TABLE 1

GROUNDWATER ELEVATION SURVEY DATA
BRA PARCEL P-3
December 1996

Monitoring Well	Elevation Top of PVC (feet)	Elevation Ground Surface (feet)	December 5, 1996		December 6, 1996		December 12, 1996	
			Depth To Water (feet)	Groundwater Elevation (feet)	Depth To Water (feet)	Groundwater Elevation (feet)	Depth To Water (feet)	Groundwater Elevation (feet)
WS-1	92.49	93.42	7.80	84.69	7.63	84.86	7.50	84.99
WS-2	92.32	92.46	8.57	83.75	7.75	84.57	7.59	84.73
WS-3	93.88	92.61	8.49	85.39	8.43	85.45	8.20	85.68
WS-4	94.06	92.00	8.84	85.22	8.88	85.18	8.53	85.53
WS-5	98.27	96.39	14.19	84.08	14.17	84.10	13.70	84.57
WS-6	97.03	95.16	12.56	84.47	12.55	84.48	12.05	84.98
WS-7	98.12	96.34	13.60	84.52	13.58	84.54	13.07	85.05
WS-8	102.95	100.70	16.70	86.25	16.68	86.27	16.65	86.30
WS-9	102.70	100.52	17.43	85.27	16.75	85.95	16.69	86.01
WS-10	101.99	100.98	16.80	85.19	17.38	84.61	16.93	85.06
WS-11	103.88	101.90	19.20	84.68	19.18	84.70	18.66	85.22
WS-12	99.35	96.89	12.73	86.62	12.72	86.63	12.66	86.69

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NOTES:
Elevations measured relative to on-site arbitrary 100.00-foot benchmark.
Fire hydrant on Vernon St. used as benchmark.
Depth to water measured from top of PVC riser.

TABLE 2

PID FIELD SCREENING RESULTS - TEST PIT & SOIL BORINGS
BRA Parcel P-3

Boring	Sample	Sample Depth (feet)	PID Reading (ppm)
TP-1/WS-12		11.5 - 12	34
	S-1	17 - 19	NS
TP-2/B-2		13.5 - 14	3.7
	S-1	29 - 31	0.4
	S-2	34 - 36	0.8
	S-3	39 - 41	0.8
	S-4	44 - 46	0.9
	S-5	49 - 49.1	0.8
	S-6	54 - 56	0.9
	S-7	59 - 61	1
TP-3/B-1		15.5 - 16	2.6
	S-1	19 - 21	1.6
	S-2	24 - 26	2.6
	S-3	29 - 31	2.3
	S-4	34 - 36	2.7
	S-5	39 - 41	1
	S-6	44 - 46	1.9
	S-7	49 - 51	1.7
	S-8	54 - 56	1.2
	S-9	59 - 61	1.4
TP-4/WS-9		18.5 - 19	5.5
	S-1	19 - 21	1.2
	S-2	23 - 25	0.5
TP-5/WS-8		17 - 17.5	2
	S-1	18 - 20	ND
	S-2	23 - 25	0.8
TP-6	S-1	15.5 - 16	1.1
TP-7/WS-10		17.5 - 18	0.5
	S-1	19 - 21	4.4

Notes: C:\MYDOCU~1\PROJECTS\EDIC\P_3\REPORT\FIGSTABS\PI

PID = Photoionization Detector Photovac Microtip Model HL-2000.
ppm = parts per million.
ND = Not Detected or less than Background.
NS = Not Screened.
Background concentrations = ND - 0.2 ppm.
(--) indicates no sample recovered.

TABLE 2 - Continued

PID FIELD SCREENING RESULTS - SOIL BORINGS
BRA Parcel P-3

Boring	Sample	Sample Depth (feet)	PID Reading (ppm)
WS-1	S-1	0 - 2	ND
	S-2	3.5 - 5.5	ND
	S-3	8.5 - 10.5	1.4
	S-4	13.5 - 15.5	ND
	S-5	18.5 - 20.5	ND
	S-6	13.5 - 25.5	ND
	S-7	28 - 30	ND
	S-8	33 - 35	ND
	S-9	38 - 40	ND
	S-10	43 - 45	ND
	S-11	48 - 50	ND
	S-12	53 - 55	ND
	S-13	58 - 60	ND
WS-2	S-1	1 - 3	ND
	S-2	5 - 7	ND
	S-3	10 - 12	ND
	S-4	15 - 17	ND
WS-3	S-1	0 - 2	ND
	S-2	5 - 6	--
	S-3	10 - 12	ND
	S-4	15 - 17	ND
WS-4	S-1	0 - 2	ND
	S-2	5 - 7	ND
	S-3	10 - 12	ND
	S-4	15 - 17	ND
WS-5	S-1	0 - 2	0.3
	S-2	5 - 7	0.6
	S-3	10 - 12	0.5
	S-4	15 - 17	0.6
WS-6	S-1	0 - 2	0.5
	S-2	5 - 7	ND
	S-3	10 - 12	0.8
	S-4	15 - 17	0.5
WS-7	S-1	0 - 2	ND
	S-2	5 - 7	ND
	S-3	10 - 12	0.7
	S-4	15 - 17	0.2
WS-11	S-1	0 - 2	1.2
	S-2	5 - 7	1
	S-3	10 - 12	1.6
	S-4	15 - 17	--
	S-5	20 - 22	1.7

Notes: C:\MYDOCU~1\PROJECTS\EDIC\P_3\REPORT\FIGSTABS\PI

PID = Photoionization Detector Photovac Microtip Model HL-2000.

ppm = parts per million.

ND = Not Detected or less than Background.

NS = Not Screened.

Background concentrations = ND - 0.2 ppm.

(--) indicates no sample recovered.

TABLE 3

SOIL SAMPLING RESULTS
BRA PARCEL P-3
Test Pit and Soil Boring Samples

Parameter	Units	Reportable Concs. RCS-1	Method I Cleanup Standards S3/GW-3**	Sample Identification and sample depth (feet)											
				WS-1	WS-2	WS-3	WS-4	WS-5	WS-6	WS-7	WS-8 TP-5	WS-9 TP-4	WS-10 TP-7	WS-11	WS-12 TP-1
				8.5-10.5	10-12	15-17	10-12	10-12	10-12	10-12	17-17.5	18.5-19	17.5-18	20-22	11.5-12
VOLATILE ORGANIC COMPOUNDS*															
Benzene	ug/kg	10,000	200,000	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	ND
Isopropylbenzene	ug/kg	1,000,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330
n-Propylbenzene	ug/kg	100,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	760
Xylene (total)	ug/kg	500,000	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
tert-Butylbenzene	ug/kg	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36
sec-Butlbenzene	ug/kg	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
n-Butylbenzene	ug/kg	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470
Napthalene	ug/kg	4,000	1,000,000	ND	ND	ND	ND	ND	ND	ND	150	ND	150	ND	160
1,2,4-Trimethylbenzene	ug/kg	1,000,000	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70
Total BTEX	ug/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	32
Total VOCs	ug/kg	--	--	ND	ND	ND	ND	ND	ND	ND	150	87	150	ND	2,128
TOTAL PETROLEUM HYDROCARBONS**															
Gasoline	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	150*	ND	8,400*
Fuel Oil #4	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	--	ND	ND	ND	ND	ND	ND	ND	500	ND	920	ND	ND
Total TPH	mg/kg	500	5,000	ND	ND	ND	ND	ND	ND	ND	**500****	ND	**1070****	ND	**8,400**
POLYNUCLEAR AROMATIC HYDROCARBONS ***															
Napthalene	ug/kg	4,000	1,000,000	NA	ND	ND	NA	NA	NA	NA	**8,200**	130	NA	ND	1,000
2-Methylnaphthalene	ug/kg	10,000	1,000,000	NA	ND	ND	NA	NA	NA	NA	**4,300**	60	NA	ND	**23,000**
Acenaphthylene	ug/kg	100,000	1,000,000	NA	ND	ND	NA	NA	NA	NA	2,000	ND	NA	ND	800
Acenaphthene	ug/kg	20,000	4,000,000	NA	ND	ND	NA	NA	NA	NA	12,000	180	NA	ND	3,400
Fluorene	ug/kg	400,000	4,000,000	NA	ND	ND	NA	NA	NA	NA	11,000	200	NA	ND	3,900
Phenanthrene	ug/kg	100,000	100,000	NA	ND	ND	NA	NA	NA	NA	93,000	1,500	NA	ND	11,000
Anthracene	ug/kg	1,000,000	5,000,000	NA	ND	ND	NA	NA	NA	NA	21,000	440	NA	ND	2,700
Fluoranthene	ug/kg	600,000	1,000,000	NA	ND	ND	NA	NA	NA	NA	92,000	1,600	NA	ND	4,100
Pyrene	ug/kg	500,000	5,000,000	NA	ND	ND	NA	NA	NA	NA	82,000	1,400	NA	ND	4,100
Benzo[a]anthracene	ug/kg	700	4,000	NA	ND	ND	NA	NA	NA	NA	**38,000**	630	NA	ND	**1,500**
Chrysene	ug/kg	7,000	40,000	NA	ND	ND	NA	NA	NA	NA	**44,000**	690	NA	ND	1,700
Benzo[b]fluoranthene	ug/kg	700	4,000	NA	ND	ND	NA	NA	NA	NA	**34,000**	560	NA	ND	**1,200**
Benzo[k]fluoranthene	ug/kg	7,000	40,000	NA	ND	ND	NA	NA	NA	NA	**35,000**	550	NA	ND	1,300
Benzo[a]pryene	ug/kg	700	700	NA	ND	ND	NA	NA	NA	NA	**39,000**	610	NA	ND	**1,400**
Dibenzo[a,h]anthracene	ug/kg	700	800	NA	ND	ND	NA	NA	NA	NA	**4,700**	ND	NA	ND	ND
Benzo[g,h,i]perylene	ug/kg	100,000	2,500,000	NA	ND	ND	NA	NA	NA	NA	13,000	190	NA	ND	ND
Indeno[1,2,3-cd]pyrene	ug/kg	700	4,000	NA	ND	ND	NA	NA	NA	NA	**14,000**	200	NA	ND	ND
METALS															
Arsenic, Total	mg/kg	30	30	NA	7.1	7.5	NA	NA	NA	NA	7.3	7.8	NA	8.1	4.4
Barium, Total	mg/kg	1,000	5,000	NA	62	57	NA	NA	NA	NA	240	160	NA	53	72
Cadmium, Total	mg/kg	30	80	NA	<5.5	<4.2	NA	NA	NA	NA	4.5	<2.7	NA	<2.4	<3.3
Chromium, Total	mg/kg	1,000	5,000	NA	54	84	NA	NA	NA	NA	23	14	NA	11	27
Lead, Total	mg/kg	300	600	NA	13	9.8	NA	NA	NA	NA	**520**	**980**	NA	51	120
Mercury, Total	mg/kg	10	60	NA	<0.033	0.059	NA	NA	NA	NA	3.07	0.204	NA	<0.015	<0.022
Selenium, Total	mg/kg	300	2,500	NA	<5.5	<4.2	NA	NA	NA	NA	<2.6	<2.7	NA	<2.4	<3.3
Silver, Total	mg/kg	100	200	NA	<5.2	<4.1	NA	NA	NA	NA	<2.8	<2.6	NA	<2.4	<3.3

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
-- = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)
* = weathered TPH
** PAHs present
Bold = Exceeds applicable reportable concentration
Bold/Shaded = Exceeds applicable Method 1 Cleanup Standard

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SOIL SAMPLING RESULTS

BRA PARCEL P-3

Soil Boring Samples

Parameter	Units	Method 1 Cleanup Standards S3/GW-3**	SAMPLE IDENTIFICATION AND SAMPLE DEPTH (FEET) B-101 S1 1-2.5	B-101 S2 4.5-6.5	B-101 S3 7-9	B-102 S1 1-3	B-102 S2 4-6	B-102 S3 7-9	B-103 S1 1-3	B-103 S2 4-6	B-103 S3 7-9	B-104 S1 1-3	B-104 S2 4-6	B-104 S3 7-9
TOTAL PETROLEUM HYDROCARBONS														
Gasoline	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #4	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	ND	350	ND	440	380	560	160	270	120	320	240	490
Unidentified Hydrocarbons	mg/kg	--	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TPHs	mg/kg	5,000	500	350	ND	440	380	560	160	270	120	320	240	490
POLYNUCLEAR AROMATIC HYDROCARBONS														
Napthalene	ug/kg	1,000,000	ND	280	ND	550	280	250	61	190	48	700	51	610
2-Methylnaphthalene	ug/kg	1,000,000	ND	320	ND	ND	150	160	ND	120	32	400	33	260
Acenaphthylene	ug/kg	1,000,000	ND	220	ND	ND	96	140	ND	ND	ND	240	41	240
Acenaphthene	ug/kg	4,000,000	300	560	ND	800	410	470	200	450	ND	1,000	140	1,100
Fluorene	ug/kg	4,000,000	240	640	ND	820	420	510	160	350	ND	1,100	150	1,100
Phenanthrene	ug/kg	100,000	3,200	5,400	60	7,900	4,600	6,000	1,800	4,600	190	9,600	1,200	12,000
Anthracene	ug/kg	5,000,000	670	1,300	ND	2,100	870	1,200	400	810	30	2,000	360	2,300
Fluoranthene	ug/kg	1,000,000	3,800	5,700	42	9,600	5,600	7,400	2,000	5,200	180	12,000	2,000	13,000
Pyrene	ug/kg	5,000,000	3,800	5,800	38	8,700	4,300	5,800	2,100	4,200	160	10,000	1,900	13,000
Benzo[a]anthracene	ug/kg	4,000	1,800	2,800	ND	4,300	1,900	2,500	1,000	1,800	64	5,500	880	6,000
Chrysene	ug/kg	40,000	1,900	2,900	ND	4,300	1,900	2,400	1,100	1,800	94	5,700	840	6,300
Benzo[b]fluoranthene	ug/kg	4,000	1,300	1,700	ND	2,900	1,200	1,600	650	1,200	50	4,200	960	4,200
Benzo[k]fluoranthene	ug/kg	40,000	1,500	1,900	ND	2,900	1,300	1,600	680	1,300	39	4,500	1,000	5,000
Benzo[a]pryene	ug/kg	700	1,800	2,600	ND	4,000	1,800	2,300	980	1,700	46	5,600	890	5,900
Dibenzo[a,h]anthracene	ug/kg	800	480	750	ND	1,100	500	570	250	400	ND	650	78	670
Benzo[g,h,i]perylene	ug/kg	2,500,000	1,600	2,200	ND	2,800	1,400	1,400	640	970	ND	1,400	190	1,500
Indeno[1,2,3-cd]pyrene	ug/kg	4,000	1,300	1,800	ND	3,200	1,300	1,400	620	980	ND	1,500	200	1,600
Total PAHs			23,690	36,870	140	55,970	28,026	35,700	12,641	26,070	933	66,090	10,913	74,780
PCBs	ug/kg	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	30***	NA	NA
METALS														
Arsenic, Total	mg/kg	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium, Total	mg/kg	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	mg/kg	5,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead, Total	mg/kg	600	210	360	46.0	200	150	200	170	110	57	270	270	98
Lead, TCLP	mg/l	5*****	<0.20	<0.20	NA	<0.20	0.27	<0.20	<0.20	0.28	NA	0.24	<0.20	NA
Mercury, Total	mg/kg	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
-- = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)

* All S-1 samples except B-116 and B-117 compared to S2/GW-3 Method I Cleanup Standards
** All S2 and S3 samples compared to S3/GW-3 Method I Cleanup Standards
*** PCB Identified as #1260
**** PCB Identified as #1242
***** RCRA Action Level
Bold/Shaded - Exceeds S3/GW-3 cleanup Standard

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TABLE 4 - Continued

SOIL SAMPLING RESULTS
BRA PARCEL P-3
Soil Boring Samples

Parameter	Units	Method 1 Cleanup Standards S3/GW-3**	SAMPLE IDENTIFICATION AND SAMPLE DEPTH (FEET) B-105 S1 1-3	B-105 S2 4-6	B-105 S3 7-9	B-106 S1 1-3	B-106 S2 4-6	B-106 S3 7-9	B-107 S1 1-3	B-107 S2 4-6	B-107 S3 7-9	B-108 S1 1-3	B-108 S2 4-6	B-108 S3 7-9
TOTAL PETROLEUM HYDROCARBONS														
Gasoline	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #4	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	140	230	180	450	700	6,700	140	2,300	700	220	1,600	110
Unidentified Hydrocarbons	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TPHs	mg/kg	5,000	140	230	180	450	700	6,700	140	2,300	700	220	1,600	110
POLYNUCLEAR AROMATIC HYDROCARBONS														
Napthalene	ug/kg	1,000,000	1,600	1,100	71	250	560	270	85	200	400	70	190	ND
2-Methylnaphthatene	ug/kg	1,000,000	820	510	ND	150	300	150	ND	140	290	ND	96	ND
Acenaphthylene	ug/kg	1,000,000	350	ND	ND	110	160	110	ND	ND	120	ND	90	ND
Acenaphthene	ug/kg	4,000,000	1,900	1,300	91	390	910	470	170	410	1,000	220	210	57
Fluorene	ug/kg	4,000,000	1,900	1,500	110	410	820	440	140	380	880	180	220	ND
Phenanthrene	ug/kg	100,000	15,000	11,000	1,200	5,100	8,900	4,600	1,700	4,000	9,700	1,800	3,000	600
Anthracene	ug/kg	5,000,000	3,900	2,800	290	960	1,700	980	390	980	4,900	430	400	150
Fluoranthene	ug/kg	1,000,000	16,000	11,000	1,400	5,800	9,700	5,300	2,100	4,100	11,000	2,300	3,600	670
Pyrene	ug/kg	5,000,000	14,000	9,100	1,300	4,800	7,900	4,600	1,900	3,700	9,000	2,000	2,800	570
Benzo[a]anthracene	ug/kg	4,000	8,100	4,900	670	1,900	3,800	1,900	1,100	2,100	4,500	1,100	1,100	350
Chrysene	ug/kg	40,000	8,700	4,800	700	1,900	4,000	1,900	1,100	2,100	4,700	1,100	1,200	370
Benzo[b]fluoranthene	ug/kg	4,000	5,300	3,200	450	1,200	2,000	1,200	730	1,400	2,400	790	800	250
Benzo[k]fluoranthene	ug/kg	40,000	5,500	3,300	530	1,300	2,100	1,300	740	1,500	2,500	780	820	270
Benzo[a]pryene	ug/kg	700	7,500	4,100	640	1,800	3,600	1,800	1,000	1,900	4,100	1,100	1,100	340
Dibenzo[a,h]anthracene	ug/kg	800	2,000	1,000	140	410	640	340	210	330	660	200	190	ND
Benzo[g,h,i]perylene	ug/kg	2,500,000	5,800	2,800	500	970	1,500	790	480	730	1,500	470	140	110
Indeno[1,2,3-cd]pyrene	ug/kg	4,000	4,800	2,500	410	980	1,500	800	510	810	1,600	510	480	120
Total PAHs			103,170	64,910	8,502	28,430	50,090	26,950	12,355	24,780	59,250	13,050	16,436	3,857
PCBs		2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS														
Arsenic, Total	mg/kg	30	7.8	6.2	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium, Total	mg/kg	80	2.4	<2.5	<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	mg/kg	5,000	38	30	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead, Total	mg/kg	600	940	330	49	150	330	350	280	290	190	450	190	110
Lead, TCLP	mg/l.	5*****	0.65	0.27	NA	0.30	0.32	0.70	0.23	0.62	0.31	0.24	0.23	<0.20
Mercury, Total	mg/kg	60	0.321	0.475	0.332	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
-- = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)

* All S-1 samples except B-116 and B-117 compared to S2/GW-3 Method I Cleanup Standards
** All S2 and S3 samples compared to S3/GW-3 Method I Cleanup Standards
*** PCB Identified as #1260
**** PCB Identified as #1242
***** RCRA Action Level
Bold/Shaded - Exceeds S3/GW-3 cleanup Standard

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TABLE 4 - Continued

SOIL SAMPLING RESULTS
BRA PARCEL P-3
Soil Boring Samples

Parameter	Units	Method 1 Cleanup Standards S3/GW-3**	SAMPLE IDENTIFICATION AND SAMPLE DEPTH (FEET) B-109 S1 1-3	B-109 S2 4-6	B-109 S3 7-9	B-110 S1 1-3	B-110 S2 4-6	B-110 S3 7-9	B-111 S1 1-3	B-111 S2 4-6	B-111 S3 7-9	B-112 S1 1-3	B-112 S2 4-6	B-112 S3 7-9
TOTAL PETROLEUM HYDROCARBONS														
Gasoline	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #4	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	230	330	170	170	140	1,100	190	200	1,300	500	190	970
Unidentified Hydrocarbons	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TPH	mg/kg	5,000	230	330	170	170	140	1,100	190	200	1,300	500	190	970
POLYNUCLEAR AROMATIC HYDROCARBONS														
Napthalene	ug/kg	1,000,000	280	290	320	110	110	ND	55	ND	490	210	77	14,000
2-Methylnaphthalene	ug/kg	1,000,000	170	170	150	69	61	ND	ND	ND	ND	120	50	4,100
Acenaphthylene	ug/kg	1,000,000	88	83	92	70	59	ND	ND	ND	ND	82	42	770
Acenaphthene	ug/kg	4,000,000	480	640	440	290	190	490	100	350	1,000	460	160	20,000
Fluorene	ug/kg	4,000,000	480	640	430	260	200	630	86	360	860	450	170	17,000
Phenanthrene	ug/kg	100,000	5,400	6,700	4,900	2,400	2,300	5,000	1,200	3,700	8,100	5,400	1,300	**110,000**
Anthracene	ug/kg	5,000,000	1,100	1,300	1,000	670	460	1,200	290	910	1,700	890	400	590
Fluoranthene	ug/kg	1,000,000	6,000	8,000	5,600	4,500	3,100	5,300	1,900	4,700	9,300	6,200	2,100	96,000
Pyrene	ug/kg	5,000,000	5,000	6,300	5,400	4,200	2,800	6,600	1,700	4,100	8,200	5,900	2,200	80,000
Benzo[a]anthracene	ug/kg	4,000	2,000	2,700	1,900	1,700	1,100	2,500	940	2,000	**4,000**	2,200	840	**39,000**
Chrysene	ug/kg	40,000	2,000	2,700	2,000	1,800	1,100	2,700	960	2,100	4,200	2,300	900	**40,000**
Benzo[b]fluoranthene	ug/kg	4,000	1,300	1,900	1,800	1,800	1,200	2,500	650	1,500	2,700	2,200	830	**29,000**
Benzo[k]fluoranthene	ug/kg	40,000	1,500	2,100	1,800	1,700	1,200	2,700	730	1,500	3,000	2,400	880	29,000
Benzo[a]pryene	ug/kg	700	**1,900**	**2,500**	**2,000**	**1,700**	**1,200**	**2,500**	**940**	**1,900**	**3,700**	**2,200**	**810**	**35,000**
Dibenzo[a,h]anthracene	ug/kg	800	290	400	250	210	120	ND	270	410	**900**	250	81	**3,000**
Benzo[g,h,i]perylene	ug/kg	2,500,000	580	800	550	430	270	520	730	1,600	3,000	530	190	6,400
Indeno[1,2,3-cd]pyrene	ug/kg	4,000	670	920	620	470	290	580	690	1,300	**2,500**	600	210	**7,200**
Total PAHs			29,238	38,143	29,252	22,379	15,760	33,220	11,241	26,430	53,650	32,392	11,240	531,060
PCBs	ug/kg	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METALS														
Arsenic, Total	mg/kg	30	NA	NA	NA	NA	NA	NA	5	6	6	NA	NA	NA
Cadmium, Total	mg/kg	80	NA	NA	NA	NA	NA	NA	2	2	4	NA	NA	NA
Chromium, Total	mg/kg	5,000	NA	NA	NA	NA	NA	NA	21	28	23	NA	NA	NA
Lead, Total	mg/kg	600	190	130	280	240	220	**670**	200	230	**1,400**	150	**970**	**5,000**
Lead, TCLP	mg/l	5*****	0.22	<0.20	0.35	0.32	0.37	<0.20	<0.20	0.25	0.60	<0.20	0.58	0.77
Mercury, Total	mg/kg	60	NA	NA	NA	NA	NA	NA	0.206	0.549	0.355	NA	NA	NA

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
-- = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)

* All S-1 samples except B-116 and B-117 compared to S2/GW-3 Method I Cleanup Standards
** All S2 and S3 samples compared to S3/GW-3 Method I Cleanup Standards
*** PCB Identified asn #1260
**** PCB Identified as #1242
***** RCRA Action Level
Bold/Shaded - Exceeds S3/GW-3 cleanup Standard

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TABLE 4 - Continued

SOIL SAMPLING RESULTS
BRA PARCEL P-3
Soil Boring Samples

Parameter	Units	Method 1 Cleanup Standards S3/GW-3**	SAMPLE IDENTIFICATION AND SAMPLE DEPTH (FEET) B-113 S1 1-3	B-113 S2 4-6	B-113 S3 7-9	B-114 S1 1-3	B-114 S2 4-6	B-114 S3 7-9	B-115 S1 1-3	B-115 S2 4-6	B-115 S3 7-9	B-116 S1 1-3	B-117 S1 1-3
TOTAL PETROLEUM HYDROCARBONS													
Gasoline	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #4	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	--	290	360	730	480	910	450	140	280	2,400	110	110
Unidentified Hydrocarbons	mg/kg	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TPHs	mg/kg	5,000	290	360	730	480	910	450	140	280	2,400	110	110
POLYNUCLEAR AROMATIC HYDROCARBONS													
Napthalene	ug/kg	1,000,000	360	350	1,600	ND	4,300	3,000	ND	430	320	380	420
2-Methylnaphthalene	ug/kg	1,000,000	280	220	780	ND	ND	1,600	ND	270	210	230	340
Acenaphthylene	ug/kg	1,000,000	290	470	360	ND	ND	700	ND	180	170	170	250
Acenaphthene	ug/kg	4,000,000	1,100	860	2,600	1,000	9,300	4,400	ND	1,100	510	790	1,200
Fluorene	ug/kg	4,000,000	1,000	820	2,100	850	6,400	4,400	ND	920	540	760	1,300
Phenanthrene	ug/kg	100,000	12,000	10,000	20,000	9,500	53,000	36,000	2,200	8,600	4,800	7,200	11,000
Anthracene	ug/kg	5,000,000	1,900	2,100	4,900	2,000	13,000	8,800	570	2,000	1,200	1,500	2,600
Fluoranthene	ug/kg	1,000,000	13,000	15,000	21,000	9,300	66,000	36,000	3,000	9,900	6,200	7,600	11,000
Pyrene	ug/kg	5,000,000	13,000	15,000	20,000	9,600	48,000	30,000	2,800	8,600	5,700	7,300	9,900
Benzo[a]anthracene	ug/kg	4,000	**6,100**	**8,400**	**9,500**	**4,200**	**26,000**	**15,000**	1,500	**4,300**	2,700	3,300	**5,100**
Chrysene	ug/kg	40,000	6,600	8,200	**10,000**	4,400	**26,000**	15,000	1,600	4,400	3,100	3,500	5,200
Benzo[b]fluoranthene	ug/kg	4,000	**4,800**	**5,600**	**7,600**	3,100	**20,000**	**11,000**	1,100	3,400	2,000	2,400	3,000
Benzo[k]fluoranthene	ug/kg	40,000	5,000	6,600	8,500	3,200	**21,000**	**10,000**	1,100	3,800	2,300	2,700	3,700
Benzo[a]pryene	ug/kg	700	**5,600**	**7,300**	**8,700**	3,900	**25,000**	**14,000**	1,300	**4,000**	2,600	3,100	**4,500**
Dibenzo[a,h]anthracene	ug/kg	800	490	700	**890**	ND	**5,700**	**3,500**	ND	420	290	340	480
Benzo[g,h,i]perylene	ug/kg	2,500,000	1,100	1,400	1,800	2,100	16,000	10,000	ND	840	650	680	910
Indeno[1,2,3-cd]pyrene	ug/kg	4,000	1,100	1,600	2,100	1,800	**15,000**	**8,900**	ND	940	700	790	1,000
Total PAHs			73,720	84,620	122,430	54,950	354,700	212,300	15,170	54,100	33,990	42,740	61,900
PCBs	ug/kg	2,000	NA	NA	NA	ND	ND	57****	NA	NA	NA	NA	NA
METALS													
Arsenic, Total	mg/kg	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium, Total	mg/kg	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	mg/kg	5,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead, Total	mg/kg	600	300	230	340	390	**790**	470	170	590	**1,200**	300	270
Lead, TCLP	mg/l	5*****	0.31	<0.20	<0.20	0.23	1.2	0.33	<0.20	0.24	0.29	0.22	0.45
Mercury, Total	mg/kg	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
-- = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)

* All S-1 samples except B-116 and B-117 compared to S2/GW-3 Method I Cleanup Standards
** All S2 and S3 samples compared to S3/GW-3 Method I Cleanup Standards
*** PCB Identified as #1260
**** PCB Identified as #1242
***** RCRA Action Level
Bold/Shaded - Exceeds S3/GW-3 cleanup Standard

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TABLE 5

GROUNDWATER SAMPLING RESULTS
BRA PARCEL P-3
December 12, 1996

Parameter	Units	Reportable Concs. RCGW-2	Sample Identification and sample depth (feet)												
			WS-1	WS-2	WS-3	WS-4	WS-5	WS-6	WS-7	WS-8	WS-9	WS-10	WS-11	WS-12	WS-12 (Dup)
FIELD PARAMETERS															
Temperature	deg C	--	11.0	13.0	10.5	9.9	13.5	13.5	12.2	12.3	11.5	12.2	13.2	10.8	--
pH	--	--	6.7	6.9	7.0	6.6	6.6	6.8	6.5	6.6	6.6	7.3	6.1	6.7	--
Specific Conductivity	uS/cm	--	940	1,200	670	624	1,050	220	929	1,520	1,240	478	970	1,670	--
Dissolved Oxygen	mg/l	--	3.6	4.2	2.7	2.2	2.4	4.4	4.4	2.0	1.4	3.6	1.7	2.7	--
VOLATILE ORGANIC COMPOUNDS*															
Chloroform	ug/l	400	ND	ND	ND	ND	ND	9.1	ND	ND	ND	5.8	ND	ND	ND
Trichloroethene	ug/l	300	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	ug/l	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	2.6
TPH**	mg/l	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PAHs ***	ug/l	--	NA	ND	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
METALS															
Arsenic, Total	mg/l	0.4	NA	<0.01	NA	NA	<0.01	NA	NA	<0.02	<0.01	NA	<0.01	<0.01	NA
Barium, Total	mg/l	30	NA	<0.05	NA	NA	0.11	NA	NA	0.15	0.11	NA	<0.05	0.12	NA
Cadmium, Total	mg/l	0.01	NA	<0.005	NA	NA	<0.005	NA	NA	<0.005	<0.005	NA	<0.005	<0.005	NA
Chromium, Total	mg/l	2	NA	<0.03	NA	NA	<0.03	NA	NA	<0.03	<0.03	NA	<0.03	<0.03	NA
Lead, Total	mg/l	0.03	NA	<0.005	NA	NA	<0.005	NA	NA	<0.010	<0.010	NA	<0.010	<0.005	NA
Mercury, Total	mg/l	0.001	NA	<0.0002	NA	NA	<0.0002	NA	NA	<0.0002	<0.0002	NA	<0.0002	<0.0002	NA
Selenium, Total	mg/l	0.08	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	<0.025	NA	<0.005	<0.025	NA
Silver, Total	mg/l	0.007	NA	<0.007	NA	NA	<0.007	NA	NA	<0.007	<0.007	NA	<0.007	<0.007	NA

NOTES:

ND = Not detected

NA = Not analyzed

NS = No standard

-- = Not applicable

mg/l = milligrams per liter (parts per million)

ug/l = micrograms per liter (parts per billion)

* Volatile Organic Compounds by EPA Method 8260

Methylene chloride detected in VOC trip blank at concentrations of 2.8 ug/l

** TPH (Total Petroleum Hydrocarbons) by GC/FID

*** PAHs (Polynuclear Aromatic Hydrocarbons) by EPA Method 8100

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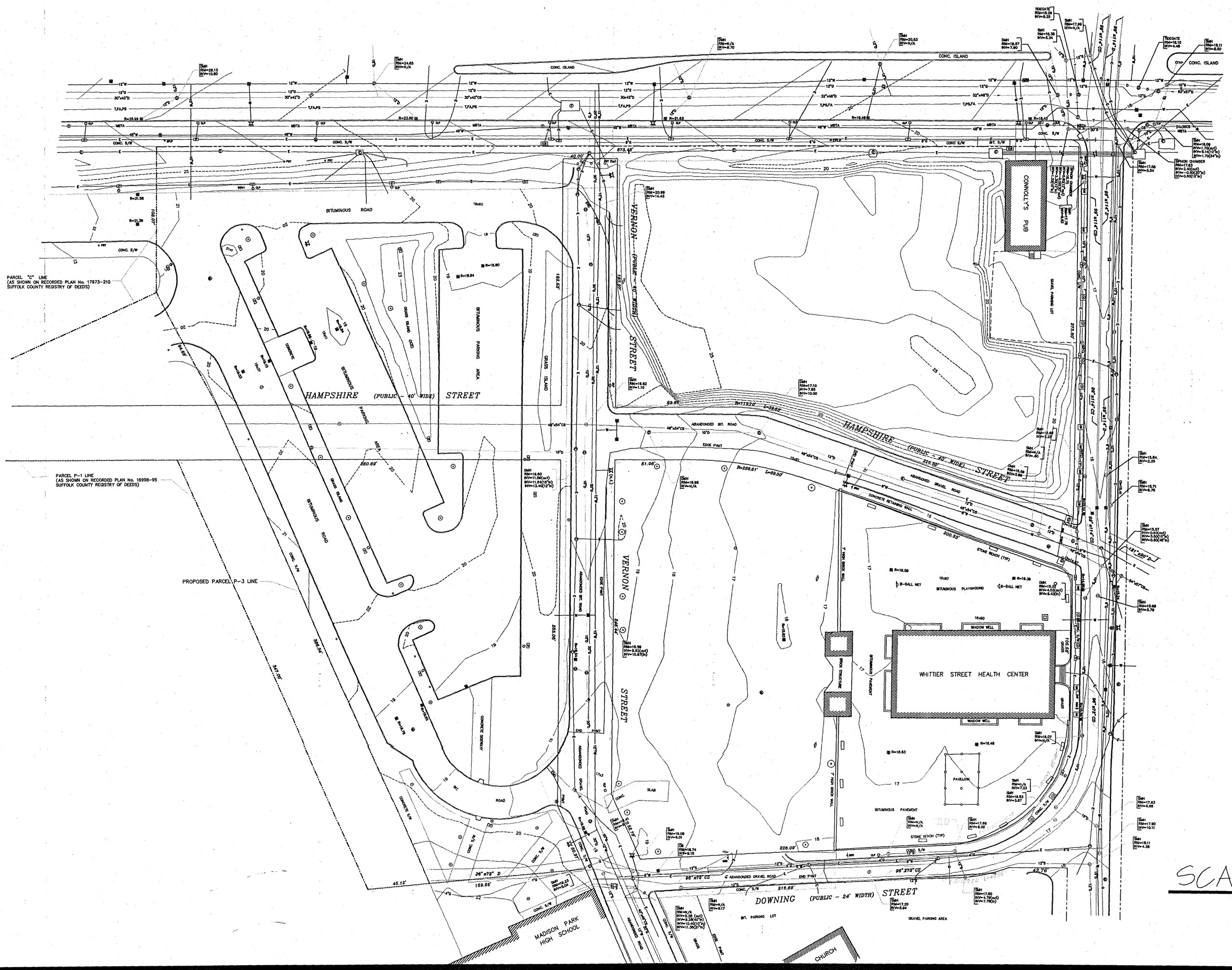
APPENDIX A

SITE PLANS



Thomas M. Menino,
Mayor

Marisa Lago,
Director

BRA/EDIC
BOSTON'S PLANNING &
ECONOMIC DEVELOPMENT OFFICE
10 DRYDOCK AVENUE, BOSTON, MA 02210
(617) 635-3300

RUGGLES PLAZA

PART 1 OF 1 PART

TREMONT STREET
(PUBLIC WAY)

GRANITE CURB
GRASS
SIDEWALK

N53°55'21"E 332.25'

RELOCATED STREET LINE 1958

N53°55'21"E 175.00'

11.71'

N53°54'20"E 630.65'

BOSTON EDISON EASEMENT

N53°55'21"E 498.492'

N53°55'29"E 40.00'

FORMER LINE OF STREET

N53°53'19"E 160.12'

11.43'

N53°53'47"E 175.00'

11.37'

N35°58'11"W 111.42'

99.71'

PARCEL P-3-Z
AREA = 304,409 SQ. FT.

S54°03'12"W 109.96'

BOSTON EDISON

BRICK BUILDING

N36°04'08"W 120.00'

BRICK WALL

TRACK FACILITY

S54°03'12"W 241.00'

HIGH SCHOOL

LINDEN PARK STREET
(PUBLIC WAY)

VERNON STREET
(PUBLIC WAY)

HAMPSHIRE STREET
(PUBLIC WAY)

N36°05'47"W 263.43'

N36°05'47"W 252.00'

PARCEL P-3-X
AREA = 46,097 SQ. FT.

S36°05'47"E 252.00'

S36°05'47"E 263.37'

WHITTIER STREET
(PUBLIC WAY)

S53°54'13"W 175.00'

PARCEL P-3-Y
AREA = 43,062 SQ. FT.

N36°05'47"W 260.59'

S36°05'47"E 163.91'

Δ = 52°33'53"
R = 87.50'
T = 43.21'
L = 80.28'

Δ = 15°34'55"
R = 131.55'
T = 18.00'
L = 35.78'

Δ = 18°48'19"
R = 69.50'
T = 11.51'
L = 22.81'

N80°11'55"W 347.00'

S41°42'59"W 41.73'

S50°51'20"W 138.63'

S50°51'20"W 87.64'

S48°46'29"W 158.50'

DOWNING STREET (PUBLIC WAY)

RELOCATED STREET LINE 1958

NEW DUDLEY STREET
(PUBLIC WAY)

PROPERTY LINES FOR
PARCEL P-1

(formerly CABOT STREET)

PARCEL P-3

SCALE IN FEET
0 50 125 250 FEET

PLAN OF LAND IN BOSTON
PARCELS P-3X, P-3Y AND P-3Z
11/21/96

PREPARED BY:
GREEN INTERNATIONAL AFFILIATES, INC.
CONSULTING ENGINEERS MEDFORD, MASSACHUSETTS

APPENDIX B

DEP CORRESPONDENCE

File
96230.G - BRA/EDI
Roxbury P

GDN
PKB

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
METROPOLITAN BOSTON - NORTHEAST REGIONAL OFFICE

WILLIAM F. WELD
Governor

ARGEO PAUL CELLUCCI
Lt. Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

URGENT LEGAL MATTER: PROMPT ACTION NECESSARY
CERTIFIED MAIL: RETURN RECEIPT REQUESTED MAY 28 1997

Boston Redevelopment Authority
1 City Hall Plaza
Boston, MA 02201-1007

RE: Boston/Roxbury
Parcel P-3
Tremont & Whittier St.
RTN #3-15009

NOTICE OF RESPONSIBILITY;
M.G.L. c. 21E & 310 CMR 40.0000

Attention: Mr. Richard Mertens

Dear Mr. Mertens:

Information contained in a Release Notification Form (RNF) submitted to the Department of Environmental Protection (the Department or DEP) on April 14, 1997 and submitted by Boston Redevelopment Authority indicates that there is or has been a release of oil and/or hazardous material at the above-referenced property which exceeds a "120 day" reporting threshold (310 CMR 40.0315) and which requires one or more response actions.

Based on this information, the Department has reason to believe that the subject property or portion(s) thereof is a disposal site as defined in the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E, and the Massachusetts Contingency Plan, 310 CMR 40.0000 (the MCP). The assessment and cleanup of disposal sites is governed by M.G.L. c. 21E and the MCP.

The purpose of this notice is to inform you of your legal responsibilities under state law for assessing and/or remediating the subject release. For purposes of this notice, the terms and phrases used herein shall have the meaning ascribed to them by the MCP unless the text clearly indicates otherwise.

STATUTORY LIABILITIES

The Department has reason to believe that you (as used in this letter, "you" refers to Boston Redevelopment Authority) are

a Potentially Responsible Party (a PRP) with liability under M.G.L. c. 21E, § 5, for response action costs. Section 5 makes the following parties liable to the Commonwealth of Massachusetts: current owners or operators of a site from or at which there is or has been a release/threat of release of oil or hazardous material; any person who owned or operated a site at the time hazardous material was stored or disposed of; any person who arranged for the transport, disposal, storage or treatment of hazardous material to or at a site; any person who transported hazardous material to a transport, disposal, storage or treatment site from which there is or has been a release/threat of release of such material; and any person who otherwise caused or is legally responsible for a release/threat of release of oil or hazardous material at a site.

This liability is "strict", meaning it is not based on fault, but solely on your status as an owner, operator, generator, transporter or disposer. It is also joint and several, meaning that you may be liable for all response action costs incurred at the site, regardless of the existence of any other liable parties.

The MCP requires responsible parties to take necessary response actions at properties where there is or has been a release or threat of release of oil and/or hazardous material. If you do not take the necessary response actions, or fail to perform them in an appropriate and timely manner, the Department is authorized by M.G.L. c. 21E to have the work performed by its contractors. By taking such actions, you can avoid liability for response action costs incurred by the Department and its contractors in performing these actions, and any sanctions which may be imposed for failure to perform response actions under the MCP.

You may be liable for up to three (3) times all response action costs incurred by the Department. Response action costs include, without limitation, the cost of direct hours spent by Department employees arranging for response actions or overseeing work performed by persons other than the Department or their contractors, expenses incurred by the Department in support of those direct hours, and payments to the Department's contractors. (For more detail on cost liability, see 310 CMR 40.1200.)

The Department may also assess interest on costs incurred at the rate of twelve percent (12%), compounded annually. To secure payment of this debt, the Commonwealth may place liens on all of your property in the Commonwealth. To recover the debt, the Commonwealth may foreclose on these liens or the Attorney General may bring legal action against you.

In addition to your liability for up to three (3) times all

response action costs incurred by the Department, you may also be liable to the Commonwealth for damages to natural resources caused by the release. Civil and criminal liability may also be imposed under M.G.L. c. 21E, § 11, and civil administrative penalties may be imposed under M.G.L. c. 21A, § 16 for each violation of M.G.L. c. 21E, the MCP, or any order, permit or approval issued thereunder.

NECESSARY RESPONSE ACTIONS

The subject site shall not be deemed to have had all the necessary and required response actions taken unless and until all substantial hazards presented by the site have been eliminated and a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c. 21E and the MCP. In addition, the MCP requires persons undertaking response actions at disposal sites to perform Immediate Response Actions (IRAs) in response to "sudden releases", Imminent Hazards and Substantial Release Migration. Such persons must continue to evaluate the need for IRAs and notify the Department immediately if such a need exists.

You must employ or engage a Licensed Site Professional (LSP) to manage, supervise or actually perform the necessary response actions at the subject site. In addition, the MCP requires persons undertaking response action at a disposal site to submit to the Department a Response Action Outcome Statement (RAO) prepared by an LSP in accordance with 310 CMR 40.1000 upon determining that a level of No Significant Risk already exists or has been achieved at a disposal site or portion thereof. [You may obtain a list of the names and addresses of these licensed professionals from the Board of Registration of Hazardous Waste Site Cleanup Professionals at (617) 556-1091].

The Department has determined that the following response actions are necessary at the subject site:

> Initial site investigation activities in accordance with 310 CMR 40.0405 are necessary. In addition, unless an RAO is submitted earlier, a completed Tier Classification Submittal pursuant to 310 CMR 40.0510, and, if appropriate, a completed Tier I Permit Application pursuant to 310 CMR 40.0700, must be submitted to DEP within one year of the initial date notice of a release is provided to the Department pursuant to 310 CMR 40.0300 or from the date the Department issues a Notice of Responsibility (NOR), whichever occurs earlier.

It is important to note that you must dispose of any Remediation Waste generated at the subject location in accordance with 310 CMR 40.0030 including, without limitation, contaminated

soil and/or debris. Any Bill of Lading accompanying such waste must bear the seal and signature of an LSP or, if the response action is performed under the direct supervision of the Department, the signature of an authorized representative of the Department.

However, please be advised that if information is obtained after making a oral or written notification to indicate that the release or threat of release didn't occur, failed to meet the reporting criteria at 310 CMR 40.0311 through 40.0315, or is exempt from notification pursuant to 310 CMR 40.0317, a Notification Retraction must be submitted within 60 days of the initial notification pursuant to 310 CMR 40.0335.

The Department encourages parties with liabilities under M.G.L. c. 21E to take prompt action in response to releases and threats of release of oil and/or hazardous material. By taking prompt action, you may significantly lower your assessment and cleanup costs and avoid the imposition of, or reduce the amount of, certain permit and annual compliance fees for response actions payable under 310 CMR 4.00.

If you have any questions relative to this notice, you should contact Lilla Dick at the letterhead address or (617) 932-7600. All future communications regarding this release must reference the Release Tracking Number (RTN #3-15009) contained in the subject block of this letter.

Very truly yours,

Kingsley Ndi
Chief, Notification Branch

KN/LD
cc: Boston Board of Health
Boston Fire Department

Weston & Sampson Engineers, inc.
5 Centennial Drive
Peabody, MA 01960
Attn: Mr. Prasanta K. Bhunia

DEP data base/file

Weston & Sampson
ENGINEERS, INC.

Five Centennial Drive
Peabody, Massachusetts 01960-7985
Tel: (508) 532-1900 Fax: (508) 977-0100

Environmental Consultants since 1899

Boston Redevelopment Authority
WSE Job Number 96230.G

April 4, 1997

Bureau of Waste Site Cleanup
Department of Environmental Protection
10 Commerce Way
Woburn, Massachusetts 01801

Re: Release Notification Form
Parcel P-3
Tremont & Whittier Streets

To whom it may concern:

On behalf of our client, the Boston Redevelopment Authority (BRA), Weston & Sampson Engineers, Inc. (WSE) is pleased to submit the Release Notification Form (RNF) for the 120-day notification condition at the above referenced site.

Please note that the Licensed Site Professional will be Dr. Prasanta K. Bhunia, Ph.D., Weston & Sampson Engineers, Inc., 5 Centennial Drive, Peabody, Massachusetts 01960, L.S.P. Number 2999.

If you have any questions, please do not hesitate to contact this office at (508) 532-1900.

Very truly yours,

WESTON & SAMPSON ENGINEERS, INC.

P. K. Bhunia

Prasanta K. Bhunia, Ph.D., L.S.P.
Associate

Enclosures

cc: Mr. Paul Osborn, BRA/EDIC
File

PKB/GDN:gdn

H:\WP\CLIENT\BRA-EDIC\C\96230.G\040497-1.GDN

Massachusetts Department of Environmental Protection — BWSC-103
Bureau of Waste Site Cleanup

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking Number: ___ - ___ (If assigned by DEP)

A. RELEASE OR THREAT OF RELEASE LOCATION:

Street: Parcel P-3, Tremont and Whittier Streets — Location Aid: UTMs: 4688700 mN, 327800 mE

City/Town: Boston (Roxbury) — ZIP Code: 02120-0000

B. THIS FORM IS BEING USED TO: (check one)

☑ Submit a Release Notification (complete all sections of this form).

☐ Submit a Retraction of a Previously Reported Notification of a Release or Threat of Release (complete Sections A, B, E, F and G of this form). You MUST attach the supporting documentation required by 310 CMR 40.0335.

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

Date and time you obtained knowledge of the Release or TOR. Date: 12/18/96 Time: _____ Specify: ☐ AM ☐ PM

The date you obtained knowledge is always required. The time you obtained knowledge is not required if reporting only 120 Day Conditions.

IF KNOWN, record date and time release or TOR occurred. Date: _____ Time: _____ Specify: ☐ AM ☐ PM

☐ Check here if you previously provided an Oral Notification to DEP (2 Hour and 72 Hour Reporting Conditions only).

Provide date and time of Oral Notification. Date: _____ Time: _____ Specify: ☐ AM ☐ PM

Check all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)

2 HOUR REPORTING CONDITIONS

- ☐ Sudden Release
- ☐ Threat of Sudden Release
- ☐ Oil Sheen on Surface Water
- ☐ Poses Imminent Hazard
- ☐ Could Pose Imminent Hazard
- ☐ Release Detected in Private Well
- ☐ Release to Storm Drain
- ☐ Sanitary Sewer Release (Imminent Hazard Only)

72 HOUR REPORTING CONDITIONS

- ☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch
- ☐ Underground Storage Tank (UST) Release
- ☐ Threat of UST Release
- ☐ Release to Groundwater near Water Supply
- ☐ Release to Groundwater near School or Residence

120 DAY REPORTING CONDITIONS

- ☑ Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)
- ☐ Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards
- ☐ Release of Oil to Groundwater Exceeding Reportable Concentration(s)
- ☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

List below the Oils or Hazardous Materials that exceed their Reportable Concentration or Reportable Quantity by the greatest amount. If necessary, attach a list of additional Oil and Hazardous Material substances subject to reporting.

Name and Quantities of Oils (O) and Hazardous Materials (HM) Released:

O or HM Released	O (check one)	HM (check one)	CAS # (if known)	Amount or Concentration	Units	Reportable Concentrations Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
PAHs (see Table 1)	☐	☑				RCS-1
TPH (see Table 1)	☑	☐				RCS-1
Lead (see Table 1)	☐	☑				RCS-1

D. ADDITIONAL INVOLVED PARTIES:

☐ Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

☑ Check here if attaching Licensed Site Professional (LSP) name and address (optional).

You may write in names and addresses on the bottom of the second page of this form.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking Number
____ - ____
If assigned by DEP

E. PERSON REQUIRED TO NOTIFY:

Name of Organization: Boston Redevelopment Authority

Name of Contact: Mr. Richard Mertens Title: Environmental Review Officer

Street: 1 City Hall Plaza

City/Town: Boston State: MA ZIP Code: 02201-1007

Telephone: 617-722-4300 Ext: 4283 FAX: (optional) 617-742-4464

F. RELATIONSHIP OF PERSON REQUIRED TO NOTIFY TO RELEASE OR THREAT OF RELEASE: (check one)

☒ RP or PRP Specify ◉ Owner ○ Operator ○ Generator ○ Transporter Other RP or PRP: ____

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Person Otherwise Required to Notify Specify Relationship: ____

G. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

I, Thomas N. O'Brien, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: ____ Title: Director
(signature)

For: Boston Redevelopment Authority Date: 4/9/97
(print name of person or entity recorded in Section E)

Enter address of the person providing certification, if different from address recorded in Section E:

Street: ____

City/Town: ____ State: ____ ZIP Code: ____

Telephone: ____ Ext. ____ FAX: (optional) ____

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Licensed Site Professional:
Dr. Prasanta K. Bhunia, Ph.D.
Weston & Sampson Engineers, Inc.
5 Centennial Drive
Peabody, Massachusetts 01960

L.S.P. Number 2999

(508) 532-1900

TABLE 1

SOIL HEADSPACE SCREENING AND SAMPLING RESULTS
BRAYEDIC PARCEL P-3
Test Pit and Soil Boring Samples

Parameter	Units	Reportable Concs. RCS-1	Sample Identification and sample depth (feet) WS-1 8.5-10.5	WS-2 10-12	WS-3 15-17	WS-4 10-12	WS-5 10-12	WS-6 10-12	WS-7 10-12	WS-8 TP-6 17-17.5	WS-9 TP-4 18.5-19	WS-10 TP-7 17.5-18	WS-11 20-22	WS-12 TP-1 11.5-12
VOLATILE ORGANIC COMPOUNDS*														
Benzene	ug/kg	10,000	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	ND
Isopropylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330
n-Propylbenzene	ug/kg	100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	760
Xylene (total)	ug/kg	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32
tert-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36
sec-Butlbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
n-Butylbenzene	ug/kg	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470
Napthalene	ug/kg	4,000	ND	ND	ND	ND	ND	ND	ND	150	ND	150	ND	160
1,2,4-Trimethylbenzene	ug/kg	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70
Total BTEX	ug/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	87	ND	ND	32
Total VOCs	ug/kg	–	ND	ND	ND	ND	ND	ND	ND	150	87	150	ND	2,125
TOTAL PETROLEUM HYDROCARBONS**														
Gasoline	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kerosene	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mineral Spirits	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #2/Diesel	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	150*	ND	8,400*
Fuel Oil #4	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil #6	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Motor Oil/Hydraulic Oil	mg/kg	–	ND	ND	ND	ND	ND	ND	ND	500	ND	920	ND	ND
Total TPH	mg/kg	500	ND	ND	ND	ND	ND	ND	ND	500**	ND	1070**	ND	8,400
POLYNUCLEAR AROMATIC HYDROCARBONS ***														
Napthalene	ug/kg	4,000	NA	ND	ND	NA	NA	NA	NA	8,200	130	NA	ND	1,000
2-Methylnaphthalene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	4,300	60	NA	ND	23,000
Acenaphthylene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	2,000	ND	NA	ND	900
Acenaphthene	ug/kg	20,000	NA	ND	ND	NA	NA	NA	NA	12,000	180	NA	ND	3,400
Fluorene	ug/kg	400,000	NA	ND	ND	NA	NA	NA	NA	11,000	200	NA	ND	3,900
Phenanthrene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	93,000	1,500	NA	ND	11,000*
Anthracene	ug/kg	1,000,000	NA	ND	ND	NA	NA	NA	NA	21,000	440	NA	ND	2,700
Fluoranthene	ug/kg	600,000	NA	ND	ND	NA	NA	NA	NA	92,000	1,600	NA	ND	4,100
Pyrene	ug/kg	500,000	NA	ND	ND	NA	NA	NA	NA	82,000	1,400	NA	ND	4,100
Benzo[a]anthracene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	38,000	630	NA	ND	1,500
Chrysene	ug/kg	7,000	NA	ND	ND	NA	NA	NA	NA	44,000	690	NA	ND	1,700
Benzo[b]fluoranthene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	34,000	560	NA	ND	1,200
Benzo[k]fluoranthene	ug/kg	7,000	NA	ND	ND	NA	NA	NA	NA	35,000	550	NA	ND	1,300
Benzo[a]pryene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	39,000	610	NA	ND	1,400
Dibenzo[a,h]anthracene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	4,700	ND	NA	ND	ND
Benzo[g,h,i]perylene	ug/kg	100,000	NA	ND	ND	NA	NA	NA	NA	13,000	190	NA	ND	ND
Indeno(1,2,3-cd)pyrene	ug/kg	700	NA	ND	ND	NA	NA	NA	NA	14,000	200	NA	ND	ND
METALS														
Arsenic, Total	mg/kg	30	NA	7.1	7.5	NA	NA	NA	NA	7.3	7.8	NA	8.1	4.4
Barium, Total	mg/kg	1,000	NA	62	57	NA	NA	NA	NA	240	150	NA	53	72
Cadmium, Total	mg/kg	30	NA	<5.5	<4.2	NA	NA	NA	NA	4.5	<2.7	NA	<2.4	<3.3
Chromium, Total	mg/kg	1,000	NA	54	84	NA	NA	NA	NA	23	14	NA	11	27
Lead, Total	mg/kg	300	NA	13	9.8	NA	NA	NA	NA	520	980	NA	51	120
Mercury, Total	mg/kg	10	NA	<0.033	0.059	NA	NA	NA	NA	3.07	0.204	NA	<0.015	<0.022
Selenium, Total	mg/kg	300	NA	<5.5	<4.2	NA	NA	NA	NA	<2.6	<2.7	NA	<2.4	<3.3
Silver, Total	mg/kg	100	NA	<5.2	<4.1	NA	NA	NA	NA	<2.8	<2.6	NA	<2.4	<3.3

NOTES:

ND = Not detected
NA = Not analyzed
NS = No standard
– = Not applicable
mg/kg = milligrams per kilogram (parts per million)
ug/kg = micrograms per kilogram (parts per billion)
* = weathered TPH
** PAHs present
Bold/Shaded = Exceeds applicable reportable concentration

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APPENDIX C

SOIL BORING LOGS
AND
FIELD NOTES

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-101 Ground Elev.: Date Start: 3/24/97 Date Complete: 3/24/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. Inches	Sample Data: Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-2'6"	8-9-35				Dry, dense to medium dense, fine to coarse sand, trace to some inorganic silt, trace fine to coarse gravel, brick, glass, coal, etc. Fill
5	2	4'6"-6'6"	3-6-7-9				
	3	7'0"-9'0"	7-4-9-9				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-102 Ground Elev.: Date Start: 3/24/97 Date Complete: 3/24/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. Inches	Sample Data: Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	8-9-9-15				Dry, medium dense, fine to coarse sand, trace to some inorganic silt, trace fine to coarse gravel, cobbles and boulders, brick, glass, coal. Fill.
5	2	4'0"-6'0"	4-3-6-6				
	3	7'0"-9'0"	6-6-6-7				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ■ Moisture content indicated may be affected by time of year and water added during the drilling process. ■ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. □

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-103 Ground Elev.: Date Start: 3/24/97 Date Complete: 3/24/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	4-5-5-10				Dry, medium dense to dense, fine to coarse sand, trace to some inorganic silt, trace fine to coarse gravel, cobbles and boulders, brick, glass, coal, etc. Fill.
5	2	4'0"-6'0"	6-6-9-7				
	3	7'0"-9'0"	24-20-19-27				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO. B-104 Ground Elev. Date Start 3/24/97 Date Complete 3/24/97 Drilling Foreman MC Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. inches	Sample Data: Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	17-15-7-7				Dry. medium dense to dense, fine to coarse sand, some inorganic silt, trace fine to coarse gravel, cobbles and boulders, brick, glass, coal, etc. Fill
5	2	4'0"-6'0"	7-7-8-7				
	3	7'0"-9'0"	35-21-24-19				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. □ Moisture content indicated may be affected by time of year and water added during the drilling process. ■ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. □

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-105 Ground Elev.: Date Start: 3/24/97 Date Complete: 3/24/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	12-13-7-10				Dry, medium dense, fine to coarse sand, some inorganic silt, some fine to coarse gravel, cobbles and boulders, brick, glass, coal, wood. Fill.
5	2	4'0"-6'0"	4-3-4-6				
	3	7'0"-9'0"	15-15-10-13				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. □ Moisture content indicated may be affected by time of year and water added during the drilling process. □ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. □ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. □

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SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-106 Ground Elev.: Date Start: 3/24/97 Date Complete: 3/24/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. Inches	Sample Data: Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	3-5-9-9				Dry, medium dense, fine to coarse sand. some inorganic silt, some fine to coarse gravel, cobbles and boulders, brick, wood, glass, coal. Fill
5	2	4'0"-6'0"	7-7-10-9				
	3	7'0"-9'0"	7-8-8-7				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ■ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-107 Ground Elev.: Date Start: 3/25/97 Date Complete: 3/25/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	5-9-12-12				Dry, medium dense, fine to coarse sand, some inorganic silt, some fine to coarse gravel, cobbles and boulders, brick, wood, glass, coal. Fill
5	2	4'0"-6'0"	4-4-4-5				
	3	7'0"-9'0"	9-12-15-15				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client	Weston & Sampson Engineers, Inc.		Date 3/27/97	Job No. 97-0332	
Location	Corner Tremont and Whittier Street, Roxbury, MA				
BORING NO. B-108	Ground Elev.	Date Start 3/25/97	Date Complete 3/25/97	Drilling Foreman MC	Eng./Hydrol. Geologist

DEPTH	Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	13-12-16-14				Dry, medium dense, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, wood, glass, coal. Fill.
5	2	4'0"-6'0"	5-5-6-7				
	3	7'0"-9'0"	9-9-15-20				
10						9'0"	End of boring at 9'0". No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ◻ Moisture content indicated may be affected by time of year and water added during the drilling process. ◻ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ◻ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ◻

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No.: 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-109 Ground Elev.: Date Start: 3/25/97 Date Complete: 3/25/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	7-9-9-14				Dry, medium dense to dense, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders.
5	2	4'0"-6'0"	4-7-8-9				
	3	7'0"-9'0"	10-17-20-20				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client	Weston & Sampson Engineers, Inc.		Date 3/27/97	Job No. 97-0332	
Location	Corner Tremont and Whittier Street, Roxbury, MA				
BORING NO. B-110	Ground Elev.	Date Start 3/25/97	Date Complete 3/25/97	Drilling Foreman MC	Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	11-10-10-7				Dry, medium dense, fine to coarse sand, some inorganic silt. Trace fine to coarse gravel, cobbles and boulders, brick, wood. Fill.
5	2	4'0"-6'0"	4-7-7-10				
	3	7'0"-9'0"	8-11-10-12				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No.: 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-111 Ground Elev.: Date Start: 3/25/97 Date Complete: 3/25/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	10-10-9-10				Dry, medium dense, fine to coarse sand, fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, glass, coal, etc. Fill.
5	2	4'0"-6'0"	4-6-6-12				
	3	7'0"-9'0"	5-9-3-10				
10						9'0"	End of boring at 9'0". No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client	Weston & Sampson Engineers, Inc.			Date 3/27/97		Job No. 97-0332	
Location	Corner Tremont and Whittier Street, Roxbury, MA						
BORING NO.	B-112	Ground Elev.	Date Start 3/25/97	Date Complete 3/25/97	Drilling Foreman	MC	Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	3-4-7-11				Dry, medium dense, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, glass, coal, etc. Fill.
5	2	4'0"-6'0"	9-7-7-20				
	3	7'0"-9'0"	6-4-3-7				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ◻ Moisture content indicated may be affected by time of year and water added during the drilling process. ▥ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ◻

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No.: 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-113 Ground Elev.: Date Start: 3/25/97 Date Complete: 3/25/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. Inches	Sample Data: Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	2-3-4-4				Dry, loose to medium dense, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, glass, coal, etc. Fill.
5	2	4'0"-6'0"	9-10-10-12				
	3	7'0"-9'0"	10-11-15-15				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO. B-114 | Ground Elev. | Date Start 3/25/97 | Date Complete 3/25/97 | Drilling Foreman MC | Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Data: Sample Depth (ft.)	Sample Data: Blows 6" Penetration	Sample Data: Rec. Inches	Sample Data: Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	5-5-5-5				Dry, medium dense, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, wood, glass, coal, etc. Fill.
5	2	4'0"-6'0"	7-12-14-18				
	3	7'0"-9'0"	6-6-9-7				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ◻ Moisture content indicated may be affected by time of year and water added during the drilling process. ■ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ◻

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Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No.: 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO.: B-115 Ground Elev.: Date Start: 3/26/97 Date Complete: 3/26/97 Drilling Foreman: MC Eng./Hydrol. Geologist:

DEPTH	Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	1-3-3-5				Dry, loose to medium dense to loose, fine to coarse sand, some fine to coarse gravel, some inorganic silt, cobbles and boulders, brick, wood, coal. Fill.
5	2	4'0"-6'0"	6-7-3-3				
	3	7'0"-9'0"	1-1-7-10				
10						9'0"	End of boring at 9'0" No water encountered upon completion.
15							
20							
25							
30							
35							
40							

Type of Boring: Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

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Client	Weston & Sampson Engineers, Inc.		Date 3/27/97	Job No. 97-0332	
Location	Corner Tremont and Whittier Street, Roxbury, MA				
BORING NO. B-116	Ground Elev.	Date Start 3/26/97	Date Complete 3/26/97	Drilling Foreman MC	Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Soil and/or bedrock strata descriptions: Strata Change Depth	Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	9-9-13-20				Dry, medium dense, fine to medium sand, trace fine to coarse gravel, trace inorganic silt, cobbles, brick, wood, glass coal. Fill.
						3'0"	
5							End of boring at 3'0"
							No water encountered upon completion.
10							
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ▮ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ■ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

148 Pioneer Dr.
Leominster, MA 01453
(508) 840-0391

SOIL EXPLORATION CORPORATION

Geotechnical Drilling and Groundwater Monitor Wells

5 Monson Place
Milford, NH 03055
(603) 672-2135

Client: Weston & Sampson Engineers, Inc. Date: 3/27/97 Job No. 97-0332

Location: Corner Tremont and Whittier Street, Roxbury, MA

BORING NO. B-117 | Ground Elev. | Date Start 3/27/97 | Date Complete 3/27/97 | Drilling Foreman MC | Eng./Hydrol. Geologist

DEPTH	Sample Data: Sample No.	Sample Depth (ft.)	Blows 6" Penetration	Rec. Inches	Casing Blows Per ft.	Strata Change Depth	Soil and/or bedrock strata descriptions: Visual Identification of Soil and/or Rock Strata
	1	1'0"-3'0"	3-4-79				Dry, medium dense, fine to medium sand, trace fine to coarse gravel, inorganic silt, cobbles, brick, wood, glass. Fill.
						3'0"	
5							End of boring at 3'0"
							No water encountered upon completion.
10							
15							
20							
25							
30							
35							
40							

Type of Boring Casing Size: Hollow Stem Auger Size: 4-1/4"

Proportion Percentages
Trace 0 to 10%
Some 10 to 40%
And 40 to 50%

Granular Soils (blows per ft.)
0 to 4 Very Loose
4 to 10 Loose
10 to 30 Medium Dense
30 to 50 Dense
Over 50 Very Dense

Cohesive Soils (blows per ft.)
0 to 2 Very Soft
2 to 4 Soft
4 to 8 Medium Stiff
8 to 15 Stiff
15 to 30 Very Stiff
Over 30 Hard

Standard penetration test (SPT) = 140# hammer falling 30"
Blows are per 6" taken with an 18" long x 2" O.D. x 1 3/8" I.D. split spoon sampler unless otherwise noted.

The terms and percentages used to describe soil and or rock are based on visual identification of the retrieved samples. ☐ Moisture content indicated may be affected by time of year and water added during the drilling process. ☐ Water levels indicated may vary with seasonal fluctuation and the degree of soil saturation when the boring was taken. ☐ The stratification lines represent the approximate boundaries between soil types, the actual transitions may be gradual. ☐

1452

MEASUREMENT CONVERSIONS

IF YOU KNOW	MULTIPLY BY	TO FIND
LENGTH		
inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
meters	1.093	yards
kilometers	0.621	miles
WEIGHT		
ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds
VOLUME		
fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
liters	0.264	gallons (U.S.)
TEMPERATURE		

°C = (°F - 32) x .555
°F = (°C x 1.8) + 32

Inches	Decimals of foot	Milli-meters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0208	6.3500
5/16	.0260	7.9350
3/8	.0313	9.5250
1/2	.0417	12.700
5/8	.0521	15.875
3/4	.0625	19.050
7/8	.0729	22.225
1"	.0833	25.400
2"	.1667	50.800
3"	.2500	76.200
4"	.3333	101.60
5"	.4167	127.00
6"	.5000	152.40
7"	.5833	177.80
8"	.6667	203.20
9"	.7500	228.60
10"	.8333	254.00
11"	.9167	279.40
1 foot	1.0000	304.80

"Rite in the Rain" ®
ALL-WEATHER WRITING PAPER

Name Weston + Sampson Engineers, Inc.
Address 5 Centennial Drive Peabody, Mass. 01960
Phone (508) 532-1900

Project BRA/EDIC Parcel P-3
96230.A
Book # 1
Andrew D. Wise

Also see BRA/EDIC Book #2 - WSE # 1451

"Rite In the Rain" - a unique all-weather writing surface created to shed water and to enhance the written image. Makes it possible to write sharp, legible field data in any kind of weather.

EDIC/Boston - Paul R. Osborn
(617) 635 - 3820

a product of
J. L. DARLING CORPORATION
TACOMA, WA 98421-3696 USA

11/26/96 Tuesday 96030.A (0)

CONTENTS

PAGE	REFERENCE	DATE
	-7:30 - A. Wise and G. Naslas on site. Test pit excavations cancelled because of heavy rain. ADW and GDN tour the site, locate and identify test pit and soil boring locations. Cyn Environmental excavator remains on site overnight.	

11/27/96 Wednesday 96030.A (1)

- 8:10 - Arrive SRA/EDIC Parcel P-3, Whittier and Tremont Streets, Roxbury, MA
- A. Wise, Weston + Sampson
- Today's weather: Overcast, low 30's, snow falling. Approx. 1 inch accumulated, may clear partially by mid afternoon, may reach high 30's today.
- Today: Excavate at least seven test pits on Parcel P-3. Describe soil conditions. Collect soil samples for laboratory analyses of VOC 8260 TPH GC/FID PAH 8100 RCRA 8 metals
- See chain-of-custody forms for actual samples submitted.

ADW

- Photoionization detector:
  - Photovac Microtip, model HL-2000
  - Calibrated and tested prior to arrival at site.

- Cyn Environmental (Cyn Oil Co.)
  S. Boston, Mass.
  - Mike Coughlin
  - Link-Belt LS-2700 C Series II track-mounted backhoe excavator

ADW

TP-1 (at B-1)

0-12'
Mud. brown, c-F SAND, little F-C gravel, little boulders and cobbles (consisting mostly of concrete construction debris), trace brick, wood, metal debris, asphalt pieces, rubber tires

12-17'
Dk. brown, fibrous PEAT and organic silt.

Dk. gray discoloration and slight petroleum odor at bottom of sand and top of peat layer, 11.5-12.5'

Groundwater seeping very slowly into pit @ 16.5 ft.

Sampled 11.5-12.0'
0.9:25 34.0 ppm
Sample is dry.

ADW

11/07/96 96230.A (4)

TP-2 (at B-2)

0-14'
Med. brown, C-F SAND, little F-C gravel, trace concrete boulders + cobbles, trace brick, wood, asphalt pieces

14-18'
Dk. brown, fibrous PEAT and organic silt

Dk. gray discoloration and slight petroleum odor at bottom of sand, top of peat layer. 13.5-14.5 ft

Groundwater barely seeping into pit at 18 ft.

Sampled 13.5-14.0 ft
10:00 3.7 ppm
Sample is dry.

(ADW)

11/07/96 96230.A (5)

TP-3 (at B-3)

0-11'
Med. Brown, C-F SAND, little F-C gravel, trace concrete cobbles + boulders, trace brick, wood asphalt pieces, rubber tires

11-14'
Lt. Brown, C-F SAND, little F-C gravel, little brick, trace cobbles

14-16'
Med. brown, C-F SAND, little F-C gravel, trace cobbles

16-19'
Dk. brown, fibrous PEAT and organic silt

Dk. gray discoloration 1/2" into peat, barely discernable. No odor

Groundwater seeping at 19'

Sampled 15.5-16 ft.
10:40 2.6 ppm
Sample is dry.

(ADW)

11/27/96 96230.A (6)

TP-4 (at B-5)

0 - 11'
Med. brown, C-F SAND, little F-C gravel, trace concrete boulders & cobbles, trace brick, metal wire

11 - 19' Lt to dk. brown, mottled, C-F SAND and cinders, little brick, trace cobbles, trace slag

No discoloration or odor

Pit walls collapsed to 17 ft.
No groundwater observed in pit bottom.

Sampled 18.5 - 19.0 ft.
12:10 5.5 ppm
Sample is wet.

ADW

11/27/96 96230.A (7)

TP-5 (at B-8)

0 - 8'
Med. brown, C-F SAND, little F-C gravel, trace concrete cobbles, brick, glass, wood

8 - 11' lt. to med. brown, mottled, C-F SAND and cinders, trace brick

11 - 12.5' Med. brown, C-F SAND, little F-C gravel, little cinders

12.5 - 18'
Blue-green / gray-green CLAY and silt, trace F-C sand

No discoloration or odor
No groundwater observed in pit bottom.

Sampled 17 - 17.5'
12:50 2.0 ppm
Sample is dry.

ADW

TP-6 (at B-9) | See location diagram, p. 35

0 - 7'
med. brown, C-F SAND, little F-C gravel, trace concrete, brick, glass, metal, wood

7 - 9'
Lt to med. brown, C-F SAND, some cinders, some brick

9 - 16'
med. brown, C-F SAND, little F gravel, little cinders, trace wood

16 - 17'
Blue-green/gray-green CLAY and silt, trace F-C sand

No discoloration or odor.
No groundwater observed in pit bottom.
Pit walls collapsed to 14 ft.

Sampled 15.5 - 16 ft.
13:40 1.1 ppm
Sample is moist/wet.

ADW

TP-7 (at B-7)

0 - 8' med. brown, C-F SAND, little F-C gravel, little concrete boulders + cobbles, trace brick, glass
8 - 10' Lt to med. brown, C-F SAND and cinders, some brick
10 - 14' med. brown, C-F SAND, little F-C gravel, little cinders, trace brick
14 - 18' med. brown, C-F SAND and F-M gravel (well rounded), little C gravel

No discoloration or odor.
Groundwater seeping into pit bottom at 17.5 ft.

Sampled 17.5 - 18 ft.
14:30 0.5 ppm
Sample is wet.

ADW

- 2:30 - Sampling completed.

- Excavator remains to backfill open test pits.

- A. Wise remains to take PID readings, complete notes, label sample jars, fill out chain of custody forms and consolidate equipment.

- 3:55 - Samples picked up at site for delivery to Amro Labs, Merrimack, NH

- 4:00 - Boston police threaten to remove excavator left at site. A. Wise calls Cyn. Cyn says that the trailer is already on the way.

- 4:15 - A. Wise departs.

ADW

- 7:25 - Arrive BRA / EDIC Parcel P-3, Whittier and Tremont Sts, Roxbury, Mass

- A. Wise, C. Hughes, G. Nasdas, Weston + Sampson

- Today's Weather: Overcast, mid 50's, heavy, wind-driven rain. Rain expected to subside by approx 10:00, clearing by noon. Temp expected to drop to the mid 40's.

- Today: Begin drilling of geotechnical and environmental soil borings and installation of groundwater monitoring wells.

ADW

12/2/96 96030.A (12)

- A. Wise to oversee one drilling rig, and C. Hughes to oversee the other.

- Photoionization Detector: Photovac Microtip HL-2000, calibrated upon arrival at site.

- 20:00 - Hebert, Inc. Raynham, Mass. (508)-822-1880
  - Diedrich D-120 truck mounted drilling rig
  - Ford F-350 support pickup truck
  - Paul Schaefer

- 8:45 - Work cancelled for the day because of heavy, wind-driven rains. Depart site.

ADW

12/8/96 Tuesday 96230.A (13)

- 6:35 - Arrive BRA/EDIC Parcel P-3 Whittier and Tremont Sts. Roxbury, Mass.

- A. Wise, C. Hughes, Weston & Sampson 7:05

- Today's weather: Clear, sunny, high 30's. May reach mid 40's today.

- Today: Begin drilling of geotechnical and environmental soil borings and installation of groundwater monitoring wells.

- A. Wise to oversee one drilling rig, and C. Hughes to oversee the other.

ADW

- Photoionization Detector: Photovac Microtip HL-2000, calibrated upon arrival at site

- Zoino - Hebert, Inc. Raynham, Mass. (508) 828-1880

- Drilling Crew #1 - 7:20
  A. Wick, inspector:
  - Dave Andersen
  - Dow Sylvia
  - Diedrich D-120 truck-mounted drilling rig
  - Dodge Ram 2500 support pickup truck

- Note: Crew #1 was brought casing only, not augers, and was told to drill the deep holes only.

(ADW)

7:10
- Drilling Crew #2 -
  C. Hayes, inspector:
  - Paul Sundberg
  - Paul Rosinha
  - Diedrich D-120 truck-mounted drilling rig
  - Ford F-350 support pickup truck

- 9:00 - George Nassas of WSE visits site.

- 10:00 - Paul O'Brien of EDIC visits site, discusses project progress w/ ADW/GDN

- 10:15 - Tony Leonido, ops manager of Zoino/Hebert visits site.

- 11:00 - Michael Kaufman, principal, Kaufman associates visits site. ADW/GDN

ADW

WS-1 (at B-1)
4" I.D. Casing

S-1 0-2' 19-15-18-27 23" 0.0 ppm
Dry, dk. brown, F-M SAND and silt, trace F-M gravel, trace brick, trace asphalt
— GRANULAR FILL —

S-2 3.5-5.5' 13-20-24-22 6" 0.0 ppm
(Driven and wash from S-2 on. All samples will be wet
Brown, F-C SAND and silt, little F-C gravel, little clay

S-3 8.5-10.5' 25-92-6-3 6" 1.4 ppm
Brown, F-C SAND and silt, little F-M gravel, trace clay

12.0'

S-4 13.5-15.5' 10-6-3-3 9" 0.0 ppm
Dk. br. organic SILT and fibrous peat
— ORGANIC DEPOSITS —

ADW

WS-1

S-5 18.5-20.5 8-6-6-7 14" 0.0 ppm
Dk. brown, Organic SILT and fibrous peat

21.0'

S-6 23.5-25.5 43-40-37-28 11" 0.0 ppm
Lt. brown to red-brown, C-F SAND, little F-C gravel
— GLACIAL OUTWASH —

S-7 28-30' 26-20-16-19 2" 0.0 ppm
Brown, C-F SAND, some F-C gravel

S-8 33-35' 30-20-16-14 6" 0.0 ppm
Brown, C-F SAND, little F-C gravel

ADW

12/3/96 96230.A (18)

WS-1

S-9 38-40' 18-18-24-19 2" 0.0 ppm
Sample consists of F-M GRAVEL
washed, probably not representative
of actual deposits at this depth.

S-10 43-45' 20-27-26-26 8" 0.0 ppm
Brown, C-F SAND, little
F-M gravel

S-11 48-50' 26-27-33-37 10" 0.0 ppm
Brown, C-F SAND, trace
F-M gravel

S-12 53-55' 57-49-47-38 2" 0.0 ppm
Brown, C-F SAND and
C-F gravel

S-13 58-60' 21-32-52-43 12" 0.0 ppm
Brown, C-F SAND, trace
F-C gravel

ADW

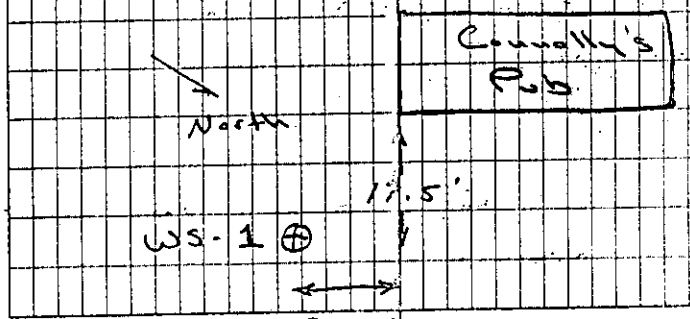
12/3/96 96230.A (19)

WS-1

Well Construction Details

B.O.E.	60'
Native Fill	60 - 21
Bentonite	21 - 18
Sand	18 - 5
Screen	17 - 7
Bentonite	5 - 3
Native Fill	3 - 1
Concrete	1 - 0

Flush-mounted aluminum
roadbox, 1'0" x 6" HD,
pentagon bolt



ADW

- Driller D. Andersen reports that a Boston police officer, apparently an owner of Connolly's pub (same officer in unmarked blue van that spoke with ADW on 11/27/96), angrily demanded that the support truck be moved so that cars could enter his parking lot. Cars had been entering and leaving the lot without problem all day, however.

- 1:00 - Small wheel-mounted front-end loader (hired locally by Zorro-Hebert) arrives on site to build a ramp leading up onto the filled area of B-2, 3, 4.

- Drilling rig #1 moved up ramp onto fill area near B-3

ADW

- 2:05 - Drillers depart site. ADW and CEH remain to take PID readings and prepare sample containers for laboratory analyses.

- 3:00 - C. Hughes departs site.

- 4:00 - A. Wise departs site after completion of C-O-C form and call to CDW at WSE

- No lunch break today.

ADW

12/4/96 Wednesday 96230.A (22)

- 6:45 - Arrive BRA/EDIC Parcel P-3, Whittier and Tremont Sts., Roxbury, Mass.

- A. Wise, C. Hughes, - 7:00 Weston + Sampson

- Today's weather: Mostly clear, sunny, some clouds, low 30's. May reach mid 40's today. Clouding and light rain/drizzle expected.

- Today: Continue drilling of geotechnical and environmental soil borings and installation of groundwater monitoring wells.

- A. Wise to oversee one drilling rig, and C. Hughes to oversee the other.

(1DW)

12/4/96 96230.A (23)

- Photoionization Detector: Photovac Microtip HC-2000 calibrated upon arrival at site

- Noise - Hebert, Inc., Raynham, Mass. (508) 823-1880

- Drilling Crew #1, A. Wise, inspector:
  - Same personnel and equipment on site as yesterday (see p. 14)

- Drilling Crew #2, C. Hughes, inspector:
  - Same personnel and equipment on site as yesterday (see p. 15).

- Work: Both drilling crews arrived on site @ 6:30.

(1DW)

- Water Levels

WS-1

below PVC 7.86

below ground 8.61

WS-2

below PVC 11.53

below ground 11.67

WS-3 and WS-4

see field book #2, C. Hughes, 12/3/96

- 8:45 - Call to G. Nealon and M. Khirallah at WSE:

1) GDN will continue attempts at contacting Boston Edison re. location of B-12. Do not drill B-12 until OK from GDN

2) Bentonite the top 5 feet of the post in borings.

ADW

B-1 and B-2 (locations B-3 and B-5 are fine as planned respectively).

Example B-1:

Native Fill 60-24'

Bentonite 24-19'

Native Fill 19-0'

3) Drill B-1 and B-2 to depths of 60 ft. BGS only. Do not drill deeper. The B-1 and B-2 B.O.E. will be the equivalent elevation of 52' BGS in boring WS-1. (Ground surface elevations are approx. 8 ft. higher at B-1 and B-2 than WS-1)

4) Take undisturbed tubes in the peat at B-2:

1) 20-22'

2) 25-27' (if possible)

ADW

Photographs

Exposure	Direction
1	West
Completed well WS-1, Whittier St. side of pub	
2	South
Completed well WS-2, Whittier St. Health Center	
3	North
Completed well WS-3	
4	East
Completed well WS-4	
5	—
Accidental shot	
6	North
Completed well WS-5	

ADW

Exposure	Direction
7	North
Completed well WS-6	
8	NE
WSE truck, drilling rig at WS-7, boom of rig at B-1 in background	
9	NW
Drilling rig, drilling and well construction at WS-7	
10	SW
Completed well WS-7 and WSE truck	
11	North
Ruts and muck on approach to B-4 location	

ADW

Exposure	Direction
12	West
Both drilling rigs parked near B-8 location at end of work day	
13 (12/5)	East
Completed well WS-9	
14	SW
completed well WS-8, Drilling rig # 2 at WS-10	
15	West
Rig, truck and crew # 1, drilling operations at B-2	
16	South
Two completed tubes from B-2	
17	NE
Completed well WS-10, WS-8 and Rig #1 in background	

ADW

Exposure	Direction
18	SW
Drilling operations at WS-11	
19	East
Drilling rig # 2 at WS-12	
20	North
Completed well WS-12	
21	SE
Completed well WS-11	
22	West
The "mud pit" after completion of well installation.	
23	NW
The "mud pit", shot # 2	
24	
The "mud pit", shot # 3	

ADW

B-1 (at B-3, TP-3)
4" I.D. Casing to 19.0 ft.
Note: 11/07 test pit TP-3
B.O.E. at 19.0 ft. B.G.S.
Begin sampling B-1 at
19.0 ft. B.G.S.

S-1 19-21' 2-2-3-3 24" 1.6 ppm
Moist, dk. brown, fibrous
PEAT and organic silt
— ORGANIC DEPOSITS —
3" I.D. Casing telescoped at 23 ft.
S-2 24-26' 3-3-2-3 24" 2.6 ppm
Moist, dk. brown, organic
SILT and fibrous PEAT

27.2'
(measured by driller)

S-3 29-31' 23-16-16-17 8" 2.3 ppm
Wet, dk. gray, F-C SAND,
little f-m gravel
— GLACIAL OUTWASH —

(10W)

B-1

S-4 34-36' 32-36-29-20 6" 2.7 ppm
Wet, brown, C-F SAND,
little C-F gravel with
cobbles

S-5 39-41' 33-39-24-50 8" 1.0 ppm
Wet, brown, C-F SAND,
trace F-M gravel

S-6 44-46' 30-24-30-22-10" 1.9 ppm
Wet, brown, C-F SAND,
little F-M gravel

S-7 49-51' 39-58-40-29 5" 1.7 ppm
Wet, brown, C-F GRAVEL,
some C-F sand, with cobbles

S-8 54-56' 21-23-28-18 8" 1.2 ppm
Wet, brown, C-F SAND,
little C-F gravel

(ADW)

12/4/96 96230.A (32)

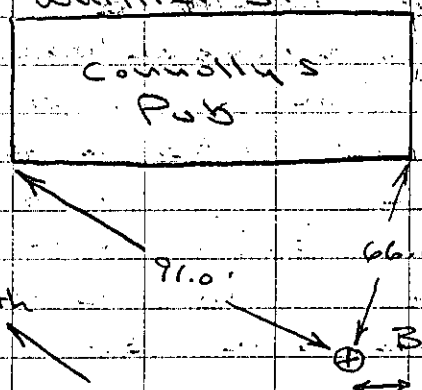
B-1

S=9 59-61' 65-48-21-22 4" 1.4 ppm
Wet, brown, c-F GRAVEL
and c-F SAND

B.O.E. = 61.0 ft.
No well installed.

Backfill details

Native Fill	61 - 24'
Bentonite	24 - 19
Native Fill	19 - 0



AMEC

12/4/96 96230.A (33)

- 12:45 - Rud Knox of Boston Edison Co. visits site, checks location of B-12 with ADW. Will page ADW or will mark B-12 location as "E OK" if we can drill.

- Rig #2 got stuck in mud on approach to B-5 location. Could not access B-5. Moved to B-8 location, drilled with CFA.

- Rig #1 got stuck in mud on approach to B-4 location. Could not access B-4. Attempted to move back to B-2 location. Got stuck again. Attempts to extricate rig from mud using 4x4 pickup truck were mostly unsuccessful. Rig eventually pulled

ADW

12/4/96 96230.A (34)

- Tony Leonido of Z-H also on site.
out of B-4 and past B-2 location after approx. 1 hour.

- Locations remaining to be drilled:
B-2-4-5-7-12

- 2:00 - Rig #1 crew departs.
- 2:15 - Rig #2 crew departs. ADW and CEH remain to take PID readings and prepare sample containers for laboratory analyses.

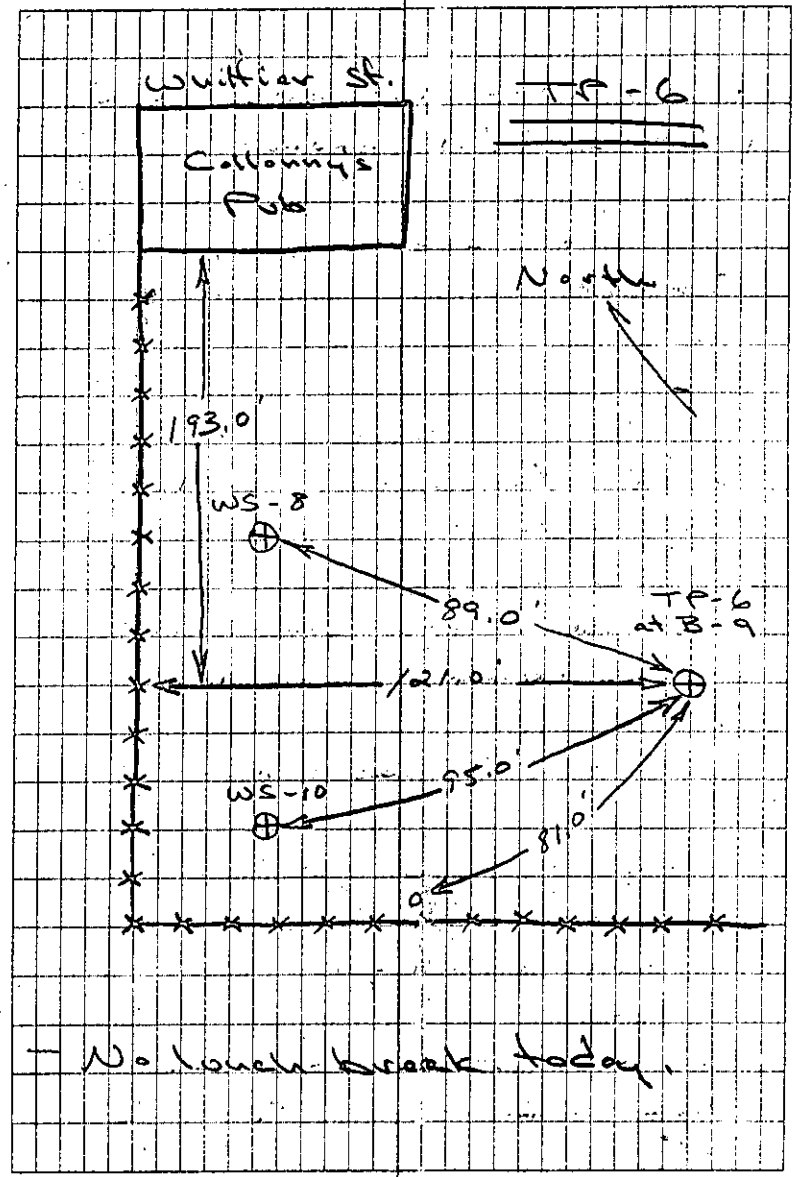
- 2:45 - C. Hughes departs site.

- B-12 location was marked "E OK" by Boston Edison Co.

- 3:55 - A. Wise departs site after completion of C-O-C form and call to GDN at WSE

ADW

12/4/96 96230.A (35)



- No lunch break today.

ADW

- 6:45- Arrive BRA/EDIC Parcel P-3, Roxbury, Mass.

- A. Wise, C. Hughes - 7100 Weston + Sampson

- Today's weather: Mostly cloudy, partly clear, high 50's. May reach low 60's today.

- Today: Continue drilling of geotechnical and environmental soil borings and installation of groundwater monitoring wells.

- A. Wise to oversee one drilling rig, and C. Hughes to oversee the other.

ADW

- Photoionization Detector: Photovac Microtip HL-2000, serviced, calibrated and tested prior to arrival at site.

- Noise - Hebert, Inc. Reynham, Mass. (508) 822-1980

- Drilling Crew #1, A. Wise, inspector:
  - Same personal and equipment on site as previously (see p. 14).

- Drilling Crew #2, C. Hughes, inspector:
  - Same personal and equipment on site as previously (see p. 15).

ADW

- Note: Both drilling crews arrived on site ~ 6:30.

- 7:05 - Call / message to G. Naslas at WSE:
Drilling rig #1 cannot get to the B-4 location this morning. The ground did not freeze overnight. The ground is still as soft and muddy as it was yesterday, when three attempts were made to access the B-4 location. This leaves 2 alternatives:
1) Wait until the ground freezes, to allow access by a truck-mounted drilling rig.
2) Bring a track-mounted rig to the site (today or tomorrow?) to drill this final borehole.

ADW

- Problem: Z-H has run out of padlocks for the wells. All locks so far have been keyed differently. Four wells remain. Locks needed

- 11:30 - All wheel drive drilling rig arrives from Zoins - Hubert, also with Matt Sullivan, Z-H super.
- Drilling Crew #[illegible]:
  - Art Johnson Jr.
  - Art (Dewey) Johnson III
  - CME 55 truck-mounted (AWD) drilling rig
  - Ford F-250 support pickup
- 12:10 - Boston Gas Co. representative visits site. OK's drilling at all boreholes.

- 12:25 - Courier pickup arranged with Amy at WSE Peabody, 12/6, 10:00

ADW

B-2 (at B-2, TP-2)

4" Casing to 19', washed to 20'

T-1 20-22' undisturbed tube ("Gus tube") in PEAT and organic silt
penetration: 24"
recovery: 9"

Borehole washed to 25'

T-2 25.27' undisturbed tube in PEAT and organic silt
penetration: 25"
recovery: 16 1/2"
Bottom of tube T-2 was slightly damaged upon removal from borehole, indicating sand and gravel at approx. 26.5 to 27.0 ft.

ADW.

B-2

PEAT and organic silt
26.5 ft.
C-F SAND with some
- GLACIAL OUTWASH -

S-1 29-31' 5-24-20-19 4" 0.4 ppm
Wet, dk. brn., C-F SAND, some F-M gravel, trace silt

S-2 34-36' 13-24-19-20 7" 0.8 ppm
wet, brown, C-F SAND, little F gravel

S-3 39-41' 40-38-43-52 10" 0.8 ppm
wet, brown, C-F SAND, little F-M gravel

S-4 44-46' 35-30-20-30 9" 0.9 ppm
wet, brown, C-F SAND, little F-M gravel

ADW.

B-2

S-5 49-49.1' 100/1" 0.8 ppm
Sample consists of F-M GRAVEL-sized cobble or boulder fragments and pieces

S-6 54-56' 50-65-72-80 8" 0.9 ppm
Wet, brown, C-F SAND, little F-M gravel

S-7 59-61' 61-72-87-77 10" 1.0 ppm
Wet, brown, C-F SAND, some F-M gravel

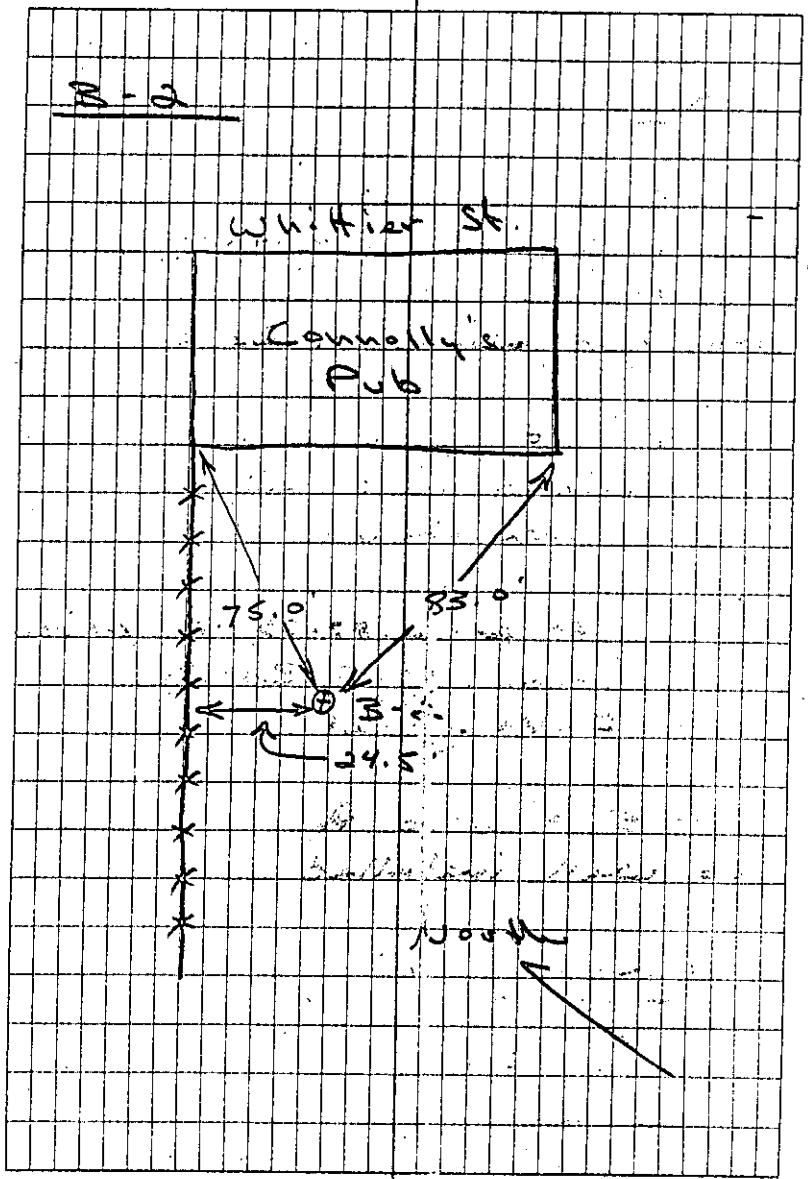
B.O.E. = 61.0 ft.
No well installed

Backfill details

Native Fill	61-23'
Bentonite	23-18
Native Fill	18-0

ADW

B-2



ADW

12/5/96 96230.A (44)

WS-12

Drilling Crew and Rig #3
4" I.D. HSA to 12.0 ft.

S-1 17-19' WOH-1-1-1 24"
moist, dk brown, fibrous
PEAT and organic silt
- ORGANIC DEPOSITS -

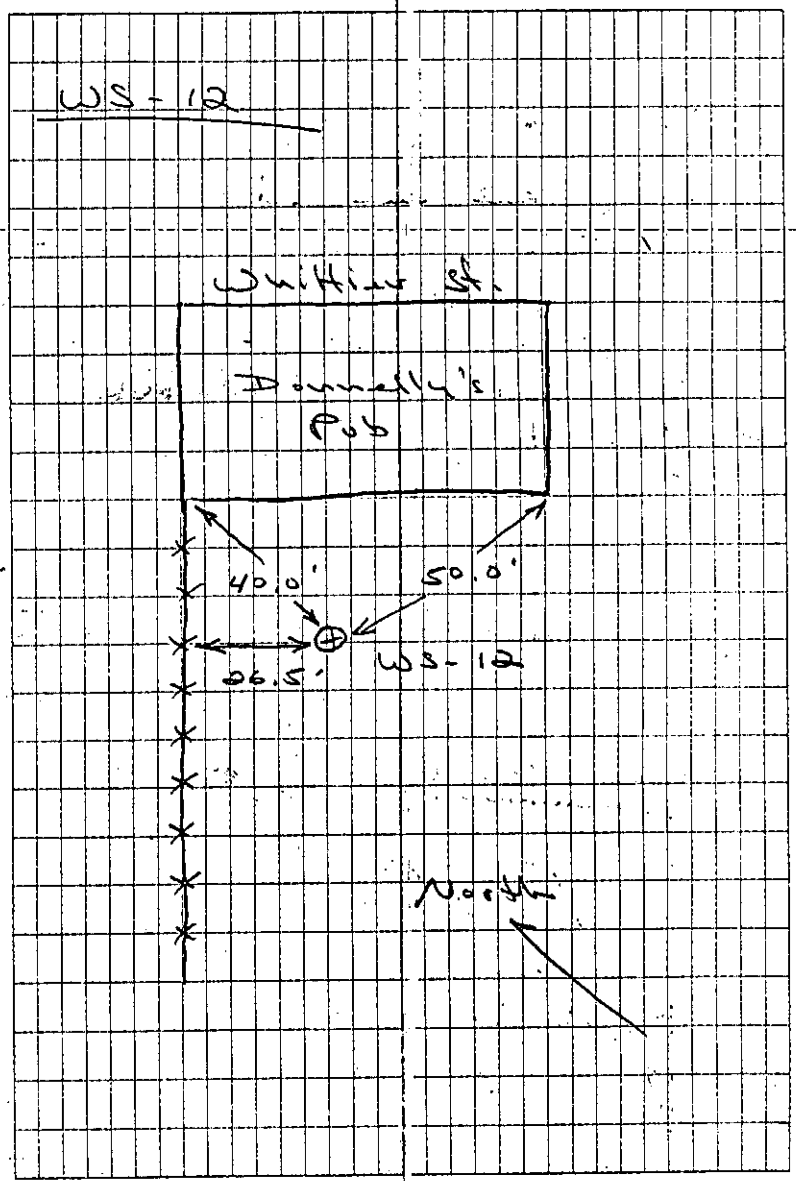
Groundwater observed on
drilling rods at 11.5 ft. B.G.S.

Well Construction Details

B.O.E.	19'
Sand	19 - 6
Screen	18 - 8
Bentonite	6 - 4
Native Fill	4 - 1
Concrete	1 - 0

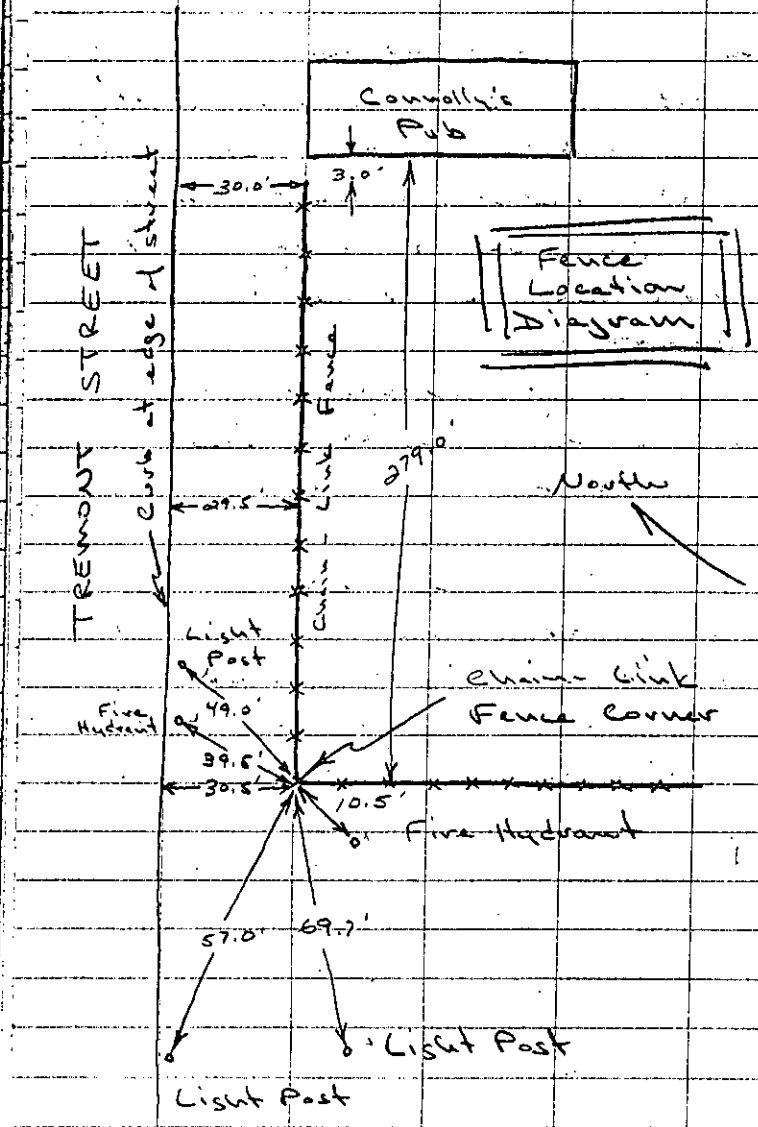
ADW

12/5/96 96230.A (45)



ADW

12/5/96 96230.A (46)



ADW

12/5/96 96230.A (47)

- 12:50 - Bob Donnelly of WSE visits site. Delivers new padlocks from WSE with matching keys. Locks installed on 11 of 12 wells. Well WS-2 could not accept a locking expander cap as flushmount PVC riser because the riser top is cut at a high angle.

- See BRA/EDIC field book for final water level and total depth readings, both below top of PVC and below ground surface.

- 2:20 - All well installations and site cleanup completed. Drilling crews #1 and 3 depart site. Drilling crew #2 had departed approx. 1 hour earlier.

ADW

- ADW and CEH remain to take PID readings, prepare sample containers for laboratory analyses and take measurements of chain-link fence locations.

- 2:40 - C. Hughes departs site. A. Wise remains to complete photographs and photograph log, complete notes, repack equipment, complete C-O-C form and draw location diagrams of GS-12 and fence.

- 4:00 - A. Wise departs site after call to GDN at WSE.

ADW

- 7:50 - Arrive BEA/EDIC Parcel R-3, Whittier and Tremont Sts., Roxbury, Mass.

- A. Dice, Wiesler + Sampson

- Today's weather: Overcast, very windy, low 40's. Light rain has begun. Rain expected to continue, may reach mid 50's today.

- Today: Develop all 12 newly installed groundwater monitoring wells by removing 3 to 4 times the well bore volumes of groundwater. Wells will be ready for sampling by next Thursday, 12/12/96

- 12:00 - Development completed. A. Wise departs site.

ADW

12/6/96 96230.A (50)

WS-1

Total Depth	16.53
Depth H_2O	- 7.63
	8.90
	× .17
	1.51
	× 5
Bailed dry at 4.5 gal.	7.57 gal

WS-2

Total Depth	16.45
Depth H_2O	- 7.75
	8.70
	× .17
	1.48
	× 5
Bailed dry at 6.0 gal.	7.40 gal

ADW

12/6/96 96230.A (51)

WS-3

Total Depth	16.36
Depth H_2O	- 8.43
	7.93
	× .17
	1.35
	× 5
Bailed 6.0 gal.	6.74 gal

WS-4

Total Depth	17.25
Depth H_2O	- 8.08
	9.17
	× .17
	1.42
	× 5
Bailed 6.0 gal.	7.14 gal

ADW

12/6/96 96230.A (52)

WS-5

Total Depth 16.95
Depth H2O - 14.17
2.78
× .17
0.47
× 5
Bailed 4.0 gal. 2.63 gal

WS-6

Total Depth 18.89
Depth H2O - 12.55
6.34
× .17
1.08
× 5
Bailed 6.0 gal 5.39 gal

ADW

12/6/96 96230.A (53)

WS-7

Total Depth 19.20
Depth H2O - 13.58
5.62
× .17
0.96
× 5
Bailed 6.0 gal. 4.78 gal

WS-8

Total Depth 24.77
Depth H2O - 16.68
8.09
× .17
1.38
× 5
Bailed 6.0 gal. 6.88 gal

ADW

12/6/96 96230.A (54)

WS-9

Total Depth	24.35
Depth H_2O	16.75
	7.60
	× .17
	1.29
	× 5
Bailed 6.0 gal.	6.46 gal

WS-10

Total Depth	22.77
Depth H_2O	17.38
	5.39
	× .17
	0.92
	× 5
Bailed 6.0 gal.	5.92 gal

ADW

12/6/96 96230.A (55)

WS-11

Total Depth	21.51
Depth H_2O	19.18
	2.33
	× .17
	040
	× 5
Bailed 12.5 gal.	1.98 gal

WS-12

Total Depth	20.15
Depth H_2O	18.72
	7.43
	× .17
	1.26
	× 5
Bailed 6.0 gal.	6.32 gal

ADW

12/10/96 Tuesday 96030.A (56)

- 1:25 - Arrive BRA/EDIC Parcel P-3, Whittier and Tremont Sts., Roxbury, Mass.

- A. Wise, C. Hughes, Weston + Sampson

- Today's weather: Mostly clear, sunny, windy, low 40's.

- Today: Begin elevation survey of all newly-installed groundwater monitoring wells. Survey:
  - top of casing
  - top of PVC
  - ground surface

of all 12 wells

ADW

12/10/96 96250.A (57)

- Survey begin on page 58.

ADW

12/10/96 96230.A (58)

BS	HI	MH	Elev.
4.74	104.74		100.00
		2.23	102.51
		2.75	101.99
		3.76	100.98
		1.64	103.10
		1.79	102.95
		4.04	100.70
		5.29	99.45
		5.39	99.35
		7.85	96.89
		11.32	93.42
		12.25	92.49
		1.87	102.87
		2.04	102.70
		4.22	100.52
		4.74	100.00

ADW

12/10/96 96230.A (59)

Top of Fire Hydrant on Vernon St near Tremont St
(Not the hydrant at Tremont)

WS-10 Casing
PVC
Ground
WS-8 Casing
PVC
Ground
WS-12 Casing
PVC
Ground
WS-1 Ground
PVC
WS-9 Casing
PVC
Ground
Top of Fire Hydrant

ADW

	BS	HI	MH	Elev
	3.75	97.17		93.42
			4.71	92.46
			4.85	92.32
			3.75	93.42

12/12/96

100.00

- Survey attempt aborted for today. Difficulty identifying numbers on survey rod during long shots in the rain. Also height problem with survey level. Level must be raised at first setup to sight above WS-11 easily. Will attempt survey again at a later date.

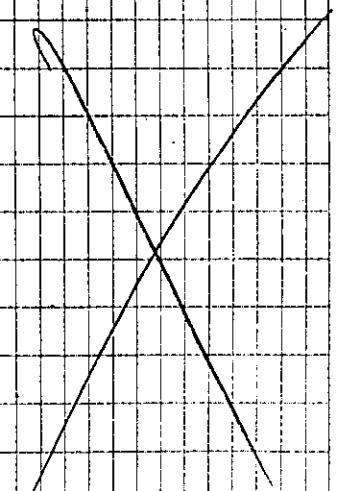
(ADW)

WS-1 Ground
WS-2 Ground
WS-2 PVC
WS-1 Ground

12/12/96

See p. 75

Top of Conc. Hydrant
WS-11 Casing
PVC
Ground
WS-7 Casing
PVC
Ground
WS-6 Casing
PVC
Ground
WS-5 Casing
PVC
Ground
Top of Discharge Hydrant



(ADW)

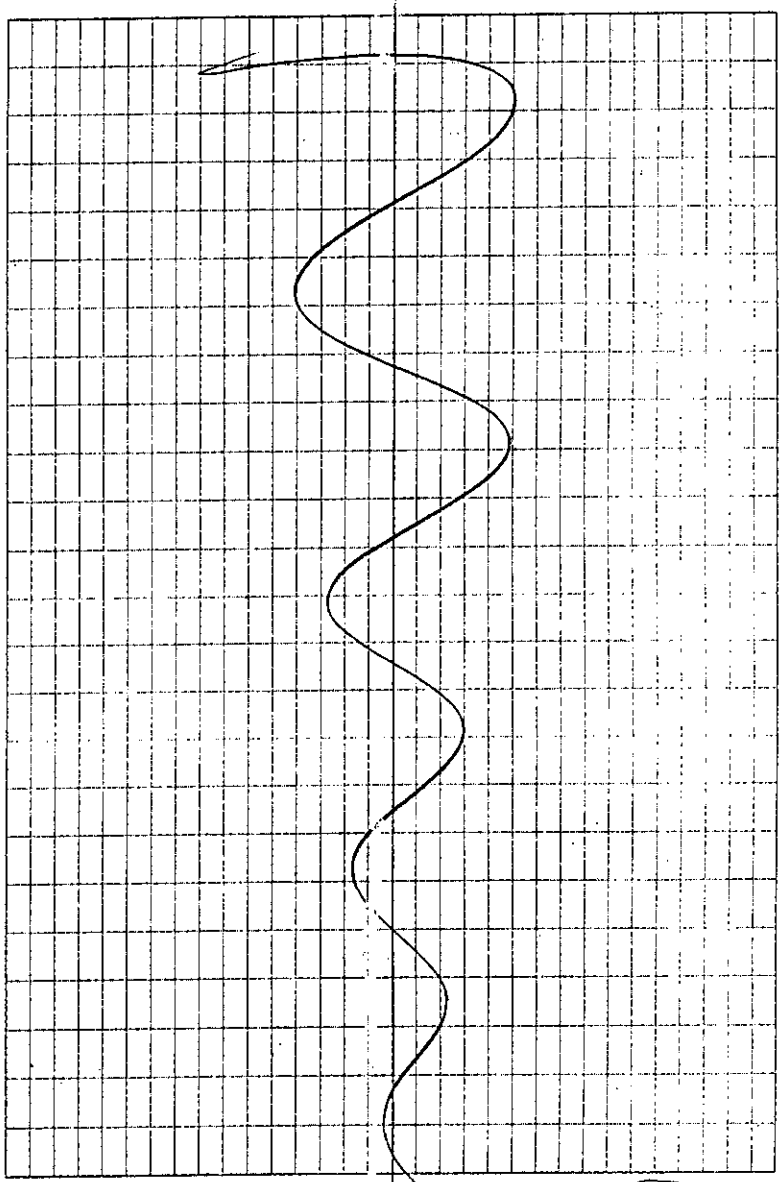
12/12/96 96230.A (49)

- Groundwater sampling by A. Wise, C. Hughes.
  - 12 wells plus 1 duplicate

- 2:05 - A. Wise and C. Hughes depart site.

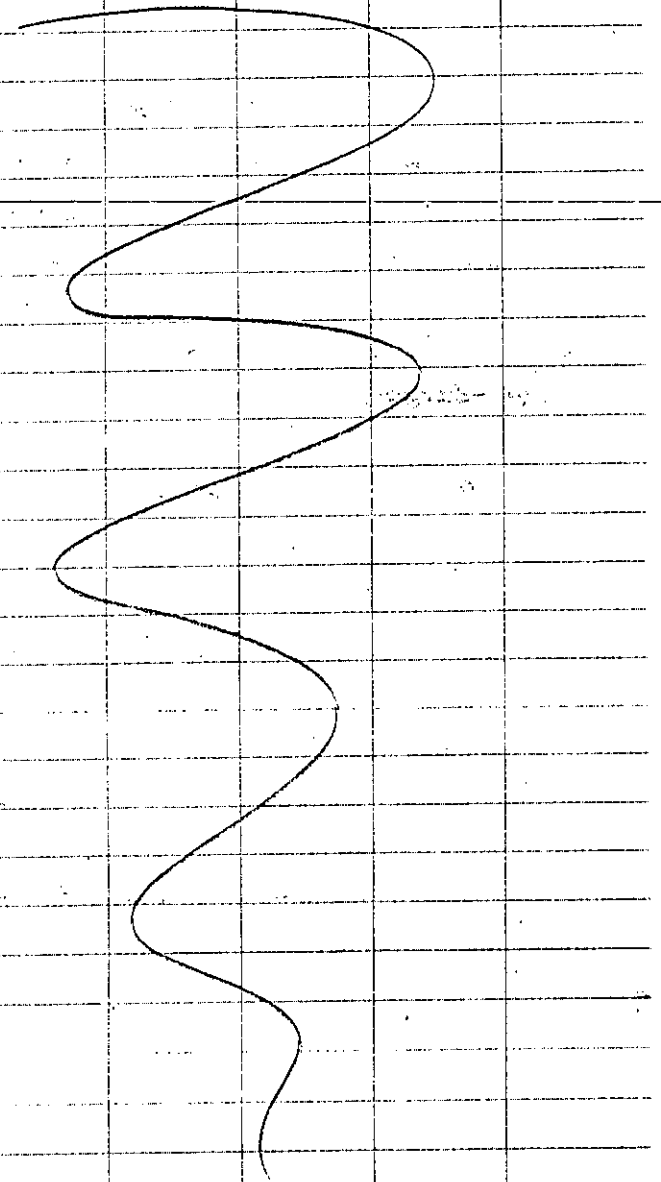
ADW

12/12/96 96230.A (50)



ADW

12/12/96 96230.A (64)



96230.A (65)

12.12.96

- C HUGHES Arrives on site to meet ADW, (already on site) to perform groundwater monitoring on wells WS-1, WS-2, WS-3, WS-4, WS-5, WS-6, WS-7, WS-8, WS-9, WS-10, WS-11 and WS-12 to be analysed for VOC 8260 TPH GC/FID, PAH ~~8100~~ 8100 and metals RCRA 8 PAH and RCRA 8 to be field filtered.
- Todays Weather: Rain

Well #	DTW	Well #	DTW
WS-1	7.50	WS-7	13.07
WS-2	7.59	WS-8	16.65
WS-3	8.00	WS-9	16.68
WS-4	8.53	WS-10	16.93
WS-5	13.70	WS-11	18.66
WS-6	12.05	WS-12	12.66

12.12.96

WS-1

Temp	11.0 °C	TD	16.54
pH	6.7	DTW	7.50
SC	940 µS		9.04
DO	3.6 mg/L		0.17
time	9:15		1.54
			5
			7.69 gal

Bailed dry @ 4.5

WS-2

temp	13.0 °C	TD	16.86
pH	6.9	DTW	7.59
SC	1202 µS		9.27
DO	4.2 mg/L		0.17
Time	9:25		1.58
			5
Dry @ 6.5 gal.			7.88 gal

12.12.96

WS-3

Temp	10.5 °C	TD	16.60
pH	7.0	DTW	8.20
SC	670 µS		8.4
DO	2.7 mg/L		0.17
Time	11:45		1.4
			5
			7.1 gal

WS-4

TEMP	9.9°C	TD	17.25
pH	6.6	DTW	8.53
SC	624 µS/cm		8.72
DO	8.2 mg/L		0.17
TIME	11:58		1.48
			5
			7.41 gal

12.12.96

WS-5

Temp 13.5 °C
PH 6.6
SC 1050 uS
DO 2.4 mg/L
TIME 12:25

TD 16.95
DTW 13.70
3.25
0.17
0.5
5
2.7 gal

WS-6

TEMP 13.5 °C
PH 6.8
SC 220 uS
DO 4.4 mg/L
TIME 12:35

TD 18.89
DTW 12.05
6.84
0.17
1.7
5
5.2 gal

12.12.96

WS-7

Temp 12.2°
PH 6.5
SC 929 uS/cm
DO 4.4 mg/L
Time 13:05

TD 19.20
DTW 13.07
6.13
0.17
1.0
5
5.2 gal

WS-8

TEMP 12.3°C
PH 6.6
SC 1520 uS/cm
DO 2.0 mg/L
TIME 10:40

TD 25.30
DTW 16.65
8.65
0.17
1.4
5
7.39 gal

12.12.94

WS-9

Temp 11.5°C
pH 6.6
SC 1240 uS
DO 1.4 mg/L
Time 10:40

TD 24.35
DTW 16.69
7.66
0.17
1.30
5
6.51 gal

WS-10

Temp 12.2°C
pH 7.3
SC 478 uS/cm
DO 3.6 mg/L
Time 11:15

TD 22.77
DTW 16.93
5.84
0.17
0.9
5
4.9 gal

12.12.94

WS-11

Temp 13.2°C
pH 6.4
SC 0970 uS/cm
DO 1.7 mg/L
Time 13:25

TD 21.51
DTW 18.66
2.85
0.17
0.4
5
2.4 gal

WS-12

Temp 10.8°C
pH 6.7
SC 1670
DO 2.7 mg/L
Time 9:50

TD 20.15
DTW 12.66
7.49
0.17
1.2
5
6.3 gal

* Dup to be taken here
Sampled @ 10:00

1/2/97 Thursday 96030.A (72)

- 9:30 - Arrive BRA/EDIC Parcel P-8, Tremont St., Roxbury, Mass.

- A. Wise, M. Edwards, Weston & Sampson

- Today's weather: Overcast, low 30's, no wind. Light snow / drizzle earlier, but partial clearing expected.

- Today: Continue and complete groundwater monitoring well survey, originally begun on 12/10/96. Six of twelve wells remain to be surveyed.

- 11:55. Survey completed. USE personnel depart site.

ADW

1/2/97 96030.A (73)

- Survey begun on p. 74

ADW

BS	HI	MH	Elev	
3.86	103.86		100.00	Top of Fire hydrant on Vernon St. at Tremont (see p. 59)
		5.66	98.20	WS-7 Casing
		5.74	98.12	PVC
		7.52	96.34	Ground
		6.60	97.26	WS-6 Casing
		6.83	97.03	PVC
		8.70	95.16	Ground
		5.43	98.43	WS-5 Casing
		5.59	98.27	PVC
		7.47	96.39	Ground
		3.87	99.99	Top of Fire hydrant
8.64	106.76		98.12	WS-7 PVC
		2.71	104.05	WS-11 Casing
		2.88	103.88	PVC
		4.86	101.90	Ground
		8.64	98.12	WS-7 PVC

ADW

ADW

1/2/97 (76)

BS	HI	MH	Elev
3.09	101.36		98.27
		7.21	94.15
		7.30	94.06
		9.36	92.00
		6.97	94.39
		7.48	93.88
		8.75	92.61
		3.09	98.27

ADW

1/2/97 96230.A (77)

WS-5 PVC
WS-4 Cast Iron
PVC
Ground
WS-3 Cast Iron
PVC
Ground
WS-5 PVC

ADW

CONTENTS

PAGE	REFERENCE	DATE
	SECOND	
	NOTEBOOK -	

12.2.96

BRA/EDL

7:30 Arrive on Site

MET A Wise & Naslas for Briefing Drillers arrive on site Zolno-Hebert Raynham MA - Drillers -

Todays weather: Heavy Rain Wind 50's

Today - Begin drilling of Geotechnical and Environmental Soil Borings and installation of Groundwater Monitoring Wells.

9:30 - Depart Site due to drillers not equipped w/ proper equipment. Will Resume Drilling activities on 12.3.96.

C. HUGHES

12.3.9_. ARRIVES on site @ 7:00 to oversee Drilling operations Zoino-Hebert of Raynham Paul Schaefer, Paul Rosinha

800 Drillers Setting up Rig Diedrich D-120 mounted on a Ford F Series pickup

WS-2 Asphalt 1-3" concrete

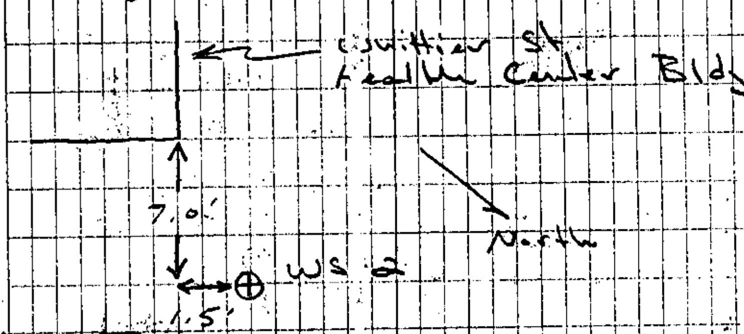
S-1 1-3' 10-7-5-3 13"Rec PID 0.0
Dry DK Br. F-M SAND and silt, trace F-C Gravel trace asphalt
— Granular Fill —

S-2 5-7 5-7-11-12 15"Rec. PID 0.0
Dry DK Br F-M Sand and silt trace F Gravel

S-3 10-12' 1-3-2-4 20"Rec. PID 0.0
WET DK Br F Sand and Silt
11' organic PEAT Begins
Slight Petroleum odor
Dk. brown, fibrous PEAT and organic silt

WS-2 15-17' 1-1-2-2 24"Rec (PID 0.0)
S4 — Wet DK Br organic Silt and Peat

BOE = 17.0'



WS-2 Located at B-6

WELL Construction Details

BOE: 17.0'
Screen: 17-7
Sand: 17-5
Bentonite: 5-3'
Native Fill: 3-1'
Concrete: 1-0'
FLUSH MOUNTED ROADBOX
I.O. 4" x 10" aluminum Pentagon Bolt

12:3.96

10:10 entrance in off of Verna St through School Parking lot.

WS-3 Located at B-11

Formally B-11-

S-1 0-2' 7-7-10-19 9" Rec. PID 0.0
Wet Lt MED BR-GY FCSAND trace Silt
Trace F gravel Trace Brick
Granular Fill

S-2 5-6' 13-58 5" Rec
* Hit refusal @ 5' Augering through.
Construction Concrete @ 6-7.5'
- No Sample Retrieved -
Hit water @ 8.0'-

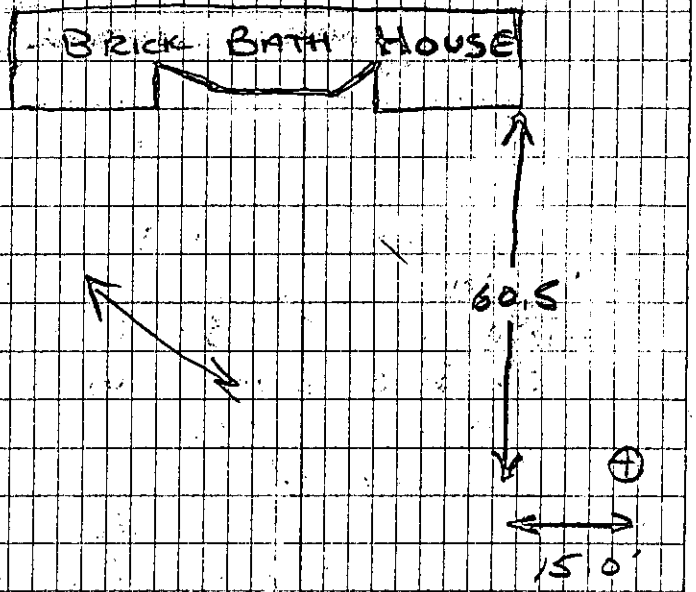
S-3 10-12' 7-5-3 @ 4" Rec. PID 0.0
Wet DK Br. organic Silt

S-4 15-17' 3-4-12-14 14" Rec. PID 0.0
WET DK BR Organic Silt
trace PEAT

end of Boring

DTW: Below PVC: 8.61'
Below Grand: 7.37

WHITTIER HEALTH CENTER



WELL CONSTRUCTION DETAILS

BOE 17'
Screen: 15-5'
Sand: 17-3'
Bentonite: 3-1'
Native Fill: —
Concrete: 1-0'
5' x 4" ID Steel protective Standpipe
w/ Protective Cover

12.3.96

WS-4 Formally B-10

S-1 0-2' 3-8-20-17 8" Rec PID-0.0
Dry DK Brown F-C SAND
Trace F Gravel Trace Brick, Trace
Construction Debris

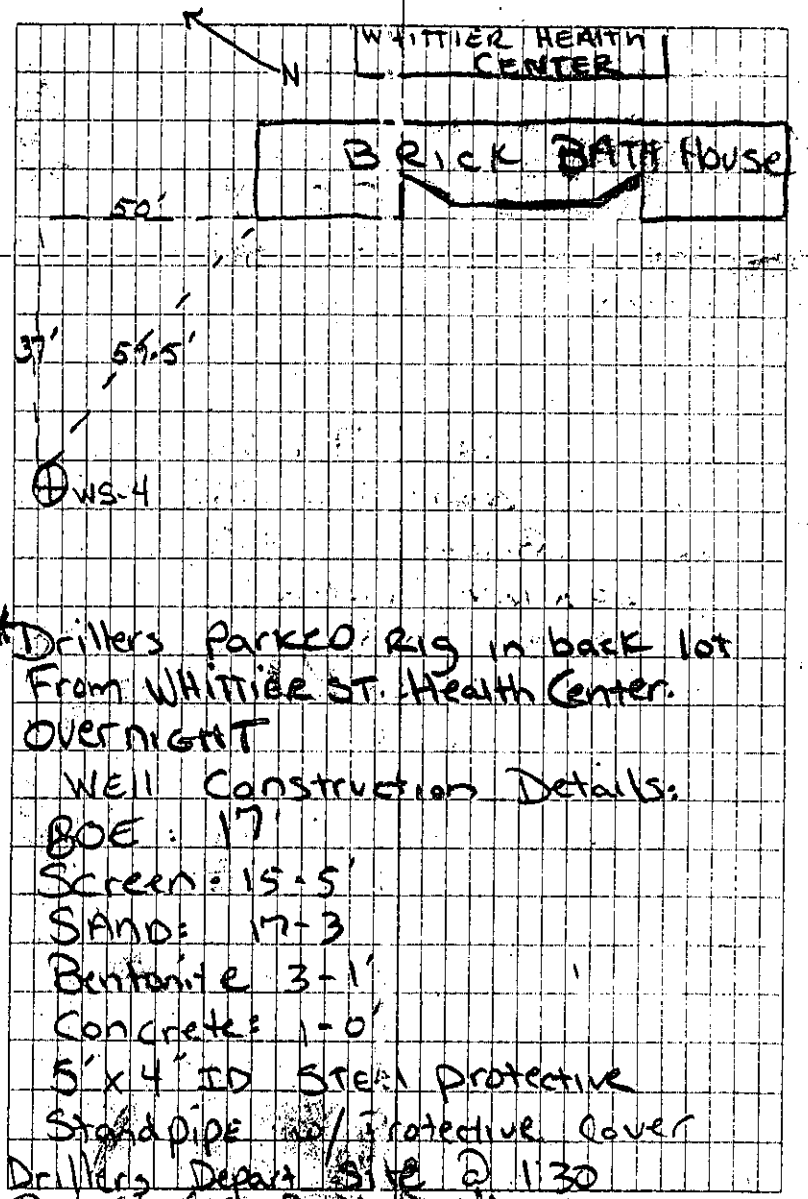
S-2 5-7' 13-12-7-7 14" Rec. PID-0.0
Dry MED Brown F-C SAND
Trace M Gravel Trace Brick
Trace Construction Concrete.
Hit WATER @ about 8.0'

S-3 10-12' 1-2-2-2 20" Rec. PID-0.0
WET DK bn. organic PEAT and Silt

S-4 15-17' 1 2 3 4 - 24" Rec PID-0.0
WET DK F-M SAND and Silt
Trace FM Gravel trace corse Sand
Trace PEAT

End of Boring

DTW Below PVC - 8.42'
Below Grand - 6.30'



*Drillers Parked Rig in back lot From WHITTIER ST. Health Center. OVERNIGHT

WELL Construction Details:
BOE: 17'
Screen: 15-5'
SAND: 17-3
Bentonite 3-1'
Concrete: 1-0'
5' x 4" ID Steel protective Stand Pipe w/ protective Cover

Drillers Depart Site @ 1:30
-Paul Shafer Paul Rosiha-

15.00 C HUGHES

12.4.96
7:00 C. Hughes arrives on site to Resume Drilling activities.

WS-5 formally B-15 → TPH-VOC
09:45 AM
S1 0-2' 3-5-7-8 12" Rec PID-0.3
Top 6": Dry, dk. brown, SILT, some F-M sand, trace roots
- LOAMY TOPSOIL -
0.5'
Bottom 6" Lt brown to brown, M-F SAND, trace F-C gravel, trace C sand, trace silt
- GRANULAR FILL -

S-2 5-7' 6-2-3-8 13" PID-0.6
Dry, brown, SILT and clay, little brick, trace F-C sand
- COHESIVE FILL -

PID-0.5
S-3 10-12' 32-60-24-20 20" Rec
WET Lt Brn M-F SAND trace FC gravel Trace C Sand Trace brick

PID-0.6
S-4 15-17' 15-7-10-25 10" Rec
WET Brown - F-C SAND and Silt Trace gravel, Trace Brick

WATER @ approx 9-10'
END OF Boring

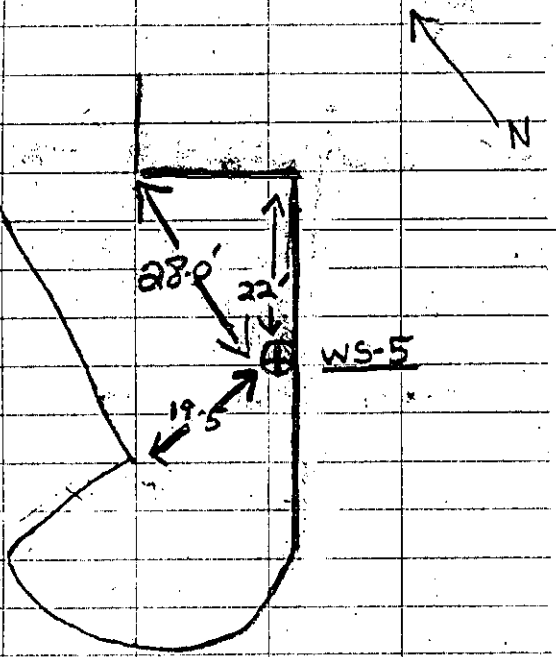
WELL Construction

BOE 17.0'
Screen 15-5'
Sand 17-3'
Bentonite 3-1'
Concrete 1-0'
5x4 ID Steel protective Stickup w/ protective Cover

DTW 14.17'

12.4.96

WS-5 Cont.



Located in parking lot of Highschool

9:15

WS-6 - Formally B-13

S-1 0-2' 2-3-4-3 8" Rec. PID-0.5

Top 4" Dry Dk Brown Silt
Some F-M-Sand Trace Roots
—— Loamy Topsoil ——
Bottom 4" Lt Brown M-F SAND
Trace F-C gravel trace C Sand
—— Granular Fill ——

S-2 5-7' 18-19-19-14 8" Rec-PID-0.0
Dry Lt Brown M-F SAND
Trace Silt trace FC
gravel trace organic Roots

S-3 10-12' 14-15-18-19 10" Rec PID-0.8
WET Lt Brown F-C SAND
Trace F-M gravel trace silt.

S-4 15-17' 9-11-25-27 12" Rec. PID-0.5
WET Lt Br. FC SAND trace F gravel.
Augered Down to 17'0

* Set Screen at 17-7'
Due to the fact that
DTW is @ or Near
13-14' NO SAMPLE taken
at 17-20'

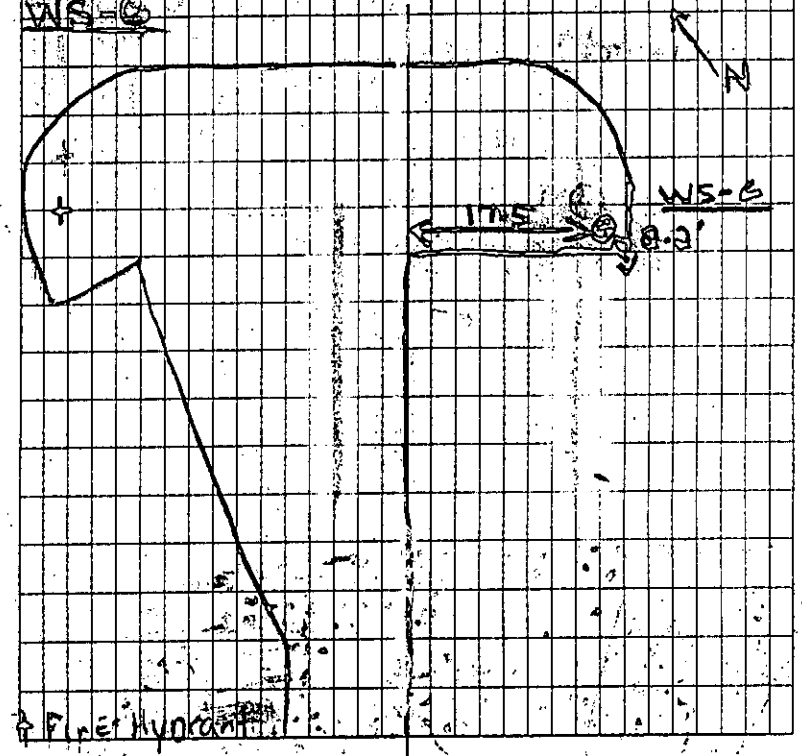
DTW upon installing WELL 12.5'

to ground 10.4'

Well Construction

B.O.E. 17-20'
Screen 17-7'
Sand 17-5'
Bentonite 3-1
Concrete 1-0
5x4 ID Protective Steel Stickup w/ cover.

WS-6



10:40 AM.

WS-7 - Formally B-14

S-1 0-2' 2-4-5-7 9" Rec PID-0.0

Top 5" Dry DK Bn. Silt Some FM Sand Trace organic.

— Loamy Topsoil —

Bottom 4' Lt Bn M-F SAND trace Silt Trace FC gravel

— Granular Fill —

S-2 5-7' 12-14-14-14 10" Rec PID-0.0

Dry Med Bn. M-F SAND trace F gravel trace Brick

S-3 10-12' 8-18-14-17 20" Rec PID-0.7

WET Bn. FM. SAND trace Coarse Sand

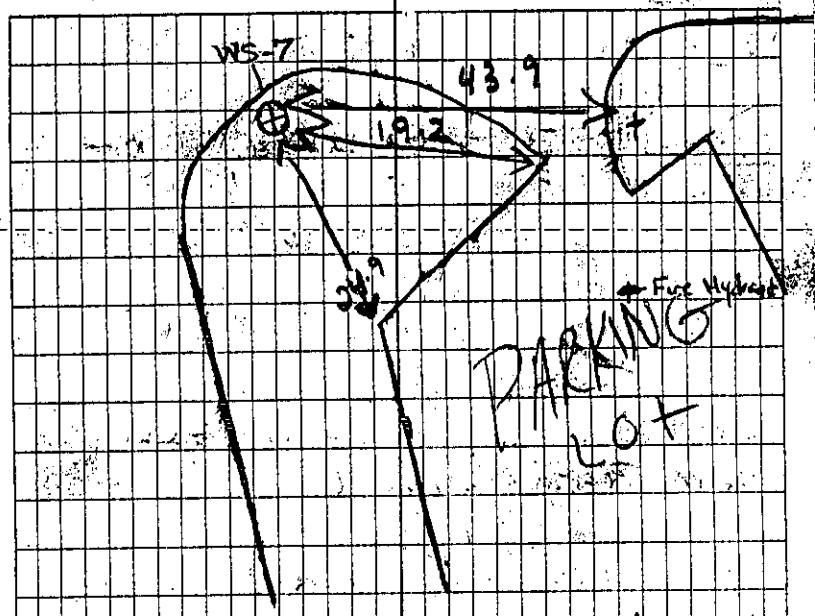
S-4 15-17' 10-12-11-17 15" Rec. PID-0.2

WET Bn. FC SAND Trace Coarse Sand trace Silt trace Brick

17.0' End of Boring

DTW From PVC 13.57'

DTW From Brand 11.71'



WELL Construction

BOE: 12.0

Screen: 12-7'

Sand: 7-5'

Bentonite: 5-1'

Concrete: 1-0"

5x4 ID protective steel Stickup w protective Cover

12.4.96

12.4.96 12:30 PM

WS-8 - formally 88 PID - 0.0

Water observed @ 17.0'

S-1 18-20 3-2-1-1 = 3 "Rec" Dk Grey FM Sand, Clay and Silt, trace f/c Sand

S-2 22-25' WOR 1' 2 2 3 24" Recovery

Moist dk Brown organic SILT and fiberous PEAT trace Clay PID - 0.8

25' END OF Boring

BOE: 25.0'

Screen - 25-13'

SAND 25-5'

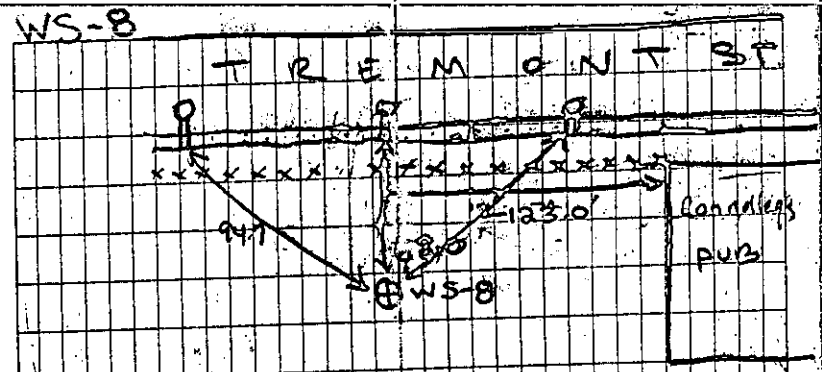
Bentonite 5-1

Concrete - 1-0'

5X4ro Protective steel stickup w/locking cover

DTW 16.0

WS-8



15:00 C HUGHES Departs Site

12.5.96

7:00 C Hughes arrives on site to resume Drilling operations

7:00

WSI-9 Formally B5

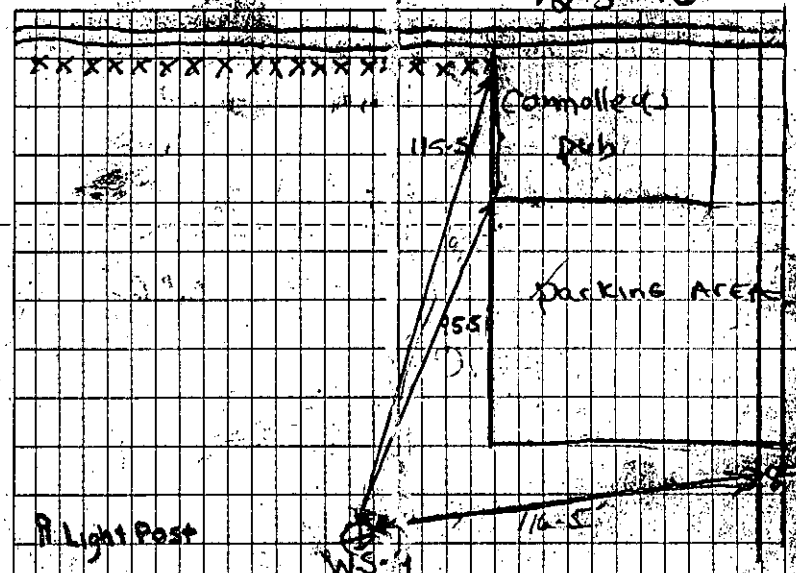
S-1 19-21' 3-2-1-3- 60% Rec PID-
WET, bn-gray F-M SAND, Clay and Silt trace C. sand
PID 1:2

S-2 23-25' WOR-5' 15" Rec. PID-
WET DK. Brn. organic Silt and Fiberous peat PID 0.5

END OF Boring @ 25'

DTW 15.5'

12.5.96



Well Construction

BOE 25.0'
Screen 25-10'
Sand 25-10'
Native Fill 10-5'
Bentonite 5-1'
Concrete 1-0'
5x4 ro protective steel shroud w/ Hexagon Bolt protective Cover

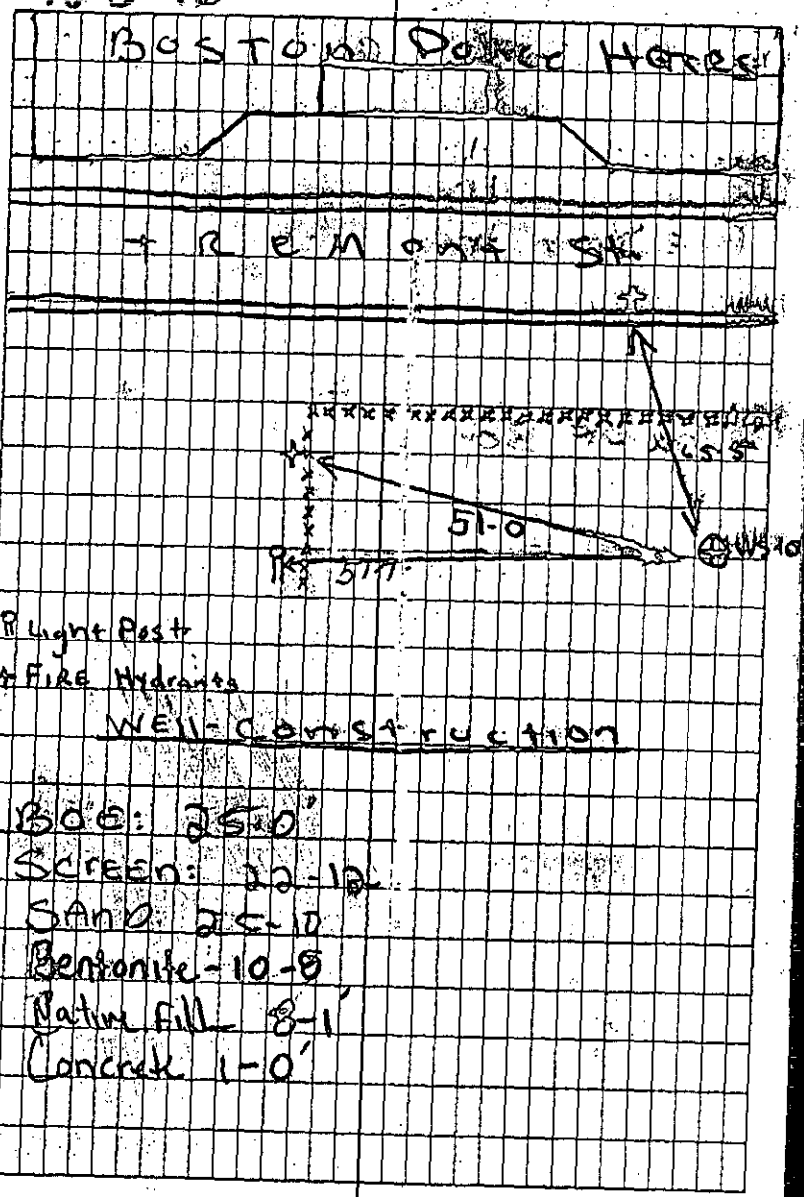
9:15

WS-10 Formally B-7

S-1 -19'-21'-9-11-12-13 14" Rec. PID-4.4
WET F-C SAND C gravel trace
Fine Sand trace Silt

End of Boring @ 25.0'

12.5.96



WELL CONSTRUCTION

BOE: 25.0'
Screen: 20-10'
Sand 25-10'
Bentonite-10-8'
Native Fill 8-1'
Concrete 1-0'

10:30

WS-11 - Formally B-12

Adjacent to High School parking Lot

S-1 0-2' 3-7-13-12 15" Rec. 1.2 ppm

Moist Dk Brown F-M SILT C gravel, trace C Sand trace organic Matter

S-2 5-7' 9 7-6-5 15" Rec 1.0 ppm

Moist Md Brown SILT F-M Sand trace Clay trace Brick

S-3 10-12' 1-2-6-9 8" Rec 1.6 Ppm

Moist Md Bn. SILT FM Sand trace gravel trace C Sand

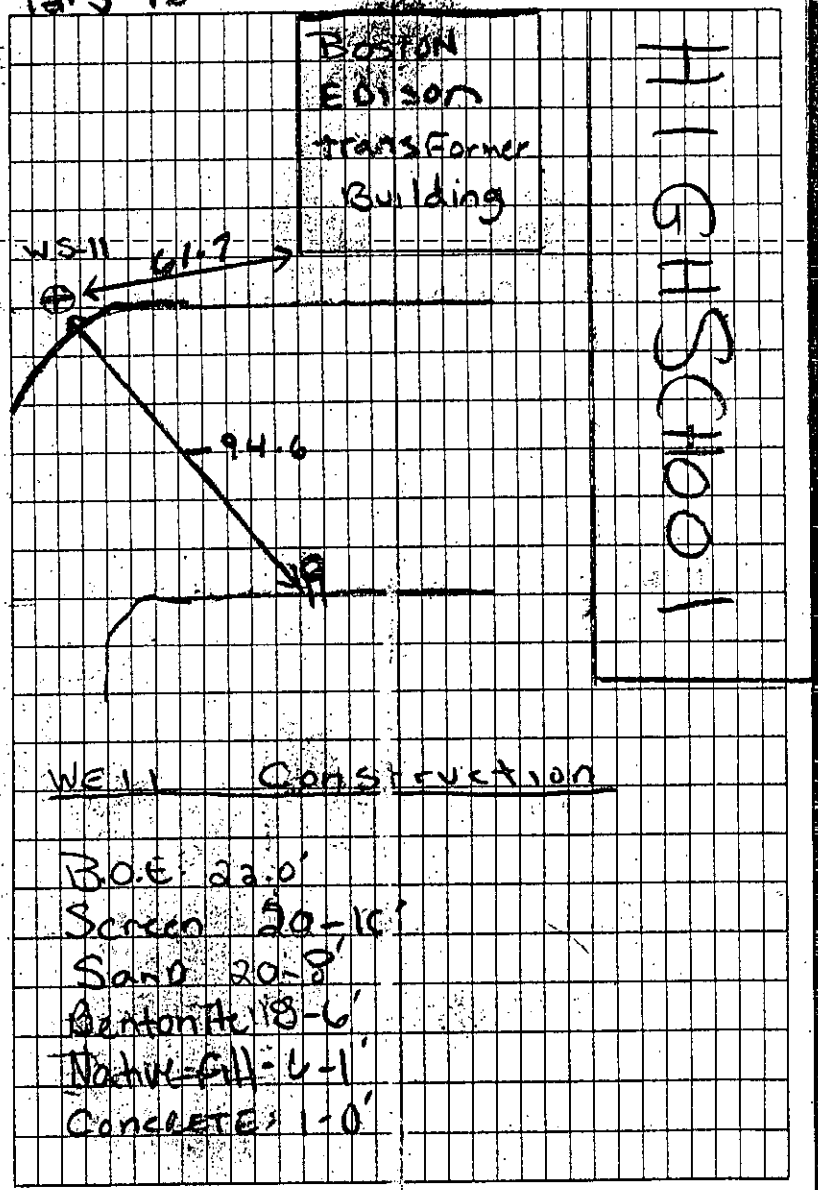
Water at approx @ 17.0'

S-4 15-15.3 - NO Recovery

S-5 20-22' 17-24-27-30 1.7 ppm

WET Brn. grey M-C SAND C gravel trace Silt

12.5.96



WELL CONSTRUCTION

B.O.E. 22.0'

Screen 20-10'

Sand 20-8'

Bentonite 8-6'

Native Fill 6-1'

Concrete 1-0'

Complete well installation @ 13:00:00

13:05 Drillers Depart Site

@ Hughes departs site @ 1430

12.5.96

WELL	TD (PVC)	TD ground	DTW (Ag)	DTW (G)
WS-1	17.0'	15.0'	7.8	8.8
WS-2	17.2	10.37	8.57	8.87
WS-3	16.4	13.9	8.49	6.06
WS-4	17.24	15.09	8.84	6.70
WS-5	17.65	15.35	14.19	11.76
WS-6	19.4	17.0	12.56	10.14
WS-7	19.4	17.4	13.6	11.6
WS-8	25.7	23.05	16.7	14.12
WS-9	23.5	21.4	17.43	15.35
WS-10	25.2	22.7	16.8	14.35
WS-11	22.3	19.3	19.2	17.0
Offset 9	29.43	28.15	12.73	10

APPENDIX D

GROUNDWATER MONITORING WELL LOGS

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			**MONITORING WELL NO.**	
LOCATION	Roxbury, MA			**WS - 1**	
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Dave Andersen	TOP OF PVC	92.49 '
OBSERVED BY	Andrew Wise	DATE	Dec. 3, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	7.80 '

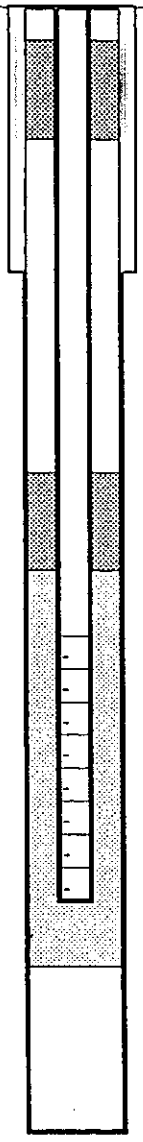
GROUND ELEVATION 93.42 '

GENERAL SOIL CONDITIONS (NOT TO SCALE)

0.0 - 12.0 ft. : Fine to coarse SAND FILL

12.0 - 21.0 ft. : Organic SILT and PEAT

21.0 - 60.0 ft. : Coarse to Fine SAND/ GRAVEL GLACIAL OUTWASH



<----	FLUSH-MOUNTED ROADBOX	(GROUND SURFACE)
	THICKNESS OF SURFACE SEAL(S)	1.0 "
<----	TYPE OF SURFACE SEAL(S)	Concrete
	TYPE OF SURFACE CASING	Aluminum Roadbox
<----	ID OF SURFACE CASING	6 "
<----	DEPTH BOTTOM OF CASING	18 "
	ID OF RISER PIPE	2 "
<----	TYPE OF RISER PIPE	Schedule 40 PVC
<----	TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
	DEPTH TOP OF SEAL	3.0 '
<----	TYPE OF SEAL	Bentonite
	DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	5.0 '
<----	DEPTH TOP OF SCREEN	7.0 '
	TYPE OF SCREEN	Machine-slotted PVC
<----	SIZE OPENINGS	0.010 "
	ID OF SCREEN	2 "
<----	TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
<----	DEPTH BOTTOM OF SCREEN	17.0 '
<----	DEPTH BOTTOM OF SAND COLUMN	18.0 '
<----	TYPE OF BACKFILL BELOW SCREEN	Bentonite: 18 - 21 ' Native Fill: 21 - 60 '
<----	DIAMETER OF BOREHOLE	4 "
<----	DEPTH BOTTOM OF BOREHOLE	60.0 '

NOTES:

Depth to groundwater measured on December 5, 1996.

Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 1

WESTON & SAMPSON ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			**MONITORING WELL NO.**	**WS - 2**
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	92.32 '
OBSERVED BY	Christine Hughes	DATE	Dec. 3, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	8.57 '

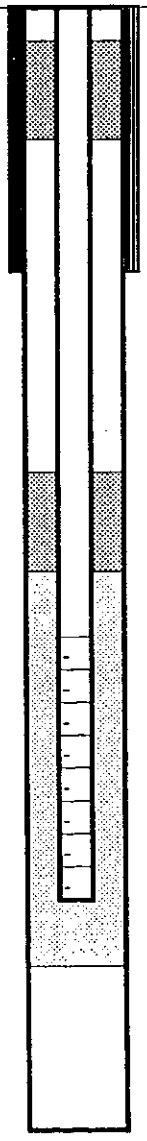
GROUND ELEVATION 92.46 '

GENERAL SOIL CONDITIONS (NOT TO SCALE)

0.0 - 0.3 ft. : ASPHALT

0.3 - 11.0 ft. : Fine to medium SAND FILL

11.0 - 17.0 ft. : PEAT and organic silt



<----	FLUSH-MOUNTED ROADBOX	(GROUND SURFACE)
	THICKNESS OF SURFACE SEAL(S)	1.0 '
<----	TYPE OF SURFACE SEAL(S)	Concrete
	TYPE OF SURFACE CASING	Aluminum Roadbox
<----	ID OF SURFACE CASING	4 "
<----	DEPTH BOTTOM OF CASING	10 "
	ID OF RISER PIPE	2"
<----	TYPE OF RISER PIPE	Schedule 40 PVC
<----	TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
	DEPTH TOP OF SEAL	3.0 '
<----	TYPE OF SEAL	Bentonite
	DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	5.0 '
<----	DEPTH TOP OF SCREEN	7.0 '
	TYPE OF SCREEN	Machine-slotted PVC
<----	SIZE OPENINGS	0.010 "
	ID OF SCREEN	2 "
<----	TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
<----	DEPTH BOTTOM OF SCREEN	17.0 '
<----	DEPTH BOTTOM OF SAND COLUMN	17.0 '
<----	TYPE OF BACKFILL BELOW SCREEN	N/A
<----	DIAMETER OF BOREHOLE	8 "
<----	DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:

Depth to groundwater measured on December 5, 1996.

Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 2

WESTON & SAMPSON ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 3
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	93.88 '
OBSERVED BY	Christine Hughes	DATE	Dec. 3, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11,1996	TOP OF PVC	8.49 '

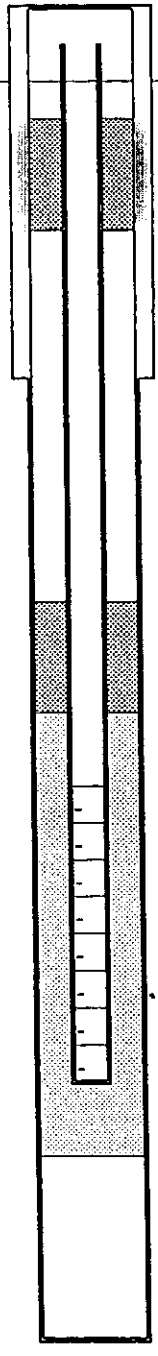
GROUND ELEVATION 92.61 '

GENERAL SOIL CONDITIONS

(NOT TO SCALE)

0.0 - 8.5 ft. :
Fine to coarse SAND,
Concrete
FILL

8.5 - 17.0 ft. :
Organic SILT and PEAT



LENGTH OF CASING ABOVE GROUND SURFACE	1.78 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.27 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	3.24 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Bentonite
DEPTH TOP OF SEAL	1.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	3.0 '
DEPTH TOP OF SCREEN	5.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	15.0 '
DEPTH BOTTOM OF SAND COLUMN	17.0'
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 3

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 4
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	94.06 '
OBSERVED BY	Christine Hughes	DATE	Dec. 3, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11,1996	TOP OF PVC	8.84 '

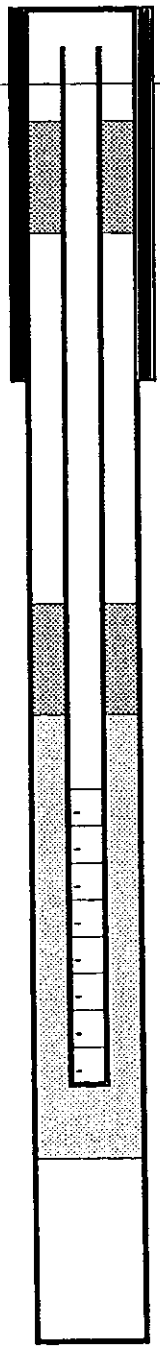
GROUND ELEVATION 92.00 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 8.5 ft. :
Fine to coarse SAND
FILL

8.5 - 13.5 ft. :
PEAT and organic silt

13.5 - 17.0 ft. :
Fine to medium SAND
GLACIAL OUTWASH



LENGTH OF CASING ABOVE GROUND SURFACE	2.15 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	2.06 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.85 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Bentonite
DEPTH TOP OF SEAL	1.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	3.0 '
DEPTH TOP OF SCREEN	5.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	15.0 '
DEPTH BOTTOM OF SAND COLUMN	17.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 4

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	
LOCATION	Roxbury, MA			WS - 5	
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	98.27 '
OBSERVED BY	Christine Hughes	DATE	Dec. 4, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11,1996	TOP OF PVC	14.19 '

GROUND ELEVATION 96.39 '

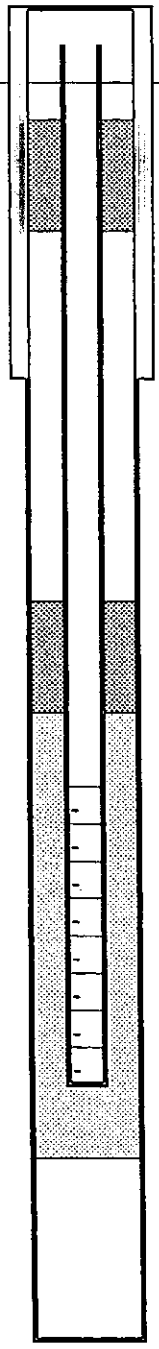
GENERAL SOIL CONDITIONS (NOT TO SCALE)

0.0 - 0.5 ft. : SILT and sand TOPSOIL

0.5 - 3.5 ft. : Medium to fine SAND FILL

3.5 - 8.5 ft. : Silt and clay FILL

8.5 - 17.0 ft. : Fine to coarse SAND FILL



LENGTH OF CASING ABOVE GROUND SURFACE	2.04 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.88'
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.96 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Bentonite
DEPTH TOP OF SEAL	1.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	3.0 '
DEPTH TOP OF SCREEN	5.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	15.0 '
DEPTH BOTTOM OF SAND COLUMN	17.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:

Depth to groundwater measured on December 5, 1996.

Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 5

WESTON & SAMPSON ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	
LOCATION	Roxbury, MA			WS - 6	
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert. Inc.	DRILLER	Paul Schaefer	TOP OF PVC	97.03 '
OBSERVED BY	Christine Hughes	DATE	Dec. 4, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	12.56 '

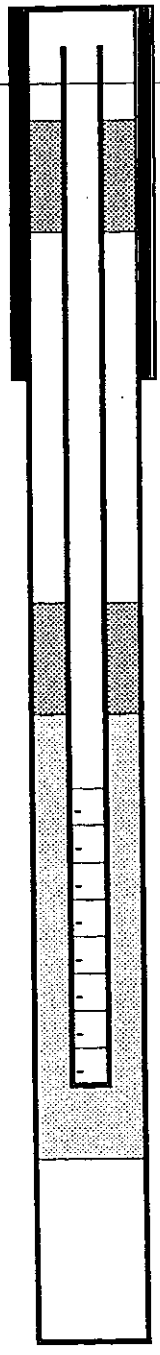
GROUND ELEVATION 96.15 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 0.5 ft.:
SILT and sand
TOPSOIL

0.5 - 8.5 ft.:
Medium to fine SAND
FILL

8.5 - 17.0 ft. :
Fine to coarse SAND
GLACIAL OUTWASH



LENGTH OF CASING ABOVE GROUND SURFACE	2.10 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.87 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.90 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	3.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	5.0 '
DEPTH TOP OF SCREEN	7.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	17.0 '
DEPTH BOTTOM OF SAND COLUMN	17.0 '
TYPE OF BACKFILL BELOW SCREEN	N/A
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 6

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

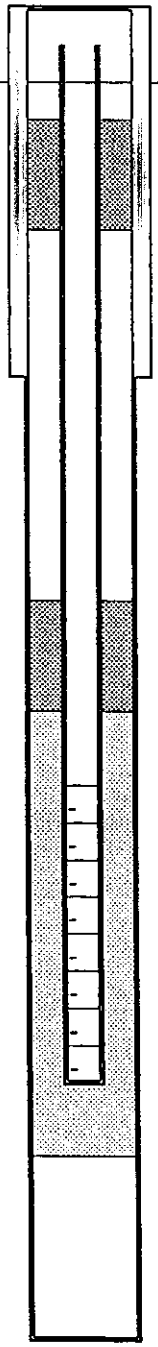
PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 7
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	98.12 '
OBSERVED BY	Christine Hughes	DATE	Dec. 4, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11,1996	TOP OF PVC	13.60 '

GROUND ELEVATION 96.34 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 0.5 ft. :
SILT and sand
TOPSOIL

0.5 - 17.0 ft. :
Fine to coarse SAND
GLACIAL OUTWASH



LENGTH OF CASING ABOVE GROUND SURFACE	1.86 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.78 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	3.14 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	3.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	5.0 '
DEPTH TOP OF SCREEN	7.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	17.0 '
DEPTH BOTTOM OF SAND COLUMN	17.0 '
TYPE OF BACKFILL BELOW SCREEN	N/A
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	17.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 7

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 8
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	102.95 '
OBSERVED BY	Christine Hughes	DATE	Dec. 4, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	16.70 '

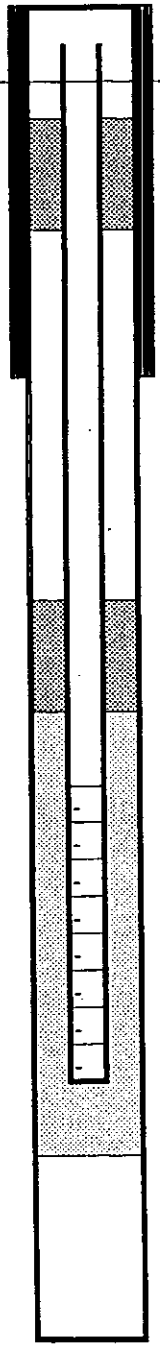
GROUND ELEVATION 100.70 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 17.5 ft. :
Coarse to fine SAND
FILL

17.5 - 21.5 ft. :
Clay and silt

21.5 - 25.0 ft. :
Organic SILT and PEAT



LENGTH OF CASING ABOVE GROUND SURFACE	2.40 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	2.25 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.60 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	9.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	11.0 '
DEPTH TOP OF SCREEN	13.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	23.0 '
DEPTH BOTTOM OF SAND COLUMN	25.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	25.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 8

WESTON & SAMPSON ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 9
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	102.70 '
OBSERVED BY	Christine Hughes	DATE	Dec. 5, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	17.43 '

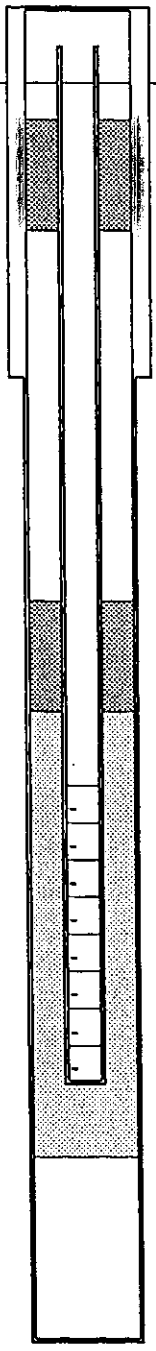
GROUND ELEVATION 100.25 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 19.0 ft. :
Coarse to fine SAND
FILL

19.0 - 22.0 ft. :
Clay and silt

22.0 - 25.0 ft. :
Organic SILT and PEAT



LENGTH OF CASING ABOVE GROUND SURFACE	2.35 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	2.18 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.65 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	8.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	10.0 '
DEPTH TOP OF SCREEN	12.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	22.0 '
DEPTH BOTTOM OF SAND COLUMN	25.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	25.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 9

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

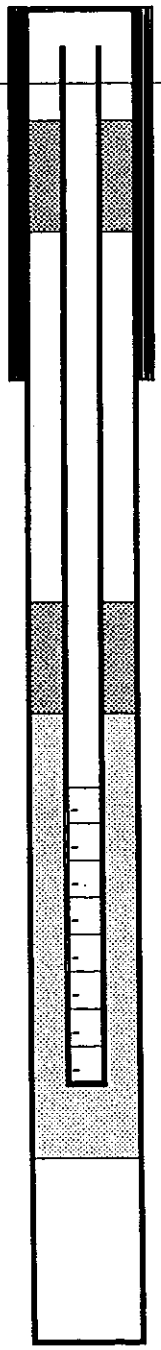
PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 10
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	101.99 '
OBSERVED BY	Christine Hughes	DATE	Dec. 5, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	16.80 '

GROUND ELEVATION 100.98 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 14.4 ft. :
Coarse to fine SAND
FILL

14.0 - 25.0 ft. :
Coarse to fine SAND
GLACIAL OUTWASH



LENGTH OF CASING ABOVE GROUND SURFACE	1.53 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.01 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	3.47 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	8.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	10.0 '
DEPTH TOP OF SCREEN	12.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	22.0 '
DEPTH BOTTOM OF SAND COLUMN	25.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	25.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 10

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

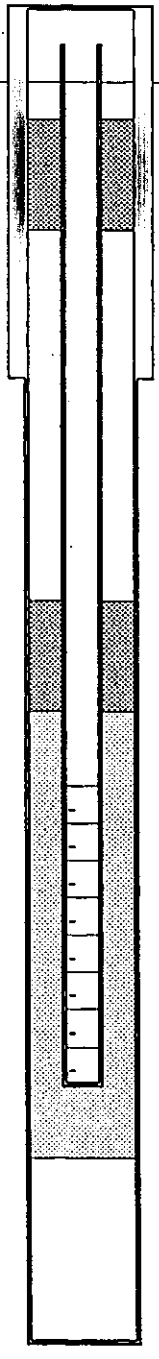
PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	WS - 11
LOCATION	Roxbury, MA				
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Paul Schaefer	TOP OF PVC	103.88 '
OBSERVED BY	Christine Hughes	DATE	Dec. 5, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11 1996	TOP OF PVC	19.20 '

GROUND ELEVATION 101.90 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 13.5 ft. :
SILT and sand
FILL

13.5 - 22.0 ft. :
Medium to coarse SAND
GLACIAL OUTWASH



LENGTH OF CASING ABOVE GROUND SURFACE	2.15 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	1.98 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.85 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	6.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	8.0 '
DEPTH TOP OF SCREEN	10.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	Silica Sand
DEPTH BOTTOM OF SCREEN	20.0 '
DEPTH BOTTOM OF SAND COLUMN	22.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	22.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 11

WESTON & SAMPSON
ENGINEERS, INC.

GROUNDWATER MONITORING WELL INSTALLATION REPORT

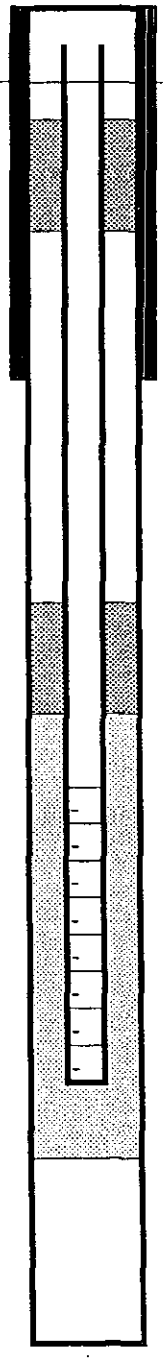
PROJECT NAME/NO.	BRA/EDIC Parcel P-3 / Job No: 96230.A			MONITORING WELL NO.	
LOCATION	Roxbury, MA			WS - 12	
CLIENT	BRA/EDIC			ELEVATION	
CONTRACTOR	Zoino - Hebert, Inc.	DRILLER	Art Johnson	TOP OF PVC	99.35 '
OBSERVED BY	Andrew Wise	DATE	Dec. 5, 1996	DEPTH TO GROUNDWATER FROM	
CHECKED BY	Andrew Wise	DATE	Dec. 11, 1996	TOP OF PVC	12.73 '

GROUND ELEVATION 96 89 '

GENERAL SOIL CONDITIONS
(NOT TO SCALE)

0.0 - 12.0 ft. :
Coarse to fine SAND
FILL

12.0 - 19.0 ft. :
PEAT and organic silt



LENGTH OF CASING ABOVE GROUND SURFACE	2.56 '
LENGTH OF RISER PIPE ABOVE GROUND SURFAC	2.46 '
THICKNESS OF SURFACE SEAL(S)	1.0 '
TYPE OF SURFACE SEAL(S)	Concrete
TYPE OF SURFACE CASING	Steel
ID OF SURFACE CASING	4 "
DEPTH BOTTOM OF CASING	2.44 '
ID OF RISER PIPE	2 "
TYPE OF RISER PIPE	Schedule 40 PVC
TYPE OF BACKFILL AROUND RISER PIPE	Native Fill
DEPTH TOP OF SEAL	4.0 '
TYPE OF SEAL	Bentonite
DEPTH BOTTOM OF SEAL/TOP OF SAND COLUMN	6.0 '
DEPTH TOP OF SCREEN	8.0 '
TYPE OF SCREEN	Machine-slotted PVC
SIZE OPENINGS	0.010 "
ID OF SCREEN	2 "
TYPE OF BACKFILL AROUND SCREEN	#1 Silica Sand
DEPTH BOTTOM OF SCREEN	18.0 '
DEPTH BOTTOM OF SAND COLUMN	19.0 '
TYPE OF BACKFILL BELOW SCREEN	#1 Silica Sand
DIAMETER OF BOREHOLE	8 "
DEPTH BOTTOM OF BOREHOLE	19.0 '

NOTES:
Depth to groundwater measured on December 5, 1996.
Elevation relative to an arbitrary 100.00 foot datum.

MONITORING WELL NO.
WS - 12

WESTON & SAMPSON
ENGINEERS, INC.

APPENDIX E

LABORATORY REPORTS

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

May 07, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC-Parcel P-3

Dear George:

Enclosed please find the results for the additional analysis requested on April 24, 1997 for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15806. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC-Parcel P-3
Roxbury, MA

Attn: Mr. George Naslas

Samples Qty/Type: 7/Solid

AMRO Designation: 15806*
Date Sampled: 03/24&25/97
Date Rec'vd: 03/26/97
Date Complete: 05/06/97
COC #: 14863, 14867, 16994

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-114 S-2 4-6'	15806-01	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	1.2	mg/L	05/06/97	EL	6010
B-114 S-3 7-9'	15806-02	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	0.33	mg/L	05/06/97	EL	6010
B-105 S-1 1-3'	15806-03	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	0.65	mg/L	05/06/97	EL	6010
B-105 S-2 4-6'	15806-04	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	0.27	mg/L	05/06/97	EL	6010
B-111 S-1 1-3'	15806-05	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-111 S-2 4-6'	15806-06	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	0.25	mg/L	05/06/97	EL	6010
B-111 S-3 7-9'	15806-07	TCLP Extraction			04/29/97	RK	1311
		Lead, TCLP	0.60	mg/L	05/06/97	EL	6010

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.

The following standard abbreviations and conventions apply throughout all sections:

< = 'Less than' followed by the detection limit.
> = 'Greater than'
* = Additional analysis requested 04/24/97, formerly Amro #15550.

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

May 07, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC-Parcel P-3 Roxbury, MA

Dear George:

Enclosed please find the results for the additional analysis requested on April 24, 1997 for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15805. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Stewart FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO Environmental Laboratory Report

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC-Parcel P-3
Roxbury, MA

Attn: Mr. George Naslas

Samples Qty/Type: 9/Solid

AMRO Designation: 15805*
Date Sampled: 03/24-26/97
Date Rec'vd: 03/26/97
Date Complete: 05/06/97
COC #: 14862, 16994, 16995

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-113 S-3 7-9'	15805-01	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-115 S-1 1-3'	15805-02	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-115 S-2 4-6'	15805-03	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.24	mg/L	05/06/97	EL	6010
B-115 S-3 7-9'	15805-04	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.29	mg/L	05/06/97	EL	6010
B-116 S-1 1-3'	15805-05	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.22	mg/L	05/06/97	EL	6010
B-117 S-1 1-3'	15805-06	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.45	mg/L	05/06/97	EL	6010
B-104 S-1 1-3'	15805-07	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.24	mg/L	05/06/97	EL	6010
B-104 S-2 4-6'	15805-08	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-114 S-1 1-3'	15805-09	TCLP Extraction			04/28/97	RK	1311
		Lead, TCLP	0.23	mg/L	05/06/97	EL	6010

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.

The following standard abbreviations and conventions apply throughout all sections:

< = 'Less than' followed by the detection limit.
> = 'Greater than'
* = Additional analysis requested 04/24/97, formerly Amro #15550.

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

May 07, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC-Parcel P-3 Roxbury, MA

Dear George:

Enclosed please find the results for the additional analysis requested on April 24, 1997 for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15804. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Hubbard FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report Page 1 of 2

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC-Parcel P-3
Roxbury, MA

Attn: Mr. George Naslas

Samples Qty/Type: 9/Solid

AMRO Designation: 15804*
Date Sampled: 03/25/97
Date Rec'vd: 03/26/97
Date Complete: 05/06/97
COC #: 14866, 14867, 16994

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-109 S-3 7-9'	15804-01	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.35	mg/L	05/06/97	EL	6010
B-110 S-1 1-3'	15804-02	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.32	mg/L	05/06/97	EL	6010
B-110 S-2 4-6'	15804-03	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.37	mg/L	05/06/97	EL	6010
B-110 S-3 7-9'	15804-04	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-112 S-1 1-3'	15804-05	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010
B-112 S-2 4-6'	15804-06	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.58	mg/L	05/06/97	EL	6010
B-112 S-3 7-9'	15804-07	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.77	mg/L	05/06/97	EL	6010
B-113 S-1 1-3'	15804-08	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	0.31	mg/L	05/06/97	EL	6010
B-113 S-2 4-6'	15804-09	TCLP Extraction			04/25/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/06/97	EL	6010

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.
The following standard abbreviations and conventions apply throughout all sections:
< = 'Less than' followed by the detection limit.
> = 'Greater than'
* = Additional analysis requested 04/24/97, formerly Amro # 15550.

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

May 06, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A Roxbury-BRA/EDIC-Parcel P-3

Dear George:

Enclosed please find the results for the additional analysis requested on April 24, 1997 for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15793. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Stoddard FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO Environmental Laboratory Report

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A Roxbury BRA/EDIC-Parcel P-3

Attn: Mr. George Naslas

Samples Qty/Type: 9/Solid

AMRO Designation: 15793*
Date Sampled: 03/24/97
Date Rec'vd: 03/26/97
Date Complete: 05/02/97
COC #: 14861, 14862, 14863

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-101 S-1	15793-01	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-101 S-2	15793-02	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-102 S-1	15793-03	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-102 S-2	15793-04	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.27	mg/L	05/02/97	PB	6010
B-102 S-3	15793-05	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-103 S-1	15793-06	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-103 S-2	15793-07	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.28	mg/L	05/02/97	PB	6010
B-106 S-1	15793-08	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.30	mg/L	05/02/97	PB	6010
B-106 S-2	15793-09	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.32	mg/L	05/02/97	PB	6010

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.

The following standard abbreviations and conventions apply throughout all sections:

< = 'Less than' followed by the detection limit.
> = 'Greater than'
* = Additional analysis requested on 04/24/97, formerly AMRO # 15550

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

15795 14861

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA/EDIC	MA

Samplers (Signature): Andrew D. Wilson

PAGE 1 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O Explain)	TPH GC/FID	PAH 8100	PCB 8080	LEAD	RCRA 8 metals	Remarks
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S	X	X				
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S			X			
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S	X	X				
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S			X			
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S	X	X				
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S			X			
	3/24	10:30		X	B-102 S-1 1-3'	1 8-oz	S	X	X				
	3/24	10:30		X	B-102 S-1 1-3'	1 8-oz	S			X			
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S	X	X				
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S			X			
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S	X	X				
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S			X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wilson

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to: George Nikias
Weston + Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

White: [illegible] Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14862

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-Q (Explain)

PAGE 2 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8081	LEAD	RCRA metals	Remarks
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S	X	X				
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S				X		
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S	X	X				
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S				X		
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S	X	X				
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S				X		
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S	X	X	X			
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S				X		
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S	X	X	X			
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S				X		
	3/24	13:00		X	B-104 S-3 7-9'	1 8-oz	S	X	X	X			
	3/24	15:00		X	B-104 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:35	Received for Laboratory by: (Signature)
	3-26-97	

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to: George Nassas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1700

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14863

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
9230.A	BRA/EDIC Roxbury	MA

Samplers (Signature): Andrew D. Dix

PAGE 3 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O, Explain)	TPH GC/FID	PAH 8310	PCB 8081	LEAD	RCRA 5 Metals	Remarks
	3/24	13:30		X	B-105 S-1 1-3'	1 8-oz	S	X	X				
	3/24	13:30		X	B-105 S-1 1-3'	1 8-oz	S				X	X	
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S	X	X				
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S				X	X	
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S	X	X				
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S				X	X	
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S	X	X				
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S				X		
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S	X	X				
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S				X		
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S	X	X				
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Dix

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Dix	3/26/97 1613	Bob Hawkes
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkes	Date Time 3-26-97 5:35	Received for Laboratory by: (Signature) Jo Podgorski

☐ Fax to (phone)

Results needed

PO#

AMRO Project No.

Seal Intact? Yes No N/A

Send Results to:
George Nealon
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
508 532-1900

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14865

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
9630.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrea D Wise

PAGE 4 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water - A, Soil/Solid-S, Waste-W, Other-O, Explain)	TPH GC/FID	PAH 8100	PCB 8081	LEAD	RCRA 5 Metals	Remarks
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S	X	X				
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S			X			
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S	X	X				
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S			X			
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S	X	X				
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S			X			
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S	X	X				
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S			X			
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S	X	X				
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S			X			
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S	X	X				
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S			X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrea D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrea D Wise	3/26/97 1:30	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) Jan Tolgyesi

☐ Fax to (phone) _____

Results needed _____

PO# _____

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Nnoka
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14866

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA/EDIC	MA

Samplers (Signature): Andrew D. Wise

PAGE 5 OF 9

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-Q (Explain)

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FIA	PAH 8100	PCB 8080	LEAD RCRA 5 Metals		Remarks
	3/25	09:35		X	B-109 S-1 1-3'	1 8-oz	S	X	X				
	3/25	09:35		X	B-109 S-1 1-3'	1 8-oz	S				X		
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S	X	X				
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S				X		
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S	X	X				
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S				X		
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S	X	X				
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S				X		
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S	X	X				
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S				X		
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S	X	X				
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 1:30	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature) Jon Podgaan

☐ Fax to (phone) _____

Results needed _____

PO# _____

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Nuelas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

White: Lab copy Yellow: Accompanies Report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14867

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96330.A	BRA / EDIC Roxbury	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-Q; Explain

PAGE 6 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	RCRA 5 metals	Remarks
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S	X	X				
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S				X	X	
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S	X	X				
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S				X	X	
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S	X	X				
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S				X	X	
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S	X	X				
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S				X		
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S	X	X				
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S				X		
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S	X	X				
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:55	Received for Laboratory by: (Signature)
	3-26-97	

☐ Fax to (phone)

Results needed

PO#

AMRO Project No.

Seal Intact? Yes No N/A

Send Results to: George Nunlas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRQ Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16994

CHAIN OF CUSTODY RECORD

Proj. No. 96930.A | Project Name Rexburg - BRA / EDIC | Project State MA

Samplers (Signature) Andrew D. Wise

PAGE 7 OF 8

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O Explain

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8080/8082	LEAD	RCRA 5 metals		Remarks
	3/25	13:30		X	B-113 S-1 1-3'	1 8-oz	S	X	X					
	3/25	13:30		X	B-113 S-1 1-3'	1 8-oz	S				X			
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S	X	X					
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S				X			
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S	X	X					
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S				X			
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S	X	X	X				
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S				X			
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S	X	X	X				
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S				X			
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S	X	X	X				
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkes	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to: George Nastas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1960

Remarks

AMRQ Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16995

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230. A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Dix

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-Q (Explain) — Soil/Solid-S circled

Type Size, & No. of Containers

PAGE 8 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FIA	PAH 8100	PCB 8081	LEAD 8081	RCRA 5 Metals	Remarks
	3/26	0910		X	B-115 S-1 1-3'	1 - 8oz	S	X	X				
	3/26	0910		X	B-115 S-1 1-3'	1 - 8oz	S			X			
	3/26	0915		X	B-115 S-2 4-6'	1 - 8oz	S	X	X				
	3/26	0915		X	B-115 S-2 4-6'	1 - 8oz	S			X			
	3/26	0930		X	B-115 S-3 7-9'	1 - 8oz	S	X	X				
	3/26	0930		X	B-115 S-3 7-9'	1 - 8oz	S			X			
	3/26	1000		X	B-116 S-1 1-3'	1 ~~1~~ 8oz	S	X	X				
	3/26	1000		X	B-116 S-1 1-3'	1 - 8oz	S			X			
	3/26	1015		X	B-117 S-1 1-3'	1 ~~1~~ 8oz	S	X	X				
	3/26	1015		X	B-117 S-1 1-3'	1 - 8oz	S			X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Dix

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Dix	3/26/97 6:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:55	Received for Laboratory by: (Signature)
	3-26-97	

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Nunlas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1700

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the Chemical Analysis of Potable and Non-Potable Water

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96
Issued

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

May 06, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A Roxbury-BRA/EDIC-Parcel P-3

Dear George:

Enclosed please find the results for the additional analysis reugeste on April 24, 1997 for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15794. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Hubbard FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A Roxbury BRA/EDIC-Parcel P-3

Attn: Mr. George Naslas

Samples Qty/Type: 9/Solid

AMRO Designation: 15794*
Date Sampled: 03/24/97
Date Rec'vd: 03/26/97
Date Complete: 05/02/97
COC #: 14863, 14865, 14866

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-106 S-3	15794-01	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.70	mg/L	05/02/97	PB	6010
B-107 S-1	15794-02	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.23	mg/L	05/02/97	PB	6010
B-107 S-2	15794-03	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.62	mg/L	05/02/97	PB	6010
B-107 S-3	15794-04	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.31	mg/L	05/02/97	PB	6010
B-108 S-1	15794-05	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.24	mg/L	05/02/97	PB	6010
B-108 S-2	15794-06	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.23	mg/L	05/02/97	PB	6010
B-108 S-3	15794-07	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010
B-109 S-1	15794-08	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	0.22	mg/L	05/02/97	PB	6010
B-109 S-2	15794-09	TCLP Extraction			04/24/97	RK	1311
		Lead, TCLP	<0.20	mg/L	05/02/97	PB	6010

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.

The following standard abbreviations and conventions apply throughout all sections:

< = 'Less than' followed by the detection limit.
> = 'Greater than'
* = Additional analysis requested on 04/24/97, formerly AMRO #15550.

15744

14861

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA/EDIC	MA

Samplers (Signature): Andrew D. Wise

PAGE 1 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O, Explain)	TPH GC/FID	PAH 8100	PCB 8080 / BCB	LEAD	RCRA 5 metals	Remarks
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S	X	X				
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S			X			
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S	X	X				
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S			X			
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S	X	X				
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S			X			
	3/24	10:30		X	B-102 S-1 1-3'	1 8-oz	S	X	X				
	3/24	10:30		X	B-102 S-1 1-3'	1 8-oz	S			X			
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S	X	X				
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S			X			
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S	X	X				
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S			X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
	3/26/97 1630	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:35 3-26-97	Received for Laboratory by: (Signature)

☐ Fax to (phone) _____

Results needed _____

PO# _____

AMRO Project No. 1555D

Seal Intact? Yes No N/A

Send Results to:
George Nicolas
Weston + Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1700

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14862

CHAIN OF CUSTODY RECORD

Proj. No.: 96230.A
Project Name: Roxbury - BRA / EDIC
Project State: MA
Samplers (Signature): Andrew D. Wise [illegible]
MATRIX: Water - A, Soil/Solid - S (circled), Waste - W, Other - O, Explain

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	RCRA 8 metals			Remarks
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S	X	X						
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S				X				
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S	X	X						
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S				X				
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S	X	X						
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S				X				
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S	X	X	X					
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S				X				
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S	X	X	X					
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S				X				
	3/24	13:00		X	B-104 S-3 7-9'	1 8-oz	S	X	X	X					
	3/24	13:00		X	B-104 S-3 7-9'	1 8-oz	S				X				

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D Wise

PRIORITY TURNAROUND TIME AUTHORIZATION
Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**
AUTHORIZATION NO.______ **T.A.T. authorized by:**______

Relinquished by (Signature)	Date Time	Received by (Signature)		
[illegible]	3/26/97 16:30	Bob Hawkes	☐ Fax to (phone) / Results needed / PO#	Send Results to: George Naslas, Weston & Sampson, 5 Centennial Drive, Peabody, Mass. 01960, (508) 532-1900
Relinquished by (Signature)	Date Time	Received by (Signature)		
Relinquished by (Signature)	Date Time	Received by (Signature)	AMRO Project No. 15550	Remarks
Relinquished by (Signature) Bob Hawkes	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature) [illegible]	Seal Intact? Yes No N/A	

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14863

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
7w230.A	BRA/EDIC Roxbury	MA

Samplers (Signature): Andrew D. Dixon

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O (Explain)

PAGE 3 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	VOA 8021	BTEX 8021	LEAD	RCRA 5 Metals	Remarks
	3/24	13:30		X	B-105 S-1 1-3'	1 8-oz	S	X	X					
	3/24	13:30		X	B-105 S-1 1-3'	1 8-oz	S				X	X		
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S	X	X					
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S				X	X		
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S	X	X					
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S				X	X		
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S	X	X					
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S				X			
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S	X	X					
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S				X			
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S	X	X					
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Dixon

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded T.A.T. AUTHORIZATION NUMBER.

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Dixon	3/26/97 16:30	Bob Hawkes
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkes	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature) Jon Podgers

☐ Fax to (phone)

Results needed

PO#

AMRO Project No.

Seal Intact? Yes No N/A

Send Results to:
George Nealos
Camp Dresser & McKee
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1700

Remarks

White: Lab Copy Yellow: Accompanies Report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14865

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrea D Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O Explain

PAGE 4 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	RCRA 5 Metals	Remarks
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S	X	X				
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S				X		
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S	X	X				
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S				X		
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S	X	X				
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S				X		
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S	X	X				
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S				X		
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S	X	X				
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S				X		
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S	X	X				
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrea D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrea D Wise	3/26/97 12:30	Bob Hamburger
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hamburger	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) Jan Podgorski

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to: George Nichols
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14866

CHAIN OF CUSTODY RECORD

Proj. No. 96230.A | Project Name: Roxbury - BRA/EDIC | Project State: MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid - S; Waste - W; Other - O (Explain)

PAGE 5 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8080	LEAD RCRA 5 Metals			Remarks
	3/25	09:35		X	B-109 S-1 1-3'	1 8-oz	S	X	X					
	3/25	09:35		X	B-109 S-1 1-3'	1 8-oz	S				X			
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S	X	X					
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S				X			
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S	X	X					
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S				X			
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S	X	X					
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S				X			
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S	X	X					
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S				X			
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S	X	X					
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Nunlist
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1700

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14867

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	BRA / EDIC Roxbury	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-Q; Explain

PAGE 6 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB's 8081	LEAD RCRA 5 metals			Remarks
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S	X	X					
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S				X	X		
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S	X	X					
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S				X	X		
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S	X	X					
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S				X	X		
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S	X	X					
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S				X			
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S	X	X					
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S				X			
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S	X	X					
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) Jan Podgorski

☐ Fax to (phone)

Results needed

PO#

AMRO Project No.

Seal Intact? Yes No N/A

Send Results to: George Nnolas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
508 532-1700

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16994

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96330.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O Explain

PAGE 7 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	PCB 8080	LEAD	RCRA 5 Metals	Remarks
	3/25	13:30		X	B-113 S-1 1-3'	1 8-oz	S	X	X				
	3/25	13:30		X	B-113 S-1 1-3'	1 8-oz	S				X		
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S	X	X				
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S				X		
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S	X	X				
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S				X		
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S	X	X	X			
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S				X		
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S	X	X	X			
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S				X		
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S	X	X	X			
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkes	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Naslas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1960

Remarks

White: La[illegible] Y[illegible]ccom[illegible]repor[illegible] Pink: [illegible]opy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16995

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA/EDIC	MA

Samplers (Signature): Andrew D. Dix

PAGE 8 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water - A, Soil/Solid-S, Waste-W, Other-O, Explain)	TPH GC/FID	PAH 8100	PCB 8081	LEAD 8081	RCRA 5 Metals	Remarks
	3/26	09:00		X	B-115 S-1 1-3'	1 - 8oz	S	X	X				
	3/26	09:00		X	B-115 S-1 1-3'	1 - 8oz	S				X		
	3/26	09:15		X	B-115 S-2 4-6'	1 - 8oz	S	X	X				
	3/26	09:15		X	B-115 S-2 4-6'	1 - 8oz	S				X		
	3/26	09:30		X	B-115 S-3 7-9'	1 - 8oz	S	X	X				
	3/26	09:30		X	B-115 S-3 7-9'	1 - 8oz	S				X		
	3/26	10:00		X	B-116 S-1 1-3'	1 ~~16~~ oz	S	X	X				
	3/26	10:00		X	B-116 S-1 1-3'	1 - 8oz	S				X		
	3/26	10:15		X	B-117 S-1 1-3'	1 ~~16~~ oz	S	X	X				
	3/26	10:15		X	B-117 S-1 1-3'	1 - 8oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Dix

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Dix	3/26/97 6:30	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) Jim Pinkham

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 1555D

Seal Intact? Yes No N/A

Send Results to:
George Nunlas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1760

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

April 14, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A Roxbury-BRA/EDIC

Dear George:

Enclosed please find the results for the above-referenced project, received on March 26, 1997. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 15550. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Hubbard FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report Page 1 of 6

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Attn: Mr. George Naslas

Client Designation:
96230.A Roxbury-BRA/EDIC

Samples Qty/Type: 47/Solid

AMRO Designation: 15550
Date Sampled: 03/24/97, 03/25/97
Date Rec'vd: 03/26/97
Date Complete: 04/04/97
COC #'s: 14861, 14862, 14863, 14865, 14866, 14867, 16994 & 16995

Sample Identity	AMRO Identity	Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-101 1-2.5	S-1	15550-01	Total Solids	88.1	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	210.	mg/Kg	03/31/97	EL	6010
B-101 4.5'-6.5'	S-2	15550-02	Total Solids	90.6	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	360.	mg/Kg	03/31/97	EL	6010
B-101 -9'	S-3	15550-03	Total Solids	81.7	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	46.	mg/Kg	03/31/97	EL	6010
B-102 1-3'	S-1	15550-04	Total Solids	89.5	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	200.	mg/Kg	03/31/97	EL	6010
B-102 4-6'	S-2	15550-05	Total Solids	88.1	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	150.	mg/Kg	03/31/97	EL	6010
B-102 -9'	S-3	15550-06	Total Solids	85.2	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	200.	mg/Kg	03/31/97	EL	6010
B-103 1-3'	S-1	15550-07	Total Solids	89.7	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	170.	mg/Kg	03/31/97	EL	6010
B-103 4-6'	S-2	15550-08	Total Solids	87.5	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	110.	mg/Kg	03/31/97	EL	6010

Continued next page . . .

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-103 S-3 7-9'	15550-09	Total Solids	89.6	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	57.	mg/Kg	03/31/97	EL	6010
B-106 S-1 1-3'	15550-10	Total Solids	88.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	150.	mg/Kg	03/31/97	EL	6010
B-106 S-2 4-6'	15550-11	Total Solids	[illegible]	%	[illegible]	[illegible]	[illegible]
		Digestion			03/28/97	SPC	3050
		Lead, Total	330.	mg/Kg	03/31/97	EL	6010
B-106 S-3 7-9'	15550-12	Total Solids	86.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	350.	mg/Kg	03/31/97	EL	6010
B-107 S-1 1-3'	15550-13	Total Solids	87.6	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	280.	mg/Kg	03/31/97	EL	6010
B-107 S-2 6'	15550-14	Total Solids	87.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	290.	mg/Kg	03/31/97	EL	6010
B-107 S-3 7-9'	15550-15	Total Solids	84.7	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	190.	mg/Kg	03/31/97	EL	6010
B-108 S-1 1-3'	15550-16	Total Solids	86.2	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	450.	mg/Kg	04/02/97	EL	6010
B-108 S-2 4-6'	15550-17	Total Solids	84.3	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	190.	mg/Kg	03/31/97	EL	6010
B-108 S-3 7-9'	15550-18	Total Solids	88.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	110.	mg/Kg	03/31/97	EL	6010

Continued next page . . .

AMRO

MRO Environmental Laboratory Report

ample entity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
-109	S-1	15550-19	88.8	%	03/27/97	MNB	2540G
3'		Digestion			03/28/97	SPC	3050
		Lead, Total	190.	mg/Kg	03/31/97	EL	6010
109	S-2	15550-20	85.3	%	03/27/97	MNB	2540G
5'		Digestion			03/28/97	SPC	3050
		Lead, Total	130.	mg/Kg	03/31/97	EL	6010
[illegible]	S-3	[illegible]	88.2	%	[illegible]	MNB	2540G
9'		Digestion			03/28/97	SPC	3050
		Lead, Total	280.	mg/Kg	04/02/97	EL	6010
110	S-1	15550-22	87.9	%	03/27/97	MNB	2540G
-3'		Digestion			03/28/97	SPC	3050
		Lead, Total	240.	mg/Kg	03/31/97	EL	6010
110	S-2	15550-23	85.7	%	03/27/97	MNB	2540G
-6'		Digestion			03/28/97	SPC	3050
		Lead, Total	220.	mg/Kg	03/31/97	EL	6010
110	S-3	15550-24	85.8	%	03/27/97	MNB	2540G
9'		Digestion			03/28/97	SPC	3050
		Lead, Total	670.	mg/Kg	04/02/97	EL	6010
112	S-1	15550-25	86.1	%	03/27/97	MNB	2540G
3'		Digestion			03/28/97	SPC	3050
		Lead, Total	150.	mg/Kg	03/31/97	EL	6010
112	S-2	15550-26	85.7	%	03/27/97	MNB	2540G
6'		Digestion			03/28/97	SPC	3050
		Lead, Total	970.	mg/Kg	04/02/97	EL	6010
112	S-3	15550-27	82.9	%	03/27/97	MNB	2540G
7-9'		Digestion			03/28/97	SPC	3050
		Lead, Total	5,000.	mg/Kg	04/02/97	EL	6010
113	S-1	15550-28	88.7	%	03/27/97	MNB	2540G
1-3'		Digestion			03/28/97	SPC	3050
		Lead, Total	300.	mg/Kg	04/02/97	EL	6010

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AMRO

AMRO Environmental Laboratory Report

mple Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-113 S-2 4-6'	15550-29	Total Solids	88.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	230.	mg/Kg	03/31/97	EL	6010
B-113 S-3 7-9'	15550-30	Total Solids	90.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	340.	mg/Kg	04/02/97	EL	6010
B-115 S-1 1-3'	15550-31	Total Solids	88.8	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	170.	mg/Kg	03/31/97	EL	6010
B-115 S-2 4-6'	15550-32	Total Solids	88.3	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	590.	mg/Kg	04/02/97	EL	6010
B-115 S-3 7-9'	15550-33	Total Solids	88.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	1,200.	mg/Kg	04/02/97	EL	6010
B-116 S-1 -3'	15550-34	Total Solids	88.3	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	300.	mg/Kg	04/02/97	EL	6010
B-117 S-1 1-3'	15550-35	Total Solids	89.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	270.	mg/Kg	04/03/97	EL	6010
B-104 S-1 1-3'	15550-36	Total Solids	90.2	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	270.	mg/Kg	04/03/97	EL	6010
B-104 S-2 4-6'	15550-37	Total Solids	87.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	270.	mg/Kg	04/03/97	EL	6010
B-104 S-3 7-9'	15550-38	Total Solids	89.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Lead, Total	98.	mg/Kg	04/03/97	EL	6010

Continued next page . . .

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
B-114 3'	S-1	15550-39	Total Solids	86.8	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	390.	mg/Kg	04/03/97	EL	6010
B-114 6'	S-2	15550-40	Total Solids	87.9	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	790.	mg/Kg	04/03/97	EL	6010
B-114 9'	S-3	15550-41	Total Solids	[illegible]	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Lead, Total	470.	mg/Kg	04/03/97	EL	6010
B-105 3'	S-1	15550-42	Total Solids	90.2	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Arsenic, Total	7.8	mg/Kg	04/03/97	EL	6010
			Cadmium, Total	2.4	mg/Kg	04/03/97	EL	6010
			Chromium, Total	38.	mg/Kg	04/03/97	EL	6010
			Lead, Total	940.	mg/Kg	04/03/97	EL	6010
			Mercury, Total	0.321	mg/Kg	03/28/97	RK	7471
B-105 6'	S-2	15550-43	Total Solids	86.7	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Arsenic, Total	6.2	mg/Kg	04/03/97	EL	6010
			Cadmium, Total	<2.5	mg/Kg	04/03/97	EL	6010
			Chromium, Total	30.	mg/Kg	04/03/97	EL	6010
			Lead, Total	330.	mg/Kg	04/03/97	EL	6010
			Mercury, Total	0.475	mg/Kg	03/28/97	RK	7471
B-105 9'	S-3	15550-44	Total Solids	87.4	%	03/27/97	MNB	2540G
			Digestion			03/28/97	SPC	3050
			Arsenic, Total	2.6	mg/Kg	04/03/97	EL	6010
			Cadmium, Total	<2.5	mg/Kg	04/03/97	EL	6010
			Chromium, Total	14.	mg/Kg	04/03/97	EL	6010
			Lead, Total	49.	mg/Kg	04/03/97	EL	6010
			Mercury, Total	0.332	mg/Kg	03/28/97	RK	7471

Continued next page . . .

AMRO

mple entity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
3-111 S-1 1-3'	15550-45	Total Solids	89.4	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Arsenic, Total	5.4	mg/Kg	04/03/97	EL	6010
		Cadmium, Total	<2.4	mg/Kg	04/03/97	EL	6010
		Chromium, Total	21.	mg/Kg	04/03/97	EL	6010
		Lead, Total	200.	mg/Kg	04/03/97	EL	6010
		Mercury, Total	0.206	mg/Kg	04/04/97	RK	7471
B-111 S-2 4-6'	15550-46	Total Solids	90.6	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Arsenic, Total	6.2	mg/Kg	04/03/97	EL	6010
		Cadmium, Total	<2.4	mg/Kg	04/03/97	EL	6010
		Chromium, Total	28.	mg/Kg	04/03/97	EL	6010
		Lead, Total	230.	mg/Kg	04/03/97	EL	6010
		Mercury, Total	0.549	mg/Kg	04/04/97	RK	7471
B-111 S-3 7-9'	15550-47	Total Solids	85.5	%	03/27/97	MNB	2540G
		Digestion			03/28/97	SPC	3050
		Arsenic, Total	6.0	mg/Kg	04/03/97	EL	6010
		Cadmium, Total	3.6	mg/Kg	04/03/97	EL	6010
		Chromium, Total	23.	mg/Kg	04/03/97	EL	6010
		Lead, Total	1,400.	mg/Kg	04/03/97	EL	6010
		Mercury, Total	0.355	mg/Kg	04/04/97	RK	7471

Results are in dry weight.
All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.
The following standard abbreviations and conventions apply throughout all sections:
< = 'Less than' followed by the detection limit.
> = 'Greater than'

Certified by: Paula Benham
Paula Benham

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-101 S-1 1-2.5'
AMRO I.D.: 15550-01
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	ND	56
Unidentified Hydrocarbons	500 *	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.1%. Results are in dry weight.

Comments: * = Quantified as Motor Oil
Carbon Range: C20 to C32

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laura A. Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-101 S-2 4.5'-6.5'
AMRO I.D.: 15550-02
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Type: Solid

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	53
Kerosene	ND	53
Mineral Spirits	ND	53
Fuel Oil #2/Diesel	ND	53
Fuel Oil #4	ND	53
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	350	53

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 90.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-115 S-1 1-3'
AMRO I.D.: 15550-31
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	140	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.8%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-115 S-2 4-6'
AMRO I.D.: 15550-32
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Type: Soil

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	280	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.3%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-115 S-3 7-9'
AMRO I.D.: 15550-33
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/[illegible]

Test Parameter	Results (mg/kg)	**Reporting Limit(mg/kg)
Gasoline	ND	560
Kerosene	ND	560
Mineral Spirits	ND	560
Fuel Oil #2/Diesel	ND	560
Fuel Oil #4	ND	560
Fuel Oil #6	ND	1,100
Motor Oil/Hydraulic Oil	2,400	560

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.5%. Results are in dry weight.

Comments:

** = The reporting limit has been elevated due to sample dilution (04/07/97).

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laura A. Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-116 S-1 1-3'
AMRO I.D.: 15550-34
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	110	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.3%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad for Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-117 S-1 1-3'
AMRO I.D.: 15550-35
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	110	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-104 S-1 1-3'
AMRO I.D.: 15550-36
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Soil

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	320	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 90.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-104 S-2 4-6'
AMRO I.D.: 15550-37
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	240	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-104 S-3 7-9'
AMRO I.D.: 15550-38
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	490	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laura Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-114 S-1 1-3'
AMRO I.D.: 15550-39
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	58
Kerosene	ND	58
Mineral Spirits	ND	58
Fuel Oil #2/Diesel	ND	58
Fuel Oil #4	ND	58
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	480	58

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 86.8%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hollad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-114 S-2 4-6'
AMRO I.D.: 15550-40
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix: Solid

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	910	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.9%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Stebbins FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-114 S-3 7-9'
AMRO I.D.: 15550-41
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	450	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hobbs for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-105 S-1 1-3'
AMRO I.D.: 15550-42
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Soil

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	140	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 90.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-105 S-2 4-6'
AMRO I.D.: 15550-43
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	57
Kerosene	ND	57
Mineral Spirits	ND	57
Fuel Oil #2/Diesel	ND	57
Fuel Oil #4	ND	57
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	230	57

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 86.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC Approved by Laurel Stebbins FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-105 S-3 7-9'
AMRO I.D.: 15550-44
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	180	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hoobler FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-111 S-1 1-3'
AMRO I.D.: 15550-45
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty/Type: [illegible]

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	190	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadley for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-111 S-2 4-6'
AMRO I.D.: 15550-46
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix: Soils

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	200	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 90.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-111 S-3 7-9'
AMRO I.D.: 15550-47
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/08/97
Sample Qty/Type: [illegible]

Test Parameter	Results (mg/kg)	**Reporting Limit(mg/kg)
Gasoline	ND	110
Kerosene	ND	110
Mineral Spirits	ND	110
Fuel Oil #2/Diesel	ND	110
Fuel Oil #4	ND	110
Fuel Oil #6	ND	220
Motor Oil/Hydraulic Oil	1,300	110

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.5%. Results are in dry weight.

Comments:

** = The reporting limit has been elevated due to sample dilution (04/08/97).

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-1 1-3'
AMRO I.D.: 15550-36
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	27
PCB-1232	ND	27
PCB-1242 (1016)	ND	27
PCB-1248	ND	27
PCB-1254	ND	27
PCB-1260	30	27

Solid Content = 90.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-2 4-6'
AMRO I.D.: 15550-37
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	28
PCB-1232	ND	28
PCB-1242 (1016)	ND	28
PCB-1248	ND	28
PCB-1254	ND	28
PCB-1260	ND	28

Solid Content = 87.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-3 7-9'
AMRO I.D.: 15550-38
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	27
PCB-1232	ND	27
PCB-1242 (1016)	ND	27
PCB-1248	ND	27
PCB-1254	ND	27
PCB-1260	ND	27

Solid Content = 89.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-1 1-3'
AMRO I.D.: 15550-39
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	28
PCB-1232	ND	28
PCB-1242 (1016)	ND	28
PCB-1248	ND	28
PCB-1254	ND	28
PCB-1260	ND	28

Solid Content = 86.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Hadland for
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-2 4-6'
AMRO I.D.: 15550-40
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	28
PCB-1232	ND	28
PCB-1242 (1016)	ND	28
PCB-1248	ND	28
PCB-1254	ND	28
PCB-1260	ND	28

Solid Content = 87.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8081
PCB's

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-3 7-9'
AMRO I.D.: 15550-41
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/Kg)	Reporting Limit(ug/Kg)
PCB-1221	ND	28
PCB-1232	ND	28
PCB-1242 (1016)	57	28
PCB-1248	ND	28
PCB-1254	ND	28
PCB-1260	ND	28

Solid Content = 87.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: RF

Approved by Laurel Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-101 S-1 1-2.5'
AMRO I.D.: 15550-01
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	ND	140
2-Methylnaphthalene	ND	140
Acenaphthylene	ND	140
Acenaphthene	300	140
Fluorene	240	140
Phenanthrene	3,200	140
Anthracene	670	140
Fluoranthene	3,800	140
Pyrene	3,800	140
Benzo[a]anthracene	1,800	140
Chrysene	1,900	140
Benzo[b]fluoranthene	1,300	140
Benzo[k]fluoranthene	1,500	140
Benzo[a]pyrene	1,800	140
Dibenzo[a,h]anthracene	480	280
Benzo[g,h,i]perylene	1,600	280
Indeno[1,2,3-cd]pyrene	1,300	280

Solid Content = 88.1%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

Analyzed By: NM

Approved by Laurel Hollard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-101 S-2 4.5-6.5'
AMRO I.D.: 15550-02
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	280	140
2-Methylnaphthalene	320	140
Acenaphthylene	220	140
Acenaphthene	560	140
Fluorene	640	140
Phenanthrene	5,400	140
Anthracene	1,300	140
Fluoranthene	5,700	140
Pyrene	5,800	140
Benzo[a]anthracene	2,800	140
Chrysene	2,900	140
Benzo[b]fluoranthene	1,700	140
Benzo[k]fluoranthene	1,900	140
Benzo[a]pyrene	2,600	140
Dibenzo[a,h]anthracene	750	270
Benzo[g,h,i]perylene	2,200	270
Indeno[1,2,3-cd]pyrene	1,800	270

Solid Content = 90.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-101 S-3 7-9'
AMRO I.D.: 15550-03
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	ND	30
2-Methylnaphthalene	ND	30
Acenaphthylene	ND	30
Acenaphthene	ND	30
Fluorene	ND	30
Phenanthrene	60	30
Anthracene	ND	30
Fluoranthene	42	30
Pyrene	38	30
Benzo[a]anthracene	ND	30
Chrysene	ND	30
Benzo[b]fluoranthene	ND	30
Benzo[k]fluoranthene	ND	30
Benzo[a]pyrene	ND	30
Dibenzo[a,h]anthracene	ND	60
Benzo[g,h,i]perylene	ND	60
Indeno[1,2,3-cd]pyrene	ND	60

Solid Content = 81.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

Analyzed By: NM

Approved by Laura A. Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B *Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-102 S-1 1-3'
AMRO I.D.: 15550-04
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	550	280
2-Methylnaphthalene	ND	280
Acenaphthylene	ND	280
Acenaphthene	800	280
Fluorene	820	280
Phenanthrene	7,900	280
Anthracene	2,100	280
Fluoranthene	9,600	280
Pyrene	8,700	280
Benzo[a]anthracene	4,300	280
Chrysene	4,300	280
Benzo[b]fluoranthene	2,900	280
Benzo[k]fluoranthene	2,900	280
Benzo[a]pyrene	4,000	280
Dibenzo[a,h]anthracene	1,100	560
Benzo[g,h,i]perylene	2,800	560
Indeno[1,2,3-cd]pyrene	3,200	560

Solid Content = 89.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
The reporting limits have been elevated due to sample dilution on 04/04/97.

Analyzed By: NM

Approved by Laurel Hadden FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-102 S-2 4-6'
AMRO I.D.: 15550-05
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	280	28
2-Methylnaphthalene	150	28
Acenaphthylene	96	28
Acenaphthene	410	28
Fluorene	420	28
Phenanthrene	4,600	280**
Anthracene	870	28
Fluoranthene	5,600	280**
Pyrene	4,300	280**
Benzo[a]anthracene	1,900	28
Chrysene	1,900	28
Benzo[b]fluoranthene	1,200	28
Benzo[k]fluoranthene	1,300	28
Benzo[a]pyrene	1,800	28
Dibenzo[a,h]anthracene	500	55
Benzo[g,h,i]perylene	1,400	55
Indeno[1,2,3-cd]pyrene	1,300	55

Solid Content = 88.1%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/07/97.

Analyzed By: NM Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-102 S-3 7-9'
AMRO I.D.: 15550-06
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	250	57
2-Methylnaphthalene	160	57
Acenaphthylene	140	57
Acenaphthene	470	57
Fluorene	510	57
Phenanthrene	6,000	570
Anthracene	1,200	57
Fluoranthene	7,400	570
Pyrene	5,800	570
Benzo[a]anthracene	2,500	57
Chrysene	2,400	57
Benzo[b]fluoranthene	1,600	57
Benzo[k]fluoranthene	1,600	57
Benzo[a]pyrene	2,300	57
Dibenzo[a,h]anthracene	570	110
Benzo[g,h,i]perylene	1,400	110
Indeno[1,2,3-cd]pyrene	1,400	110

Solid Content = 85.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laura A. Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-103 S-1 1-3'
AMRO I.D.: 15550-07
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	61	55
2-Methylnaphthalene	ND	55
Acenaphthylene	ND	55
Acenaphthene	200	55
Fluorene	160	55
Phenanthrene	1,800	55
Anthracene	400	55
Fluoranthene	2,000	55
Pyrene	2,100	55
Benzo[a]anthracene	1,000	55
Chrysene	1,100	55
Benzo[b]fluoranthene	650	55
Benzo[k]fluoranthene	680	55
Benzo[a]pyrene	980	55
Dibenzo[a,h]anthracene	250	110
Benzo[g,h,i]perylene	640	110
Indeno[1,2,3-cd]pyrene	620	110

Solid Content = 89.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/04/97.

Analyzed By: NM

Approved by Laurel Hebbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-103 S-2 4-6'
AMRO I.D.: 15550-08
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	190	55
2-Methylnaphthalene	120	55
Acenaphthylene	ND	55
Acenaphthene	450	55
Fluorene	350	55
Phenanthrene	4,600	270
Anthracene	810	55
Fluoranthene	5,200	270
Pyrene	4,200	270
Benzo[a]anthracene	1,800	55
Chrysene	1,800	55
Benzo[b]fluoranthene	1,200	55
Benzo[k]fluoranthene	1,300	55
Benzo[a]pyrene	1,700	55
Dibenzo[a,h]anthracene	400	55
Benzo[g,h,i]perylene	970	55
Indeno[1,2,3-cd]pyrene	980	55

Solid Content = 87.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel A. Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-103 S-3 7-9'
AMRO I.D.: 15550-09
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	48	27
2-Methylnaphthalene	32	27
Acenaphthylene	ND	27
Acenaphthene	ND	27
Fluorene	ND	27
Phenanthrene	190	27
Anthracene	30	27
Fluoranthene	180	27
Pyrene	160	27
Benzo[a]anthracene	64	27
Chrysene	94	27
Benzo[b]fluoranthene	50	27
Benzo[k]fluoranthene	39	27
Benzo[a]pyrene	46	27
Dibenzo[a,h]anthracene	ND	55
Benzo[g,h,i]perylene	ND	55
Indeno[1,2,3-cd]pyrene	ND	55

Solid Content = 89.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

Analyzed By: NM

Approved by Laura Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-106 S-1 1-3'
AMRO I.D.: 15550-10
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	250	54
2-Methylnaphthalene	150	54
Acenaphthylene	110	54
Acenaphthene	390	54
Fluorene	410	54
Phenanthrene	5,100	270
Anthracene	960	54
Fluoranthene	5,800	270
Pyrene	4,800	270
Benzo[a]anthracene	1,900	54
Chrysene	1,900	54
Benzo[b]fluoranthene	1,200	54
Benzo[k]fluoranthene	1,300	54
Benzo[a]pyrene	1,800	54
Dibenzo[a,h]anthracene	410	110
Benzo[g,h,i]perylene	970	110
Indeno[1,2,3-cd]pyrene	980	110

Solid Content = 88.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laura A. Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-106 S-2 4-6'
AMRO I.D.: 15550-11
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	560	57
2-Methylnaphthalene	300	57
Acenaphthylene	160	57
Acenaphthene	910	57
Fluorene	820	57
Phenanthrene	8,900	570
Anthracene	1,700	57
Fluoranthene	9,700	570
Pyrene	7,900	570
Benzo[a]anthracene	3,800	570
Chrysene	4,000	570
Benzo[b]fluoranthene	2,000	57
Benzo[k]fluoranthene	2,100	57
Benzo[a]pyrene	3,600	570
Dibenzo[a,h]anthracene	640	110
Benzo[g,h,i]perylene	1,500	110
Indeno[1,2,3-cd]pyrene	1,500	110

Solid Content = 87.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/07/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-106 S-3 7-9'
AMRO I.D.: 15550-12
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	270	57
2-Methylnaphthalene	150	57
Acenaphthylene	110	57
Acenaphthene	470	57
Fluorene	440	57
Phenanthrene	4,600	290
Anthracene	980	57
Fluoranthene	5,300	290
Pyrene	4,600	290
Benzo[a]anthracene	1,900	57
Chrysene	1,900	57
Benzo[b]fluoranthene	1,200	57
Benzo[k]fluoranthene	1,300	57
Benzo[a]pyrene	1,800	57
Dibenzo[a,h]anthracene	340	110
Benzo[g,h,i]perylene	790	110
Indeno[1,2,3-cd]pyrene	800	110

Solid Content = 86.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laura A. Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-107 S-1 1-3'
AMRO I.D.: 15550-13
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	85	56
2-Methylnaphthalene	ND	56
Acenaphthylene	ND	56
Acenaphthene	170	56
Fluorene	140	56
Phenanthrene	1,700	56
Anthracene	390	56
Fluoranthene	2,100	56
Pyrene	1,900	56
Benzo[a]anthracene	1,100	56
Chrysene	1,100	56
Benzo[b]fluoranthene	730	56
Benzo[k]fluoranthene	740	56
Benzo[a]pyrene	1,000	56
Dibenzo[a,h]anthracene	210	110
Benzo[g,h,i]perylene	480	110
Indeno[1,2,3-cd]pyrene	510	110

Solid Content = 87.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
** = The reporting limit has been elevated due to sample dilution on 04/05/97.

Analyzed By: NM

Approved by Lowell Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-107 S-2 4-6'
AMRO I.D.: 15550-14
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	200	110
2-Methylnaphthalene	140	110
Acenaphthylene	ND	110
Acenaphthene	410	110
Fluorene	380	110
Phenanthrene	4,000	110
Anthracene	980	110
Fluoranthene	4,100	110
Pyrene	3,700	110
Benzo[a]anthracene	2,100	110
Chrysene	2,100	110
Benzo[b]fluoranthene	1,400	110
Benzo[k]fluoranthene	1,500	110
Benzo[a]pyrene	1,900	110
Dibenzo[a,h]anthracene	330	220
Benzo[g,h,i]perylene	730	220
Indeno[1,2,3-cd]pyrene	810	220

Solid Content = 87.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
** = The reporting limit has been elevated due to sample dilution on 04/05/97.

Analyzed By: NM

Approved by Laurel Stoddard FOR Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-107 S-3 7-9'
AMRO I.D.: 15550-15
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	400	58
2-Methylnaphthalene	290	58
Acenaphthylene	120	58
Acenaphthene	1,000	58
Fluorene	880	58
Phenanthrene	9,700	580
Anthracene	4,900	58
Fluoranthene	11,000	580
Pyrene	9,000	580
Benzo[a]anthracene	4,500	580
Chrysene	4,700	580
Benzo[b]fluoranthene	2,400	58
Benzo[k]fluoranthene	2,500	58
Benzo[a]pyrene	4,100	580
Dibenzo[a,h]anthracene	660	120
Benzo[g,h,i]perylene	1,500	120
Indeno[1,2,3-cd]pyrene	1,600	120

Solid Content = 84.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-108 S-1 1-3'
AMRO I.D.: 15550-16
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	70	58
2-Methylnaphthalene	ND	58
Acenaphthylene	ND	58
Acenaphthene	220	58
Fluorene	180	58
Phenanthrene	1,800	58
Anthracene	430	58
Fluoranthene	2,300	58
Pyrene	2,000	58
Benzo[a]anthracene	1,100	58
Chrysene	1,100	58
Benzo[b]fluoranthene	790	58
Benzo[k]fluoranthene	780	58
Benzo[a]pyrene	1,100	58
Dibenzo[a,h]anthracene	200	120
Benzo[g,h,i]perylene	470	120
Indeno[1,2,3-cd]pyrene	510	120

Solid Content = 86.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
** = The reporting limit has been elevated due to sample dilution on 04/05/97.

Analyzed By: NM

Approved by Laura Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-108 S-2 4-6'
AMRO I.D.: 15550-17
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	190	30
2-Methylnaphthalene	96	30
Acenaphthylene	90	30
Acenaphthene	210	30
Fluorene	220	30
Phenanthrene	3,000	150**
Anthracene	400	30
Fluoranthene	3,600	150**
Pyrene	2,800	150**
Benzo[a]anthracene	1,100	30
Chrysene	1,200	30
Benzo[b]fluoranthene	800	30
Benzo[k]fluoranthene	820	30
Benzo[a]pyrene	1,100	30
Dibenzo[a,h]anthracene	190	59
Benzo[g,h,i]perylene	140	59
Indeno[1,2,3-cd]pyrene	480	59

Solid Content = 84.3%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/07/97

Analyzed By: NM Approved by Laurel Hubbard for Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-108 S-3 7-9'
AMRO I.D.: 15550-18
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	ND	55
2-Methylnaphthalene	ND	55
Acenaphthylene	ND	55
Acenaphthene	57	55
Fluorene	ND	55
Phenanthrene	600	55
Anthracene	150	55
Fluoranthene	670	55
Pyrene	570	55
Benzo[a]anthracene	350	55
Chrysene	370	55
Benzo[b]fluoranthene	250	55
Benzo[k]fluoranthene	270	55
Benzo[a]pyrene	340	55
Dibenzo[a,h]anthracene	ND	110
Benzo[g,h,i]perylene	110	110
Indeno[1,2,3-cd]pyrene	120	110

Solid Content = 88.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
** = The reporting limit has been elevated due to sample dilution on 04/05/97

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-109 S-1 1-3'
AMRO I.D.: 15550-19
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit (ug/kg)
Naphthalene	280	54
2-Methylnaphthalene	170	54
Acenaphthylene	88	54
Acenaphthene	480	54
Fluorene	480	54
Phenanthrene	5,400	270
Anthracene	1,100	54
Fluoranthene	6,000	270
Pyrene	5,000	270
Benzo[a]anthracene	2,000	54
Chrysene	2,000	54
Benzo[b]fluoranthene	1,300	54
Benzo[k]fluoranthene	1,500	54
Benzo[a]pyrene	1,900	54
Dibenzo[a,h]anthracene	290	110
Benzo[g,h,i]perylene	580	110
Indeno[1,2,3-cd]pyrene	670	110

Solid Content = 88.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.
** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-109 S-2 4-6'
AMRO I.D.: 15550-20
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	290	58
2-Methylnaphthalene	170	58
Acenaphthylene	83	58
Acenaphthene	640	58
Fluorene	640	58
Phenanthrene	6,700	290
Anthracene	1,300	58
Fluoranthene	8,000	290
Pyrene	6,300	290
Benzo[a]anthracene	2,700	58
Chrysene	2,700	58
Benzo[b]fluoranthene	1,900	58
Benzo[k]fluoranthene	2,100	58
Benzo[a]pyrene	2,500	58
Dibenzo[a,h]anthracene	400	120
Benzo[g,h,i]perylene	800	120
Indeno[1,2,3-cd]pyrene	920	120

Solid Content = 85.3%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laura A. Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-109 S-3 7-9'
AMRO I.D.: 15550-21
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	320	56
2-Methylnaphthalene	150	56
Acenaphthylene	92	56
Acenaphthene	440	56
Fluorene	430	56
Phenanthrene	4,900	280
Anthracene	1,000	56
Fluoranthene	5,600	280
Pyrene	5,400	280
Benzo[a]anthracene	1,900	56
Chrysene	2,000	56
Benzo[b]fluoranthene	1,800	56
Benzo[k]fluoranthene	1,800	56
Benzo[a]pyrene	2,000	56
Dibenzo[a,h]anthracene	250	110
Benzo[g,h,i]perylene	550	110
Indeno[1,2,3-cd]pyrene	620	110

Solid Content = 88.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-110 S-1 1-3'
AMRO I.D.: 15550-22
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	110	55
2-Methylnaphthalene	69	55
Acenaphthylene	70	55
Acenaphthene	290	55
Fluorene	260	55
Phenanthrene	2,400	55
Anthracene	670	55
Fluoranthene	4,500	280
Pyrene	4,200	280
Benzo[a]anthracene	1,700	55
Chrysene	1,800	55
Benzo[b]fluoranthene	1,800	55
Benzo[k]fluoranthene	1,700	55
Benzo[a]pyrene	1,700	55
Dibenzo[a,h]anthracene	210	110
Benzo[g,h,i]perylene	430	110
Indeno[1,2,3-cd]pyrene	470	110

Solid Content = 87.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-110 S-2 4-6'
AMRO I.D.: 15550-23
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	110	29
2-Methylnaphthalene	61	29
Acenaphthylene	59	29
Acenaphthene	190	29
Fluorene	200	29
Phenanthrene	2,300	290**
Anthracene	460	29
Fluoranthene	3,100	290**
Pyrene	2,800	290**
Benzo[a]anthracene	1,100	29
Chrysene	1,100	29
Benzo[b]fluoranthene	1,200	29
Benzo[k]fluoranthene	1,200	29
Benzo[a]pyrene	1,200	29
Dibenzo[a,h]anthracene	120	58
Benzo[g,h,i]perylene	270	58
Indeno[1,2,3-cd]pyrene	290	58

Solid Content = 85.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/07/97.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-110 S-3 7-9'
AMRO I.D.: 15550-24
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	ND	290
2-Methylnaphthalene	ND	290
Acenaphthylene	ND	290
Acenaphthene	490	290
Fluorene	630	290
Phenanthrene	5,000	290
Anthracene	1,200	290
Fluoranthene	5,300	290
Pyrene	6,600	290
Benzo[a]anthracene	2,500	290
Chrysene	2,700	290
Benzo[b]fluoranthene	2,500	290
Benzo[k]fluoranthene	2,700	290
Benzo[a]pyrene	2,500	290
Dibenzo[a,h]anthracene	ND	580
Benzo[g,h,i]perylene	520	580
Indeno[1,2,3-cd]pyrene	580	580

Solid Content = 85.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/04/97.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-112 S-1 1-3'
AMRO I.D.: 15550-25
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	210	56
2-Methylnaphthalene	120	56
Acenaphthylene	82	56
Acenaphthene	460	56
Fluorene	450	56
Phenanthrene	5,400	280
Anthracene	890	56
Fluoranthene	6,200	280
Pyrene	5,900	280
Benzo[a]anthracene	2,200	56
Chrysene	2,300	56
Benzo[b]fluoranthene	2,200	56
Benzo[k]fluoranthene	2,400	56
Benzo[a]pyrene	2,200	56
Dibenzo[a,h]anthracene	250	110
Benzo[g,h,i]perylene	530	110
Indeno[1,2,3-cd]pyrene	600	110

Solid Content = 86.1%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM Approved by Laura L Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-112 S-2 4-6'
AMRO I.D.: 15550-26
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	77	29
2-Methylnaphthalene	50	29
Acenaphthylene	42	29
Acenaphthene	160	29
Fluorene	170	29
Phenanthrene	1,300	29
Anthracene	400	29
Fluoranthene	2,100	58**
Pyrene	2,200	58**
Benzo[a]anthracene	840	29
Chrysene	900	29
Benzo[b]fluoranthene	830	29
Benzo[k]fluoranthene	880	29
Benzo[a]pyrene	810	29
Dibenzo[a,h]anthracene	81	58
Benzo[g,h,i]perylene	190	58
Indeno[1,2,3-cd]pyrene	210	58

Solid Content = 85.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/07/97.

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-112 S-3 7-9'
AMRO I.D.: 15550-27
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	14,000	7,500**
2-Methylnaphthalene	4,100	150
Acenaphthylene	770	150
Acenaphthene	20,000	7,500**
Fluorene	17,000	7,500**
Phenanthrene	110,000	7,500**
Anthracene	590	150
Fluoranthene	96,000	7,500**
Pyrene	80,000	7,500**
Benzo[a]anthracene	39,000	7,500**
Chrysene	40,000	7,500**
Benzo[b]fluoranthene	29,000	7,500**
Benzo[k]fluoranthene	29,000	7,500**
Benzo[a]pyrene	35,000	7,500**
Dibenzo[a,h]anthracene	3,000	300
Benzo[g,h,i]perylene	6,400	300
Indeno[1,2,3-cd]pyrene	7,200	300

Solid Content = 82.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/07/97.

Analyzed By: NM Approved by Laurel Hobbard FOR Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-113 S-1 1-3'
AMRO I.D.: 15550-28
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	360	54
2-Methylnaphthalene	280	54
Acenaphthylene	290	54
Acenaphthene	1,100	54
Fluorene	1,000	54
Phenanthrene	12,000	540
Anthracene	1,900	54
Fluoranthene	13,000	540
Pyrene	13,000	540
Benzo[a]anthracene	6,100	540
Chrysene	6,600	540
Benzo[b]fluoranthene	4,800	540
Benzo[k]fluoranthene	5,000	540
Benzo[a]pyrene	5,600	540
Dibenzo[a,h]anthracene	490	110
Benzo[g,h,i]perylene	1,100	110
Indeno[1,2,3-cd]pyrene	1,100	110

Solid Content = 88.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hallard for
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-113 S-2 4-6'
AMRO I.D.: 15550-29
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/03/97 Date analyzed: 04/04/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	350	55
2-Methylnaphthalene	220	55
Acenaphthylene	470	55
Acenaphthene	860	55
Fluorene	820	55
Phenanthrene	10,000	550
Anthracene	2,100	55
Fluoranthene	15,000	550
Pyrene	15,000	550
Benzo[a]anthracene	8,400	550
Chrysene	8,200	550
Benzo[b]fluoranthene	5,600	550
Benzo[k]fluoranthene	6,600	550
Benzo[a]pyrene	7,300	550
Dibenzo[a,h]anthracene	700	110
Benzo[g,h,i]perylene	1,400	110
Indeno[1,2,3-cd]pyrene	1,600	110

Solid Content = 88.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/04/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Haddad FO.2
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-113 S-3 7-9'
AMRO I.D.: 15550-30
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	1,600	54
2-Methylnaphthalene	780	54
Acenaphthylene	360	54
Acenaphthene	2,600	54
Fluorene	2,100	54
Phenanthrene	20,000	1,400
Anthracene	4,900	1,400
Fluoranthene	21,000	1,400
Pyrene	20,000	1,400
Benzo[a]anthracene	9,500	1,400
Chrysene	10,000	1,400
Benzo[b]fluoranthene	7,600	1,400
Benzo[k]fluoranthene	8,500	1,400
Benzo[a]pyrene	8,700	1,400
Dibenzo[a,h]anthracene	890	110
Benzo[g,h,i]perylene	1,800	110
Indeno[1,2,3-cd]pyrene	2,100	110

Solid Content = 90.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Holland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-115 S-1 1-3'
AMRO I.D.: 15550-31
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	ND	560
2-Methylnaphthalene	ND	560
Acenaphthylene	ND	560
Acenaphthene	ND	560
Fluorene	ND	560
Phenanthrene	2,200	560
Anthracene	570	560
Fluoranthene	3,000	560
Pyrene	2,800	560
Benzo[a]anthracene	1,500	560
Chrysene	1,600	560
Benzo[b]fluoranthene	1,100	560
Benzo[k]fluoranthene	1,100	560
Benzo[a]pyrene	1,300	560
Dibenzo[a,h]anthracene	ND	1,100
Benzo[g,h,i]perylene	ND	1,100
Indeno[1,2,3-cd]pyrene	ND	1,100

Solid Content = 88.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-115 S-2 4-6'
AMRO I.D.: 15550-32
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	430	56
2-Methylnaphthalene	270	56
Acenaphthylene	180	56
Acenaphthene	1,100	56
Fluorene	920	56
Phenanthrene	8,600	560
Anthracene	2,000	56
Fluoranthene	9,900	560
Pyrene	8,600	560
Benzo[a]anthracene	4,300	560
Chrysene	4,400	560
Benzo[b]fluoranthene	3,400	560
Benzo[k]fluoranthene	3,800	560
Benzo[a]pyrene	4,000	560
Dibenzo[a,h]anthracene	420	110
Benzo[g,h,i]perylene	840	110
Indeno[1,2,3-cd]pyrene	940	110

Solid Content = 88.3%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hobland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-115 S-3 7-9'
AMRO I.D.: 15550-33
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	320	55
2-Methylnaphthalene	210	55
Acenaphthylene	170	55
Acenaphthene	510	55
Fluorene	540	55
Phenanthrene	4,800	550*
Anthracene	1,200	55
Fluoranthene	6,200	550*
Pyrene	5,700	550*
Benzo[a]anthracene	2,700	55
Chrysene	3,100	550*
Benzo[b]fluoranthene	2,000	550*
Benzo[k]fluoranthene	2,300	550*
Benzo[a]pyrene	2,600	550*
Dibenzo[a,h]anthracene	290	110
Benzo[g,h,i]perylene	650	110
Indeno[1,2,3-cd]pyrene	700	110

Solid Content = 88.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The report limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM Approved by Laurel Stoddard for
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-116 S-1 1-3'
AMRO I.D.: 15550-34
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	380	56
2-Methylnaphthalene	230	56
Acenaphthylene	170	56
Acenaphthene	790	56
Fluorene	760	56
Phenanthrene	7,200	560**
Anthracene	1,500	56
Fluoranthene	7,600	560**
Pyrene	7,300	560**
Benzo[a]anthracene	3,300	560**
Chrysene	3,500	560**
Benzo[b]fluoranthene	2,400	560**
Benzo[k]fluoranthene	2,700	560**
Benzo[a]pyrene	3,100	560**
Dibenzo[a,h]anthracene	340	110
Benzo[g,h,i]perylene	680	110
Indeno[1,2,3-cd]pyrene	790	110

Solid Content = 88.3%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/07/97.

Analyzed By: NM

Approved by Laurel Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-117 S-1 1-3'
AMRO I.D.: 15550-35
Date sampled: 03/26/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	420	56
2-Methylnaphthalene	340	56
Acenaphthylene	250	56
Acenaphthene	1,200	56
Fluorene	1,300	56
Phenanthrene	11,000	560**
Anthracene	2,600	56
Fluoranthene	11,000	560**
Pyrene	9,900	560**
Benzo[a]anthracene	5,100	560**
Chrysene	5,200	560**
Benzo[b]fluoranthene	3,000	560**
Benzo[k]fluoranthene	3,700	560**
Benzo[a]pyrene	4,500	560**
Dibenzo[a,h]anthracene	480	110
Benzo[g,h,i]perylene	910	110
Indeno[1,2,3-cd]pyrene	1,000	110

Solid Content = 89.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/08/97.

Analyzed By: NM

Approved by Laura A. Holland FOR
Nancy Stewart

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AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-1 1-3'
AMRO I.D.: 15550-36
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	700	54
2-Methylnaphthalene	400	54
Acenaphthylene	240	54
Acenaphthene	1,000	54
Fluorene	1,100	54
Phenanthrene	9,600	540**
Anthracene	2,000	54
Fluoranthene	12,000	540**
Pyrene	10,000	540**
Benzo[a]anthracene	5,500	540**
Chrysene	5,700	540**
Benzo[b]fluoranthene	4,200	540**
Benzo[k]fluoranthene	4,500	540**
Benzo[a]pyrene	5,600	540**
Dibenzo[a,h]anthracene	650	110
Benzo[g,h,i]perylene	1,400	110
Indeno[1,2,3-cd]pyrene	1,500	110

Solid Content = 90.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/08/97.

Analyzed By: NM

Approved by Laurel Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-2 4-6'
AMRO I.D.: 15550-37
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	51	28
2-Methylnaphthalene	33	28
Acenaphthylene	41	28
Acenaphthene	140	28
Fluorene	150	28
Phenanthrene	1,200	28
Anthracene	360	28
Fluoranthene	2,000	140**
Pyrene	1,900	140**
Benzo[a]anthracene	880	28
Chrysene	840	28
Benzo[b]fluoranthene	960	28
Benzo[k]fluoranthene	1,000	28
Benzo[a]pyrene	890	28
Dibenzo[a,h]anthracene	78	55
Benzo[g,h,i]perylene	190	55
Indeno[1,2,3-cd]pyrene	200	55

Solid Content = 87.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Hedland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-104 S-3 7-9'
AMRO I.D.: 15550-38
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	610	55
2-Methylnaphthalene	260	55
Acenaphthylene	240	55
Acenaphthene	1,100	55
Fluorene	1,100	55
Phenanthrene	12,000	550
Anthracene	2,300	55
Fluoranthene	13,000	550
Pyrene	13,000	550
Benzo[a]anthracene	6,000	550
Chrysene	6,300	550
Benzo[b]fluoranthene	4,200	550
Benzo[k]fluoranthene	5,000	550
Benzo[a]pyrene	5,900	550
Dibenzo[a,h]anthracene	670	110
Benzo[g,h,i]perylene	1,500	110
Indeno[1,2,3-cd]pyrene	1,600	110

Solid Content = 89.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/05/97 and 04/08/97.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-1 1-3'
AMRO I.D.: 15550-39
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/09/97 Date analyzed: 04/09/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	ND	280
2-Methylnaphthalene	ND	280
Acenaphthylene	ND	280
Acenaphthene	1,000	280
Fluorene	850	280
Phenanthrene	9,500	280
Anthracene	2,000	280
Fluoranthene	9,300	280
Pyrene	9,600	280
Benzo[a]anthracene	4,200	280
Chrysene	4,400	280
Benzo[b]fluoranthene	3,100	280
Benzo[k]fluoranthene	3,200	280
Benzo[a]pyrene	3,900	280
Dibenzo[a,h]anthracene	ND	570
Benzo[g,h,i]perylene	2,100	570
Indeno[1,2,3-cd]pyrene	1,800	570

Solid Content = 86.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/09/97.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-2 4-6'
AMRO I.D.: 15550-40
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	4,300	1,400
2-Methylnaphthalene	ND	1,400
Acenaphthylene	ND	1,400
Acenaphthene	9,300	1,400
Fluorene	6,400	1,400
Phenanthrene	53,000	1,400
Anthracene	13,000	1,400
Fluoranthene	66,000	1,400
Pyrene	48,000	1,400
Benzo[a]anthracene	26,000	1,400
Chrysene	26,000	1,400
Benzo[b]fluoranthene	20,000	1,400
Benzo[k]fluoranthene	21,000	1,400
Benzo[a]pyrene	25,000	1,400
Dibenzo[a,h]anthracene	5,700	2,800
Benzo[g,h,i]perylene	16,000	2,800
Indeno[1,2,3-cd]pyrene	15,000	2,800

Solid Content = 87.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-114 S-3 7-9'
AMRO I.D.: 15550-41
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	3,000	280
2-Methylnaphthalene	1,600	280
Acenaphthylene	700	280
Acenaphthene	4,400	280
Fluorene	4,400	280
Phenanthrene	36,000	1,400
Anthracene	8,800	280
Fluoranthene	36,000	1,400
Pyrene	30,000	1,400
Benzo[a]anthracene	15,000	1,400
Chrysene	15,000	1,400
Benzo[b]fluoranthene	11,000	280
Benzo[k]fluoranthene	10,000	280
Benzo[a]pyrene	14,000	280
Dibenzo[a,h]anthracene	3,500	560
Benzo[g,h,i]perylene	10,000	560
Indeno[1,2,3-cd]pyrene	8,900	560

Solid Content = 87.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/08/97.

Analyzed By: NM

Approved by Laura Haddad FOL
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-105 S-1 1-3'
AMRO I.D.: 15550-42
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	1,600	270
2-Methylnaphthalene	820	270
Acenaphthylene	350	270
Acenaphthene	1,900	270
Fluorene	1,900	270
Phenanthrene	15,000	1,400
Anthracene	3,900	270
Fluoranthene	16,000	1,400
Pyrene	14,000	1,400
Benzo[a]anthracene	8,100	270
Chrysene	8,700	270
Benzo[b]fluoranthene	5,300	270
Benzo[k]fluoranthene	5,500	270
Benzo[a]pyrene	7,500	270
Dibenzo[a,h]anthracene	2,000	540
Benzo[g,h,i]perylene	5,800	540
Indeno[1,2,3-cd]pyrene	4,800	540

Solid Content = 90.2%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilutions on 04/08/97.

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-105 S-2 4-6'
AMRO I.D.: 15550-43
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	1,100	280
2-Methylnaphthalene	510	280
Acenaphthylene	ND	280
Acenaphthene	1,300	280
Fluorene	1,500	280
Phenanthrene	11,000	280
Anthracene	2,800	280
Fluoranthene	11,000	280
Pyrene	9,100	280
Benzo[a]anthracene	4,900	280
Chrysene	4,800	280
Benzo[b]fluoranthene	3,200	280
Benzo[k]fluoranthene	3,300	280
Benzo[a]pyrene	4,100	280
Dibenzo[a,h]anthracene	1,000	560
Benzo[g,h,i]perylene	2,800	560
Indeno[1,2,3-cd]pyrene	2,500	560

Solid Content = 86.7%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laura A. Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-105 S-3 7-9'
AMRO I.D.: 15550-44
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	71	55
2-Methylnaphthalene	ND	55
Acenaphthylene	ND	55
Acenaphthene	91	55
Fluorene	110	55
Phenanthrene	1,200	55
Anthracene	290	55
Fluoranthene	1,400	55
Pyrene	1,300	55
Benzo[a]anthracene	670	55
Chrysene	700	55
Benzo[b]fluoranthene	450	55
Benzo[k]fluoranthene	530	55
Benzo[a]pyrene	640	55
Dibenzo[a,h]anthracene	140	110
Benzo[g,h,i]perylene	500	110
Indeno[1,2,3-cd]pyrene	410	110

Solid Content = 87.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-111 S-1 1-3'
AMRO I.D.: 15550-45
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	55	55
2-Methylnaphthalene	ND	55
Acenaphthylene	ND	55
Acenaphthene	100	55
Fluorene	86	55
Phenanthrene	1,200	55
Anthracene	290	55
Fluoranthene	1,900	55
Pyrene	1,700	55
Benzo[a]anthracene	940	55
Chrysene	960	55
Benzo[b]fluoranthene	650	55
Benzo[k]fluoranthene	730	55
Benzo[a]pyrene	940	55
Dibenzo[a,h]anthracene	270	110
Benzo[g,h,i]perylene	730	110
Indeno[1,2,3-cd]pyrene	690	110

Solid Content = 89.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-111 S-2 4-6'
AMRO I.D.: 15550-46
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit (ug/kg)
Naphthalene	ND	270
2-Methylnaphthalene	ND	270
Acenaphthylene	ND	270
Acenaphthene	350	270
Fluorene	360	270
Phenanthrene	3,700	270
Anthracene	910	270
Fluoranthene	4,700	270
Pyrene	4,100	270
Benzo[a]anthracene	2,000	270
Chrysene	2,100	270
Benzo[b]fluoranthene	1,500	270
Benzo[k]fluoranthene	1,500	270
Benzo[a]pyrene	1,900	270
Dibenzo[a,h]anthracene	410	530
Benzo[g,h,i]perylene	1,600	530
Indeno[1,2,3-cd]pyrene	1,300	530

Solid Content = 90.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8270B* Low Level
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A Roxbury-BRA/EDIC
B-111 S-3 7-9'
AMRO I.D.: 15550-47
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/04/97 Date analyzed: 04/08/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	**Reporting Limit(ug/kg)
Naphthalene	490	290
2-Methylnaphthalene	ND	290
Acenaphthylene	ND	290
Acenaphthene	1,000	290
Fluorene	860	290
Phenanthrene	8,100	290
Anthracene	1,700	290
Fluoranthene	9,300	290
Pyrene	8,200	290
Benzo[a]anthracene	4,000	290
Chrysene	4,200	290
Benzo[b]fluoranthene	2,700	290
Benzo[k]fluoranthene	3,000	290
Benzo[a]pyrene	3,700	290
Dibenzo[a,h]anthracene	900	570
Benzo[g,h,i]perylene	3,000	570
Indeno[1,2,3-cd]pyrene	2,500	570

Solid Content = 85.5%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.
* = Modified Compound List.

** = The reporting limit has been elevated due to sample dilution on 04/08/97.

Analyzed By: NM

Approved by Laurel Haddad for
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-7
AMRO I.D.: 14825-07

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-7
AMRO I.D.: 14825-07
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

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AMRO

LABORATORY REPORT

EPA-Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-6
AMRO I.D.: 14825-06

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-6
AMRO I.D.: 14825-06
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	9.1	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-5
AMRO I.D.: 14825-05

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-5
AMRO I.D.: 14825-05
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	2.2	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-4
AMRO I.D.: 14825-04

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-4
AMRO I.D.: 14825-04
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-3
AMRO I.D.: 14825-03

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-3
AMRO I.D.: 14825-03
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-2
AMRO I.D.: 14825-02

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-2
AMRO I.D.: 14825-02
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-1
AMRO I.D.: 14825-01

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-1
AMRO I.D.: 14825-01
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
Dup 1
AMRO I.D.: 14825-13
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.70
Kerosene	ND	0.70
Mineral Spirits	ND	0.70
Fuel Oil #2/Diesel	ND	0.70
Fuel Oil #4	ND	0.70
Fuel Oil #6	ND	1.4
Motor Oil/Hydraulic Oil	ND	0.70

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-12
AMRO I.D.: 14825-12
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Wa...

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.90
Kerosene	ND	0.90
Mineral Spirits	ND	0.90
Fuel Oil #2/Diesel	ND	0.90
Fuel Oil #4	ND	0.90
Fuel Oil #6	ND	1.8
Motor Oil/Hydraulic Oil	ND	0.90

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-11
AMRO I.D.: 14825-11
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.80
Kerosene	ND	0.80
Mineral Spirits	ND	0.80
Fuel Oil #2/Diesel	ND	0.80
Fuel Oil #4	ND	0.80
Fuel Oil #6	ND	1.6
Motor Oil/Hydraulic Oil	ND	0.80

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-10
AMRO I.D.: 14825-10
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.60
Kerosene	ND	0.60
Mineral Spirits	ND	0.60
Fuel Oil #2/Diesel	ND	0.60
Fuel Oil #4	ND	0.60
Fuel Oil #6	ND	1.2
Motor Oil/Hydraulic Oil	ND	0.60

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK Approved by Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-9
AMRO I.D.: 14825-09
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.90
Kerosene	ND	0.90
Mineral Spirits	ND	0.90
Fuel Oil #2/Diesel	ND	0.90
Fuel Oil #4	ND	0.90
Fuel Oil #6	ND	1.8
Motor Oil/Hydraulic Oil	ND	0.90

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-8
AMRO I.D.: 14825-08
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	0.60
Kerosene	ND	0.60
Mineral Spirits	ND	0.60
Fuel Oil #2/Diesel	ND	0.60
Fuel Oil #4	ND	0.60
Fuel Oil #6	ND	1.2
Motor Oil/Hydraulic Oil	ND	0.60

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-7
AMRO I.D.: 14825-07
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/[illegible]

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-6
AMRO I.D.: 14825-06
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample [illegible]: Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-5
AMRO I.D.: 14825-05
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-4
AMRO I.D.: 14825-04
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-3
AMRO I.D.: 14825-03
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK Approved by Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-2
AMRO I.D.: 14825-02
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-1
AMRO I.D.: 14825-01
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/18/96
Sample Qty/Type: 1/Water

Test Parameter	Results (mg/l)	Reporting Limit(mg/l)
Gasoline	ND	1.0
Kerosene	ND	1.0
Mineral Spirits	ND	1.0
Fuel Oil #2/Diesel	ND	1.0
Fuel Oil #4	ND	1.0
Fuel Oil #6	ND	2.0
Motor Oil/Hydraulic Oil	ND	1.0

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Nancy Stewart

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

December 24, 1996

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC Roxbury, MA

Dear George:

Enclosed please find the results for the above-referenced project, received on December 13, 1996. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 14825. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Nancy Stewart
Laboratory Director

Encl.

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the Chemical Analysis of Potable and Non-Potable Water

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96

Issued

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

AMRO # 14854

17626

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	BRA/EDIC Roxbury	MA

Samplers (Signature): Christ E Hughes

PAGE 1 OF 1

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O, Explain)	VOC 8260	T.PH GC/FID	PAH 8100	RCP METALS Dissolved			Remarks
	12.12.96	9:15		✓	WS-1	VOA/Amb/Plast 3/2/1	A	X	X	X	X			
	12.12.96	9:25		✓	WS-2	"	A	X	X	X	X			
	12.12.96	11:45		✓	WS-3	"	A	X	X	X	X			Hold PAHs + Metals until phone call from George Naslas (after we review all soils data) per conversation w/ Hannel. We will analyze 6 of 12 for PAHs/Metals.
	12.12.96	11:55		✓	WS-4	"	A	X	X	X	X			
	12.12.96	12:25		✓	WS-5	"	A	X	X	X	X			
	12.12.96	12:35		✓	WS-6	"	A	X	X	X	X			
	12.12.96	13:05		✓	WS-7	"	A	X	X	X	X			
	12.12.96	10:40		✓	WS-8	"	A	X	X	X	X			
	12.12.96	10:40		✓	WS-9	"	A	X	X	X	X			
	12.12.96	11:15		✓	WS-10	"	A	X	X	X	X			
	12.12.96	13:25		✓	WS-11	"	A	X	X	X	X			All analytes to MCP GW-1 detection limits!!
	12.12.96	9:50		✓	WS-12	"	A	X	X	X	X			
	12.12.96	10:00		✓	DUP-1	3 VOA Number	A	X	X					
	LAB				TRIP BLANK									

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded T.A.T. AUTHORIZATION NUMBER.

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Christ E Hughes	12-13-96 11:35	Bob Hawkes
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkes	Date Time 12-13-96 3:45	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed: STANDARD

PO#

AMRO Project No. 14825

Seal Intact? Yes No N/A

Send Results to: George Naslas
C/o Weston & Sampson
5 Centennial Drive
PEABODY MA 01960

Remarks
* METALS and PAH Have Been Field Filtered.

White: Lab copy Yellow: Accompanies report Pink: Client copy

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-12
AMRO I.D.: 14854-06
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Laurel Stoddard for Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-11
AMRO I.D.: 14854-05
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Nancy Stewart FOK

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-9
AMRO I.D.: 14854-04
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Samuel Haddad FOR Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-8
AMRO I.D.: 14854-03
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Laurel Stoddard FOR Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-5
AMRO I.D.: 14854-02
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Laurel Hadland FOR Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury, MA
WS-2
AMRO I.D.: 14854-01
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/18/96 Date analyzed: 12/19/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Naphthalene	ND	5.0
Acenaphthylene	ND	5.0
Acenaphthene	ND	5.0
Fluorene	ND	5.0
Phenanthrene	ND	5.0
Anthracene	ND	5.0
Fluoranthene	ND	5.0
Pyrene	ND	5.0
Benzo[a]anthracene	ND	1.0
Chrysene	ND	2.0
Benzo[b]fluoranthene	ND	1.0
Benzo[k]fluoranthene	ND	1.0
Benzo[a]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.5
Benzo[g,h,i]perylene	ND	0.5
Indeno[1,2,3-cd]pyrene	ND	0.5

ND = Not Detected at or above the reporting limit.

Analyzed By: Lab Resources

Approved by Laurel Hubbard FOR Nancy Stewart

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
WS-8	14854-03	Selenium, D	<0.025	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7
WS-09	14854-04	Digestion			12/20/96	TC	200
		Arsenic, D	<0.01	mg/L	12/23/96	RK	206.2
		Barium, D	0.11	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.010	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1
		Selenium, D	<0.025	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7
WS-11	14854-05	Digestion			12/20/96	TC	200
		Arsenic, D	<0.01	mg/L	12/23/96	RK	206.2
		Barium, D	<0.05	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.010	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1
		Selenium, D	<0.005	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7
WS-12	14854-06	Digestion			12/20/96	TC	200
		Arsenic, D	<0.01	mg/L	12/23/96	RK	206.2
		Barium, D	0.12	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.005	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1
		Selenium, D	<0.025	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7

All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.

The following standard abbreviations and conventions apply throughout all sections:

< = 'Less than' followed by the detection limit.
> = 'Greater than'
D - Dissolved.
* = Additional analysis requested 12/18/96 formerly AMRO #14825.

Certified by: Laurel Hollard FOR
Paula Benham

AMRO

AMRO Environmental Laboratory Report

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC Roxbury, MA

Attn: Mr. George Naslas

Samples Qty/Type: 6/Aqueous

AMRO Designation: 14854*
Date Sampled: 12/12/96
Date Rec'vd: 12/13/96
Date Complete: 12/30/96

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
WS-2	14854-01	Digestion			12/20/96	TC	200
		Arsenic, D	<0.01	mg/L	12/23/96	RK	206.2
		Barium, D	<0.05	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.005	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1
		Selenium, D	<0.025	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7
WS-5	14854-02	Digestion			12/20/96	TC	200
		Arsenic, D	<0.01	mg/L	12/23/96	RK	206.2
		Barium, D	0.11	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.005	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1
		Selenium, D	<0.025	mg/L	12/30/96	CO	270.2
		Digestion			12/20/96	EL	3005
		Silver, D	<0.007	mg/L	12/24/96	EL	200.7
WS-8	14854-03	Digestion			12/20/96	TC	200
		Arsenic, D	<0.02	mg/L	12/23/96	RK	206.2
		Barium, D	0.15	mg/L	12/26/96	EL	200.7
		Cadmium, D	<0.005	mg/L	12/26/96	EL	200.7
		Chromium, D	<0.03	mg/L	12/26/96	EL	200.7
		Lead, D	<0.010	mg/L	12/26/96	RK	239.2
		Mercury, D	<0.0002	mg/L	12/20/96	JB	245.1

Continued next page . . .

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

January 02, 1997

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC Roxbury, MA

Dear George:

Enclosed please find the results for the above-referenced project, received on December 13, 1996. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 14854. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Hadland FOR

Nancy Stewart
Laboratory Director

Encl.

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the ***Chemical Analysis of Potable and Non-Potable Water***

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96

Issued

[illegible]RO [illegible] on[illegible]ntal [illegible]bora[illegible]es [illegible]poration
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16995

CHAIN-OF-CUSTODY-RECORD

Proj. No. 96230. A — Project Name: Roxbury - BRA / EDIC — Project State: MA — PAGE 8 OF 8

Samplers (Signature): Andrew D. Wise [signature]

MATRIX: Water - A, Soil/Solid-S (circled), Waste-W, Other-O, Explain

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	RCRA 5 Metals		Remarks
	3/26	09:00		X	B-115 S-1 1-3'	1 - 8oz.	S	X	X					
	3/26	09:00		X	B-115 S-1 1-3'	1 - 8oz	S				X			
	3/26	09:15		X	B-115 S-2 4-6'	1 - 8oz	S	X	X					
	3/26	09:15		X	B-115 S-2 4-6'	1 - 8oz	S				X			
	3/26	09:30		X	B-115 S-3 7-9'	1 - 8oz	S	X	X					
	3/26	09:30		X	B-115 S-3 7-9'	1 - 8oz	S				X			
	3/26	10:00		X	B-116 S-1 1-3'	1 16 ~~8~~oz	S	X	X					
	3/26	10:00		X	B-116 S-1 1-3'	1 - 8oz	S				X			
	3/26	10:15		X	B-117 S-1 1-3'	1 16 ~~8~~oz	S	X	X					
	3/26	10:15		X	B-117 S-1 1-3'	1 - 8oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO.______ **T.A.T.** ______ **authorized by:**______

Relinquished by (Signature)	Date Time	Received by (Signature)		
[signature]	3/26/97 16:30	[signature]	☐ Fax to (phone) / Results needed / PO#	Send Result to: George Naslas, Weston + Sampson, 5 Centennial Drive, Peabody, Mass. 01960, (508) 532-1900
			AMRO Project No. 15550	Remarks
[signature]	3-26-97 5:05	Received for Laboratory by: (Signature) [signature]	Seal Intact? Yes No N/A	

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16994

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O; Explain

PAGE 7 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8081	RCRA 8 Metals - LEAD	Remarks
	3/25	13:30		X	B-113 S-1 1-3'	1 8-oz	S	X	X			
	3/25	8:30		X	B-113 S-1 1-3'	1 8-oz	S				X	
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S	X	X			
	3/25	13:45		X	B-113 S-2 4-6'	1 8-oz	S				X	
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S	X	X			
	3/25	14:00		X	B-113 S-3 7-9'	1 8-oz	S				X	
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S	X	X	X		
	3/25	14:30		X	B-114 S-1 1-3'	1 8-oz	S				X	
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S	X	X	X		
	3/25	14:45		X	B-114 S-2 4-6'	1 8-oz	S				X	
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S	X	X	X		
	3/25	15:00		X	B-114 S-3 7-9'	1 8-oz	S				X	

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ T.A.T. authorized by:_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 5:55	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Naslas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

1407

CHAIN-OF-CUSTODY-RECORD

Proj. No.	Project Name	Project State
96230.A	BRA / EDIC Roxbury -	MA

Samplers (Signature): Andrew D. Wise

PAGE 6 OF 8

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O Explain

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	TCLP's metals	Remarks
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S	X	X				
	3/25	11:30		X	B-111 S-1 1-3'	1 8-oz	S				X	X	
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S	X	X				
	3/25	11:45		X	B-111 S-2 4-6'	1 8-oz	S				X	X	
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S	X	X				
	3/25	12:00		X	B-111 S-3 7-9'	1 8-oz	S				X	X	
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S	X	X				
	3/25	12:30		X	B-112 S-1 1-3'	1 8-oz	S				X		
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S	X	X				
	3/25	12:45		X	B-112 S-2 4-6'	1 8-oz	S				X		
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S	X	X				
	3/25	13:00		X	B-112 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 16:30	Robert Howard
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Robert Howard	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature)

☐ Fax to (phone) _____

Results needed _____

PO# _____

AMRO Project No. _____

Seal Intact? Yes No N/A

Send Result to:
Georgia Naslas
Esso + Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

1866

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Wise

PAGE 5 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water - A, Soil/Solid-S, Waste-W, Other-O Explain)	TPH GC/FIA	PAH 8100	PCB 8080/81	LEAD	RCRA 8 metals	Remarks
	3/25	09:30		X	B-109 S-1 1-3'	1 8-oz	S	X	X				
	3/25	09:30		X	B-109 S-1 1-3'	1 8-oz	S				X		
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S	X	X				
	3/25	09:45		X	B-109 S-2 4-6'	1 8-oz	S				X		
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S	X	X				
	3/25	10:00		X	B-109 S-3 7-9'	1 8-oz	S				X		
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S	X	X				
	3/25	10:30		X	B-110 S-1 1-3'	1 8-oz	S				X		
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S	X	X				
	3/25	10:45		X	B-110 S-2 4-6'	1 8-oz	S				X		
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S	X	X				
	3/25	11:00		X	B-110 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ T.A.T. authorized by: _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 1130	Bob Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hawkins	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) Jim Pidgeon

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
George Naslas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

14865

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury - BRA / EDIC	MA

Samplers (Signature): Andrew D. Wise

MATRIX: Water - A; Soil/Solid-S; Waste-W; Other-O; Explain

PAGE 4 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	PCB 8080	VOT 8240/8260	LEAD	RCRA 5 Metals	Remarks
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S	X	X					
	3/25	07:30		X	B-107 S-1 1-3'	1 8-oz	S			X				
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S	X	X					
	3/25	07:45		X	B-107 S-2 4-6'	1 8-oz	S			X				
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S	X	X					
	3/25	08:00		X	B-107 S-3 7-9'	1 8-oz	S			X				
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S	X	X					
	3/25	08:30		X	B-108 S-1 1-3'	1 8-oz	S			X				
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S	X	X					
	3/25	08:45		X	B-108 S-2 4-6'	1 8-oz	S			X				
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S	X	X					
	3/25	09:00		X	B-108 S-3 7-9'	1 8-oz	S			X				

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ **T.A.T. authorized by:**_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	3/26/97 12:30	Bob Hamilton
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Bob Hamilton	Date Time 5:55 3-26-97	Received for Laboratory by: (Signature) A. Pedersen

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 15550

Seal Intact? Yes No N/A

Send Results to:
Georja Nadas
Weston + Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO E. ronmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

4865

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
9C230.A	BRA / EDIC Roxbury	MA

Samplers (Signature): Andrew D. Wilson

PAGE 3 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O, Explain)	TPH GC/FID	PAH 8100	BTEX 8021	LEAD	RCRA 8 Metals	Remarks
	3/24	13:30		X	B-105 S-1 1-3'	1-8-oz	S	X	X				
	3/24	13:30		X	B-105 S-1 1-3'	1 8-oz	S				X	X	
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S	X	X				
	3/24	13:45		X	B-105 S-2 4-6'	1 8-oz	S				X	X	
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S	X	X				
	3/24	14:00		X	B-105 S-3 7-9'	1 8-oz	S				X	X	
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S	X	X				
	3/24	14:30		X	B-106 S-1 1-3'	1 8-oz	S				X		
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S	X	X				
	3/24	14:45		X	B-106 S-2 4-6'	1 8-oz	S				X		
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S	X	X				
	3/24	15:00		X	B-106 S-3 7-9'	1 8-oz	S				X		

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wilson

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ **T.A.T. authorized by:**_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wilson	3/26/97 16:30	Robert Hamilton
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Robert Hamilton	Date Time 3-26-97 5:55	Received for Laboratory by: (Signature) Chris Podgurski

☐ Fax to (phone)

Results needed

PO#

AMRO Project No.

Seal Intact? Yes No N/A

Send Results to:
Georgia Naslas
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

CHAIN-OF-CUSTODY-RECORD

Proj. No. 96230.A | Project Name Roxbury - BRA / EDIC | Project State MA | PAGE 2 OF 8

Samplers (Signature) Andrew D. Wise

Matrix: Water - A, Soil/Solid - S (circled), Waste - W, Other - O, Explain

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	Matrix	TPH GC/FID	PAH 8100	PCB 8080/8081	LEAD	RCRA S metals		Remarks
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S	X	X					
	3/24	11:30		X	B-103 S-1 1-3'	1 8-oz	S				X			
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S	X	X					
	3/24	11:45		X	B-103 S-2 4-6'	1 8-oz	S				X			
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S	X	X					
	3/24	12:00		X	B-103 S-3 7-9'	1 8-oz	S				X			
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S	X	X	X				
	3/24	12:30		X	B-104 S-1 1-3'	1 8-oz	S				X			
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S	X	X	X				
	3/24	12:45		X	B-104 S-2 4-6'	1 8-oz	S				X			
	3/24	13:00		X	B-104 S-3 7-9'	1 8-oz	S	X	X	X				
	3/24	13:00		X	B-104 S-3 7-9'	1 8-oz	S				X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO.______ **T.A.T authorized by:**______

Relinquished by (Signature)	Date Time	Received by (Signature)	
[signature]	3/26/97 16:30	Bob Haw... [signature]	☐ Fax to (phone) / Results needed
Relinquished by (Signature)	Date Time	Received by (Signature)	PO#
Relinquished by (Signature)	Date Time	Received by (Signature)	AMRO Project No. 15550
Relinquished by (Signature) [signature]	Date Time 3-26-97 5:50	Received for Laboratory by: (Signature) [signature]	Seal Intact? Yes No N/A

Send Results to: George Naslas, Weston + Sampson, 5 Centennial Drive, Peabody, Mass. 01960, (508) 532-1900

Remarks

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	Roxbury BRA/EDIC	MA

Samplers (Signature): Andrew D. Wilson

MATRIX: Water-A, Soil/Solid-S, Waste-W, Other-O (Explain)

PAGE 1 OF 8

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX	TPH GC/FID	PAH 8100	PCB 8082/8081	LEAD	RCRA 5 metals	Remarks
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S	X	X				
	3/24	09:30		X	B-101 S-1 1-2.5'	1 8-oz	S			X			
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S	X	X				
	3/24	09:45		X	B-101 S-2 4.5-6.5'	1 8-oz	S			X			
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S	X	X				
	3/24	10:00		X	B-101 S-3 7-9'	1 8-oz	S			X			
	3/24	10:30		X	B-102 S-1 1-3'	1 8-oz	S	X	X				
	3/24	10:50		X	B-102 S-1 1-3'	1 8-oz	S			X			
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S	X	X				
	3/24	10:45		X	B-102 S-2 4-6'	1 8-oz	S			X			
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S	X	X				
	3/24	11:00		X	B-102 S-3 7-9'	1 8-oz	S			X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wilson

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ **T.A.T. authorized by:**_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wilson	3/26/97 16:30	Robert Hawkins
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature) Robert Hawkins	Date Time 3-26-97	Received for Laboratory by: (Signature) Jim Pelan

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 1550

Seal Intact? Yes No N/A

Send Results to: George Naslas
Walton + Sampson
5 Centennial Drive
Peabody, Mass. 01960
(508) 532-1900

Remarks

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-8
AMRO I.D.: 14825-08
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-8
AMRO I.D.: 14825-08

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-9
AMRO I.D.: 14825-09
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-9
AMRO I.D.: 14825-09

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-10
AMRO I.D.: 14825-10
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	5.8	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-10
AMRO I.D.: 14825-10

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
[illegible] (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-11
AMRO I.D.: 14825-11
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-11
AMRO I.D.: 14825-11

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
WS-12
AMRO I.D.: 14825-12
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: WS-12
AMRO I.D.: 14825-12

Test Parameter	Results (ug/L)	Reporting Limit (ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	2.8	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
Dup 1
AMRO I.D.: 14825-13
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	ND	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: Dup 1
AMRO I.D.: 14825-13

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	2.6	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRC

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: 96230.A BRA/EDIC Roxbury MA
Trip Blank
AMRO I.D.: 14825-14
Date sampled: 12/12/96 Date received: 12/13/96
Date prepared: 12/16/96 Date analyzed: 12/16/96
Sample Qty/Type: 1/Water

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
Chloromethane	ND	5.0
Bromomethane	ND	5.0
Vinyl Chloride	ND	2.0
Dichlorodifluoromethane	ND	5.0
Chloroethane	ND	5.0
Methylene Chloride	2.8	2.0
Trichlorofluoromethane	ND	2.0
1,1-Dichloroethene	ND	2.0
Bromochloromethane	ND	2.0
1,1-Dichloroethane	ND	2.0
cis-1,2-Dichloroethene	ND	2.0
trans-1,2-Dichloroethene	ND	2.0
Chloroform	ND	2.0
Dibromomethane	ND	2.0
1,2-Dichloroethane	ND	2.0
2,2-Dichloropropane	ND	2.0
1,1,1-Trichloroethane	ND	2.0
Carbon Tetrachloride	ND	2.0
Bromodichloromethane	ND	2.0
1,2-Dichloropropane	ND	2.0
1,1-Dichloropropene	ND	2.0
Trichloroethene	ND	2.0
Dibromochloromethane	ND	2.0
1,1,2-Trichloroethane	ND	2.0
Benzene	ND	2.0
1,3-Dichloropropane	ND	2.0
Bromoform	ND	2.0
1,1,1,2-Tetrachloroethane	ND	2.0
Tetrachloroethene	ND	2.0
1,2-Dibromoethane	ND	2.0
1,1,2,2-Tetrachloroethane	ND	2.0
Toluene	ND	2.0
Chlorobenzene	ND	2.0
Ethylbenzene	ND	2.0
Bromobenzene	ND	2.0
Isopropylbenzene	ND	2.0
Styrene	ND	2.0
n-Propylbenzene	ND	2.0

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson
Client I.D.: Trip Blank
AMRO I.D.: 14825-14

Test Parameter	Results (ug/L)	Reporting Limit(ug/L)
cis-1,3-Dichloropropene	ND	2.0
trans-1,3-Dichloropropene	ND	2.0
Xylene (total)	ND	2.0
1,2-Dibromo-3-chloropropane	ND	5.0
tert-Butylbenzene	ND	2.0
2-Chlorotoluene	ND	2.0
Hexachlorobutadiene	ND	2.0
4-Chlorotoluene	ND	2.0
sec-Butylbenzene	ND	2.0
1,3-Dichlorobenzene	ND	2.0
1,2-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
1,2,3-Trichloropropane	ND	2.0
n-Butylbenzene	ND	2.0
4-Isopropyltoluene	ND	2.0
Naphthalene	ND	2.0
1,2,4-Trimethylbenzene	ND	2.0
1,3,5-Trimethylbenzene	ND	2.0
1,2,3-Trichlorobenzene	ND	2.0
1,2,4-Trichlorobenzene	ND	2.0
Methyl-tert-butyl ether (MTBE)	ND	2.0

ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by: Nancy Stewart

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

17625

CHAIN OF CUSTODY RECORD

Proj. No. 96230A

Project Name: [illegible] Roxbury

Project State: MA

Samplers (Signature): [signature]

PAGE 1 OF 1

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX Water-A Soil/Solid-S Waste-W Other-O Explain	8260	TPH GC/FID	PAH + Metals	RCRA [illegible]	Remarks
	12.12.96	9:15		✓	WS-1	[illegible]	A	X	X	X	X	
	12.12.96	9:25		✓	WS-2	"	A	X	X	X	X	
	12.12.96	11:45		✓	WS-3	"	A	X	X	X	X	
	12.12.96	11:55		✓	WS-4	"	A	X	X	X	X	Hold PAHs + Metals until phone call from George Maslas (after we receive all soils data) per conversation w/ Laurel. We will analyze 6 of 12 for PAHs/Metals.
	12.12.96	12:25		✓	WS-5	"	A	X	X	X	X	
	12.12.96	12:35		✓	WS-6	"	A	X	X	X	X	
	12.12.96	13:05		✓	WS-7	"	A	X	X	X	X	
	12.12.96	10:40		✓	WS-8	"	A	X	X	X	X	
	12.12.96	10:40		✓	WS-9	"	A	X	X	X	X	
	12.12.96	11:15		✓	WS-10	"	A	X	X	X	X	
	12.12.96	13:25		✓	WS-11	"	A	X	X	X	X	All analyses to MCP GW-1 detection limits!!
	12.12.96	9:50		✓	WS-12	"	A	X	X	X	X	
	12.12.96	10:00		✓	DUP-1	[illegible]	A	X	X	X	X	
LAB					TRIP BLANK		A	X	X			

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO.______ **T.A.T. authorized by:**______

Relinquished by (Signature)	Date Time	Received by (Signature)		
[signature]	12-13-96 11:35	[signature]	☐ Fax to (phone)	Send Results to: George Maslas c/o Weston & Sampson 5 Centennial Drive Peabody MA 01960
Relinquished by (Signature)	Date Time	Received by (Signature)	Results needed: Standard; PO#	
Relinquished by (Signature)	Date Time	Received by (Signature)	AMRO Project No. 14825	Remarks: * METAL and PAH Have Been Field Filtered.
Relinquished by (Signature) [signature]	Date Time 12-13-96 3:45	Received for Laboratory by: (Signature)	Seal Intact? Yes No N/A	

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the ***Chemical Analysis of Potable and Non-Potable Water***

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96

Issued

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

December 16, 1996

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC Parcel P-3

Dear George:

Enclosed please find the results for the above-referenced project, received on December 06, 1996. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 14789. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Haddad FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report Page 1 of 2

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC Parcel P-3

Attn: Mr. George Naslas

Samples Qty/Type: 3/Solid

AMRO Designation: 14789
Date Sampled: 12/03 & 05/96
Date Rec'vd: 12/06/96
Date Complete: 12/13/96
COC #: 16993

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
WS-2	14789-01	Total Solids	43.0	%	12/09/96	LP	2540G
		Digestion			12/11/96	TC	3050
		Arsenic, Total	7.1	mg/Kg	12/12/96	EL	6010
		Barium, Total	62.	mg/Kg	12/12/96	EL	6010
		Cadmium, Total	<5.5	mg/Kg	12/12/96	EL	6010
		Chromium, Total	54.	mg/Kg	12/12/96	EL	6010
		Lead, Total	13.	mg/Kg	12/12/96	EL	6010
		Mercury, Total	<0.033	mg/Kg	12/13/96	RK	7471
		Selenium, Total	<5.5	mg/Kg	12/12/96	EL	6010
		Digestion			12/11/96	TC	3005
		Silver, Total	<5.2	mg/Kg	12/12/96	EL	6010
WS-3	14789-02	Total Solids	56.9	%	12/09/96	LP	2540G
		Digestion			12/11/96	TC	3050
		Arsenic, Total	7.5	mg/Kg	12/12/96	EL	6010
		Barium, Total	57.	mg/Kg	12/12/96	EL	6010
		Cadmium, Total	<4.2	mg/Kg	12/12/96	EL	6010
		Chromium, Total	84.	mg/Kg	12/12/96	EL	6010
		Lead, Total	9.8	mg/Kg	12/12/96	EL	6010
		Mercury, Total	0.059	mg/Kg	12/13/96	RK	7471
		Selenium, Total	<4.2	mg/Kg	12/12/96	EL	6010
		Digestion			12/11/96	TC	3005
		Silver, Total	<4.1	mg/Kg	12/12/96	EL	6010

Continued next page . . .

AMRO

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
WS-11	14789-03	Total Solids	87.6	%	12/09/96	LP	2540G
		Digestion			12/11/96	TC	3050
		Arsenic, Total	8.1	mg/Kg	12/12/96	EL	6010
		Barium, Total	53.	mg/Kg	12/12/96	EL	6010
		Cadmium, Total	<2.4	mg/Kg	12/12/96	EL	6010
		Chromium, Total	11.	mg/Kg	12/12/96	EL	6010
		Lead, Total	51.	mg/Kg	12/12/96	EL	6010
		Mercury, Total	<0.015	mg/Kg	12/13/96	RK	7471
		Selenium, Total	<2.4	mg/Kg	12/12/96	EL	6010
		Digestion			12/11/96	TC	3005
		Silver, Total	<2.4	mg/Kg	12/12/96	EL	6010

Results are in dry weight.
All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.
The following standard abbreviations and conventions apply throughout all sections:
< = 'Less than' followed by the detection limit.
> = 'Greater than'

Certified by: Laurel Hubbard FOR
Paula Benham

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-2
AMRO I.D.: 14789-01
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/12/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
Naphthalene	ND	57
2-Methylnaphthalene	ND	57
Acenaphthylene	ND	57
Acenaphthene	ND	57
Fluorene	ND	57
Phenanthrene	ND	57
Anthracene	ND	57
Fluoranthene	ND	57
Pyrene	ND	57
Benzo[a]anthracene	ND	57
Chrysene	ND	57
Benzo[b]fluoranthene	ND	57
Benzo[k]fluoranthene	ND	57
Benzo[a]pyrene	ND	57
Dibenzo[a,h]anthracene	ND	110
Benzo[g,h,i]perylene	ND	110
Indeno[1,2,3-cd]pyrene	ND	110

Solid Content = 43.0%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-3
AMRO I.D.: 14789-02
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/12/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	ND	25
2-Methylnaphthalene	ND	25
Acenaphthylene	ND	25
Acenaphthene	ND	25
Fluorene	ND	25
Phenanthrene	ND	25
Anthracene	ND	25
Fluoranthene	ND	25
Pyrene	ND	25
Benzo[a]anthracene	ND	25
Chrysene	ND	25
Benzo[b]fluoranthene	ND	25
Benzo[k]fluoranthene	ND	25
Benzo[a]pyrene	ND	25
Dibenzo[a,h]anthracene	ND	50
Benzo[g,h,i]perylene	ND	50
Indeno[1,2,3-cd]pyrene	ND	50

Solid Content = 56.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Hedlund FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-11
AMRO I.D.: 14789-03
Date sampled: 12/05/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/12/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Naphthalene	ND	28
2-Methylnaphthalene	ND	28
Acenaphthylene	ND	28
Acenaphthene	ND	28
Fluorene	ND	28
Phenanthrene	ND	28
Anthracene	ND	28
Fluoranthene	ND	28
Pyrene	ND	28
Benzo[a]anthracene	ND	28
Chrysene	ND	28
Benzo[b]fluoranthene	ND	28
Benzo[k]fluoranthene	ND	28
Benzo[a]pyrene	ND	28
Dibenzo[a,h]anthracene	ND	56
Benzo[g,h,i]perylene	ND	56
Indeno[1,2,3-cd]pyrene	ND	56

Solid Content = 87.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-2
AMRO I.D.: 14789-01
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	110
Kerosene	ND	110
Mineral Spirits	ND	110
Fuel Oil #2/Diesel	ND	110
Fuel Oil #4	ND	110
Fuel Oil #6	ND	230
Motor Oil/Hydraulic Oil	ND	110

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 43.0%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-3
AMRO I.D.: 14789-02
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	86
Kerosene	ND	86
Mineral Spirits	ND	86
Fuel Oil #2/Diesel	ND	86
Fuel Oil #4	ND	86
Fuel Oil #6	ND	170
Motor Oil/Hydraulic Oil	ND	86

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 56.9%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK Approved by Laurel Hoddard FOR Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-101 S-3 7-9'
AMRO I.D.: 15550-03
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Qty./Type: [illegible]

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	61
Kerosene	ND	61
Mineral Spirits	ND	61
Fuel Oil #2/Diesel	ND	61
Fuel Oil #4	ND	61
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	ND	61

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 81.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-102 S-1 1-3'
AMRO I.D.: 15550-04
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Matrix/Type: Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	440	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-102 S-2 4-6'
AMRO I.D.: 15550-05
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	380	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.1%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hobbs FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-102 S-3 7-9'
AMRO I.D.: 15550-06
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	560	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-103 S-1 1-3'
AMRO I.D.: 15550-07
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Matrix Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	160	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Steadman FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-103 S-2 4-6'
AMRO I.D.: 15550-08
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/soil

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	270	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-103 S-3 7-9'
AMRO I.D.: 15550-09
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sampl[illegible]/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	120	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 89.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit

Analyzed By: SWC

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-106 S-1 1-3'
AMRO I.D.: 15550-10
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Soil

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	450	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-106 S-2 4-6'
AMRO I.D.: 15550-11
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	57
Kerosene	ND	57
Mineral Spirits	ND	57
Fuel Oil #2/Diesel	ND	57
Fuel Oil #4	ND	57
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	700	57

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadad for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-106 S-3 7-9'
AMRO I.D.: 15550-12
Date sampled: 03/24/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix: 1/Solid

Test Parameter	Results (mg/kg)	**Reporting Limit(mg/kg)
Gasoline	ND	560
Kerosene	ND	560
Mineral Spirits	ND	560
Fuel Oil #2/Diesel	ND	560
Fuel Oil #4	ND	560
Fuel Oil #6	ND	1,100
Motor Oil/Hydraulic Oil	6,700	560

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 86.4%. Results are in dry weight.

Comments:

** = The reporting limit has been elevated due to sample dilution (04/07/97).

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-107 S-1 1-3'
AMRO I.D.: 15550-13
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/05/97
Sample Matrix/Type: Soils

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	140	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-107 S-2 4-6'
AMRO I.D.: 15550-14
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix: Soil

Test Parameter	Results (mg/kg)	**Reporting Limit(mg/kg)
Gasoline	ND	280
Kerosene	ND	280
Mineral Spirits	ND	280
Fuel Oil #2/Diesel	ND	280
Fuel Oil #4	ND	280
Fuel Oil #6	ND	560
Motor Oil/Hydraulic Oil	2,300	280

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.4%. Results are in dry weight.

Comments:

** = The reporting limit has been elevated due to sample dilution (04/07/97).

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hodland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-107 S-3 7-9'
AMRO I.D.: 15550-15
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Soil

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	59
Kerosene	ND	59
Mineral Spirits	ND	59
Fuel Oil #2/Diesel	ND	59
Fuel Oil #4	ND	59
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	700	59

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 84.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadden FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-108 S-1 1-3'
AMRO I.D.: 15550-16
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	57
Kerosene	ND	57
Mineral Spirits	ND	57
Fuel Oil #2/Diesel	ND	57
Fuel Oil #4	ND	57
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	220	57

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 86.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hubbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-108 S-2 4-6'
AMRO I.D.: 15550-17
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/07/97
Sample Matrix/Type: 2/Solid

Test Parameter	Results (mg/kg)	**Reporting Limit(mg/kg)
Gasoline	ND	120
Kerosene	ND	120
Mineral Spirits	ND	120
Fuel Oil #2/Diesel	ND	120
Fuel Oil #4	ND	120
Fuel Oil #6	ND	240
Motor Oil/Hydraulic Oil	1,600	120

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 84.3%. Results are in dry weight.

Comments:

** = The reporting limit has been elevated due to sample dilution (04/07/97).

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC Approved by Laurel Stoddard for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-108 S-3 7-9'
AMRO I.D.: 15550-18
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 2/Soil

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	110	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.5%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hoddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-109 S-1 1-3'
AMRO I.D.: 15550-19
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	230	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.8%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-109 S-2 4-6'
AMRO I.D.: 15550-20
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1 Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	57
Kerosene	ND	57
Mineral Spirits	ND	57
Fuel Oil #2/Diesel	ND	57
Fuel Oil #4	ND	57
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	330	57

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.3%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Lowell Hadland POL
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-109 S-3 7-9'
AMRO I.D.: 15550-21
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	170	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-110 S-1 1-3'
AMRO I.D.: 15550-22
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Matrix Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	170	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 87.9%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by [signature] for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-110 S-2 4-6'
AMRO I.D.: 15550-23
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1 Soil Jar

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	58
Kerosene	ND	58
Mineral Spirits	ND	58
Fuel Oil #2/Diesel	ND	58
Fuel Oil #4	ND	58
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	140	58

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-110 S-3 7-9'
AMRO I.D.: 15550-24
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	1,100	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.8%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laura L. Stewart FOL
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-112 S-1 1-3'
AMRO I.D.: 15550-25
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Matrix/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	57
Kerosene	ND	57
Mineral Spirits	ND	57
Fuel Oil #2/Diesel	ND	57
Fuel Oil #4	ND	57
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	500	57

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 86.1%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-112 S-2 4-6'
AMRO I.D.: 15550-26
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Matrix/Type: Soil

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	56
Kerosene	ND	56
Mineral Spirits	ND	56
Fuel Oil #2/Diesel	ND	56
Fuel Oil #4	ND	56
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	190	56

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 85.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Samuel Hubbard for
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-112 S-3 7-9'
AMRO I.D.: 15550-27
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	60
Kerosene	ND	60
Mineral Spirits	ND	60
Fuel Oil #2/Diesel	ND	60
Fuel Oil #4	ND	60
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	970	60

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 82.9%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-113 S-1 1-3'
AMRO I.D.: 15550-28
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	290	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.7%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laura Stewart FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-113 S-2 4-6'
AMRO I.D.: 15550-29
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	55
Kerosene	ND	55
Mineral Spirits	ND	55
Fuel Oil #2/Diesel	ND	55
Fuel Oil #4	ND	55
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	360	55

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 88.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A Roxbury-BRA/EDIC
B-113 S-3 7-9'
AMRO I.D.: 15550-30
Date sampled: 03/25/97 Date received: 03/26/97
Date prepared: 04/02/97 Date analyzed: 04/06/97
Sample Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	53
Kerosene	ND	53
Mineral Spirits	ND	53
Fuel Oil #2/Diesel	ND	53
Fuel Oil #4	ND	53
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	730	53

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8260A (purge and trap).
Solid Content = 90.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: SWC

Approved by Laurel Haddad FOL
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-11
AMRO I.D.: 14789-03
Date sampled: 12/05/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	47
Kerosene	ND	47
Mineral Spirits	ND	47
Fuel Oil #2/Diesel	ND	47
Fuel Oil #4	ND	47
Fuel Oil #6	ND	94
Motor Oil/Hydraulic Oil	ND	47

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 87.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-1
AMRO I.D.: 14789-04
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	52
Kerosene	ND	52
Mineral Spirits	ND	52
Fuel Oil #2/Diesel	ND	52
Fuel Oil #4	ND	52
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	ND	52

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 85.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laurel A. Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-4
AMRO I.D.: 14789-05
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	110
Kerosene	ND	110
Mineral Spirits	ND	110
Fuel Oil #2/Diesel	ND	110
Fuel Oil #4	ND	110
Fuel Oil #6	ND	230
Motor Oil/Hydraulic Oil	ND	110

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 44.3%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laurie Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-5
AMRO I.D.: 14789-06
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Gasoline	ND	54
Kerosene	ND	54
Mineral Spirits	ND	54
Fuel Oil #2/Diesel	ND	54
Fuel Oil #4	ND	54
Fuel Oil #6	ND	110
Motor Oil/Hydraulic Oil	ND	54

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 90.4%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK Approved by Laurel Stoddard POC
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-6
AMRO I.D.: 14789-07
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	45
Kerosene	ND	45
Mineral Spirits	ND	45
Fuel Oil #2/Diesel	ND	45
Fuel Oil #4	ND	45
Fuel Oil #6	ND	90
Motor Oil/Hydraulic Oil	ND	45

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 88.8%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laurel Hollard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-7
AMRO I.D.: 14789-08
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/10/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	51
Kerosene	ND	51
Mineral Spirits	ND	51
Fuel Oil #2/Diesel	ND	51
Fuel Oil #4	ND	51
Fuel Oil #6	ND	100
Motor Oil/Hydraulic Oil	ND	51

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 91.6%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laura Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-2
AMRO I.D.: 14789-01
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	170
Bromomethane	ND	170
Vinyl Chloride	ND	170
Dichlorodifluoromethane	ND	170
Chloroethane	ND	170
Methylene Chloride	ND	70
Trichlorofluoromethane	ND	70
1,1-Dichloroethene	ND	70
Bromochloromethane	ND	70
1,1-Dichloroethane	ND	70
cis-1,2-Dichloroethene	ND	70
trans-1,2-Dichloroethene	ND	70
Chloroform	ND	70
Dibromomethane	ND	70
1,2-Dichloroethane	ND	70
2,2-Dichloropropane	ND	70
1,1,1-Trichloroethane	ND	70
Carbon Tetrachloride	ND	70
Bromodichloromethane	ND	70
1,2-Dichloropropane	ND	70
1,1-Dichloropropene	ND	70
Trichloroethene	ND	70
Dibromochloromethane	ND	70
1,1,2-Trichloroethane	ND	70
Benzene	ND	70
1,3-Dichloropropane	ND	70
Bromoform	ND	70
1,1,1,2-Tetrachloroethane	ND	70
Tetrachloroethene	ND	70
1,2-Dibromoethane	ND	70
1,1,2,2-Tetrachloroethane	ND	70
Toluene	ND	70
Chlorobenzene	ND	70
Ethylbenzene	ND	70
Bromobenzene	ND	70
Isopropylbenzene	ND	70
Styrene	ND	70
n-Propylbenzene	ND	70

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-2
AMRO I.D.: 14789-01

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	70
trans-1,3-Dichloropropene	ND	70
Xylene (total)	ND	70
1,2-Dibromo-3-chloropropane	ND	70
tert-Butylbenzene	ND	70
2-Chlorotoluene	ND	70
Hexachlorobutadiene	ND	70
4-Chlorotoluene	ND	70
sec-Butylbenzene	ND	70
1,3-Dichlorobenzene	ND	70
1,2-Dichlorobenzene	ND	70
1,4-Dichlorobenzene	ND	70
1,2,3-Trichloropropane	ND	70
n-Butylbenzene	ND	70
4-Isopropyltoluene	ND	70
Naphthalene	ND	70
1,2,4-Trimethylbenzene	ND	70
1,3,5-Trimethylbenzene	ND	70
1,2,3-Trichlorobenzene	ND	70
1,2,4-Trichlorobenzene	ND	70
Methyl-tert-butyl ether (MTBE)	ND	70

Solid Content = 43.0%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-3
AMRO I.D.: 14789-02
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	120
Bromomethane	ND	120
Vinyl Chloride	ND	120
Dichlorodifluoromethane	ND	120
Chloroethane	ND	120
Methylene Chloride	ND	47
Trichlorofluoromethane	ND	47
1,1-Dichloroethene	ND	47
Bromochloromethane	ND	47
1,1-Dichloroethane	ND	47
cis-1,2-Dichloroethene	ND	47
trans-1,2-Dichloroethene	ND	47
Chloroform	ND	47
Dibromomethane	ND	47
1,2-Dichloroethane	ND	47
2,2-Dichloropropane	ND	47
1,1,1-Trichloroethane	ND	47
Carbon Tetrachloride	ND	47
Bromodichloromethane	ND	47
1,2-Dichloropropane	ND	47
1,1-Dichloropropene	ND	47
Trichloroethene	ND	47
Dibromochloromethane	ND	47
1,1,2-Trichloroethane	ND	47
Benzene	ND	47
1,3-Dichloropropane	ND	47
Bromoform	ND	47
1,1,1,2-Tetrachloroethane	ND	47
Tetrachloroethene	ND	47
1,2-Dibromoethane	ND	47
1,1,2,2-Tetrachloroethane	ND	47
Toluene	ND	47
Chlorobenzene	ND	47
Ethylbenzene	ND	47
Bromobenzene	ND	47
Isopropylbenzene	ND	47
Styrene	ND	47
n-Propylbenzene	ND	47

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-3
AMRO I.D.: 14789-02

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	47
trans-1,3-Dichloropropene	ND	47
Xylene (total)	ND	47
1,2-Dibromo-3-chloropropane	ND	47
tert-Butylbenzene	ND	47
2-Chlorotoluene	ND	47
Hexachlorobutadiene	ND	47
4-Chlorotoluene	ND	47
sec-Butylbenzene	ND	47
1,3-Dichlorobenzene	ND	47
1,2-Dichlorobenzene	ND	47
1,4-Dichlorobenzene	ND	47
1,2,3-Trichloropropane	ND	47
n-Butylbenzene	ND	47
4-Isopropyltoluene	ND	47
Naphthalene	ND	47
1,2,4-Trimethylbenzene	ND	47
1,3,5-Trimethylbenzene	ND	47
1,2,3-Trichlorobenzene	ND	47
1,2,4-Trichlorobenzene	ND	47
Methyl-tert-butyl ether (MTBE)	ND	47

Solid Content = 56.9%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-11
AMRO I.D.: 14789-03
Date sampled: 12/05/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	67
Bromomethane	ND	67
Vinyl Chloride	ND	67
Dichlorodifluoromethane	ND	67
Chloroethane	ND	67
Methylene Chloride	ND	27
Trichlorofluoromethane	ND	27
1,1-Dichloroethene	ND	27
Bromochloromethane	ND	27
1,1-Dichloroethane	ND	27
cis-1,2-Dichloroethene	ND	27
trans-1,2-Dichloroethene	ND	27
Chloroform	ND	27
Dibromomethane	ND	27
1,2-Dichloroethane	ND	27
2,2-Dichloropropane	ND	27
1,1,1-Trichloroethane	ND	27
Carbon Tetrachloride	ND	27
Bromodichloromethane	ND	27
1,2-Dichloropropane	ND	27
1,1-Dichloropropene	ND	27
Trichloroethene	ND	27
Dibromochloromethane	ND	27
1,1,2-Trichloroethane	ND	27
Benzene	ND	27
1,3-Dichloropropane	ND	27
Bromoform	ND	27
1,1,1,2-Tetrachloroethane	ND	27
Tetrachloroethene	ND	27
1,2-Dibromoethane	ND	27
1,1,2,2-Tetrachloroethane	ND	27
Toluene	ND	27
Chlorobenzene	ND	27
Ethylbenzene	ND	27
Bromobenzene	ND	27
Isopropylbenzene	ND	27
Styrene	ND	27
n-Propylbenzene	ND	27

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-11
AMRO I.D.: 14789-03

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	27
trans-1,3-Dichloropropene	ND	27
Xylene (total)	ND	27
1,2-Dibromo-3-chloropropane	ND	27
tert-Butylbenzene	ND	27
2-Chlorotoluene	ND	27
Hexachlorobutadiene	ND	27
4-Chlorotoluene	ND	27
sec-Butylbenzene	ND	27
1,3-Dichlorobenzene	ND	27
1,2-Dichlorobenzene	ND	27
1,4-Dichlorobenzene	ND	27
1,2,3-Trichloropropane	ND	27
n-Butylbenzene	ND	27
4-Isopropyltoluene	ND	27
Naphthalene	ND	27
1,2,4-Trimethylbenzene	ND	27
1,3,5-Trimethylbenzene	ND	27
1,2,3-Trichlorobenzene	ND	27
1,2,4-Trichlorobenzene	ND	27
Methyl-tert-butyl ether (MTBE)	ND	27

Solid Content = 87.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laura Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-1
AMRO I.D.: 14789-04
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	63
Bromomethane	ND	63
Vinyl Chloride	ND	63
Dichlorodifluoromethane	ND	63
Chloroethane	ND	63
Methylene Chloride	ND	25
Trichlorofluoromethane	ND	25
1,1-Dichloroethene	ND	25
Bromochloromethane	ND	25
1,1-Dichloroethane	ND	25
cis-1,2-Dichloroethene	ND	25
trans-1,2-Dichloroethene	ND	25
Chloroform	ND	25
Dibromomethane	ND	25
1,2-Dichloroethane	ND	25
2,2-Dichloropropane	ND	25
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
Bromodichloromethane	ND	25
1,2-Dichloropropane	ND	25
1,1-Dichloropropene	ND	25
Trichloroethene	ND	25
Dibromochloromethane	ND	25
1,1,2-Trichloroethane	ND	25
Benzene	ND	25
1,3-Dichloropropane	ND	25
Bromoform	ND	25
1,1,1,2-Tetrachloroethane	ND	25
Tetrachloroethene	ND	25
1,2-Dibromoethane	ND	25
1,1,2,2-Tetrachloroethane	ND	25
Toluene	ND	25
Chlorobenzene	ND	25
Ethylbenzene	ND	25
Bromobenzene	ND	25
Isopropylbenzene	ND	25
Styrene	ND	25
n-Propylbenzene	ND	25

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-1
AMRO I.D.: 14789-04

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	25
trans-1,3-Dichloropropene	ND	25
Xylene (total)	ND	25
1,2-Dibromo-3-chloropropane	ND	25
tert-Butylbenzene	ND	25
2-Chlorotoluene	ND	25
Hexachlorobutadiene	ND	25
4-Chlorotoluene	ND	25
sec-Butylbenzene	ND	25
1,3-Dichlorobenzene	ND	25
1,2-Dichlorobenzene	ND	25
1,4-Dichlorobenzene	ND	25
1,2,3-Trichloropropane	ND	25
n-Butylbenzene	ND	25
4-Isopropyltoluene	ND	25
Naphthalene	ND	25
1,2,4-Trimethylbenzene	ND	25
1,3,5-Trimethylbenzene	ND	25
1,2,3-Trichlorobenzene	ND	25
1,2,4-Trichlorobenzene	ND	25
Methyl-tert-butyl ether (MTBE)	ND	25

Solid Content = 85.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laura Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-4
AMRO I.D.: 14789-05
Date sampled: 12/03/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	180
Bromomethane	ND	180
Vinyl Chloride	ND	180
Dichlorodifluoromethane	ND	180
Chloroethane	ND	180
Methylene Chloride	ND	70
Trichlorofluoromethane	ND	70
1,1-Dichloroethene	ND	70
Bromochloromethane	ND	70
1,1-Dichloroethane	ND	70
cis-1,2-Dichloroethene	ND	70
trans-1,2-Dichloroethene	ND	70
Chloroform	ND	70
Dibromomethane	ND	70
1,2-Dichloroethane	ND	70
2,2-Dichloropropane	ND	70
1,1,1-Trichloroethane	ND	70
Carbon Tetrachloride	ND	70
Bromodichloromethane	ND	70
1,2-Dichloropropane	ND	70
1,1-Dichloropropene	ND	70
Trichloroethene	ND	70
Dibromochloromethane	ND	70
1,1,2-Trichloroethane	ND	70
Benzene	ND	70
1,3-Dichloropropane	ND	70
Bromoform	ND	70
1,1,1,2-Tetrachloroethane	ND	70
Tetrachloroethene	ND	70
1,2-Dibromoethane	ND	70
1,1,2,2-Tetrachloroethane	ND	70
Toluene	ND	70
Chlorobenzene	ND	70
Ethylbenzene	ND	70
Bromobenzene	ND	70
Isopropylbenzene	ND	70
Styrene	ND	70
n-Propylbenzene	ND	70

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-4
AMRO I.D.: 14789-05

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	70
trans-1,3-Dichloropropene	ND	70
Xylene (total)	ND	70
1,2-Dibromo-3-chloropropane	ND	70
tert-Butylbenzene	ND	70
2-Chlorotoluene	ND	70
Hexachlorobutadiene	ND	70
4-Chlorotoluene	ND	70
sec-Butylbenzene	ND	70
1,3-Dichlorobenzene	ND	70
1,2-Dichlorobenzene	ND	70
1,4-Dichlorobenzene	ND	70
1,2,3-Trichloropropane	ND	70
n-Butylbenzene	ND	70
4-Isopropyltoluene	ND	70
Naphthalene	ND	70
1,2,4-Trimethylbenzene	ND	70
1,3,5-Trimethylbenzene	ND	70
1,2,3-Trichlorobenzene	ND	70
1,2,4-Trichlorobenzene	ND	70
Methyl-tert-butyl ether (MTBE)	ND	70

Solid Content = 44.3%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laurel Hobbard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-5
AMRO I.D.: 14789-06
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	68
Bromomethane	ND	68
Vinyl Chloride	ND	68
Dichlorodifluoromethane	ND	68
Chloroethane	ND	68
Methylene Chloride	ND	27
Trichlorofluoromethane	ND	27
1,1-Dichloroethene	ND	27
Bromochloromethane	ND	27
1,1-Dichloroethane	ND	27
cis-1,2-Dichloroethene	ND	27
trans-1,2-Dichloroethene	ND	27
Chloroform	ND	27
Dibromomethane	ND	27
1,2-Dichloroethane	ND	27
2,2-Dichloropropane	ND	27
1,1,1-Trichloroethane	ND	27
Carbon Tetrachloride	ND	27
Bromodichloromethane	ND	27
1,2-Dichloropropane	ND	27
1,1-Dichloropropene	ND	27
Trichloroethene	ND	27
Dibromochloromethane	ND	27
1,1,2-Trichloroethane	ND	27
Benzene	ND	27
1,3-Dichloropropane	ND	27
Bromoform	ND	27
1,1,1,2-Tetrachloroethane	ND	27
Tetrachloroethene	ND	27
1,2-Dibromoethane	ND	27
1,1,2,2-Tetrachloroethane	ND	27
Toluene	ND	27
Chlorobenzene	ND	27
Ethylbenzene	ND	27
Bromobenzene	ND	27
Isopropylbenzene	ND	27
Styrene	ND	27
n-Propylbenzene	ND	27

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-5
AMRO I.D.: 14789-06

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	27
trans-1,3-Dichloropropene	ND	27
Xylene (total)	ND	27
1,2-Dibromo-3-chloropropane	ND	27
tert-Butylbenzene	ND	27
2-Chlorotoluene	ND	27
Hexachlorobutadiene	ND	27
4-Chlorotoluene	ND	27
sec-Butylbenzene	ND	27
1,3-Dichlorobenzene	ND	27
1,2-Dichlorobenzene	ND	27
1,4-Dichlorobenzene	ND	27
1,2,3-Trichloropropane	ND	27
n-Butylbenzene	ND	27
4-Isopropyltoluene	ND	27
Naphthalene	ND	27
1,2,4-Trimethylbenzene	ND	27
1,3,5-Trimethylbenzene	ND	27
1,2,3-Trichlorobenzene	ND	27
1,2,4-Trichlorobenzene	ND	27
Methyl-tert-butyl ether (MTBE)	ND	27

Solid Content = 90.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laura Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-6
AMRO I.D.: 14789-07
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	61
Bromomethane	ND	61
Vinyl Chloride	ND	61
Dichlorodifluoromethane	ND	61
Chloroethane	ND	61
Methylene Chloride	ND	24
Trichlorofluoromethane	ND	24
1,1-Dichloroethene	ND	24
Bromochloromethane	ND	24
1,1-Dichloroethane	ND	24
cis-1,2-Dichloroethene	ND	24
trans-1,2-Dichloroethene	ND	24
Chloroform	ND	24
Dibromomethane	ND	24
1,2-Dichloroethane	ND	24
2,2-Dichloropropane	ND	24
1,1,1-Trichloroethane	ND	24
Carbon Tetrachloride	ND	24
Bromodichloromethane	ND	24
1,2-Dichloropropane	ND	24
1,1-Dichloropropene	ND	24
Trichloroethene	ND	24
Dibromochloromethane	ND	24
1,1,2-Trichloroethane	ND	24
Benzene	ND	24
1,3-Dichloropropane	ND	24
Bromoform	ND	24
1,1,1,2-Tetrachloroethane	ND	24
Tetrachloroethene	ND	24
1,2-Dibromoethane	ND	24
1,1,2,2-Tetrachloroethane	ND	24
Toluene	ND	24
Chlorobenzene	ND	24
Ethylbenzene	ND	24
Bromobenzene	ND	24
Isopropylbenzene	ND	24
Styrene	ND	24
n-Propylbenzene	ND	24

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-6
AMRO I.D.: 14789-07

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	24
trans-1,3-Dichloropropene	ND	24
Xylene (total)	ND	24
1,2-Dibromo-3-chloropropane	ND	24
tert-Butylbenzene	ND	24
2-Chlorotoluene	ND	24
Hexachlorobutadiene	ND	24
4-Chlorotoluene	ND	24
sec-Butylbenzene	ND	24
1,3-Dichlorobenzene	ND	24
1,2-Dichlorobenzene	ND	24
1,4-Dichlorobenzene	ND	24
1,2,3-Trichloropropane	ND	24
n-Butylbenzene	ND	24
4-Isopropyltoluene	ND	24
Naphthalene	ND	24
1,2,4-Trimethylbenzene	ND	24
1,3,5-Trimethylbenzene	ND	24
1,2,3-Trichlorobenzene	ND	24
1,2,4-Trichlorobenzene	ND	24
Methyl-tert-butyl ether (MTBE)	ND	24

Solid Content = 88.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
WS-7
AMRO I.D.: 14789-08
Date sampled: 12/04/96 Date received: 12/06/96
Date prepared: 12/11/96 Date analyzed: 12/11/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	68
Bromomethane	ND	68
Vinyl Chloride	ND	68
Dichlorodifluoromethane	ND	68
Chloroethane	ND	68
Methylene Chloride	ND	27
Trichlorofluoromethane	ND	27
1,1-Dichloroethene	ND	27
Bromochloromethane	ND	27
1,1-Dichloroethane	ND	27
cis-1,2-Dichloroethene	ND	27
trans-1,2-Dichloroethene	ND	27
Chloroform	ND	27
Dibromomethane	ND	27
1,2-Dichloroethane	ND	27
2,2-Dichloropropane	ND	27
1,1,1-Trichloroethane	ND	27
Carbon Tetrachloride	ND	27
Bromodichloromethane	ND	27
1,2-Dichloropropane	ND	27
1,1-Dichloropropene	ND	27
Trichloroethene	ND	27
Dibromochloromethane	ND	27
1,1,2-Trichloroethane	ND	27
Benzene	ND	27
1,3-Dichloropropane	ND	27
Bromoform	ND	27
1,1,1,2-Tetrachloroethane	ND	27
Tetrachloroethene	ND	27
1,2-Dibromoethane	ND	27
1,1,2,2-Tetrachloroethane	ND	27
Toluene	ND	27
Chlorobenzene	ND	27
Ethylbenzene	ND	27
Bromobenzene	ND	27
Isopropylbenzene	ND	27
Styrene	ND	27
n-Propylbenzene	ND	27

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: WS-7
AMRO I.D.: 14789-08

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	27
trans-1,3-Dichloropropene	ND	27
Xylene (total)	ND	27
1,2-Dibromo-3-chloropropane	ND	27
tert-Butylbenzene	ND	27
2-Chlorotoluene	ND	27
Hexachlorobutadiene	ND	27
4-Chlorotoluene	ND	27
sec-Butylbenzene	ND	27
1,3-Dichlorobenzene	ND	27
1,2-Dichlorobenzene	ND	27
1,4-Dichlorobenzene	ND	27
1,2,3-Trichloropropane	ND	27
n-Butylbenzene	ND	27
4-Isopropyltoluene	ND	27
Naphthalene	ND	27
1,2,4-Trimethylbenzene	ND	27
1,3,5-Trimethylbenzene	ND	27
1,2,3-Trichlorobenzene	ND	27
1,2,4-Trichlorobenzene	ND	27
Methyl-tert-butyl ether (MTBE)	ND	27

Solid Content = 91.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: DM

Approved by Laura L. Stewart FOR
Nancy Stewart

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

1-6-92

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
9423.0 A	BRA / DEC Parcel P-3	MA

Samplers (Signature): Andrew D. Wise

PAGE 1 OF 2

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX Water - A Soil/Solid-S Waste-W Other-O Explain	VOC 8260	TPH GC/FID	PAH 8100 RCRA 8 Metals				Remarks
	12/3	09:30		X	WS - 1	G-2oz-1	S	X						B-1 8.5 - 10.5'
	12/3	09:30		X	WS - 1	G-8oz-1	S		X					
	12/3	09:00		X	WS - 2	G-2oz-1	S	X						
	12/3	09:00		X	WS - 2	G-8oz-1	S		X					B-6 10 - 12'
	12/3	09:00		X	WS - 2	G-8oz-1	S			X				
	12/3	11:00		X	WS - 3	G-2oz-1	S	X						
	12/3	11:00		X	WS - 3	G-8oz-1	S		X					B-11 15 - 17'
	12/3	11:00		X	WS - 3	G-8oz-1	S			X				
	12/3	12:00		X	WS - 4	G-2oz-1	S	X						B-10 10 - 12'
	12/3	12:00		X	WS - 4	G-8oz-1	S		X					

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ **T.A.T. authorized by:**_____

Relinquished by (Signature)	Date/Time 12/5/96 16:55	Received by (Signature)	☐ Fax to (phone)	Send Results to: Weston & Sampson 5 Centennial Drive Peabody, Mass. 01960 George D. Nastas
Relinquished by (Signature) Margaret Cameron	Date Time 12/6/96 14:20	Received by (Signature)	Results needed / PO#	
Relinquished by (Signature)	Date Time	Received by (Signature)	AMRO Project No. 1478 9	Remarks
Relinquished by (Signature)	Date Time 12/6/96	Received for Laboratory by: (Signature)	Seal Intact? Yes No N/A	

White - Lab copy Yellow - Client copy

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16993

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	BEA / FDIC Parcel P-3	MA

Samplers (Signature): Andrew D. Wise

PAGE 2 OF 2

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX (Water-A, Soil/Solid-S, Waste-W, Other-O Explain)	VOC 8260	TPH GC/FID	PAH 8100 & Metals RCRA				Remarks
	12/4	07:45		X	WS-5	G-20z-1	S	X						B-15 10-12'
	12/4	07:45		X	WS-5	G-80z-1	S		X					
	12/4	09:15		X	WS-6	G-20z-1	S	X						B-13 10-12'
	12/4	09:15		X	WS-6	G-80z-1	S		X					
	12/4	10:40		X	WS-~~X~~7	G-20z-1	S	X						B-14 10-12'
	12/4	10:40		X	WS-7	G-80z-1	S		X					
	12/5	11:00		X	WS-11	G-20z-1	S	X						B-12 20-22'
	12/5	11:00		X	WS-11	G-80z-1	S		X					
	12/5	11:00		X	WS-11	G-80z-1	S			X				B-12 10-12'

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO. _____ **T.A.T. authorized by:** _____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	~~12/6/96~~ 12/5/96 16:35	George D. Wooles
Margaret Cameron	Date Time 12/6/96 14:10	
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 17:00	Received for Laboratory by: (Signature)

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 14789

Seal Intact? Yes No N/A

Send Results to:
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
George D. Wooles

Remarks

Yellow & Comments report — Pink: Client copy

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the ***Chemical Analysis of Potable and Non-Potable Water***

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96
Issued

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

December 11, 1996

Mr. George Naslas
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

RE Your project: 96230.A BRA/EDIC Parcel P-3

Dear George:

Enclosed please find the results for the above-referenced project, received on November 27, 1996. AMRO operates a Quality Control Program which meets or exceeds EPA and state requirements. A copy of the appropriate State Certificate is attached. No quality control deviations were noted during the analyses associated with this project. This project was assigned AMRO Project Number 14729. If you have any questions regarding this project in the future, please refer to this number.

Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample. If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This letter is an integral part of your data report.

Please do not hesitate to call if you have any questions.

Sincerely,

Laurel Stockland FOR

Nancy Stewart
Laboratory Director

Encl.

AMRO

AMRO Environmental Laboratory Report Page 1 of 2

Client:
Weston & Sampson Engineers
5 Centennial Drive
Peabody, MA 01960

Client Designation:
96230.A BRA/EDIC Parcel P-3

Attn: Mr. George Naslas

Samples Qty/Type: 3/Solid

AMRO Designation: 14729
Date Sampled: 11/27/96
Date Rec'vd: 11/27/96
Date Complete: 12/09/96
COC #: 16991

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
TP-1	14729-01	Total Solids	67.1	%	12/02/96	LP	2540G
		Digestion			12/04/96	JB	3050
		Arsenic, Total	4.4	mg/Kg	12/09/96	EL	6010
		Barium, Total	72.	mg/Kg	12/09/96	EL	6010
		Cadmium, Total	<3.3	mg/Kg	12/09/96	EL	6010
		Chromium, Total	27.	mg/Kg	12/09/96	EL	6010
		Lead, Total	120.	mg/Kg	12/09/96	EL	6010
		Mercury, Total	<0.022	mg/Kg	12/04/96	RK	7471
		Selenium, Total	<3.3	mg/Kg	12/09/96	EL	6010
		Digestion			12/04/96	JB	3005
		Silver, Total	<3.3	mg/Kg	12/09/96	EL	6010
TP-4	14729-02	Total Solids	82.8	%	12/02/96	LP	2540G
		Digestion			12/04/96	JB	3050
		Arsenic, Total	7.8	mg/Kg	12/09/96	EL	6010
		Barium, Total	160.	mg/Kg	12/09/96	EL	6010
		Cadmium, Total	<2.7	mg/Kg	12/09/96	EL	6010
		Chromium, Total	14.	mg/Kg	12/09/96	EL	6010
		Lead, Total	980.	mg/Kg	12/09/96	EL	6010
		Mercury, Total	0.204	mg/Kg	12/03/96	RK	7471
		Selenium, Total	<2.7	mg/Kg	12/09/96	EL	6010
		Digestion			12/04/96	JB	3005
		Silver, Total	<2.6	mg/Kg	12/09/96	EL	6010
TP-5	14729-03	Total Solids	82.6	%	12/02/96	LP	2540G
		Digestion			12/04/96	JB	3050
		Arsenic, Total	7.3	mg/Kg	12/09/96	EL	6010
		Barium, Total	240.	mg/Kg	12/09/96	EL	6010
		Cadmium, Total	4.5	mg/Kg	12/09/96	EL	6010
		Chromium, Total	23.	mg/Kg	12/09/96	EL	6010
		Lead, Total	520.	mg/Kg	12/09/96	EL	6010
		Mercury, Total	3.07	mg/Kg	12/03/96	RK	7471
		Selenium, Total	<2.6	mg/Kg	12/09/96	EL	6010

Continued next page . . .

AMRO

AMRO Environmental Laboratory Report

Sample Identity	AMRO Identity	Test Parameter	Results	Units	Date of Analysis	Run by	EPA Method
TP-5	14729-03	Digestion			12/04/96	JB	3005
		Silver, Total	<2.8	mg/Kg	12/09/96	EL	6010

Results are in dry weight.
All analyses performed in accordance with:
USEPA Methods of Chemical Analysis for Water & Waste.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992. and USEPA SW846 Manual, 3rd. ed.
The following standard abbreviations and conventions apply throughout all sections:
< = 'Less than' followed by the detection limit.
> = 'Greater than'

Certified by: Laurie Hobbard FOR
Paula Benham

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A BRA/EDIC Parcel P-3
TP-1
AMRO I.D.: 14729-01
Date sampled: 11/27/96 Date received: 11/[illegible]/96
Date prepared: 12/02/96 Date analyzed: 12/04/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	72
Kerosene	ND	72
Mineral Spirits	ND	72
Fuel Oil #2/Diesel	8,400 *	72
Fuel Oil #4	ND	72
Fuel Oil #6	ND	140
Motor Oil/Hydraulic Oil	ND	72

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 67.1%. Results are in dry weight.

Comments: * = Weathered.

ND = Not Detected at or above the reporting limit.

Analyzed By: MM

Approved by Laurel Hoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A BRA/EDIC Parcel P-3
TP-4
AMRO I.D.: 14729-02
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 12/02/96 Date analyzed: 12/03/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	58
Kerosene	ND	58
Mineral Spirits	ND	58
Fuel Oil #2/Diesel	ND	58
Fuel Oil #4	ND	58
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	ND	58

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 82.2%. Results are in dry weight.

Comments:

ND = Not Detected at or above the reporting limit.

Analyzed By: JK

Approved by Laurel Hoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A BRA/EDIC Parcel P-3
TP-5
AMRO I.D.: 14729-03
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 12/02/96 Date analyzed: 12/03/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	59
Kerosene	ND	59
Mineral Spirits	ND	59
Fuel Oil #2/Diesel	ND	59
Fuel Oil #4	ND	59
Fuel Oil #6	ND	120
Motor Oil/Hydraulic Oil	500	59

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 82.6%. Results are in dry weight.

Comments: Polynuclear Aromatic Hydrocarbons present.

ND = Not Detected at or above the reporting limit.

Analyzed By: MM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

Petroleum Hydrocarbons by Gas Chromatography
EPA Method 8100 (Modified)

Client: Weston & Sampson Engineers
Client I D.: 96230.A BRA/EDIC Parcel P-3
TP-7
AMRO I.D.: 14729-04
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 12/02/96 Date analyzed: 12/04/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (mg/kg)	Reporting Limit(mg/kg)
Gasoline	ND	52
Kerosene	ND	52
Mineral Spirits	ND	52
Fuel Oil #2/Diesel	150 *	52
Fuel Oil #4	ND	52
Fuel Oil #6	ND	100
Motor Oil/Hydraulic Oil	920	52

Gasoline results are provided for screening purposes only. The recommended procedure for gasoline analysis is a modified EPA 8015 or 8240 (purge and trap).
Solid Content = 92.4%. Results are in dry weight.

Comments: Polynuclear Aromatic Hydrocarbons present.
* = Weathered.

ND = Not Detected at or above the reporting limit.

Analyzed By: MM Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-1
AMRO I.D.: 14729-01
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/03/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
Naphthalene	1,000	360
2-Methylnaphthalene	23,000	360
Acenaphthylene	800	360
Acenaphthene	3,400	360
Fluorene	3,900	360
Phenanthrene	11,000	360
Anthracene	2,700	360
Fluoranthene	4,100	360
Pyrene	4,100	360
Benzo[a]anthracene	1,500	360
Chrysene	1,700	360
Benzo[b]fluoranthene	1,200	360
Benzo[k]fluoranthene	1,300	360
Benzo[a]pyrene	1,400	360
Dibenzo[a,h]anthracene	ND	720
Benzo[g,h,i]perylene	ND	720
Indeno[1,2,3-cd]pyrene	ND	720

Solid Content = 67.1 %. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-4
AMRO I.D.: 14729-02
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/03/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
Naphthalene	130	59
2-Methylnaphthalene	60	59
Acenaphthylene	ND	59
Acenaphthene	180	59
Fluorene	200	59
Phenanthrene	1,500	59
Anthracene	440	59
Fluoranthene	1,600	59
Pyrene	1,400	59
Benzo[a]anthracene	630	59
Chrysene	690	59
Benzo[b]fluoranthene	560	59
Benzo[k]fluoranthene	550	59
Benzo[a]pyrene	610	59
Dibenzo[a,h]anthracene	ND	120
Benzo[g,h,i]perylene	190	120
Indeno[1,2,3-cd]pyrene	200	120

Solid Content = 82.8 %. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-5
AMRO I.D.: 14729-03
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/03/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
Naphthalene	8,200	1,500
2-Methylnaphthalene	4,300	1,500
Acenaphthylene	2,000	1,500
Acenaphthene	12,000	1,500
Fluorene	11,000	1,500
Phenanthrene	93,000	1,500
Anthracene	21,000	1,500
Fluoranthene	92,000	1,500
Pyrene	82,000	1,500
Benzo[a]anthracene	38,000	1,500
Chrysene	44,000	1,500
Benzo[b]fluoranthene	34,000	1,500
Benzo[k]fluoranthene	35,000	1,500
Benzo[a]pyrene	39,000	1,500
Dibenzo[a,h]anthracene	4,700	2,900
Benzo[g,h,i]perylene	13,000	2,900
Indeno[1,2,3-cd]pyrene	14,000	2,900

Solid Content = 82.6 %. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: NM

Approved by Laurel Hadland FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-1
AMRO I.D.: 14729-01
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/10/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
Chloromethane	ND	86
Bromomethane	ND	86
Vinyl Chloride	ND	86
Dichlorodifluoromethane	ND	86
Chloroethane	ND	86
Methylene Chloride	ND	34
Trichlorofluoromethane	ND	34
1,1-Dichloroethene	ND	34
Bromochloromethane	ND	34
1,1-Dichloroethane	ND	34
cis-1,2-Dichloroethene	ND	34
trans-1,2-Dichloroethene	ND	34
Chloroform	ND	34
Dibromomethane	ND	34
1,2-Dichloroethane	ND	34
2,2-Dichloropropane	ND	34
1,1,1-Trichloroethane	ND	34
Carbon Tetrachloride	ND	34
Bromodichloromethane	ND	34
1,2-Dichloropropane	ND	34
1,1-Dichloropropene	ND	34
Trichloroethene	ND	34
Dibromochloromethane	ND	34
1,1,2-Trichloroethane	ND	34
Benzene	ND	34
1,3-Dichloropropane	ND	34
Bromoform	ND	34
1,1,1,2-Tetrachloroethane	ND	34
Tetrachloroethene	ND	34
1,2-Dibromoethane	ND	34
1,1,2,2-Tetrachloroethane	ND	34
Toluene	ND	34
Chlorobenzene	ND	34
Ethylbenzene	ND	34
Bromobenzene	ND	34
Isopropylbenzene	330	34
Styrene	ND	34
n-Propylbenzene	760	34

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: TP-1
AMRO I.D.: 14729-01

Test Parameter	Results (ug/kg)	Reporting Limit (ug/kg)
cis-1,3-Dichloropropene	ND	34
trans-1,3-Dichloropropene	ND	34
Xylene (total)	32	34
1,2-Dibromo-3-chloropropane	ND	34
tert-Butylbenzene	36	34
2-Chlorotoluene	ND	34
Hexachlorobutadiene	ND	34
4-Chlorotoluene	ND	34
sec-Butylbenzene	270	34
1,3-Dichlorobenzene	ND	34
1,2-Dichlorobenzene	ND	34
1,4-Dichlorobenzene	ND	34
1,2,3-Trichloropropane	ND	34
n-Butylbenzene	470	34
4-Isopropyltoluene	ND	34
Naphthalene	160	34
1,2,4-Trimethylbenzene	70	34
1,3,5-Trimethylbenzene	ND	34
1,2,3-Trichlorobenzene	ND	34
1,2,4-Trichlorobenzene	ND	34
Methyl-tert-butyl ether (MTBE)	ND	34

Solid Content = 67.1%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: SK

Approved by Laurel Hoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-4
AMRO I.D.: 14729-02
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/10/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	65
Bromomethane	ND	65
Vinyl Chloride	ND	65
Dichlorodifluoromethane	ND	65
Chloroethane	ND	65
Methylene Chloride	ND	26
Trichlorofluoromethane	ND	26
1,1-Dichloroethene	ND	26
Bromochloromethane	ND	26
1,1-Dichloroethane	ND	26
cis-1,2-Dichloroethene	ND	26
trans-1,2-Dichloroethene	ND	26
Chloroform	ND	26
Dibromomethane	ND	26
1,2-Dichloroethane	ND	26
2,2-Dichloropropane	ND	26
1,1,1-Trichloroethane	ND	26
Carbon Tetrachloride	ND	26
Bromodichloromethane	ND	26
1,2-Dichloropropane	ND	26
1,1-Dichloropropene	ND	26
Trichloroethene	ND	26
Dibromochloromethane	ND	26
1,1,2-Trichloroethane	ND	26
Benzene	87	26
1,3-Dichloropropane	ND	26
Bromoform	ND	26
1,1,1,2-Tetrachloroethane	ND	26
Tetrachloroethene	ND	26
1,2-Dibromoethane	ND	26
1,1,2,2-Tetrachloroethane	ND	26
Toluene	ND	26
Chlorobenzene	ND	26
Ethylbenzene	ND	26
Bromobenzene	ND	26
Isopropylbenzene	ND	26
Styrene	ND	26
n-Propylbenzene	ND	26

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: TP-4
AMRO I.D.: 14729-02

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	26
trans-1,3-Dichloropropene	ND	26
Xylene (total)	ND	26
1,2-Dibromo-3-chloropropane	ND	26
tert-Butylbenzene	ND	26
2-Chlorotoluene	ND	26
Hexachlorobutadiene	ND	26
4-Chlorotoluene	ND	26
sec-Butylbenzene	ND	26
1,3-Dichlorobenzene	ND	26
1,2-Dichlorobenzene	ND	26
1,4-Dichlorobenzene	ND	26
1,2,3-Trichloropropane	ND	26
n-Butylbenzene	ND	26
4-Isopropyltoluene	ND	26
Naphthalene	ND	26
1,2,4-Trimethylbenzene	ND	26
1,3,5-Trimethylbenzene	ND	26
1,2,3-Trichlorobenzene	ND	26
1,2,4-Trichlorobenzene	ND	26
Methyl-tert-butyl ether (MTBE)	ND	26

Solid Content = 82.8%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: SK

Approved by Laurel Hoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-5
AMRO I.D.: 14729-03
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/10/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	76
Bromomethane	ND	76
Vinyl Chloride	ND	76
Dichlorodifluoromethane	ND	76
Chloroethane	ND	76
Methylene Chloride	ND	30
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
Bromochloromethane	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Dibromomethane	ND	30
1,2-Dichloroethane	ND	30
2,2-Dichloropropane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon Tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
1,1-Dichloropropene	ND	30
Trichloroethene	ND	30
Dibromochloromethane	ND	30
1,1,2-Trichloroethane	ND	30
Benzene	ND	30
1,3-Dichloropropane	ND	30
Bromoform	ND	30
1,1,1,2-Tetrachloroethane	ND	30
Tetrachloroethene	ND	30
1,2-Dibromoethane	ND	30
1,1,2,2-Tetrachloroethane	ND	30
Toluene	ND	30
Chlorobenzene	ND	30
Ethylbenzene	ND	30
Bromobenzene	ND	30
Isopropylbenzene	ND	30
Styrene	ND	30
n-Propylbenzene	ND	30

Cont. next page

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: TP-5
AMRO I.D.: 14729-03

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	30
trans-1,3-Dichloropropene	ND	30
Xylene (total)	ND	30
1,2-Dibromo-3-chloropropane	ND	30
tert-Butylbenzene	ND	30
2-Chlorotoluene	ND	30
Hexachlorobutadiene	ND	30
4-Chlorotoluene	ND	30
sec-Butylbenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2,3-Trichloropropane	ND	30
n-Butylbenzene	ND	30
4-Isopropyltoluene	ND	30
Naphthalene	150	30
1,2,4-Trimethylbenzene	ND	30
1,3,5-Trimethylbenzene	ND	30
1,2,3-Trichlorobenzene	ND	30
1,2,4-Trichlorobenzene	ND	30
Methyl-tert-butyl ether (MTBE)	ND	30

Solid Content = 82.6%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: SK

Approved by Laurel Stoddard FOR
Nancy Stewart

AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: 96230.A BRA/EDIC Parcel P-3
TP-7
AMRO I.D.: 14729-04
Date sampled: 11/27/96 Date received: 11/27/96
Date prepared: 11/29/96 Date analyzed: 12/10/96
Sample Qty/Type: 1/Solid

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
Chloromethane	ND	68
Bromomethane	ND	68
Vinyl Chloride	ND	68
Dichlorodifluoromethane	ND	68
Chloroethane	ND	68
Methylene Chloride	ND	27
Trichlorofluoromethane	ND	27
1,1-Dichloroethene	ND	27
Bromochloromethane	ND	27
1,1-Dichloroethane	ND	27
cis-1,2-Dichloroethene	ND	27
trans-1,2-Dichloroethene	ND	27
Chloroform	ND	27
Dibromomethane	ND	27
1,2-Dichloroethane	ND	27
2,2-Dichloropropane	ND	27
1,1,1-Trichloroethane	ND	27
Carbon Tetrachloride	ND	27
Bromodichloromethane	ND	27
1,2-Dichloropropane	ND	27
1,1-Dichloropropene	ND	27
Trichloroethene	ND	27
Dibromochloromethane	ND	27
1,1,2-Trichloroethane	ND	27
Benzene	ND	27
1,3-Dichloropropane	ND	27
Bromoform	ND	27
1,1,1,2-Tetrachloroethane	ND	27
Tetrachloroethene	ND	27
1,2-Dibromoethane	ND	27
1,1,2,2-Tetrachloroethane	ND	27
Toluene	ND	27
Chlorobenzene	ND	27
Ethylbenzene	ND	27
Bromobenzene	ND	27
Isopropylbenzene	ND	27
Styrene	ND	27
n-Propylbenzene	ND	27

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AMRO

LABORATORY REPORT

EPA Method 8260
Volatile Organic Compounds

Client: Weston & Sampson Engineers
Client I.D.: TP-7
AMRO I.D.: 14729-04

Test Parameter	Results (ug/kg)	Reporting Limit(ug/kg)
cis-1,3-Dichloropropene	ND	27
trans-1,3-Dichloropropene	ND	27
Xylene (total)	ND	27
1,2-Dibromo-3-chloropropane	ND	27
tert-Butylbenzene	ND	27
2-Chlorotoluene	ND	27
Hexachlorobutadiene	ND	27
4-Chlorotoluene	ND	27
sec-Butylbenzene	ND	27
1,3-Dichlorobenzene	ND	27
1,2-Dichlorobenzene	ND	27
1,4-Dichlorobenzene	ND	27
1,2,3-Trichloropropane	ND	27
n-Butylbenzene	ND	27
4-Isopropyltoluene	ND	27
Naphthalene	150	27
1,2,4-Trimethylbenzene	ND	27
1,3,5-Trimethylbenzene	ND	27
1,2,3-Trichlorobenzene	ND	27
1,2,4-Trichlorobenzene	ND	27
Methyl-tert-butyl ether (MTBE)	ND	27

Solid Content = 92.4%. Results are in dry weight.
ND = Not Detected at or above the reporting limit.

Analyzed By: SK

Approved by Laurel Hedland FOR
Nancy Stewart

AMRO Environmental Laboratories Corporation
111 Herrick Street
Merrimack, N.H. 03054
Office: 603-424-2022 Fax: 603-429-8496

16991

CHAIN OF CUSTODY RECORD

Proj. No.	Project Name	Project State
96230.A	BRA / EDIC Parcel P-3	

Samplers (Signature): Andrew D. Wise

PAGE 1 OF 1

Sta. No.	Date	Time	Comp	Grab	Station Location	Type Size, & No. of Containers	MATRIX Water-A Soil/Solid-S Waste-W Other-O Explain	VOC 8260	TPH GC/FID	PAH 8100 RCRA 8 metals				Remarks
	11/27			X	TP-1	G-2oz-1	S	X						
	11/27			X	TP-1	G-8oz-1	S		X					B-4 11.5-12.0'
	11/27			X	TP-1	G-8oz-1	S			X				
	11/27			X	TP-4	G-2oz-1	S	X						
	11/27			X	TP-4	G-8oz-1	S		X					B-5 18.5-19.0'
	11/27			X	TP-4	G-8oz-1	S			X				
	11/27			X	TP-5	G-2oz-1	S	X						
	11/27			X	TP-5	G-8oz-1	S		X					B-8 17.0-17.5'
	11/27			X	TP-5	G-8oz-1	S			X				
	11/27			X	TP-7	G-2oz-1	S	X						B-7 17.5-18.0'
	11/27			X	TP-7	G-8oz-1	S		X					

Please print clearly, legibly and completely. Samples cannot be logged in and the turnaround time clock will not start until any ambiguities are resolved.

Andrew D. Wise

PRIORITY TURNAROUND TIME AUTHORIZATION

Before submitting samples for expedited T.A.T., you must have requested in advance and received a coded **T.A.T. AUTHORIZATION NUMBER.**

AUTHORIZATION NO._____ **T.A.T. authorized by:**_____

Relinquished by (Signature)	Date Time	Received by (Signature)
Andrew D. Wise	11/27/96 15:55	11/27/96 15:55
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time	Received by (Signature)
Relinquished by (Signature)	Date Time 11/27/96 17:40	Received for Laboratory by: (Signature) S. Saunders

☐ Fax to (phone)

Results needed

PO#

AMRO Project No. 14729

Seal Intact? Yes No N/A

Send Results to:
Weston & Sampson
5 Centennial Drive
Peabody, Mass. 01960
George D. Naslas

Remarks

White: Lab copy Yellow: Accompanies report Pink: Client copy

The Commonwealth of Massachusetts

Department of Environmental Protection
Division of Environmental Analysis

Certifies

Laboratory ID #: M-NH012

Amro Environmental Lab
11 Herrick St.
Merrimack, NH 03054

for the ***Chemical Analysis of Potable and Non-Potable Water***

pursuant to 310 CMR 42.00

Laboratory Director: Nancy Stewart

Expiration Date: 06/30/97

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

07/01/96

Issued

APPENDIX F

HYDRAULIC GRADIENT AND VELOCITY CALCULATIONS

Weston & Sampson ENGINEERS, INC.	PROJECT: BRA/EDIC 90230.A	DATE: 2/20/98	PAGE: 1
		BY: G.D. Nastas	
		CHKD. BY: BEE 2/27/98	

HORIZONTAL HYDRAULIC GRADIENTS

PARCEL P-3

Hydraulic Gradient in SW Portion of P-3, Madison Park High School Parking Lot:

ΔH = 85' contour to 84.5' contour = 0.5 Feet
ΔL = 220 Feet.

$$\text{Gradient } (I) = \frac{0.5}{220} = 0.002273 = \underline{\underline{0.0023}} \checkmark$$

Hydraulic Gradient near Connollys Tavern:

ΔH = 86' contour to 85' contour = 1 Foot
ΔL = 50'

$$\text{Gradient } (I) = 1/50 = \underline{\underline{0.02}} \checkmark$$

F079-D1

Weston & Sampson ENGINEERS, INC.	PROJECT: BRA/EDIC 96230.A	DATE: 2/20/98	PAGE: (2)
		BY: G.D. NASIFF	
		CHKD. BY: (BEE) 2/27/98	

GROUNDWATER VELOCITY CALCULATIONS

$$V = \frac{Ki}{n}$$

K = Hydraulic Conductivity

- assumed value of 283 ft/day * Freeze + Cherry 1979 value for silty sand & bottom of till / top organic silt.

$i = 0.0023$ to 0.02

$n = 0.2$ (Prescott, 1984)

a) For i value of 0.0023

$$V = \frac{283 \times 0.0023}{0.2} = 0.03255 \text{ ft/day} \checkmark$$

$$= 11.9 \text{ ft/year} \checkmark$$

b) For i value of 0.02

$$V = \frac{283 \times 0.02}{0.2}$$

$$= 0.283 \text{ ft/day} \checkmark$$

$$= 103.4 \text{ ft/year} \checkmark$$

F079-01

APPENDIX G

NUMERICAL RANKING SYSTEM SCORESHEET