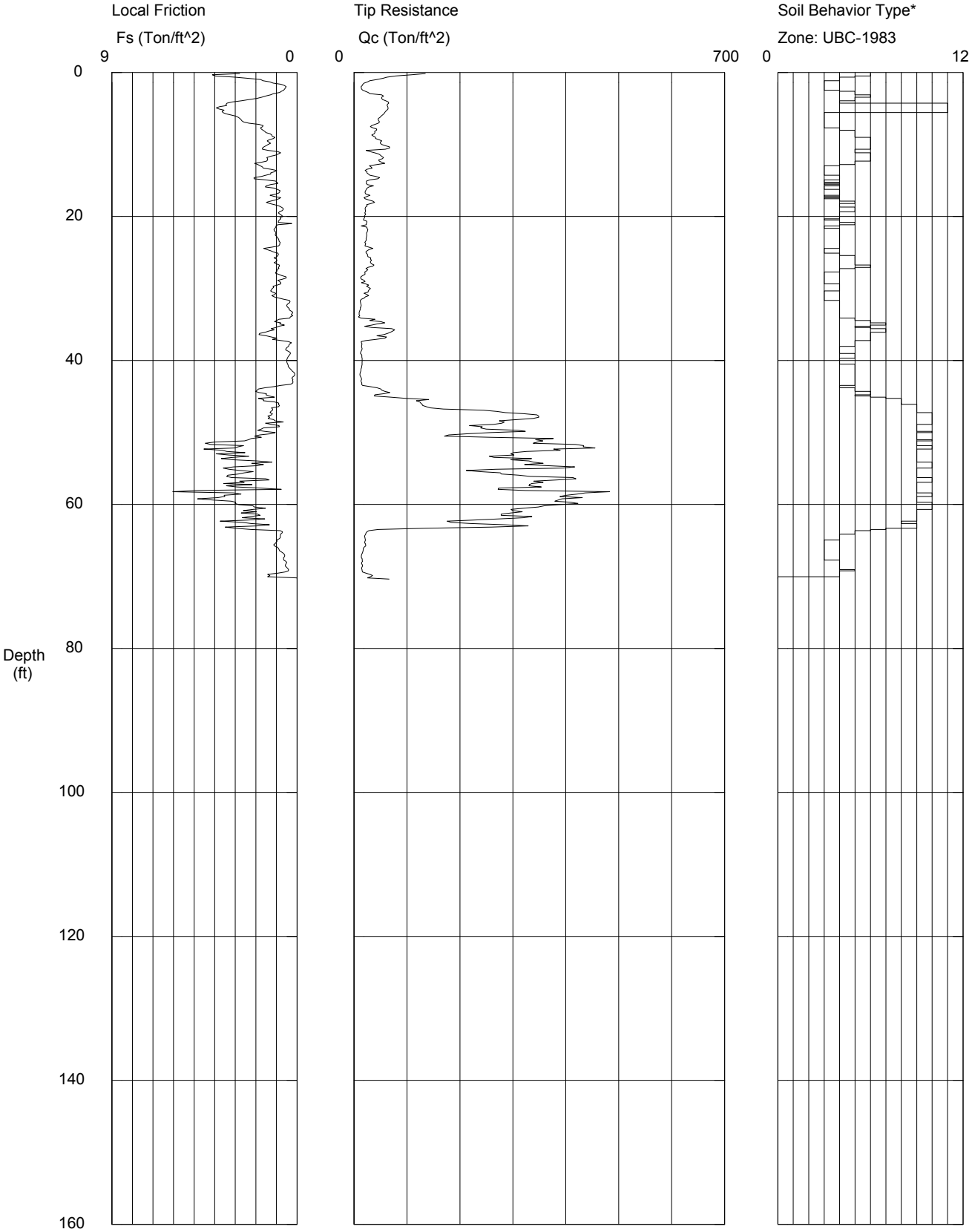
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-07
Cone Used: DSG0705

CPT Date/Time: 4/18/2007 10:57
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.37 feet

Depth Increment = 0.164 feet

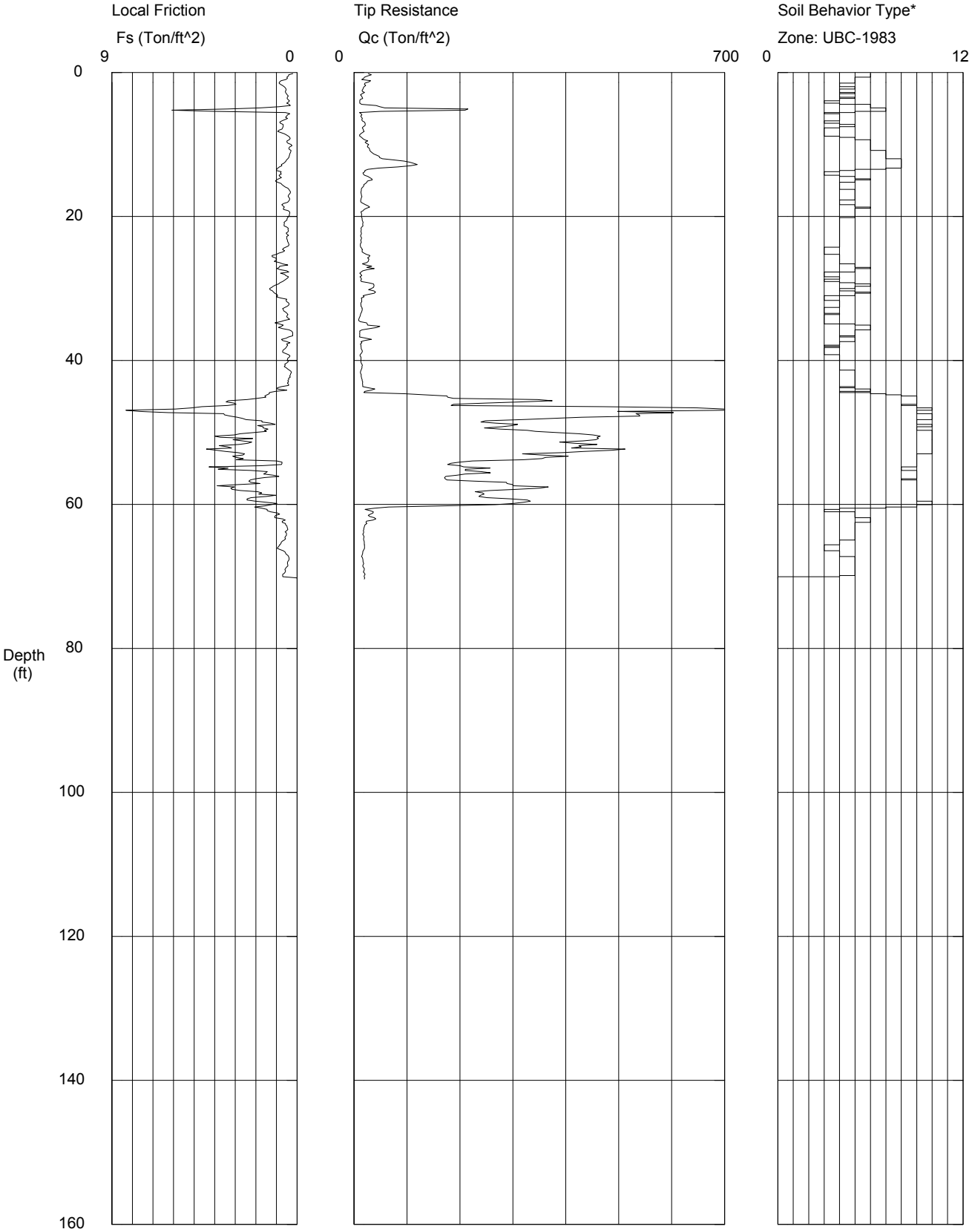
1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

Environ

Operator: ML-CW
Sounding: CPT-08
Cone Used: DSG0705

CPT Date/Time: 4/18/2007 8:55:
Location: Hitachi/GST
Job Number: 0311903E



Maximum Depth = 70.37 feet

Depth Increment = 0.164 feet

1 sensitive fine grained
2 organic material
3 clay
4 silty clay to clay
5 clayey silt to silty clay
6 sandy silt to clayey silt
7 silty sand to sandy silt
8 sand to silty sand
9 sand
10 gravelly sand to sand
11 very stiff fine grained (*)
12 sand to clayey sand (*)

*Soil behavior type and SPT based on data from UBC-1983

APPENDIX D

Analytical Reports for April/May 2007 Groundwater Sampling

Appendix D

Analytical Reports for April/May 2007 Groundwater Sampling

Groundwater samples collected in April and May 2007 were analyzed by Severn Trent Laboratories, Inc., of San Francisco, California (STL). The following analytical reports are included in this Appendix.

STL Job Number: 720-8779-1 – April 2007 B-Aquifer Sample Results
STL Job Number: 720-9034-1 – May 2007 Well Sample Results #1
STL Job Number: 720-9054-1 – May 2007 Well Sample Results #2

STL Job Number: 720-8779-1 – April 2007 B-Aquifer Sample Results

ANALYTICAL REPORT

Job Number: 720-8779-1

Job Description: Hitachi GST

For:
ENVIRON International Corp.
6001 Shellmound Street
Suite 700
Emeryville, CA 94608

Attention: Ms. Anne Gates

Surinder Sidhu

Surinder Sidhu
Project Manager I
ssidhu@stl-inc.com
04/23/2007

cc: Ms. Wendy Devaney
Mr. Chris Ritchie

Project Manager: Dimple Sharma

Case Narrative for job: 720-J8779-1

Client:	ENVIRON International Corp.
Date:	04/23/2007

EXECUTIVE SUMMARY - Detections

Client: ENVIRON International Corp. Job Number: 720-8779-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-8779-2	**CPT-1-44-46**				
Chloroform		3.8	1.0	ug/L	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane		0.81	0.50	ug/L	8260B
720-8779-3	**CPT-2-44-46**				
1,1,2-Trichloro-1,2,2-trifluoroethane		0.82	0.50	ug/L	8260B
720-8779-5	**CPT-6-47-49**				
1,1,2-Trichloro-1,2,2-trifluoroethane		0.62	0.50	ug/L	8260B
720-8779-6	**CPT-6-DUP**				
1,1,2-Trichloro-1,2,2-trifluoroethane		0.54	0.50	ug/L	8260B
720-8779-7	**CPT-8-47-49**				
1,1,2-Trichloro-1,2,2-trifluoroethane		0.53	0.50	ug/L	8260B
720-8779-8	**CPT-5-44-46**				
Chloroform		34	1.0	ug/L	8260B
1,1,1-Trichloroethane		0.55	0.50	ug/L	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane		0.57	0.50	ug/L	8260B

METHOD SUMMARY

Client: ENVIRON International Corp. Job Number: 720-8779-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS (Low Level)	STL SF	SW846 8260B	
Purge-and-Trap	STL SF		SW846 5030B

LAB REFERENCES:

STL SF = STL San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986
And Its Updates.

SAMPLE SUMMARY

Client: ENVIRON International Corp. Job Number: 720-8779-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-8779-1	CPT-1-TB	Water	04/19/2007 0900	04/20/2007 1530
720-8779-2	CPT-1-44-46	Water	04/19/2007 1100	04/20/2007 1530
720-8779-3	CPT-2-44-46	Water	04/19/2007 1420	04/20/2007 1530
720-8779-4	CPT-6-EB	Water	04/19/2007 1445	04/20/2007 1530
720-8779-5	CPT-6-47-49	Water	04/19/2007 1515	04/20/2007 1530
720-8779-6	CPT-6-DUP	Water	04/19/2007 1530	04/20/2007 1530
720-8779-7	CPT-8-47-49	Water	04/19/2007 1635	04/20/2007 1530
720-8779-8	CPT-5-44-46	Water	04/20/2007 0800	04/20/2007 1530

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-1-TB**

Lab Sample ID: 720-8779-1 Date Sampled: 04/19/2007 0900
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\sa-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1731 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1731

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-1-TB**

Lab Sample ID: 720-8779-1 Date Sampled: 04/19/2007 0900
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\sa-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1731 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1731

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	114	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	111	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-1-44-46**

Lab Sample ID: 720-8779-2 Date Sampled: 04/19/2007 1100
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1804 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1804

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	3.8		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: CPT-1-44-46

Lab Sample ID: 720-8779-2 Date Sampled: 04/19/2007 1100
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1804 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1804

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.81		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	117	83 - 127
1,2-Dichloroethane-d4 (Surr)	121	86 - 129
Toluene-d8 (Surr)	112	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: CPT-2-44-46

Lab Sample ID: 720-8779-3 Date Sampled: 04/19/2007 1420
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1838 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1838

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: CPT-2-44-46

Lab Sample ID: 720-8779-3 Date Sampled: 04/19/2007 1420
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1838 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1838

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.82		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	113	83 - 127
1,2-Dichloroethane-d4 (Surr)	115	86 - 129
Toluene-d8 (Surr)	117	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-EB**

Lab Sample ID: 720-8779-4 Date Sampled: 04/19/2007 1445
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1911 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1911

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-EB**

Lab Sample ID: 720-8779-4 Date Sampled: 04/19/2007 1445
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1911 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1911

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	113	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	109	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-47-49**

Lab Sample ID: 720-8779-5 Date Sampled: 04/19/2007 1515
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1945 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1945

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-47-49**

Lab Sample ID: 720-8779-5 Date Sampled: 04/19/2007 1515
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 1945 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 1945

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.62		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	125	83 - 127
1,2-Dichloroethane-d4 (Surr)	123	86 - 129
Toluene-d8 (Surr)	123	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-DUP**

Lab Sample ID: 720-8779-6 Date Sampled: 04/19/2007 1530
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 2018 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 2018

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-6-DUP**

Lab Sample ID: 720-8779-6 Date Sampled: 04/19/2007 1530
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 2018 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 2018

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.54		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	113	83 - 127
1,2-Dichloroethane-d4 (Surr)	112	86 - 129
Toluene-d8 (Surr)	113	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-8-47-49**

Lab Sample ID: 720-8779-7 Date Sampled: 04/19/2007 1635
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 2051 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 2051

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: CPT-8-47-49

Lab Sample ID: 720-8779-7 Date Sampled: 04/19/2007 1635
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20669 Instrument ID: Saturn 2K3
Preparation: 5030B Lab File ID: d:\data\200704\042007\SA-
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/20/2007 2051 Final Weight/Volume: 40 mL
Date Prepared: 04/20/2007 2051

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.53		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	110	83 - 127
1,2-Dichloroethane-d4 (Surr)	115	86 - 129
Toluene-d8 (Surr)	110	82 - 126

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: CPT-5-44-46

Lab Sample ID: 720-8779-8 Date Sampled: 04/20/2007 0800
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20740 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200704\04
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/23/2007 1221 Final Weight/Volume: 40 mL
Date Prepared: 04/23/2007 1221

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	34		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-8779-1

Client Sample ID: **CPT-5-44-46**

Lab Sample ID: 720-8779-8 Date Sampled: 04/20/2007 0800
Client Matrix: Water Date Received: 04/20/2007 1530

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-20740 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200704\04
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 04/23/2007 1221 Final Weight/Volume: 40 mL
Date Prepared: 04/23/2007 1221

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	0.55		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.57		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	108	83 - 127
1,2-Dichloroethane-d4 (Surr)	117	86 - 129
Toluene-d8 (Surr)	123	82 - 126

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: ENVIRON International Corp. Job Number: 720-8779-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-20669					
LCS 720-20669/2	Lab Control Spike	T	Water	8260B	
MB 720-20669/3	Method Blank	T	Water	8260B	
720-8779-1	CPT-1-TB	T	Water	8260B	
720-8779-2	CPT-1-44-46	T	Water	8260B	
720-8779-3	CPT-2-44-46	T	Water	8260B	
720-8779-4	CPT-6-EB	T	Water	8260B	
720-8779-5	CPT-6-47-49	T	Water	8260B	
720-8779-6	CPT-6-DUP	T	Water	8260B	
720-8779-7	CPT-8-47-49	T	Water	8260B	
Analysis Batch:720-20740					
LCS 720-20740/1	Lab Control Spike	T	Water	8260B	
MB 720-20740/2	Method Blank	T	Water	8260B	
720-8779-8	CPT-5-44-46	T	Water	8260B	

Report Basis
T = Total

Client: ENVIRON International Corp. Job Number: 720-8779-1

Method Blank - Batch: 720-20669

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-20669/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/20/2007 1124
Date Prepared: 04/20/2007 1124

Analysis Batch: 720-20669
Prep Batch: N/A
Units: ug/L

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200704\042007\MB
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-8779-1

Method Blank - Batch: 720-20669

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-20669/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/20/2007 1124
Date Prepared: 04/20/2007 1124

Analysis Batch: 720-20669
Prep Batch: N/A
Units: ug/L

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200704\042007\MB
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	108	83 - 127
1,2-Dichloroethane-d4 (Surr)	105	86 - 129
Toluene-d8 (Surr)	108	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-8779-1

Lab Control Spike - Batch: 720-20669

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-20669/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/20/2007 1050
Date Prepared: 04/20/2007 1050

Analysis Batch: 720-20669
Prep Batch: N/A
Units: ug/L

Instrument ID: Saturn 2K3
Lab File ID: d:\data\200704\042007\LS-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	19.1	96	69 - 129	
Chlorobenzene	20.0	20.1	100	61 - 121	
1,1-Dichloroethene	20.0	21.2	106	65 - 125	
Toluene	20.0	18.2	91	70 - 130	
Trichloroethene	20.0	18.1	90	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	111	83 - 127
1,2-Dichloroethane-d4 (Surr)	103	86 - 129
Toluene-d8 (Surr)	105	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-8779-1

Method Blank - Batch: 720-20740

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-20740/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/23/2007 1111
Date Prepared: 04/23/2007 1111

Analysis Batch: 720-20740
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200704\04
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-8779-1

Method Blank - Batch: 720-20740

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-20740/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/23/2007 1111
Date Prepared: 04/23/2007 1111

Analysis Batch: 720-20740
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200704\04
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	107	83 - 127
1,2-Dichloroethane-d4 (Surr)	107	86 - 129
Toluene-d8 (Surr)	125	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-8779-1

Lab Control Spike - Batch: 720-20740

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-20740/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/23/2007 1036
Date Prepared: 04/23/2007 1036

Analysis Batch: 720-20740
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200704\04
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	21.1	105	69 - 129	
Chlorobenzene	20.0	22.3	112	61 - 121	
1,1-Dichloroethene	20.0	21.3	106	65 - 125	
Toluene	20.0	21.7	108	70 - 130	
Trichloroethene	20.0	18.9	95	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	110	83 - 127
1,2-Dichloroethane-d4 (Surr)	114	86 - 129
Toluene-d8 (Surr)	119	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

ENVIRON
6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

CHAIN-of-CUSTODY

720-8779

105110

00203

PAGE 1 of 1

PROJECT NAME / FACILITY ID: Hitachi GST

FIELD PERSON: N. MARKMAN

PROJECT NUMBER: 03-11903E

DATE: 1/20/2007

PROJECT MANAGER: A. GATES

PROJECT LOCATION: SAN JOSE, CA

LABORATORY: STL

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: -NA-

WO#: -NA-

SAMPLER: Nicholas MARKMAN

SIGNATURE: Nicholas Markman

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2007)	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: ~~Chlorinated Solvents~~ (VOC)	~~TPH~~ 8260 List (w/Oxys)							COMMENTS
CPT-1-TB	1/19	900	—	W	2	U	H	X								Please email results to
CPT-1-44-46	1/19	1100	44	W	3	U	H	X								critchie@environcorp.com
CPT-2-44-46	1/19	1420	44	W	3	U	H	X								jdonovan@environcorp.com
CPT-6-EB	1/19	1445	—	W	3	U	H	X								
CPT-6-47-49	1/19	1515	47	W	3	U	H	X								Changed to 24 Hrs.
CPT-6-DUP	1/19	1520	47	W	3	U	H	X								as per chris
CPT-8-47-49	1/19	1635	47	W	3	U	H	X								Ritchie on 4/20/07.
CPT-5-44-46	1/20	850	44	W	3	U	H	X								
																Questions?
																Call (510) 691-8385
TOTAL	X	X	X	—	23	—	—	8								Thanks!

Nicholas MARKMAN

RUSH

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
Wendy Queney	4/20/07 1208	(COMPANY): SR-SF	4/20/07 1208
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
SR-SF	4/20/07 1530	(COMPANY):	
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
		(COMPANY):	4/20/07 1530

TURNAROUND TIME (CIRCLE ONE): SAMEDAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, (NORMAL)

SAMPLE INTEGRITY: INTACT: Y N Temp 2°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCL; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

LOGIN SAMPLE RECEIPT CHECK LIST

Client: ENVIRON International Corp. Job Number: 720-8779-1

Login Number: 8779

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	RECEIVED 1BROKEN VOA FOR CPT-1-44-46
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

STL Job Number: 720-9034-1 – May 2007 Well Sample Results #1

ANALYTICAL REPORT

Job Number: 720-9034-1

Job Description: Hitachi GST

For:
ENVIRON International Corp.
6001 Shellmound Street
Suite 700
Emeryville, CA 94608

Attention: Ms. Anne Gates

Dimple Sharma
Project Manager I
dsharma@stl-inc.com
05/15/2007

cc: Ms. Wendy Devaney
Mr. Nicholas Markman
Mr. Chris Ritchie

Project Manager: Dimple Sharma

I. Comments
No additional comments.

II. Receipt
All samples were received in good condition within temperature requirements.

III. GC/MS VOA
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ENVIRON International Corp. Job Number: 720-9034-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-9034-1	**EW-3-07052007**				
Chloroform		2.0	1.0	ug/L	8260B
720-9034-2	**EW-7-07052007**				
Chloroform		5.9	1.0	ug/L	8260B
1,1-Dichloroethene		1.2	0.50	ug/L	8260B
1,1,1-Trichloroethane		0.88	0.50	ug/L	8260B
720-9034-3	**EW-12-07052007**				
Chloroform		9.5	1.0	ug/L	8260B
1,1,1-Trichloroethane		1.7	0.50	ug/L	8260B
720-9034-4	**EW-15-08052007**				
Chloroform		3.5	1.0	ug/L	8260B
1,1,1-Trichloroethane		1.7	0.50	ug/L	8260B
720-9034-6	**EW-8-08052007**				
Chloroform		12	1.0	ug/L	8260B
1,1,1-Trichloroethane		1.4	0.50	ug/L	8260B
720-9034-7	**EW-8-DUP**				
Chloroform		12	1.0	ug/L	8260B
1,1,1-Trichloroethane		1.4	0.50	ug/L	8260B
720-9034-8	**EW-4-08052007**				
Chloroform		520	10	ug/L	8260B
1,1,1-Trichloroethane		12	5.0	ug/L	8260B
720-9034-9	**EW-1-08052007**				
Chloroform		49	1.0	ug/L	8260B
1,1-Dichloroethane		0.63	0.50	ug/L	8260B
1,1-Dichloroethene		4.1	0.50	ug/L	8260B
1,1,1-Trichloroethane		11	0.50	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: ENVIRON International Corp. Job Number: 720-9034-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-9034-11	**EW-2-08052007**				
Chloroform		95	1.0	ug/L	8260B
1,1-Dichloroethene		3.7	0.50	ug/L	8260B
1,1,1-Trichloroethane		5.4	0.50	ug/L	8260B

METHOD SUMMARY

Client: ENVIRON International Corp. Job Number: 720-9034-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS (Low Level)	STL SF	SW846 8260B	
Purge-and-Trap	STL SF		SW846 5030B

LAB REFERENCES:

STL SF = STL San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986
And Its Updates.

SAMPLE SUMMARY

Client: ENVIRON International Corp. Job Number: 720-9034-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-9034-1	EW-3-07052007	Water	05/07/2007 1315	05/08/2007 1455
720-9034-2	EW-7-07052007	Water	05/07/2007 1430	05/08/2007 1455
720-9034-3	EW-12-07052007	Water	05/07/2007 1540	05/08/2007 1455
720-9034-4	EW-15-08052007	Water	05/08/2007 0815	05/08/2007 1455
720-9034-5	EW-8-EB	Water	05/08/2007 0845	05/08/2007 1455
720-9034-6	EW-8-08052007	Water	05/08/2007 0930	05/08/2007 1455
720-9034-7	EW-8-DUP	Water	05/08/2007 0940	05/08/2007 1455
720-9034-8	EW-4-08052007	Water	05/08/2007 1030	05/08/2007 1455
720-9034-9	EW-1-08052007	Water	05/08/2007 1130	05/08/2007 1455
720-9034-10TB	EW-3-TB	Water	05/07/2007 1300	05/08/2007 1455
720-9034-11	EW-2-08052007	Water	05/08/2007 1240	05/08/2007 1455

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-3-07052007**

Lab Sample ID: 720-9034-1 Date Sampled: 05/07/2007 1315
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 1902 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 1902

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	2.0		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-3-07052007**

Lab Sample ID: 720-9034-1 Date Sampled: 05/07/2007 1315
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 1902 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 1902

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	116	83 - 127
1,2-Dichloroethane-d4 (Surr)	109	86 - 129
Toluene-d8 (Surr)	116	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-7-07052007**

Lab Sample ID: 720-9034-2 Date Sampled: 05/07/2007 1430
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 1937 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 1937

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	5.9		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	1.2		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-7-07052007**

Lab Sample ID: 720-9034-2 Date Sampled: 05/07/2007 1430
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 1937 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 1937

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	0.88		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	116	83 - 127
1,2-Dichloroethane-d4 (Surr)	107	86 - 129
Toluene-d8 (Surr)	114	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-12-07052007**

Lab Sample ID: 720-9034-3 Date Sampled: 05/07/2007 1540
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 2012 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 2012

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	9.5		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-12-07052007**

Lab Sample ID: 720-9034-3 Date Sampled: 05/07/2007 1540
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 2012 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 2012

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	1.7		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	118	83 - 127
1,2-Dichloroethane-d4 (Surr)	106	86 - 129
Toluene-d8 (Surr)	119	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-15-08052007**

Lab Sample ID: 720-9034-4 Date Sampled: 05/08/2007 0815
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 2047 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 2047

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	3.5		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-15-08052007**

Lab Sample ID: 720-9034-4 Date Sampled: 05/08/2007 0815
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21411 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/10/2007 2047 Final Weight/Volume: 40 mL
Date Prepared: 05/10/2007 2047

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	1.7		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	122	83 - 127
1,2-Dichloroethane-d4 (Surr)	113	86 - 129
Toluene-d8 (Surr)	115	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-EB**

Lab Sample ID: 720-9034-5 Date Sampled: 05/08/2007 0845
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1149 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1149

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-EB**

Lab Sample ID: 720-9034-5 Date Sampled: 05/08/2007 0845
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1149 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1149

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-08052007**

Lab Sample ID: 720-9034-6 Date Sampled: 05/08/2007 0930
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1403 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1403

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	12		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-08052007**

Lab Sample ID: 720-9034-6 Date Sampled: 05/08/2007 0930
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1403 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1403

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	1.4		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	102	83 - 127
1,2-Dichloroethane-d4 (Surr)	105	86 - 129
Toluene-d8 (Surr)	96	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-DUP**

Lab Sample ID: 720-9034-7 Date Sampled: 05/08/2007 0940
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1436 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1436

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	12		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-8-DUP**

Lab Sample ID: 720-9034-7 Date Sampled: 05/08/2007 0940
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1436 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1436

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	1.4		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 127
1,2-Dichloroethane-d4 (Surr)	105	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-4-08052007**

Lab Sample ID: 720-9034-8 Date Sampled: 05/08/2007 1030
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21530 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1151 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1151

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		50
Acetone	ND		500
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		10
Chlorobromomethane	ND		10
Bromoform	ND		10
Bromomethane	ND		10
Methyl Ethyl Ketone	ND		500
n-Butylbenzene	ND		10
sec-Butylbenzene	ND		10
tert-Butylbenzene	ND		10
Carbon disulfide	ND		50
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	520		10
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		10
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		10
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		5.0
Dichlorodifluoromethane	ND		5.0
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		10
2-Hexanone	ND		500
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		10

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-4-08052007**

Lab Sample ID: 720-9034-8 Date Sampled: 05/08/2007 1030
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21530 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1151 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1151

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		50
methyl isobutyl ketone	ND		500
Naphthalene	ND		10
N-Propylbenzene	ND		10
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		10
1,2,4-Trichlorobenzene	ND		10
1,1,1-Trichloroethane	12		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		10
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		500
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	117	83 - 127
1,2-Dichloroethane-d4 (Surr)	109	86 - 129
Toluene-d8 (Surr)	118	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-1-08052007**

Lab Sample ID: 720-9034-9 Date Sampled: 05/08/2007 1130
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21530 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1336 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1336

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	49		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	0.63		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	4.1		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-1-08052007**

Lab Sample ID: 720-9034-9 Date Sampled: 05/08/2007 1130
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21530 Instrument ID: Varian 3900D
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1336 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1336

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	11		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	118	83 - 127
1,2-Dichloroethane-d4 (Surr)	115	86 - 129
Toluene-d8 (Surr)	121	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-3-TB**

Lab Sample ID: 720-9034-10TB Date Sampled: 05/07/2007 1300
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1116 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1116

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-3-TB**

Lab Sample ID: 720-9034-10TB
Client Matrix: Water

Date Sampled: 05/07/2007 1300
Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 05/11/2007 1116
Date Prepared: 05/11/2007 1116

Analysis Batch: 720-21466

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	103	83 - 127
1,2-Dichloroethane-d4 (Surr)	97	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-2-08052007**

Lab Sample ID: 720-9034-11 Date Sampled: 05/08/2007 1240
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1616 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1616

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	95		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	3.7		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9034-1

Client Sample ID: **EW-2-08052007**

Lab Sample ID: 720-9034-11 Date Sampled: 05/08/2007 1240
Client Matrix: Water Date Received: 05/08/2007 1455

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21466 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/11/2007 1616 Final Weight/Volume: 40 mL
Date Prepared: 05/11/2007 1616

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	5.4		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 127
1,2-Dichloroethane-d4 (Surr)	101	86 - 129
Toluene-d8 (Surr)	93	82 - 126

DATA REPORTING QUALIFIERS

Client: ENVIRON International Corp. Job Number: 720-9034-1

Lab Section	Qualifier	Description
GC/MS VOA		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Client: ENVIRON International Corp. Job Number: 720-9034-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-21411					
LCS 720-21411/1	Lab Control Spike	T	Water	8260B	
MB 720-21411/2	Method Blank	T	Water	8260B	
720-9012-B-3 MS	Matrix Spike	T	Water	8260B	
720-9012-C-3 MSD	Matrix Spike Duplicate	T	Water	8260B	
720-9034-1	EW-3-07052007	T	Water	8260B	
720-9034-2	EW-7-07052007	T	Water	8260B	
720-9034-3	EW-12-07052007	T	Water	8260B	
720-9034-4	EW-15-08052007	T	Water	8260B	
Analysis Batch:720-21466					
LCS 720-21466/1	Lab Control Spike	T	Water	8260B	
MB 720-21466/2	Method Blank	T	Water	8260B	
720-9034-5	EW-8-EB	T	Water	8260B	
720-9034-6	EW-8-08052007	T	Water	8260B	
720-9034-7	EW-8-DUP	T	Water	8260B	
720-9034-10TB	EW-3-TB	T	Water	8260B	
720-9034-11	EW-2-08052007	T	Water	8260B	
720-9057-A-3 MS	Matrix Spike	T	Water	8260B	
720-9057-A-3 MSD	Matrix Spike Duplicate	T	Water	8260B	
Analysis Batch:720-21530					
LCS 720-21530/1	Lab Control Spike	T	Water	8260B	
MB 720-21530/2	Method Blank	T	Water	8260B	
720-9034-8	EW-4-08052007	T	Water	8260B	
720-9034-8MS	Matrix Spike	T	Water	8260B	
720-9034-8MSD	Matrix Spike Duplicate	T	Water	8260B	
720-9034-9	EW-1-08052007	T	Water	8260B	

Report Basis
T = Total

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Method Blank - Batch: 720-21411

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21411/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2007 1054
Date Prepared: 05/10/2007 1054

Analysis Batch: 720-21411
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Method Blank - Batch: 720-21411

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21411/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2007 1054
Date Prepared: 05/10/2007 1054

Analysis Batch: 720-21411
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	118	83 - 127
1,2-Dichloroethane-d4 (Surr)	107	86 - 129
Toluene-d8 (Surr)	115	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Lab Control Spike - Batch: 720-21411

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-21411/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2007 1019
Date Prepared: 05/10/2007 1019

Analysis Batch: 720-21411
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	20.2	101	69 - 129	
Chlorobenzene	20.0	22.7	114	61 - 121	
1,1-Dichloroethene	20.0	22.2	111	65 - 125	
Toluene	20.0	20.8	104	70 - 130	
Trichloroethene	20.0	18.0	90	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	115	83 - 127
1,2-Dichloroethane-d4 (Surr)	100	86 - 129
Toluene-d8 (Surr)	111	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-21411

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	720-9012-B-3 MS	Analysis Batch: 720-21411	Instrument ID: Varian 3900D
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\(
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/10/2007 1313		Final Weight/Volume: 40 mL
Date Prepared:	05/10/2007 1313		

MSD Lab Sample ID:	720-9012-C-3 MSD	Analysis Batch: 720-21411	Instrument ID: Varian 3900D
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\05
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	05/10/2007 1348		Final Weight/Volume: 40 mL
Date Prepared:	05/10/2007 1348		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	96	103	69 - 129	6	20		
Chlorobenzene	105	114	61 - 121	9	20		
1,1-Dichloroethene	102	111	65 - 125	9	20		
Toluene	103	105	70 - 130	2	20		
Trichloroethene	99	128	74 - 134	6	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	110	122	83 - 127
1,2-Dichloroethane-d4 (Surr)	103	107	86 - 129
Toluene-d8 (Surr)	111	115	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Method Blank - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21466/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1043
Date Prepared: 05/11/2007 1043

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Method Blank - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21466/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1043
Date Prepared: 05/11/2007 1043

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	101	83 - 127
1,2-Dichloroethane-d4 (Surr)	103	86 - 129
Toluene-d8 (Surr)	95	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Lab Control Spike - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-21466/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1009
Date Prepared: 05/11/2007 1009

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	17.0	85	69 - 129	
Chlorobenzene	20.0	19.5	98	61 - 121	
1,1-Dichloroethene	20.0	18.7	93	65 - 125	
Toluene	20.0	16.7	83	70 - 130	
Trichloroethene	20.0	16.4	82	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	95	83 - 127
1,2-Dichloroethane-d4 (Surr)	95	86 - 129
Toluene-d8 (Surr)	90	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-21466

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	720-9057-A-3 MS	Analysis Batch: 720-21466	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\(
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/11/2007 1256		Final Weight/Volume: 40 mL
Date Prepared:	05/11/2007 1256		

MSD Lab Sample ID:	720-9057-A-3 MSD	Analysis Batch: 720-21466	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\05
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/11/2007 1329		Final Weight/Volume: 40 mL
Date Prepared:	05/11/2007 1329		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	94	103	69 - 129	8	20		
Chlorobenzene	105	112	61 - 121	6	20		
1,1-Dichloroethene	103	115	65 - 125	11	20		
Toluene	91	96	70 - 130	5	20		
Trichloroethene	95	106	74 - 134	2	20	4	4

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	99	98	83 - 127
1,2-Dichloroethane-d4 (Surr)	99	101	86 - 129
Toluene-d8 (Surr)	95	96	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp. Job Number: 720-9034-1

Method Blank - Batch: 720-21530

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21530/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1041
Date Prepared: 05/14/2007 1041

Analysis Batch: 720-21530
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Method Blank - Batch: 720-21530

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21530/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1041
Date Prepared: 05/14/2007 1041

Analysis Batch: 720-21530
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	115	83 - 127
1,2-Dichloroethane-d4 (Surr)	107	86 - 129
Toluene-d8 (Surr)	118	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9034-1

Lab Control Spike - Batch: 720-21530

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-21530/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1007
Date Prepared: 05/14/2007 1007

Analysis Batch: 720-21530
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900D
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	18.8	94	69 - 129	
Chlorobenzene	20.0	20.9	105	61 - 121	
1,1-Dichloroethene	20.0	19.6	98	65 - 125	
Toluene	20.0	20.1	100	70 - 130	
Trichloroethene	20.0	17.2	86	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	114	83 - 127
1,2-Dichloroethane-d4 (Surr)	102	86 - 129
Toluene-d8 (Surr)	111	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp. Job Number: 720-9034-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-21530

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	720-9034-8	Analysis Batch:	720-21530	Instrument ID:	Varian 3900D
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	c:\saturnws\data\200705\(
Dilution:	10			Initial Weight/Volume:	40 mL
Date Analyzed:	05/14/2007 1226			Final Weight/Volume:	40 mL
Date Prepared:	05/14/2007 1226				

MSD Lab Sample ID:	720-9034-8	Analysis Batch:	720-21530	Instrument ID:	Varian 3900D
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	c:\saturnws\data\200705\05
Dilution:	10			Initial Weight/Volume:	40 mL
Date Analyzed:	05/14/2007 1301			Final Weight/Volume:	40 mL
Date Prepared:	05/14/2007 1301				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	91	99	69 - 129	8	20		
Chlorobenzene	98	109	61 - 121	11	20		
1,1-Dichloroethene	93	101	65 - 125	8	20		
Toluene	97	104	70 - 130	8	20		
Trichloroethene	83	89	74 - 134	7	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	113	114	83 - 127
1,2-Dichloroethane-d4 (Surr)	106	108	86 - 129
Toluene-d8 (Surr)	116	117	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

ENVIRON
6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

720-9034

CHAIN-of-CUSTODY

105370

00780

PROJECT NAME / FACILITY ID: HITACHI GST FIELD PERSON: N. MARKMAN

PROJECT NUMBER: 03-119036 DATE: 5/8/2007 PROJECT MANAGER: A. GATES

PROJECT LOCATION: SAN JOSE, CA LABORATORY: STL

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: -NA- WO#: 03-119036/2007-STL-#2

SAMPLER: Nicholas MARKMAN YEAR 2007

SIGNATURE: Nicholas Markman

SAMPLE I.D. NUMBER	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED VOCs								COMMENTS
EW-3-07052007	5/7	1315	-	W	3	U	H	X								
EW-7-07052007	5/7	1430	-	W	3	U	H	X								
EW-12-07052007	5/7	1540	-	W	3	U	H	X								Please send
EW-15-08052007	5/8	815	-	W	3	U	H	X								results to
EW-8-EB	5/8	845	-	W	3	U	H	X								• ~~orientie@environ~~ corp.com
EW-8-08052007	5/8	930	-	W	3	U	H	X								• agates@environ corp.com
EW-8-DUP	5/8	940	-	W	3	U	H	X								• nmarkman@environ corp.com
EW-4-08052007	5/8	1030	-	W	3	U	H	X								
EW-1-08052007	5/8	1130	-	W	3	U	H	X								Questions?
EW-3-TB	5/7	1300	-	W	2	U	H	X								N.C @ 510 932 4690
TOTAL	X	X	X	All W	29	All U	All H	10								Thanks!

Nicholas MARKMAN

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
Nicholas MARKMAN	1300/5-8-07	STL-SF	1300 5/8/07
STL-SF	1455 5/8/07		5/8/07 1455

TURNAROUND TIME (CIRCLE ONE): SAMEDAY, ~~24 HOURS~~ 48 HOURS, 72 HOURS, ~~5 DAYS~~, NORMAL

SAMPLE INTEGRITY INTACT: Y N Temp 2.4°C

IF SEALED, SEAL INTEGRITY INTACT: Y N

H = HCL; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

ENVIRON
6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

720-9034

CHAIN-of-CUSTODY

105370 00781

PROJECT NAME / FACILITY ID: Hitachi GST FIELD PERSON: N. MARKMAN

PROJECT NUMBER: 03-11903E DATE: 5/8/2007 PROJECT MANAGER: A. GATES

PROJECT LOCATION: SAN JOSE, CA LABORATORY: STL

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: -NA- WO#: 03-11903E/2007-STL-#2

SAMPLER: Nicholas MARKMAN

SIGNATURE: [signature]

SAMPLE I.D. NUMBER	SAMPLE DATE (YEAR 2007)	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED: VOCS								COMMENTS
EW-2-080052007	5/8	1240		W	3	U	H	X								
TOTAL	X	X	X	W	3	U	H	1								

Nicholas MARKMAN

H = HCL; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
Nicholas MARKMAN	13:00 / 5/8/2007	(COMPANY): STL-SF	1300 5/8/07
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
STL-SF	1455 5/8/07	(COMPANY):	5/8/07 1455
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
		(COMPANY):	

TURNAROUND TIME (CIRCLE ONE): SAMEDAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, NORMAL

SAMPLE INTEGRITY: INTACT: Y N Temp 2.4°C

IF SEALED, SEAL INTEGRITY: INTACT: Y N

LOGIN SAMPLE RECEIPT CHECK LIST

Client: ENVIRON International Corp. Job Number: 720-9034-1

Login Number: 9034

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

STL Job Number: 720-9054-1 – May 2007 Well Sample Results #2

ANALYTICAL REPORT

Job Number: 720-9054-1

Job Description: Hitachi GST

For:
ENVIRON International Corp.
6001 Shellmound Street
Suite 700
Emeryville, CA 94608

Attention: Ms. Anne Gates

Dimple Sharma
Project Manager I
dsharma@stl-inc.com
05/15/2007

cc: Ms. Wendy Devaney
Mr. Nicholas Markman
Mr. Chris Ritchie

Project Manager: Dimple Sharma

I. Comments
No additional comments.

II. Receipt
All samples were received in good condition within temperature requirements.

III. GC/MS VOA
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ENVIRON International Corp. Job Number: 720-9054-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-9054-2	**EW-6-08052007**				
Chloroform		130	2.0	ug/L	8260B
1,1-Dichloroethene		2.7	1.0	ug/L	8260B
1,1,1-Trichloroethane		3.1	1.0	ug/L	8260B
720-9054-3	**EW-11-08052007**				
Chloroform		56	1.0	ug/L	8260B
1,1-Dichloroethene		1.2	0.50	ug/L	8260B
1,1,1-Trichloroethane		4.4	0.50	ug/L	8260B
720-9054-4	**EW-14-09052007**				
Chloroform		150	2.0	ug/L	8260B
1,1,1-Trichloroethane		3.3	1.0	ug/L	8260B
720-9054-5	**EW-10-09052007**				
Chloroform		550	10	ug/L	8260B
720-9054-6	**EW-13-09052007**				
Chloroform		350	10	ug/L	8260B
720-9054-7	**EW-9-09052007**				
Chloroform		920	20	ug/L	8260B
720-9054-8	**EW-5-09052007**				
Chloroform		870	20	ug/L	8260B

METHOD SUMMARY

Client: ENVIRON International Corp. Job Number: 720-9054-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS (Low Level)	STL SF	SW846 8260B	
Purge-and-Trap	STL SF		SW846 5030B

LAB REFERENCES:

STL SF = STL San Francisco

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986
And Its Updates.

SAMPLE SUMMARY

Client: ENVIRON International Corp. Job Number: 720-9054-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-9054-1TB	EW-6-TB	Water	05/08/2007 1415	05/09/2007 1450
720-9054-2	EW-6-08052007	Water	05/08/2007 1430	05/09/2007 1450
720-9054-3	EW-11-08052007	Water	05/08/2007 1530	05/09/2007 1450
720-9054-4	EW-14-09052007	Water	05/09/2007 0840	05/09/2007 1450
720-9054-5	EW-10-09052007	Water	05/09/2007 0940	05/09/2007 1450
720-9054-6	EW-13-09052007	Water	05/09/2007 1040	05/09/2007 1450
720-9054-7	EW-9-09052007	Water	05/09/2007 1140	05/09/2007 1450
720-9054-8	EW-5-09052007	Water	05/09/2007 1240	05/09/2007 1450

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-6-TB**

Lab Sample ID: 720-9054-1TB
Client Matrix: Water

Date Sampled: 05/08/2007 1415
Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 05/11/2007 1649
Date Prepared: 05/11/2007 1649

Analysis Batch: 720-21466

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-6-TB**

Lab Sample ID: 720-9054-1TB
Client Matrix: Water

Date Sampled: 05/08/2007 1415
Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 05/11/2007 1649
Date Prepared: 05/11/2007 1649

Analysis Batch: 720-21466

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	99	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	97	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-6-08052007**

Lab Sample ID: 720-9054-2 Date Sampled: 05/08/2007 1430
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 2.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1431 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1431

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		10
Acetone	ND		100
Benzene	ND		1.0
Dichlorobromomethane	ND		1.0
Bromobenzene	ND		2.0
Chlorobromomethane	ND		2.0
Bromoform	ND		2.0
Bromomethane	ND		2.0
Methyl Ethyl Ketone	ND		100
n-Butylbenzene	ND		2.0
sec-Butylbenzene	ND		2.0
tert-Butylbenzene	ND		2.0
Carbon disulfide	ND		10
Carbon tetrachloride	ND		1.0
Chlorobenzene	ND		1.0
Chloroethane	ND		2.0
Chloroform	130		2.0
Chloromethane	ND		2.0
2-Chlorotoluene	ND		1.0
4-Chlorotoluene	ND		1.0
Chlorodibromomethane	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
1,3-Dichloropropane	ND		2.0
1,1-Dichloropropene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		2.0
Ethylene Dibromide	ND		1.0
Dibromomethane	ND		1.0
Dichlorodifluoromethane	ND		1.0
1,1-Dichloroethane	ND		1.0
1,2-Dichloroethane	ND		1.0
1,1-Dichloroethene	2.7		1.0
cis-1,2-Dichloroethene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
cis-1,3-Dichloropropene	ND		1.0
trans-1,3-Dichloropropene	ND		1.0
Ethylbenzene	ND		1.0
Hexachlorobutadiene	ND		2.0
2-Hexanone	ND		100
Isopropylbenzene	ND		1.0
4-Isopropyltoluene	ND		2.0

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-6-08052007**

Lab Sample ID: 720-9054-2 Date Sampled: 05/08/2007 1430
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 2.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1431 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1431

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		10
methyl isobutyl ketone	ND		100
Naphthalene	ND		2.0
N-Propylbenzene	ND		2.0
Styrene	ND		1.0
1,1,1,2-Tetrachloroethane	ND		1.0
1,1,2,2-Tetrachloroethane	ND		1.0
Tetrachloroethene	ND		1.0
Toluene	ND		1.0
1,2,3-Trichlorobenzene	ND		2.0
1,2,4-Trichlorobenzene	ND		2.0
1,1,1-Trichloroethane	3.1		1.0
1,1,2-Trichloroethane	ND		1.0
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		2.0
1,2,3-Trichloropropane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0
1,2,4-Trimethylbenzene	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
Vinyl acetate	ND		100
Vinyl chloride	ND		1.0
Xylenes, Total	ND		2.0
2,2-Dichloropropane	ND		1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 127
1,2-Dichloroethane-d4 (Surr)	106	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-11-08052007**

Lab Sample ID: 720-9054-3 Date Sampled: 05/08/2007 1530
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1358 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1358

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	56		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	1.2		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-11-08052007**

Lab Sample ID: 720-9054-3 Date Sampled: 05/08/2007 1530
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 1.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1358 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1358

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	4.4		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	95	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	97	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-14-09052007**

Lab Sample ID: 720-9054-4 Date Sampled: 05/09/2007 0840
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 2.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1504 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1504

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		10
Acetone	ND		100
Benzene	ND		1.0
Dichlorobromomethane	ND		1.0
Bromobenzene	ND		2.0
Chlorobromomethane	ND		2.0
Bromoform	ND		2.0
Bromomethane	ND		2.0
Methyl Ethyl Ketone	ND		100
n-Butylbenzene	ND		2.0
sec-Butylbenzene	ND		2.0
tert-Butylbenzene	ND		2.0
Carbon disulfide	ND		10
Carbon tetrachloride	ND		1.0
Chlorobenzene	ND		1.0
Chloroethane	ND		2.0
Chloroform	150		2.0
Chloromethane	ND		2.0
2-Chlorotoluene	ND		1.0
4-Chlorotoluene	ND		1.0
Chlorodibromomethane	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
1,3-Dichloropropane	ND		2.0
1,1-Dichloropropene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		2.0
Ethylene Dibromide	ND		1.0
Dibromomethane	ND		1.0
Dichlorodifluoromethane	ND		1.0
1,1-Dichloroethane	ND		1.0
1,2-Dichloroethane	ND		1.0
1,1-Dichloroethene	ND		1.0
cis-1,2-Dichloroethene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
cis-1,3-Dichloropropene	ND		1.0
trans-1,3-Dichloropropene	ND		1.0
Ethylbenzene	ND		1.0
Hexachlorobutadiene	ND		2.0
2-Hexanone	ND		100
Isopropylbenzene	ND		1.0
4-Isopropyltoluene	ND		2.0

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-14-09052007**

Lab Sample ID: 720-9054-4 Date Sampled: 05/09/2007 0840
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 2.0 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1504 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1504

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		10
methyl isobutyl ketone	ND		100
Naphthalene	ND		2.0
N-Propylbenzene	ND		2.0
Styrene	ND		1.0
1,1,1,2-Tetrachloroethane	ND		1.0
1,1,2,2-Tetrachloroethane	ND		1.0
Tetrachloroethene	ND		1.0
Toluene	ND		1.0
1,2,3-Trichlorobenzene	ND		2.0
1,2,4-Trichlorobenzene	ND		2.0
1,1,1-Trichloroethane	3.3		1.0
1,1,2-Trichloroethane	ND		1.0
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		2.0
1,2,3-Trichloropropane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0
1,2,4-Trimethylbenzene	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
Vinyl acetate	ND		100
Vinyl chloride	ND		1.0
Xylenes, Total	ND		2.0
2,2-Dichloropropane	ND		1.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	99	83 - 127
1,2-Dichloroethane-d4 (Surr)	108	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-10-09052007**

Lab Sample ID: 720-9054-5 Date Sampled: 05/09/2007 0940
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1538 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1538

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		50
Acetone	ND		500
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		10
Chlorobromomethane	ND		10
Bromoform	ND		10
Bromomethane	ND		10
Methyl Ethyl Ketone	ND		500
n-Butylbenzene	ND		10
sec-Butylbenzene	ND		10
tert-Butylbenzene	ND		10
Carbon disulfide	ND		50
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	550		10
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		10
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		10
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		5.0
Dichlorodifluoromethane	ND		5.0
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		10
2-Hexanone	ND		500
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		10

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-10-09052007**

Lab Sample ID: 720-9054-5 Date Sampled: 05/09/2007 0940
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1538 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1538

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		50
methyl isobutyl ketone	ND		500
Naphthalene	ND		10
N-Propylbenzene	ND		10
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		10
1,2,4-Trichlorobenzene	ND		10
1,1,1-Trichloroethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		10
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		500
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 127
1,2-Dichloroethane-d4 (Surr)	109	86 - 129
Toluene-d8 (Surr)	96	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-13-09052007**

Lab Sample ID: 720-9054-6 Date Sampled: 05/09/2007 1040
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1218 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1218

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		50
Acetone	ND		500
Benzene	ND		5.0
Dichlorobromomethane	ND		5.0
Bromobenzene	ND		10
Chlorobromomethane	ND		10
Bromoform	ND		10
Bromomethane	ND		10
Methyl Ethyl Ketone	ND		500
n-Butylbenzene	ND		10
sec-Butylbenzene	ND		10
tert-Butylbenzene	ND		10
Carbon disulfide	ND		50
Carbon tetrachloride	ND		5.0
Chlorobenzene	ND		5.0
Chloroethane	ND		10
Chloroform	350		10
Chloromethane	ND		10
2-Chlorotoluene	ND		5.0
4-Chlorotoluene	ND		5.0
Chlorodibromomethane	ND		5.0
1,2-Dichlorobenzene	ND		5.0
1,3-Dichlorobenzene	ND		5.0
1,4-Dichlorobenzene	ND		5.0
1,3-Dichloropropane	ND		10
1,1-Dichloropropene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		10
Ethylene Dibromide	ND		5.0
Dibromomethane	ND		5.0
Dichlorodifluoromethane	ND		5.0
1,1-Dichloroethane	ND		5.0
1,2-Dichloroethane	ND		5.0
1,1-Dichloroethene	ND		5.0
cis-1,2-Dichloroethene	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
cis-1,3-Dichloropropene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
Ethylbenzene	ND		5.0
Hexachlorobutadiene	ND		10
2-Hexanone	ND		500
Isopropylbenzene	ND		5.0
4-Isopropyltoluene	ND		10

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-13-09052007**

Lab Sample ID: 720-9054-6 Date Sampled: 05/09/2007 1040
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 10 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1218 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1218

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		50
methyl isobutyl ketone	ND		500
Naphthalene	ND		10
N-Propylbenzene	ND		10
Styrene	ND		5.0
1,1,1,2-Tetrachloroethane	ND		5.0
1,1,2,2-Tetrachloroethane	ND		5.0
Tetrachloroethene	ND		5.0
Toluene	ND		5.0
1,2,3-Trichlorobenzene	ND		10
1,2,4-Trichlorobenzene	ND		10
1,1,1-Trichloroethane	ND		5.0
1,1,2-Trichloroethane	ND		5.0
Trichloroethene	ND		5.0
Trichlorofluoromethane	ND		10
1,2,3-Trichloropropane	ND		5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0
1,2,4-Trimethylbenzene	ND		5.0
1,3,5-Trimethylbenzene	ND		5.0
Vinyl acetate	ND		500
Vinyl chloride	ND		5.0
Xylenes, Total	ND		10
2,2-Dichloropropane	ND		5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	102	83 - 127
1,2-Dichloroethane-d4 (Surr)	104	86 - 129
Toluene-d8 (Surr)	95	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-9-09052007**

Lab Sample ID: 720-9054-7 Date Sampled: 05/09/2007 1140
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 20 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1611 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1611

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		100
Acetone	ND		1000
Benzene	ND		10
Dichlorobromomethane	ND		10
Bromobenzene	ND		20
Chlorobromomethane	ND		20
Bromoform	ND		20
Bromomethane	ND		20
Methyl Ethyl Ketone	ND		1000
n-Butylbenzene	ND		20
sec-Butylbenzene	ND		20
tert-Butylbenzene	ND		20
Carbon disulfide	ND		100
Carbon tetrachloride	ND		10
Chlorobenzene	ND		10
Chloroethane	ND		20
Chloroform	920		20
Chloromethane	ND		20
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
Chlorodibromomethane	ND		10
1,2-Dichlorobenzene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,3-Dichloropropane	ND		20
1,1-Dichloropropene	ND		10
1,2-Dibromo-3-Chloropropane	ND		20
Ethylene Dibromide	ND		10
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		10
1,2-Dichloroethane	ND		10
1,1-Dichloroethene	ND		10
cis-1,2-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,2-Dichloropropane	ND		10
cis-1,3-Dichloropropene	ND		10
trans-1,3-Dichloropropene	ND		10
Ethylbenzene	ND		10
Hexachlorobutadiene	ND		20
2-Hexanone	ND		1000
Isopropylbenzene	ND		10
4-Isopropyltoluene	ND		20

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-9-09052007**

Lab Sample ID: 720-9054-7 Date Sampled: 05/09/2007 1140
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 20 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1611 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1611

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		100
methyl isobutyl ketone	ND		1000
Naphthalene	ND		20
N-Propylbenzene	ND		20
Styrene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
1,1,2,2-Tetrachloroethane	ND		10
Tetrachloroethene	ND		10
Toluene	ND		10
1,2,3-Trichlorobenzene	ND		20
1,2,4-Trichlorobenzene	ND		20
1,1,1-Trichloroethane	ND		10
1,1,2-Trichloroethane	ND		10
Trichloroethene	ND		10
Trichlorofluoromethane	ND		20
1,2,3-Trichloropropane	ND		10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10
1,2,4-Trimethylbenzene	ND		10
1,3,5-Trimethylbenzene	ND		10
Vinyl acetate	ND		1000
Vinyl chloride	ND		10
Xylenes, Total	ND		20
2,2-Dichloropropane	ND		10

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	99	83 - 127
1,2-Dichloroethane-d4 (Surr)	108	86 - 129
Toluene-d8 (Surr)	100	82 - 126

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-5-09052007**

Lab Sample ID: 720-9054-8 Date Sampled: 05/09/2007 1240
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 20 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1645 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1645

Analyte	Result (ug/L)	Qualifier	RL
Methyl tert-butyl ether	ND		100
Acetone	ND		1000
Benzene	ND		10
Dichlorobromomethane	ND		10
Bromobenzene	ND		20
Chlorobromomethane	ND		20
Bromoform	ND		20
Bromomethane	ND		20
Methyl Ethyl Ketone	ND		1000
n-Butylbenzene	ND		20
sec-Butylbenzene	ND		20
tert-Butylbenzene	ND		20
Carbon disulfide	ND		100
Carbon tetrachloride	ND		10
Chlorobenzene	ND		10
Chloroethane	ND		20
Chloroform	870		20
Chloromethane	ND		20
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
Chlorodibromomethane	ND		10
1,2-Dichlorobenzene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,3-Dichloropropane	ND		20
1,1-Dichloropropene	ND		10
1,2-Dibromo-3-Chloropropane	ND		20
Ethylene Dibromide	ND		10
Dibromomethane	ND		10
Dichlorodifluoromethane	ND		10
1,1-Dichloroethane	ND		10
1,2-Dichloroethane	ND		10
1,1-Dichloroethene	ND		10
cis-1,2-Dichloroethene	ND		10
trans-1,2-Dichloroethene	ND		10
1,2-Dichloropropane	ND		10
cis-1,3-Dichloropropene	ND		10
trans-1,3-Dichloropropene	ND		10
Ethylbenzene	ND		10
Hexachlorobutadiene	ND		20
2-Hexanone	ND		1000
Isopropylbenzene	ND		10
4-Isopropyltoluene	ND		20

Client: ENVIRON International Corp. Job Number: 720-9054-1

Client Sample ID: **EW-5-09052007**

Lab Sample ID: 720-9054-8 Date Sampled: 05/09/2007 1240
Client Matrix: Water Date Received: 05/09/2007 1450

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-21548 Instrument ID: Varian 3900F
Preparation: 5030B Lab File ID: c:\saturnws\data\200705\05
Dilution: 20 Initial Weight/Volume: 40 mL
Date Analyzed: 05/14/2007 1645 Final Weight/Volume: 40 mL
Date Prepared: 05/14/2007 1645

Analyte	Result (ug/L)	Qualifier	RL
Methylene Chloride	ND		100
methyl isobutyl ketone	ND		1000
Naphthalene	ND		20
N-Propylbenzene	ND		20
Styrene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
1,1,2,2-Tetrachloroethane	ND		10
Tetrachloroethene	ND		10
Toluene	ND		10
1,2,3-Trichlorobenzene	ND		20
1,2,4-Trichlorobenzene	ND		20
1,1,1-Trichloroethane	ND		10
1,1,2-Trichloroethane	ND		10
Trichloroethene	ND		10
Trichlorofluoromethane	ND		20
1,2,3-Trichloropropane	ND		10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10
1,2,4-Trimethylbenzene	ND		10
1,3,5-Trimethylbenzene	ND		10
Vinyl acetate	ND		1000
Vinyl chloride	ND		10
Xylenes, Total	ND		20
2,2-Dichloropropane	ND		10

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	97	83 - 127
1,2-Dichloroethane-d4 (Surr)	106	86 - 129
Toluene-d8 (Surr)	99	82 - 126

DATA REPORTING QUALIFIERS

Client: ENVIRON International Corp. Job Number: 720-9054-1

Lab Section	Qualifier	Description
GC/MS VOA		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Client: ENVIRON International Corp. Job Number: 720-9054-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-21466					
LCS 720-21466/1	Lab Control Spike	T	Water	8260B	
MB 720-21466/2	Method Blank	T	Water	8260B	
720-9054-1TB	EW-6-TB	T	Water	8260B	
720-9057-A-3 MS	Matrix Spike	T	Water	8260B	
720-9057-A-3 MSD	Matrix Spike Duplicate	T	Water	8260B	
Analysis Batch:720-21548					
LCS 720-21548/1	Lab Control Spike	T	Water	8260B	
MB 720-21548/2	Method Blank	T	Water	8260B	
720-9054-2	EW-6-08052007	T	Water	8260B	
720-9054-3	EW-11-08052007	T	Water	8260B	
720-9054-4	EW-14-09052007	T	Water	8260B	
720-9054-5	EW-10-09052007	T	Water	8260B	
720-9054-6	EW-13-09052007	T	Water	8260B	
720-9054-6MS	Matrix Spike	T	Water	8260B	
720-9054-6MSD	Matrix Spike Duplicate	T	Water	8260B	
720-9054-7	EW-9-09052007	T	Water	8260B	
720-9054-8	EW-5-09052007	T	Water	8260B	

Report Basis
T = Total

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Method Blank - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21466/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1043
Date Prepared: 05/11/2007 1043

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Method Blank - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21466/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1043
Date Prepared: 05/11/2007 1043

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	101	83 - 127
1,2-Dichloroethane-d4 (Surr)	103	86 - 129
Toluene-d8 (Surr)	95	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Lab Control Spike - Batch: 720-21466

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-21466/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2007 1009
Date Prepared: 05/11/2007 1009

Analysis Batch: 720-21466
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	17.0	85	69 - 129	
Chlorobenzene	20.0	19.5	98	61 - 121	
1,1-Dichloroethene	20.0	18.7	93	65 - 125	
Toluene	20.0	16.7	83	70 - 130	
Trichloroethene	20.0	16.4	82	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	95	83 - 127
1,2-Dichloroethane-d4 (Surr)	95	86 - 129
Toluene-d8 (Surr)	90	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-21466

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	720-9057-A-3 MS	Analysis Batch: 720-21466	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\(
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/11/2007 1256		Final Weight/Volume: 40 mL
Date Prepared:	05/11/2007 1256		

MSD Lab Sample ID:	720-9057-A-3 MSD	Analysis Batch: 720-21466	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\05
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/11/2007 1329		Final Weight/Volume: 40 mL
Date Prepared:	05/11/2007 1329		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	94	103	69 - 129	8	20		
Chlorobenzene	105	112	61 - 121	6	20		
1,1-Dichloroethene	103	115	65 - 125	11	20		
Toluene	91	96	70 - 130	5	20		
Trichloroethene	95	106	74 - 134	2	20	4	4

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	99	98	83 - 127
1,2-Dichloroethane-d4 (Surr)	99	101	86 - 129
Toluene-d8 (Surr)	95	96	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Method Blank - Batch: 720-21548

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21548/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1037
Date Prepared: 05/14/2007 1037

Analysis Batch: 720-21548
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Acetone	ND		50
Benzene	ND		0.50
Dichlorobromomethane	ND		0.50
Bromobenzene	ND		1.0
Chlorobromomethane	ND		1.0
Bromoform	ND		1.0
Bromomethane	ND		1.0
Methyl Ethyl Ketone	ND		50
n-Butylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
tert-Butylbenzene	ND		1.0
Carbon disulfide	ND		5.0
Carbon tetrachloride	ND		0.50
Chlorobenzene	ND		0.50
Chloroethane	ND		1.0
Chloroform	ND		1.0
Chloromethane	ND		1.0
2-Chlorotoluene	ND		0.50
4-Chlorotoluene	ND		0.50
Chlorodibromomethane	ND		0.50
1,2-Dichlorobenzene	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,3-Dichloropropane	ND		1.0
1,1-Dichloropropene	ND		0.50
1,2-Dibromo-3-Chloropropane	ND		1.0
Ethylene Dibromide	ND		0.50
Dibromomethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
1,1-Dichloroethane	ND		0.50
1,2-Dichloroethane	ND		0.50
1,1-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
trans-1,2-Dichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
Ethylbenzene	ND		0.50
Hexachlorobutadiene	ND		1.0
2-Hexanone	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Method Blank - Batch: 720-21548

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 720-21548/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1037
Date Prepared: 05/14/2007 1037

Analysis Batch: 720-21548
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Isopropylbenzene	ND		0.50
4-Isopropyltoluene	ND		1.0
Methylene Chloride	ND		5.0
methyl isobutyl ketone	ND		50
Naphthalene	ND		1.0
N-Propylbenzene	ND		1.0
Styrene	ND		0.50
1,1,1,2-Tetrachloroethane	ND		0.50
1,1,2,2-Tetrachloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Toluene	ND		0.50
1,2,3-Trichlorobenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
1,1,1-Trichloroethane	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Trichloroethene	ND		0.50
Trichlorofluoromethane	ND		1.0
1,2,3-Trichloropropane	ND		0.50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
1,2,4-Trimethylbenzene	ND		0.50
1,3,5-Trimethylbenzene	ND		0.50
Vinyl acetate	ND		50
Vinyl chloride	ND		0.50
Xylenes, Total	ND		1.0
2,2-Dichloropropane	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	95	83 - 127
1,2-Dichloroethane-d4 (Surr)	101	86 - 129
Toluene-d8 (Surr)	98	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Lab Control Spike - Batch: 720-21548

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 720-21548/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/14/2007 1004
Date Prepared: 05/14/2007 1004

Analysis Batch: 720-21548
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900F
Lab File ID: c:\saturnws\data\200705\05
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	20.0	19.1	96	69 - 129	
Chlorobenzene	20.0	21.4	107	61 - 121	
1,1-Dichloroethene	20.0	21.3	106	65 - 125	
Toluene	20.0	19.1	96	70 - 130	
Trichloroethene	20.0	19.6	98	74 - 134	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	93	83 - 127
1,2-Dichloroethane-d4 (Surr)	97	86 - 129
Toluene-d8 (Surr)	91	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ENVIRON International Corp.

Job Number: 720-9054-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-21548

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	720-9054-6	Analysis Batch: 720-21548	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\(
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/14/2007 1251		Final Weight/Volume: 40 mL
Date Prepared:	05/14/2007 1251		

MSD Lab Sample ID:	720-9054-6	Analysis Batch: 720-21548	Instrument ID: Varian 3900F
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: c:\saturnws\data\200705\05
Dilution:	10		Initial Weight/Volume: 40 mL
Date Analyzed:	05/14/2007 1324		Final Weight/Volume: 40 mL
Date Prepared:	05/14/2007 1324		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	86	101	69 - 129	16	20		
Chlorobenzene	98	110	61 - 121	12	20		
1,1-Dichloroethene	93	109	65 - 125	15	20		
Toluene	81	93	70 - 130	14	20		
Trichloroethene	83	98	74 - 134	17	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	97	98	83 - 127
1,2-Dichloroethane-d4 (Surr)	106	104	86 - 129
Toluene-d8 (Surr)	95	96	82 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

ENVIRON
6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

CHAIN-of-CUSTODY

720-9054

105392
00778

PAGE 1 of 1

PROJECT NAME / FACILITY ID: HITACHI GST FIELD PERSON: N. MARKMAN

PROJECT NUMBER: 03-119036 DATE: 5/9/2007 PROJECT MANAGER: A. GATES

PROJECT LOCATION: SAN JOSE, CA LABORATORY: STL

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y (N) IF YES, GLOBAL ID #: -NA- WO#: 03-119036/2007-STL-#2

SAMPLER: Nicholas MARKMAN
SIGNATURE: Nicholas Markman

	SAMPLE I.D. NUMBER	YEAR 2007 SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	ANALYSIS REQUIRED VOCs								COMMENTS
1.	EW-6-TB	5/8	1115	–	W	2	U	H	X								
2	EW-6-08052007	5/8	1430	–	W	3	U	H	X								Please send results to:
3.	EW-11-08052007	5/8	1530	–	W	3	U	H	X								critchie;
4.	EW-14-09052007	5/9	8:40	–	W	3	U	H	X								agates;
5	EW-10-09052007	5/9	9:40	–	W	3	U	H	X								nmarkman;
6	EW-13-09052007	5/9	10:40	–	W	3	U	H	X								@environcorp.com
7	EW-9-09052007	5/9	11:40	–	W	3	U	H	X								
8	EW-5-09052007	5/9	12:40	–	W	3	U	H	X								5.4C
																	Questions?
																	Nic (510) 932-4690
	TOTAL	X	X	X													Thanks!

Nicholas MARKMAN

RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE:
Nicholas Markman	1450/5-9-2007	(COMPANY): Tom Miller	5-9-07 1450
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY: (COMPANY):	TIME/DATE:

TURNAROUND TIME (CIRCLE ONE): SAMEDAY, 24 HOURS, 48 HOURS, 72 HOURS, 5 DAYS, (NORMAL)

SAMPLE INTEGRITY: INTACT: (Y) N Temp 5.4

IF SEALED, SEAL INTEGRITY: INTACT: Y N

H = HCL; N = HNO_3; S = H_2SO_4; U = UNKNOWN; NO = NONE; O = OTHER

LOGIN SAMPLE RECEIPT CHECK LIST

Client: ENVIRON International Corp. Job Number: 720-9054-1

Login Number: 9054

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	False	1of2 EW-6-TB air bubble
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

APPENDIX E

Partitioning Calculations and Estimates of Chloroform Mass

APPENDIX E

PROCEDURE FOR ESTIMATING SUBSURFACE CHLOROFORM MASS NEAR FORMER BUILDING 028J HITACHI GLOBAL STORAGE TECHNOLOGIES, INC. 5600 COTTLE ROAD SAN JOSE, CALIFORNIA

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APPENDIX E
PROCEDURE FOR ESTIMATING SUBSURFACE CHLOROFORM MASS NEAR FORMER BUILDING 028J

This appendix describes the methods used to estimate the distribution and total mass of subsurface chloroform in the impacted area surrounding former Building 028J, as presented in Section 4.4 of the Corrective Measures Report.

E.1 GENERAL APPROACH

The subsurface in the Building 028J Area was vertically divided into the vadose zone, from 5 to 32 feet below ground surface (bgs) and the A-aquifer, from 32 to 37 feet bgs. The extent of the impacted area was generally defined as the area where chloroform was detected in ground water between January and May 2007 (approximately 34,000 square feet, Figure E.1). The impacted portion of the vadose zone was considered to be the area directly above the impacted area of the A-aquifer.

In the A-aquifer, the total chloroform mass was calculated as the sum of chloroform present in ground water and sorbed to saturated soil. In the vadose zone, the total chloroform mass was calculated as the sum of chloroform present in soil gas, soil moisture, and sorbed to soil. The following summarizes the procedures used for selecting input data and performing the partitioning calculations.

E.2 SOIL PROPERTIES

Soil property data (i.e. porosity, bulk density) required for the partitioning calculations were specified for the vadose zone and A-aquifer using the average of measured values for each of these zones (Table E.1). The fraction of organic carbon in soil (f_{oc}) in the vadose zone, which was not measured, was set to the average value for the A-Aquifer (0.002).

E.3 PARTITIONING CALCULATIONS

Using a GIS procedure, chloroform ground water sample data collected in the vicinity of Building 028J from January to May 2007 was interpolated over the area of the site where chloroform was detected in ground water (approximately 34,000 square feet, Figure E.1). The interpolated values were then averaged over the interpolation grid to estimate the

average chloroform concentration within this region. The resulting value, 144 µg/L, was used as the input value for partitioning calculations in the A-Aquifer.

In the A-aquifer, the following equation was used to estimate the average concentration of chloroform in soil (sorbed phase) based on the average concentration in ground water:

$$C_s = K_d \cdot C_w \qquad \text{E-1}$$

Where: C_s = Chloroform concentration sorbed to soil (µg/kg)
C_w = Chloroform concentration in ground water (µg/L)
K_d = Distribution coefficient (L/kg)

The distribution coefficient, Kd, was calculated using the following equation:

$$K_d = K_{oc} \cdot f_{oc} \qquad \text{E-2}$$

Where:
K_{oc} = Organic carbon partition coefficient (L/kg)

The K_{oc} value for chloroform (39.8 L/kg) was obtained from *User's Guide for Evaluating Subsurface Vapor Intrusion Into Buildings* (USEPA, 2004). The f_{oc} value was the average measured value for A-aquifer soil (Section II).

In the vadose zone, soil gas concentrations were used as starting data to estimate average concentrations in the soil moisture and sorbed phases. Two methods were used to estimate the average soil gas concentrations in the vadose zone. The higher estimate of average soil gas concentration (17 µg/L) was calculated using the following equation, with C_w set to the average concentration of chloroform in ground water (144 µg/L):

$$C_{sg} = K_H \cdot C_w \qquad \text{E-3}$$

Where: C_{sg} = Chloroform concentration in soil gas (µg/L)
K_H = Henry's Law constant (unitless)[1]

A second estimate of average soil gas concentration throughout the Building 028J Area was obtained by averaging prior soil gas measurements collected in the impacted area (as the numerical average of detected values), resulting in an average soil gas concentration of 6 µg/L.

[1] The K_H value for chloroform (0.118) assumes an average soil temperature of 66º F (USEPA, 2004).

Using these soil gas concentrations as estimates of the upper and lower range of average soil gas concentration, the range of potential chloroform levels in soil moisture was estimated using Equation E-3. The range of potential chloroform levels in vadose zone soil (sorbed phase) was estimated from the calculated levels in soil moisture using Equation E-1.

E.4 MASS ESTIMATE

In the A-aquifer, the total chloroform mass in ground water and soil were calculated using the estimated volume of the impacted portion of the A-aquifer and the average soil properties for the A-aquifer (Table E-1) as follows:

$$M_{gw} = C_w \cdot V_a \cdot \eta_{tot} \qquad \text{E-4}$$

$$M_{as} = C_s \cdot V_a \cdot \rho \qquad \text{E-5}$$

Where:
M_{gw} = Mass of chloroform in ground water
M_{as} = Mass of chloroform in A-aquifer soil
V_a = Total volume of A-aquifer
η_{tot} = Total porosity
ρ = Bulk density

The resulting chloroform mass in the A-aquifer was estimated as 0.64 pounds in ground water and 0.19 pounds sorbed to soil, for a total of 0.83 pounds.

In the vadose zone, the total chloroform mass in soil gas, soil moisture, and sorbed to soil were calculated using the estimated ranges of values as:

$$M_{sg} = C_{sg} \cdot V_v \cdot \eta_{air} \qquad \text{E-6}$$

$$M_{sm} = C_{sm} \cdot V_v \cdot \eta_{wat} \qquad \text{E-7}$$

$$M_{ss} = C_s \cdot V_v \cdot \rho \qquad \text{E-8}$$

Where:
M_{sg} = Mass of chloroform in soil gas
M_{sm} = Mass of chloroform in soil moisture
M_{ss} = Mass of chloroform sorbed to soil
C_{sm} = Chloroform concentration in soil moisture
V_v = Vadose zone volume
η_{air} = Air-filled porosity
η_{wat} = Water-filled porosity

The resulting estimates of chloroform mass in soil gas, soil moisture and sorbed to soil ranged from 0.04 to 0.10 lbs, 0.86 to 2.4 lbs, and 0.04 to 0.12 lbs, respectively.

The mass of chloroform in each partition were then summed for a total site estimate of subsurface chloroform mass. This total ranged from 1.78 to 3.47 lbs. Tables E.2 and E.3 summarize the mass estimate calculations for the upper and lower bound scenarios.

E.5 REFERENCES

California Environmental Protection Agency Department of Toxic Substances Control (DTSC). 2004. *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air.* Interim Final. December 15.

United States Environmental Protection Agency (USEPA). 2004. *User's Guide for Evaluating Subsurface Vapor Intrusion Into Buildings*. Office of Emergency and Remedial Response. February 22.

Table E.1
Measured Soil Properties for A-Aquifer and Vadose Zone
Building 028J Area, Hitachi GST, San Jose, California

A-Aquifer				
Sample Location	**Bulk Density (g/cm^3)**	**Moisture content (g/g)**	**Total Porosity (cm^3/cm^3)**	**Fraction Organic Carbon (g/g)**
EW-1-32-32.5	1.76	0.23	0.434	0.00082
EW-8-33.5-34	1.47	0.24	0.406	0.00215
EW-10-35-35.5	1.48	0.25	0.4	0.00165
EW-15-34.5-35	1.51	0.34	0.447	0.00325
Min	1.47	0.23	0.4	0.00082
Max	1.76	0.34	0.447	0.00325
Average	1.56	0.27	0.422	0.00197

Vadose Zone [a]					
Sample Location	**Bulk Density (g/cm^3)**	**Moisture content (g/g)**	**Total Porosity (cm^3/cm^3)**	**Water-filled porosity (cm^3/cm^3)**	**Air-filled porosity (cm^3/cm^3)**
EW-1-6.5-7	1.58	0.113	0.413	0.179	0.234
EW-1-10-10.5	1.57	0.241	0.414	0.378	0.036
EW-1-21.5-22	1.75	0.183	0.347	0.32	0.027
EW-6-17-17.5	1.65	0.222	0.387	0.366	0.021
EW-10-8-8.5	1.57	0.087	0.415	0.136	0.279
EW-10-16-16.5	1.53	0.256	0.427	0.39	0.034
EW-10-22.5-23	1.59	0.208	0.408	0.33	0.077
EW-15-11-11.5	1.63	0.078	0.392	0.13	0.265
EW-15-19-19.5	1.61	0.201	0.401	0.32	0.077
EW-15-23-23.5	1.66	0.226	0.383	0.38	0.008
Min	1.53	0.08	0.35	0.13	0.01
Max	1.75	0.26	0.43	0.39	0.28
Average	1.61	0.18	0.40	0.29	0.11

Notes:
[a] No FOC measurements were available for the Vadose Zone. The measured value for the A-aquifer was applied to the vadose zone.

Table E.2
Estimate of Total Chloroform Mass Using Ground Water Data
Building 028J Area, Hitachi GST, San Jose, California

Chloroform Partitioning from Ground Water In A-Aquifer				
		Value	**Unit**	**Source**
Input Values	Average ground water concentration	144	µg/L	GIS calculation
	Area of CF-impacted aquifer	34,000	ft^2	GIS calculation
	Aquifer thickness	5	ft	Conservative estimate
	Total porosity	0.42		Average measured
	Bulk density	1.56	kg/L	Average measured
Calculated Values	CF soil concentration (sorbed in aquifer)	11.5	ug/kg	
	Total CF in ground water	0.64	lbs	
	Total CF in soil (sorbed)	0.19	lbs	
	Total CF mass in saturated zone (lbs)	**0.83**	lbs	

Chloroform Partitioning from Soil Gas in Vadose zone				
		Value	**Unit**	**Source**
Input Values	Thickness	27	ft	Estimate, assumes top 5 feet of vadose zone not affected.
	Air-filled porosity	0.11		Average measured
	Average soil gas concentration	17.0	µg/L	Average based on partitioning from ground water
	Water-filled porosity	0.29		Average measured
	Bulk density	1.61	kg/L	Average measured
Calculated Values	CF soil moisture concentration	144	µg/L	
	CF soil concentration (sorbed)	1.35	µg/kg	
	Total CF in soil moisture	2.41	lbs	
	Total CF in soil gas	0.10	lbs	
	Total CF in soil (sorbed)	0.12	lbs	
	Total CF mass in vadose zone (lbs)	**2.64**	lbs	

Total CF mass, A-Aquifer and Vadose Zone:	***3.47***	*lbs*

CF = Chloroform

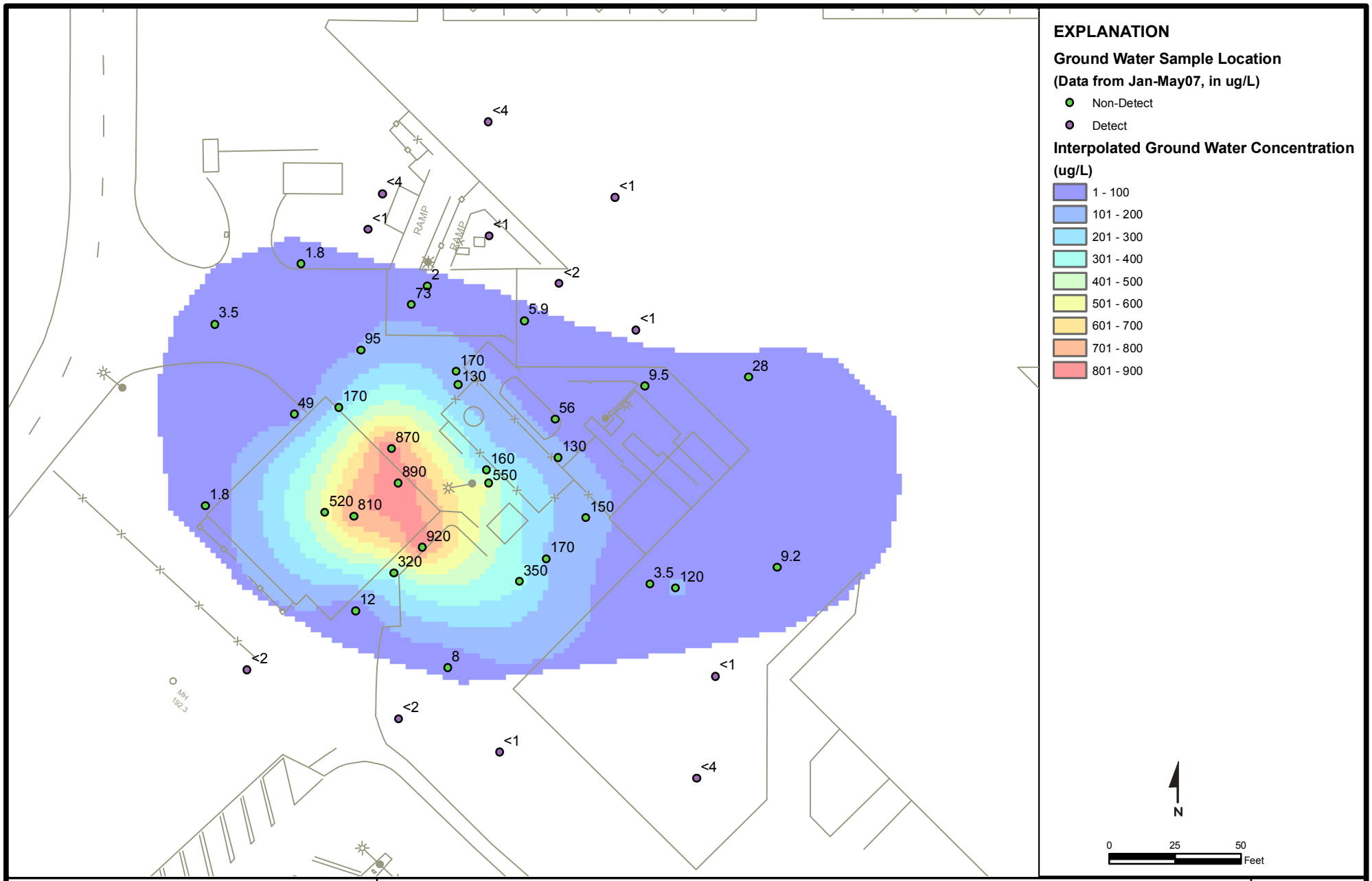
Table E.3
Estimate of Total Chloroform Mass Using Ground Water and Soil Gas Data
Building 028J Area, Hitachi GST, San Jose, California

Chloroform Partitioning from Ground Water In A-Aquifer				
		Value	**Unit**	**Source**
Input Values	Average ground water concentration	144	µg/L	GIS calculation
	Area of CF-impacted aquifer	34,000	ft^2	GIS calculation
	Aquifer thickness	5	ft	Conservative estimate
	Total porosity	0.42		Average measured
	Bulk density	1.56	kg/L	Average measured
Calculated Values	CF soil concentration (sorbed in aquifer)	11.5	µg/kg	
	Total CF in ground water	0.64	lbs	
	Total CF in soil (sorbed)	0.19	lbs	
	Total CF mass in saturated zone (lbs)	**0.83**	lbs	

Chloroform Partitioning from Soil Gas in Vadose zone				
		Value	**Unit**	**Source**
Input Values	Thickness	27	ft	Estimate, assumes top 5 feet of vadose zone not affected.
	Air-filled porosity	0.11		Average measured
	Average soil gas concentration	6.08	µg/L	Average measured
	Water-filled porosity	0.29		Average measured
	Bulk density	1.61	kg/L	Average measured
Calculated Values	CF soil moisture concentration	51.6	µg/L	
	CF soil concentration (sorbed)	0.48	µg/kg	
	Total CF in soil moisture	0.86	lbs	
	Total CF in soil gas	0.04	lbs	
	Total CF in soil (sorbed)	0.04	lbs	
	Total CF mass in vadose zone (lbs)	**0.94**	lbs	

Total CF mass, A-Aquifer and Vadose Zone:	***1.78***	*lbs*

CF = Chloroform



ENVIRON

6001 Shellmound St., Suite 700, Emeryville, CA 94608

Result of GIS Interpolation of Ground Water Concentration
Building 028J Area
Hitachi GST
San Jose, California

Figure
E.1

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