U.S. Army Corps of Engineers

New England District
Concord, Massachusetts

Supplemental Phase II Remedial Investigation of Sites 2, 4, and 6 at the Former Naval Auxiliary Landing Field Charlestown, Rhode Island

Contract No. DACW33-94-D-0009

SUPPLEMENTAL PHASE II STUDY
VOLUME II – Appendices A through E
Task Order No. 36
DCN: CHRI-011501-AAAI

January 2001

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WESTON
MANAGERS DESIGNERS/CONSULTANTS

SUPPLEMENTAL PHASE II STUDY
VOLUME II – APPENDICES A through E
SUPPLEMENTAL PHASE II REMEDIAL INVESTIGATION (PHASE II STUDY) OF SITES 2, 4, AND 6 AT THE FORMER NAVAL AUXILIARY LANDING FIELD (NALF) CHARLESTOWN, RHODE ISLAND

Contract No. DACW33-94-D-0009
Task Order No. 36
DCN: CHRI-011501-AAAI

Prepared for:

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W.O. No. 10971.036.001

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APPENDIX A

SOIL BORING/MONITORING WELL LOGS

WESTON MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB01/ BH301

PROJECT: CHARLESTOWN RI. NALF SITE 6	SHEET NO. 1 OF 1
CLIENT: CENAE	JOB NO. 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. RIG: CME Auger rig 850 ATV	ELEVATION (ground)
	DATE STARTED 10/26/98
	DATE FINISHED 10/26/98
	DRILLER J. DuPlessis
	INSPECTOR V. DelloRusso

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25	2"		
WT.		140		
FALL		30"		

WELL CONSTRUCTION: NO WELL INSTALLED

DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
0	1	1.3	2/10 13/10	Pale gray to dark brown and pale gray silty sand (SM). Slight petroleum odor below 1' depth.	OVM=PID headspace on soil OVM=0.0 at 0-1.3'
	2	1.5	6/5 7/8	Pale yellow brown silty fine sand (SM). No odor or stain. Fill. No odor or stain.	OVM=0.0 at 2-3.5'
5	3	1.3	5/10 14/20	Pale gray silty fine sand (SM). Well sorted, moist, weak petroleum odor, no staining. Fill.	OVM=0.0 at 4-5.3'
	4	1.5	45/53 48/39	Sharp contact at 6.2' depth, possible bottom and fill. Pale yellow brown well graded sand with gravel (SW). Moist, poorly sorted, Wet silt at 6.0-6.2'	OVM=0.0 at 6.0-7.5'
	5	1.3	13/36 22/35	Pale yellow brown, well graded sand w/gravel (SW). Moist, poorly sorted, no odor or stain.	OVM=0.0 at 8-9.3'
10	6	1.7	11/21 83/63	Pale yellow brown, poorly sorted sand (SP). Moist, well sorted medium grained becoming poorly sorted below 10.7'. No odor or stain.	OVM=0.0 at 10-11.7'
	7	0.3	120/0.3	Spoon refusal at 12.3', Augered from 12.3-14'.	OVM=0.0 at 12-12.3'
			AUGERED		OVM=0.0 at 14-15'
15	8	1	56/48 50/38	Pale gray well graded sand. 10% gravel. Moist, poorly sorted, weak petroleum odor, no staining.	
	9	1.7	43/46 45/50	Medium yellow brown well graded sand with silt (SW-SM). 5% gravel. Weak petroleum odor. Saturated below 17.3'. No stain or product.	watertable at 17.3' depth OVM=55ppm at 16-17.7'
	10	1.5	36/43 22/25	Weak petroleum odor, rare dark brown staining in thin layers.	OVM=61ppm at 18-19.5' Soil sample collected at 18-19.5' depth for VOC, SVOC, TPH, Pb, and moisture content. BH301-S019 at 1205
20	11	1.3	22/18 120/0.5	Medium yellow brown well graded sand w/silt (SW-SM). Weak petroleum odor. No stain. Spoon refusal at 21.5' depth. Auger refusal at 22'BGS.	OVM=10ppm at 20-21.3'
			AUGERED	Borehole TD=22'BGS	
25					
30					

WESTON MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB02/ BH302

PROJECT: CHARLESTOWN RI. NALF SITE 6	SHEET NO. 1 OF 1
CLIENT: CENAE	JOB NO. 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. RIG: CME 850 ATV	ELEVATION (ground)
	DATE STARTED 10/26/98
	DATE FINISHED 10/26/98
	DRILLER J. DuPlessis
	INSPECTOR V. DelloRusso

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25	2"		
WT.		140		
FALL		30"		

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
NO WELL INSTALLED	0	1	1.3	6/8	Med. yellow brown, sandy silt (ML). Nonplastic, moist. Organic top soil at 0-0.2'. Black coal cinder at 0.2-0.6'. no odor or stain.	OVM=PID soil headspace
				12/10		OVM=0.0 at 0-1.3'
		2	1.2	6/5	Yellow brown to pale gray sandy silt (ML). Moist, well sorted, fine sand, soft.	
				7/7		OVM=0.0 at 2-3.2'
	5	3	1.3	8/11	Rusty yellow brown, well graded sand w/gravel, (SW) below 4.7'BGS. No odor or stain. Coal cinders above 4.7'BGS. Probable bottom of fill.	OVM=0.0 at 4-5.3'
				17/25		
		4	1.0	67/69	Med. yellow brown, well graded sand w/gravel (SW). Spoon refusal at 7.5' depth, augered to 8'BGS. No odor or stain, moist.	
				120/0.5		OVM=0.0 at 6-7'
				AUGERED		
		5	0.3	12/120/0.2	Spoon refusal at 8.7' on cobbles, augered from 8.7'-10'. Pale yellow sand w/gravel (SW).	OVM=0.0 at 8-8.3'
				AUGERED		
	10	6	1.7	20/30	Pale yellow brown, well graded sand w/gravel (SW). Moist, 15% gravel. Heavily fe-stained at 10.3-10.7' depth, possible organic coating on grains. Possible historic high water table mark. No odor.	OVM=0.0 at 10-11.7' Soil analytical sample collected for VOC, TPH, Pb, moisture and duplicate sample at 10.3-11.7' depth. BH302-S011 at 1555. BH302-S111
				57/39		
		7	0	120/0.5		
	15				Auger refusal at 12.5' depth. Water table not encountered. Borehole TD=12.5'.	
	20					
	25					
	30					

FILE NAME: G:\DES\DWG\ACOE\CHRLSTWN\SB-02.DWG (PLOT 1=6)

WESTON MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB03/ BH303

PROJECT: CHARLESTOWN RI. NALF SITE 6	SHEET NO. 1 OF 1
CLIENT: CENAE	JOB NO. 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. RIG: CME 850 ATV	ELEVATION (ground)
	DATE STARTED 10/26/98
	DATE FINISHED 10/26/98
	DRILLER J. DuPlessis
	INSPECTOR V. DelloRusso

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25	2"		
WT.		140		
FALL		30"		

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
NO WELL INSTALLED	0	1	1.5	8/10	Dark brown to med. graybrown fill. Sandy silt (ML). moist, nonplastic, firm. no odor or stain.	OVM=PID headspace on soil
				10/8		OVM=0.0 at 0-1.5'
		2	1	6/6	Yellow brown to pale gray sandy silt (ML). Well sorted fine sand, moist, nonplastic. No odor or stain.	OVM=0.0 at 2-3'
				9/8		
	5	3	1.3	5/8	Gray brown sandy silt (ML). moist, soft, no odor or stain. Probable fill to 6' depth.	OVM=0.0 at 4-5.3'
				14/28		
		4	0.5	120/0.5	Rusty brown to pale yellow well graded sand with gravel (SW). 15% gravel, fe-stained. No petroleum stain or odor. Auger from 6.5-8'.	spoon refusal at 6.5'
				AUGERED		OVM=0.0 at 6.0-6.5'
		3	1.7	37/48	Yellow brown well graded sand (SW). 10% gravel, moist, loose below 8.3'. Wet silt levels from 8-8.3'. No odor or stain.	OVM=0.0 at 8-9.7'
				38/49		
	10	6	1.5	34/66	Rusty brown to yellow brown well graded sand w/gravel, moist, firm. No odor or stain (SW).	OVM=0.0 at 10-11.5'
				66/54		
		7	1	40/42	Yellow brown well graded sand w/gravel. 20% poorly sorted gravel. Moist, firm, abundant cobbles. No odor or stain.	OVM=0.0 at 12-13'
				36/35		
	15			auger refusal	Auger refusal at 14' depth. Water table not encountered, offset boring 5' to SB03A/BH303A. Borehole TD=14'	No analytical samples collected.
	20					
	25					
	30					

TEST BORING LOG

BORING NO. SB03A/ BH303A

PROJECT: CHARLESTOWN RI. NALF SITE 6	**SHEET NO.** 1 **OF** 1
CLIENT: CENAE	**JOB NO.** 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME 850 ATV	**ELEVATION (ground)**
	DATE STARTED 10/26/98
	DATE FINISHED 10/26/98
	DRILLER J. DuPlessis
	INSPECTOR V. DelloRusso

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25"	2"		
WT.		140lb		
FALL		30"		

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
NO WELL INSTALLED	0			AUGERED INTERVAL	Fill. Augered from 0-4' depth. See log for SB03/BH303 for lithology. Coal cinders common above 4.5' in fill.	OVM=PID soil headspace
	5	1	1.0	8/10 25/30	Fill. Rusty brown to yellow brown silty sand (SM). 5% gravel, moist, firm. No odor or stain. Sharp contract at 4.5' possible bottom of fill.	OVM=0.0 at 4-5'
		2	1.0	60/120/0.5	Yellow brown well graded sand w/gravel (SW) 20% gravel, moist, firm, abundant cobbles. No odor or stain. Spoon refusal at 7' depth.	OVM=0.0 at 6-7'
				AUGERED	Augered from 7-8' depth.	
		3	1.0	11/21 120/0.5 augered	Pale yellow brown well graded sand w/gravel (SW). No odor or stain. Spoon refusal at 9.5'. Augered from 9.5-10'.	OVM=0.0 at 8-9'
	10	4	1.0	12/42 60/0.5 augered	Med. yellow brown well graded sand w/gravel (SW). Moist, firm, cobbles. No odor or stain. Spoon refusal at 11.5'. Augered to 12'.	OVM=0.0 at 10-11'
		5	1.0	27/51 120/0.2 augered	Dark redbrown well graded sand w/gravel (SW) moist. Organic stain on soil, rusty colored, possible petroleum, no odor. Spoon refusal and auger refusal at 13.5' depth. Water table not encountered. Borehole TD=13.5'	OVM=0.0 at 12-13'
	15					Soil analytical sample collected for VOC, TPH, Pb, SVOC, moisture at 12-13.2' depth BH30A-S013 AT 1455
	20					
	25					
	30					

FILE NAME: G:\DES\DWG\ACOE\CHRLSTWN\SB-03A.DWG (PLOT 1=6)

WESTON MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB04/ BH304

PROJECT: CHARLESTOWN RI. NALF SITE 6	**SHEET NO.** 1 **OF** 1
CLIENT: CENAE	**JOB NO.** 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME Auger rig 850 ATV	**ELEVATION (ground)**
GROUNDWATER	**DATE STARTED** 10/27/98
DATE FINISHED 10/27/98	
DRILLER J. DuPlessis	
INSPECTOR V. DelloRusso	

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25"	2"		
WT.		140lb		
FALL		30"		

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
NO WELL INSTALLED	0	1	1.5	8/10	Fill. Dark brown to yellow brown silty sand (SM). rare coal pieces, no stain or odor. Well sorted fine sand, soft, moist.	OVM=PID soil headspace
				10/9		OVM=0.0 at 0-1.5'
		2	1.6	6/6	Pale gray to rusty brown silty sand (SM) fill. Well sorted fine sand.	OVM=0.0 at 2-3.6'
				7/9		
	5	3	1.5	8/14	Pale gray silty sand (SM). Bottom of fill at 4.9' contact w/rusty stained well graded sand with gravel (SW) below.	
				29/39		OVM=0.0 at 4-5.5'
		4	0.9	85/120/0.5	Rusty yellow brown well graded sand w/gravel (SW). Moist, firm, no stain or odor.	Spoon refusal at 7'
				AUGERED		OVM=0.0 at 6-6.9'
		5	1.2	10/24	Med. yellow brown to rusty well graded sand w/gravel (SW). No odor or stain, moist.	OVM=0.0 at 8-9.2'
				64/54		OVM=0.0 at 10-11.1'
	10	6	1.1	12/39	Pale yellow brown well graded sand w/gravel, (SW). Moist, firm, no odor or stain.	
				40/31		
		7	0.6	14/120/0.3	Pale yellow brown well graded sand w/gravel, (SW). Moist, firm, no odor or stain. Augered from 12.8-14'.	OVM=0.0 at 12-12.6'
				AUGERED		
		8	1.5	14/43	Pale gray silty sand (SM) w/little gravel. Wet firm, poorly sorted, med. to fine sand. No odor or stain.	Spoon refusal at 15.8'
	15			57/120/0.3		OVM=0.0 at 14-15.5'
				AUGERED		OVM=0.0 at 16-17'
		9	1.0	49/95/120/0.2	Med. yellow brown well graded sand (SW) w/little gravel and silt. Saturated, firm. No odor, stain or sheen, spoon and auger refusal at 17.2' = Borehole TD.	Saturated below 16.1' Soil analytical sample collected VOC, TPH, Pb, SVOC, moisture and QA samples 16-17' BH304-S017 BH304-S017-QA
	20					
	25					
	30					

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TEST BORING LOG

BORING NO. SB05/ LF201

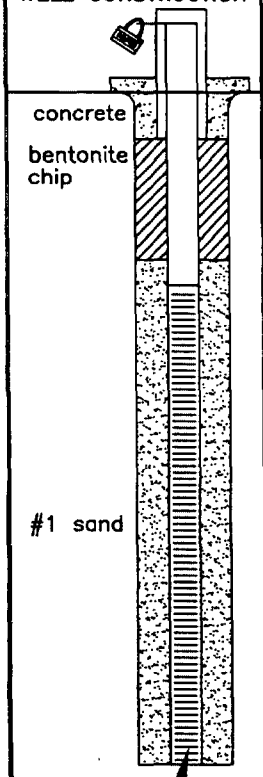
PROJECT: CHARLESTOWN RI. NALF SITE 2	**SHEET NO.** 1 **OF** 1
CLIENT: CENAE	**JOB NO.** 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME 850 ATV	**ELEVATION (ground)**
	DATE STARTED 10/27/98
	DATE FINISHED 10/27/98
	DRILLER J. DuPlessis
	INSPECTOR V. DelloRusso

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25"	2"		
WT.		140lb		
FALL		30"		

WELL CONSTRUCTION



DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
0	1	1.1	4/6	Very dark brown silty sand (SM). Organics and trace gravel fill. Predominantly fine sand, loose moist. No petroleum odor or stain.	OVM=PID soil headspace
			7/7		OVM=0.0 at 0-1.1'
	2	0.7	9/11	Dark brown silty sand (SM) w/trace gravel, poorly sorted sand. Moist, loose, brick fragment, roootlets, natural organic odor.	OVM=0.0 at 2-2.7'
			2/1		
5	3	0.5	6/12		OVM=0.0 at 4-4.5'
			60/51	Med brown silty sand (SM) w/little gravel and organics. Poorly sorted sand, moist, loose. Organic odor, no petroleum odor or stain.	Saturated below 6'.
	4	0.3	29/54		OVM=0.0 at 6-6.3'
			48/11	Pale yellow well graded sand (SW) w/little gravel saturated, loose, cobbles present. No petroleum odor or staining.	
	5	1.5	2/2		
			3/5	Med gray to black sandy silt (ML) w/little organics. Ferid organic odor. Fine sand, saturated, soft, slightly cohesive, pale gray, moderately sorted c-m sand lens at 9.0-9.2' Below 9.2' is gray brown silty sand.	OVM=0.0 at 8-9.5'
10	6	0.8	4/3		Soil analytical sample collected VOC, SVOC, RCRA metals, moisture at 8-9.5'. MS/MSD and QA duplicate collected. LF201-S009 at 1145 LF201-S009-QA
			4/5		
	7	1.2	5/8	Gray brown well graded sand w/silt (SW_SM) and trace gravel. Firm, interlayered w/med. gray to black sandy silt.	
			11/12		OVM=0.0 at 10-10.8'
15				Pale gray to pale yellow well graded sand w/silt (SW_SM) and trace gravel. No stain or odor. Borehole TD=14'	OVM=0.0 at 12-13.2'
20					
25					
30					

Well Construction

Stickup: approx. 2.5'
Borehole TD=14'
Well to 14'

Top/Bottom screen 4'/14'

Sand: #1, 3.5'-14'

Seal: Bentonite chips Hydrated, 1-3.5'

PVC: 2" dia. Sch. 40

Sreen = 10-slot

Protective casting: 4" dia. steel

FILE NAME: G:\DES\DWG\ACOE\CHRLSTWN\SB-05.DWG (PLOT 1=6)

WESTON MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB06/ LF202

PROJECT: CHARLESTOWN RI. NALF SITE 2

SHEET NO. 1 OF 1

CLIENT: CENAE

JOB NO. 10971-036-001

DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME 850 ATV

ELEVATION (ground)

GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25"	2"		
WT.		140lb		
FALL		30"		

DATE STARTED 10/27/98

DATE FINISHED 10/27/98

DRILLER J. DuPlessis

INSPECTOR V. DelloRusso

WELL CONSTRUCTION	DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
NO WELL INSTALLED	0	1	1.5	2/2	Fill. Med. yellow brown silty sand (SM). Well sorted fine sand, soft, moist, earthy odor. Contact at 1.3' w/yellow brown med. sand below, well sorted.	OVM=PID soil headspace
				7/9		OVM=0.0 at 0-1.5'
		2	0.8	10/16	Med. yellow brown, poorly graded sand w/gravel (SP). Predominately, med. sand fill. No odor or stain.	
				17/16		OVM=0.0 at 2-2.8'
	5	3	0.9	10/12	Pale yellow brown poorly graded sand w/gravel (SP), moist, loose, clean fill.	
				13/15		OVM=0.0 at 4-4.9'
		4	1.4	10/12	Gray brown silty sand (SM). Mod. sorted m-f sand trace clay, slightly cohesive. Saturated. Soft. No odor or stain.	Saturated below 6'.
				15/19		Bottom of fill approx. 6'
						OVM=0.0 at 6-7.4'
		5	1.2	9/13	Gray brown silty sand (SM) w/trace gravel and clay. Firm, slightly cohesive.	OVM=0.0 at 8-9.2'
				21/20		
	10	6	0.9	8/14	Contact at 10.3'. Color change. Bright yellow orange silty sand (SM) w/little gravel and clay. Soft poorly sorted sand. No odor or petroleum stain.	
				20/25		OVM=0.0 at 10-10.9'
		7	1.0	6/9	Rusty yellow brown silty sand w/gravel (SM). Loose poorly sorted. No odor or petroleum stain.	
				14/21		OVM=0.0 at 12-13'
	15	8	1.2	8/12	Med. gray brown silty, sand w/gravel (SM). Poorly sorted sand, saturated, loose.	Soil analytical sample collected VOC, SVOC, RCRA metals, moisture and duplicate metals at 12-13'.
				16/25	Borehole TD=16'	
	20					LF202-S013 at 1540 LF202-S113
	25					
	30					

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TEST BORING LOG

BORING NO. SB07/ LF401

PROJECT: CHARLESTOWN RI. NALF SITE 4	**SHEET NO.** 1 **OF** 1
CLIENT: CENAE	**JOB NO.** 10971-036-001
DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME 850 ATV	**ELEVATION (ground)**

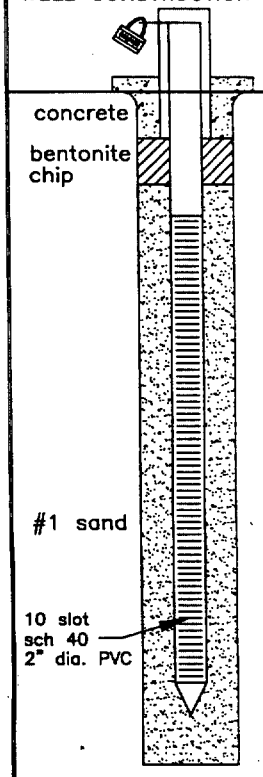
GROUNDWATER

DATE	TIME	WATER ELEVATION	DATUM

	CAS.	SAMP.	CORE	TUBE
TYPE	HSA	SSS		
DIA.	4.25"	2"		
WT.		140lb		
FALL		30"		

DATE STARTED 10/28/98
DATE FINISHED 10/28/98
DRILLER J. DuPlessis
INSPECTOR V. DelloRusso

WELL CONSTRUCTION



DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
0	1	0.7	6/10	Pale yellow brown silty sand (SM) fill. Little gravel poorly sorted sand. Soft, moist. Earthy odor, no stain or petroleum odor.	OVM=PID soil headspace
			15/10		OVM=0.0 at 0-1.7'
	2	0	11/7	No recovery. Bottom of fill between 2'-4'.	
			6/5		
5	3	1.3	2/2	Pale gray sandy silt (ML). Well sorted fine sand. Saturated, soft, no odor. Color change at 5'. Orange silty sand, poorly sorted fe-stained.	Saturated below 4'. OVM=0.0 at 4-5.3'
			3/5		
	4	1.4	12/12	Yellow Orange silty sand w/gravel (SM), poorly sorted sand. Firm, no odor, strong fe-stain.	OVM=0.0 at 6-7.4'
			14/15		
10	5	1.3	7/8	Pale gray to yellow brown sandy silt (ML), well sorted firm sand, soft. Below 8.5' is well graded sand w/silt and gravel (SW-SM), fe-stained, no odor.	Soil analytical sample collected at 6-7.4' for VOC, SVOC, RCRA metals, moisture at 840.
			11/13		
	6	1.0	5/10	Pale gray brown to rusty well graded sand with gravel (SW). No odor, soft.	LF401-S007 OVM=0.0 at 8-9.3'
			13/13		OVM=0.0 at 10-11'
	7	1.0	9/7	Pale gray brown well graded sand w/gravel (SW). Firm, no odor or stain.	OVM=0.0 at 12-13'
			13/12	Borehole TD=14'	
15					
20					
25					
30					

Well Construction

Stickup: approx. 2.5'
Borehole TD=14'
Well to 13'

Top/Bottom screen 2.5/12.5'

Sand: #1, 2'-14'

Seal: Bentonite chips Hydrated, 1-2'.

PVC: 2" dia. Sch. 40

Protective casting: 4" dia. steel

Bottom cap: 6" length, threaded.

FILE NAME: G:\DES\DWG\ACOE\CHRLSTWN\SB-07.DWG (PLOT 1=6)

WESTON
MANAGERS DESIGNERS/CONSULTANTS

TEST BORING LOG

BORING NO. SB08/ LF402

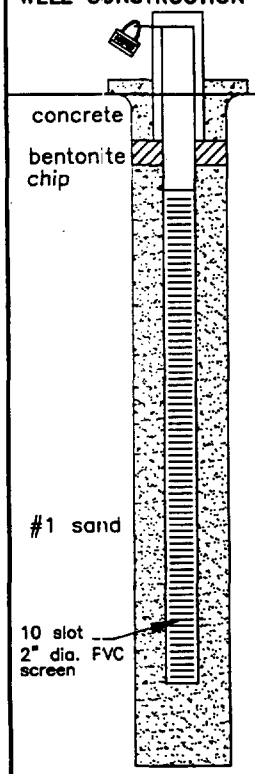
PROJECT: CHARLESTOWN RI, NALF SITE 4 | **SHEET NO.** 1 **OF** 1

CLIENT: CENAE | **JOB NO.** 10971-036-001

DRILLING CONTRACTOR: Environmental Drilling Inc. **RIG:** CME 850 ATV | **ELEVATION (ground)**

GROUNDWATER					CAS.	SAMP.	CORE	TUBE	
DATE	TIME	WATER ELEVATION	DATUM	TYPE	HSA	SSS			DATE STARTED 10/28/98
				DIA.	4.25"	2"			DATE FINISHED 10/28/98
				WT.		140lb			DRILLER J. DuPlessis
				FALL		30"			INSPECTOR V. DelloRusso

WELL CONSTRUCTION



DEPTH (FEET)	SAMPLE NO.	REC. (ft.)	BLOWS PER 6 INCHES	CLASSIFICATION	
0	1	1.3	9/5	Med. brown to yellow silty sand (SM) fill. With trace gravel and organics, moist, firm, earthy odor, no stain.	OVM=PID soil headspace
			11/13		OVM=0.0 at 0-1.3'
					OVM=0.0 at 2-2.7'
	2	0.7	12/10	Med. gray brown to medium gray silty sand (SM). Well sorted fine sand, firm, no odor or stain. Saturated below 2.3'. Bottom of fill between 2-4'.	
			7/5		OVM=0.0 at 4-4.7'
5	3	0.7	6/10	Med. gray brown silty sand (SM) w/little gravel. Firm, poorly sorted sand. No odor or stain.	
			15/10		
	4	1.0	7/16	Med. gray brown well graded sand w/gravel (SW). Loose, no odor or stain.	OVM=0.0 at 6-7'
			14/21		
	5	1.2	9/12	Gray brown well graded sand w/gravel (SW). Loose, subangular, no odor or stain.	OVM=0.0 at 8-9.2' Soil analytical sample collected at 8-9.2' for VOC, SVOC, RCRA metals, and moisture.
			21/15		
10	6	1.0	11/16	Pale gray brown well graded sand (SW) with little gravel. Soft predominantly med. sand. No odor or stain.	
			12/13		LF402-S009 at 1140
	7	1.3	9/12	Pale yellow brown poorly graded sand (SP) with trace silt and gravel. Predominantly fine sand. Firm, runny, moderately sorted. No odor or stain.	OVM=0.0 at 10-11'
			15/16		OVM=0.0 at 12-13.3'
				Borehole TD=14'	
15					
20					
25					
30					

Well Construction

Stickup: approx. 3'
Borehole TD=14'
Well to 12'

Top/Bottom screen 2'/12'

Sand: #1, 1.5'-14'

Seal: Bentonite chips Hydrated, 1-1.5'.

PVC: 2" dia. Sch. 40

Sreen: 10 slot

Protective casting: 4" dia. steel

FILE NAME: G:\DES\DWG\ACOE\CHRLSTWN\SB-08.DWG (PLOT 1=6)

APPENDIX B

FIELD NOTES

10/20/98

V. DeVorsio Site 6

SB01 = BH301

0900 VOR onsite

0915 G. Bliven stopped by. Located Borings using Brunton + Map - Magnetic North

0930 EDI crew onsite - 2 men Dave Ericson / Driller ; Justin DuPlessis Helper

Begin unloading ATV + set up to Drill

945 VOR to keep water level in monitor well CN-09 = ~~19.79~~ 16.79' TIC ≈ 17' Bgs

- Drill to 25' Bgs. To set wells CN09 = TD = 21.3 + 0.3 = 21.6 TIC

N. Odor.

1015 H+S Briefing - Hosp Route - PPE etc

1030 Begin Augers @ SB01

Sampling

VOCs 1x4 oz.

Moisture 1x2 oz

SVOC 1x4 oz

TRPH 1x4 oz

Pb 1x4 oz

Ovm calibrated - possible problem w/ zero ing.

Will order another for tomorrow just in case

Records pin top ok.

1205 Sample collected just below water table

1220 Auger refusal @ 22' possible bedrock.

BH301 - S019 @ 1205

Pull augers + grout borehole w/ cont/bent/soil. No soil drummed.

Soil spread on ground ~~[illegible]~~ Adjacent to borehole

Recalibrated ovm - possible problem w/ zeroing. But seems to read ok.

1245 Grouting complete. Stakes in borehole

Mob to SB03.

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CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 2 | 10 | 13 | 10 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray to Dk brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 60 70 %
SILT: 10 30 60 40 30 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT: Fill
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: Stopped [illegible] odor [illegible] 1.0. [illegible] pale gray

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: NOT SAMPLED
OVERBURDEN: SSS - STS - CTS - CUT - COR
BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE

BLOW COUNT: 6 | 5 | 7 | 8 / IN/CM NA

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 3.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 60 %
SILT: 40 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT: fill
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain. Very fine - silty - also plastic - slightly cohesive. No gravel.

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

BLOW COUNT: 5 | 10 | 14 | 20 / IN/CM NA

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA ole gray
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 60 %
SILT: 40 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Sikeston Formation

NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 2 / 2 INTERVAL 5.3 TO 6
NOT SAMPLED / NO RECOVERY

COMMENTS: [illegible] Hardcore [illegible] petroleum odor, no stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA
BLOW COUNT: 45 | 53 | 48 | 39 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL / UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVA READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 80 %
SILT: 20/50/30 5 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 7.5 to 8
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain. Wet silt layer @ 6-6.2'
poorly sorted sand + gravel below 6.2' sharp contact.
Possibly natural below 6.2'

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 13 | 36 | 22 | 35 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 75 %
SILT: 20/50/30 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMPLITH No. 5+2 INTERVAL 7.3 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: N/A Odor or Stain - Probable Fill

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 1.7 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

BLOW COUNT: 11 | 21 | 83 | 63 / IN/CM NA

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 7
LITHOLOGIC INTERVAL: 10 TO 10.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UNI - STN - MOT - VAR

TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 95 %
SILT: 5/10/25 5 %
CLAY: %
ORGANIC: %

ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA

SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MOI - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA

BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC

TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %

GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD - STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER - HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: Cobbles encountered 10-10.7 is pale yellow moderately sorted med sand
no odor or stain gradational contact w/ poorly sorted sand + gravel
@ 10.7'

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: (SSS) STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 12 (FT/M BGS)
RECOVERY: 1.7 / 2 (FT/M) NA
BLOW COUNT: 11 | 21 | 83 | 63 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 2
LITHOLOGIC INTERVAL: 10.7 TO 11.7 (FT/M BGS) NO RECOVERY

MATERIAL: NATURAL - FILL - (UNCERTAIN)
OBSERVED: SHN - ODR - PRD - (NA) OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: (NA) - BED - CLS - MIX
COLOR: (MUN) - GSA Pale yellow
COLORATION: (UNI) STN - MOT - VAR
TEXTURE:
GRAVEL: C (M - F) 15 %
SAND: (C - M - F) 85 %
SILT: 30/50/20 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - (ANG) - SUB - RND - NA
SAND: (ANG) - SUB - RND - NA
SORTING: WEL - MOD - (POR) - NA
PLASTICITY: (NON) - LOW - MOD - HGH - NA
MOISTURE: DRY - (MST) - WET - SAT
CEMENTATION: (NON) - SLT - MOD - WEL
GRAIN TYPE: QTZ - (FRG) - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - (NA)
STRENGTH: STF - FRM - SFT - (LSE) - NA
UPPER CONTACT: SHP - (GRD) - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - (NA)
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: _____ DATE: _____
SITE: _____ LOGGER: _____
BOREHOLE NO.: _____ SIGNATURE: _____

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER: _____
SAMPLING INTERVAL: 12 TO 14 FT/M BGS
RECOVERY: 0.3 / 0.3 FT/M NA
BLOW COUNT: [ ] [ ] [ ] 120 / 0.3 IN/CM NA

RQD: _____ % NA
WATER ENTRY ZONES: _____ FT/M BGS _____ GPM
_____ FT/M BGS _____ GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 12.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD NA OTHER: _____
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: _____ READING: _____

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C M - F 15 %
SAND: C - M - F 85 %
SILT: 20/60/20 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - VSF - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: _____ IN/CM
NUMBER: _____
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA _____
ROCK TYPE: OTHER: _____
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F _____ %
SAND: C - M - F _____ %
SILT: _____ %
CLAY: _____ %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Poorly Sorted Sand + Gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. _____ INTERVAL 12.3 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 12.3' Augered to 14' No odor or Stain

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GEOLUS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: SBDI / CENAE DATE: 10/2/95
SITE: CLL 246 LOGGER: [illegible]
BOREHOLE NO.: SB21 / B4351 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 14 TO 16 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 56 | 48 | 50 | 38 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 8
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 14 TO 15' FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray
COLORATION: UNP - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 85 %
SILT: 15/35/50 5 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Poorly sorted sand w/ gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: weak petroleum odor. No stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CEMS DATE: 10/26/95
SITE: [illegible] STE 6 LOGGER: V. Bellosiento
BOREHOLE NO.: SB1 [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 16 TO 18 FT/M BGS
RECOVERY: 1.7 / 2 FT/M NA

BLOW COUNT: 43 | 46 | 45 | 50 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: 17.3 FT/M BGS VOT GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 9
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 16 TO 17.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 55 headspace
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA red yellow
COLORATION: UNI - STN - MOT - VAR

TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 85 %
SILT: 25/30/40 10 %
CLAY: %
ORGANIC: %

ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA

SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA

BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC

TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %

GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL: TO
NOT SAMPLED NO RECOVERY

COMMENTS: Saturated below 17.3'. V. [illegible] petroleum odor. Fe-staining
No sheen, no stain or product. More description last.
OVM reading in bottom of sample 17.4-17.7'

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: [illegible]
BOREHOLE NO.: 5B01 / [illegible]
DATE: [illegible]
LOGGER: V. Dellarusso
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

RQD: _____ % NA
WATER ENTRY ZONES: _____ FT/M BGS _____ GPM
_____ FT/M BGS _____ GPM

SAMPLING INTERVAL: 18 TO 20 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE
BH301-5019 | 18 - 19.5 | VOC, SVOC, TPH, PB, MC 12:05

BLOW COUNT: 36 | 43 | 22 | 25 / ____ IN/CM NA

SAMPLING INTERVAL No.: 10
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 18 TO 19.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 61 ppm
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA red yellow brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 85 %
SILT: 20 30/50 10 %
CLAY: ____ %
ORGANIC: ____ %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: ____ IN/CM
NUMBER: ____
TYPE: XBD - RPL - HOR - INC - MS
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F ____ %
SAND: C - M - F ____ %
SILT: ____ %
CLAY: ____ %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. ____ INTERVAL ____ TO ____
NOT SAMPLED NO RECOVERY

COMMENTS: weak petroleum odor see Dellarusso staining in thin layers

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/21/90
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 20 TO 21.5 FT/M BGS
RECOVERY: 1.3 / 1.5 FT/M NA
BLOW COUNT: 22 | 18 | 120 | | / 6.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 11
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 20 TO 21.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 10 ppm
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA BED - CLS - MIX
COLOR: MUN - GSA Dark yellow brown
COLORATION: UNV - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 85 %
SILT: 30/40/30 10 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 21.5' bgs. Weak petroleum odor. No stain, or sheen. Less gravel than last interval. Auger refusal @ 22'.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

Last Page of Logs

SB02 / BH302

10/26/98

V. Dellorlemo

1575 Begin spooning bgs.

1620 Auger Refusal @ 12.5' bgs. Abandon borehole. Mob to SB04

1645 EDI off-site. 1650 VOA off-site - stop by + speak w/ security.

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GEOLIS – NOTES & SKETCH FORM No. 3 063-1290

xviii

CLIENT: CENRS
SITE: SEG G Fuel
BOREHOLE NO.: 3B02 / GW302
DATE: 10/26/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 6 | 8 | 12 | 10 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA medyellbrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F —%
SAND: C - M - F 40%
SILT: 60%
CLAY: —%
ORGANIC: —%
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: 0-0.2 Dk brn organic Top soil, 0.2-0.6 cs Black Coal cinder layer. Below 0.6 is medium yellbrn sandy silt. SL-mod cohesive. Non-plastic No odor or Stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLE DATE: 10/26/98
SITE: CERCLE - SITE G LOGGER: V. Dallegasso
BOREHOLE NO.: SB02 / 18.3 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 2 TO 4 F/M BGS
RECOVERY: 1.2 / 2 F/M NA
BLOW COUNT: 6 5 7 7 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 3.2 F/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA yellow-brown-gray
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F / %
SAND: C - M - F 40 %
SILT: 60 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SF - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Sandy Silt
NOTE LINE:

NEXT INTERVAL: SAMPLITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain - very silty & sandy to sandy silt

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CAMRE DATE: 1/3/26/92
SITE: CAT-STE-6 LOGGER: V. Dellstrusso
BOREHOLE NO.: 3B02-1/BH302 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 8 | 11 | 17 | 25 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: PID READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA rusty yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 10/60/30 — %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY: %

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY: %

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT/M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 3/2 INTERVAL 5.3 TO 6
NOT SAMPLED NO RECOVERY

COMMENTS: Strong contact @ 4.7' bgs. Pale gray sandy silt above and rusty yellow poorly sorted sand & gravel below. No stain or odor → possibly natural below 4.7'. Coal cinders embedded in silt / auger

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CSMAC
SITE: MAF - SEC. 6
BOREHOLE NO.: SB02 / BH3-22
DATE: 12/26/97
LOGGER: E. Sullivan
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 TO 7.5-8 FT/M BGS
RECOVERY: 1.0-1.5 / 1.5-2 FT/M NA
BLOW COUNT: 67 | 69 | 120 | | / 0.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7.0 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA med yl brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C-M-F 15 %
SAND: C-M-F 85 %
SILT: 20/60/20 — %
CLAY: — %
ORGANIC: % %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 7.0 TO 7.8
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 7.5' bgs. Auger to 8' bgs interval 4/3
No odor or stain.

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENRC DATE: 10/26/98
SITE: CRE SITE B LOGGER: V. Dollerhide
BOREHOLE NO.: SB02/PMW02 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 0.3 / 0.7 FT/M NA

BLOW COUNT: 12 | 120 | | | / 0.2 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 8.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UN - STN - MOT - VAR
TEXTURE:
GRAVEL: C-M-F 15 %
SAND: C-M-F 85 %
SILT: 20/30/50 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. / INTERVAL 8.3 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal / solid @ 8.7' bgs. poor sample.
No odor or stain. Cobbles. Augered ok to 10' bgs

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CLIENT: LMAC
SITE: CPC - SITE 6
BOREHOLE NO.: SB02 / BH302
DATE: 10/22/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS · STS · CTS · CUT · COR
NOT SAMPLED
BEDROCK: CUT · COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 1.7 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
BH302-5011	10.3 - 11.7	VOC, TPH, Pb, MC SVOC + Asbestos
BH302-5111	-	

BLOW COUNT: 20 | 30 | 57 | 39 / IN/CM NA

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL · FILL · UNCERTAIN
OBSERVED: SHN · COR · PRD · NA · OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA · BED · CLS · MIX
COLOR: MUN · GSA pale yellow
COLORATION: UNI · STN · MOT · VAR
TEXTURE:
GRAVEL: C · M · F 15 %
SAND: C · M · F 80 %
SILT: 30/50/20 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC · STR · ANG · SUB · RND · NA
SAND: ANG · SUB · RND · NA
SORTING: WEL · MOD · POR · NA
PLASTICITY: NON · LOW · MOD · HGH · NA
MOISTURE: DRY · MST · WET · SAT
CEMENTATION: NON · SLT · MOD · WEL
GRAIN TYPE: QTZ · FRG · FOS · NA
MATRIX: CAL · OXD · ARG · SIL · NA
STRENGTH: STF · FRM · SFT · LSE · NA
UPPER CONTACT: SHP · GRD · DIF · SME · NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD · RPL · HOR · INC · NA
MAS · LNS · LAM · GRU · GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA · BED · CLS · MIX
COLOR: MUN · GSA
ROCK TYPE: OTHER:
SED: SHL · SLT · SST · CGL · LST · DOL · COL
MET: SLA · PHY · SHS · GNS · HRN · QZT · MBL
IGN: GRN · RHY · BSL · GBR · TUF · BRC
TEXTURE: NA
GRAVEL: C · M · F %
SAND: C · M · F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ · FRG · FOS · NA
MATRIX: CAL · OXD · ARG · SIL · ORG · NA
STRENGTH: EWK · VWK · WEK · MOD STR · VST · EST
UPPER CONTACT: SHP · GRD · DIF · SME · NA
SECONDARY POROSITY: VUG · FRC · BED · NA · OTHER HGH · MOD · LOW
WEATHERING: FRS · SLT · MOD · HGH · CPL · NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
-				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
-				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
-				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
-				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH

NEXT INTERVAL: SAMPLING No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: 10.3-10.7 Heavily Fe-stained - possibly a film coating of petroleum staining - came off on gloves. Probably HA STORE Reg. water table work - Gravel particles also appear to have stained. No odor or observed

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GEOLIS – LITHOLOGIC LOGGING FORM 630-0391

CLIENT: CMAS
SITE: CMAS STA. G
BOREHOLE NO.: 5803 / MW03

DATE: 10/26/98
LOGGER: V. Ochoa
SIGNATURE:

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

BLOW COUNT: 8 | 10 | 10 | 8 / IN/CM NA

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - MOD - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA dk brn - medy brn
COLORATION: CN - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F — %
SAND: C - M - F 45 %
SILT: 50 %
CLAY: 5 %
ORGANIC: TR %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NOR - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Sandy silty clay
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL: TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain - slightly cheesy

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CEMF
SITE: CEE SITE 6
BOREHOLE NO.: SB03 / SH303
DATE: 10/26/98
LOGGER: UDRASKUSP
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 1 / 2 F/M NA
BLOW COUNT: 6 6 9 8 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA yellow-pale gray
COLORATION: ON - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F — %
SAND: C - M - F 45 %
SILT: 55 %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT: Sandy silt
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. INTERVAL TO
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: No odor or stain

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENR6 DATE: 10/26/88
SITE: CAT-SITE 6 LOGGER: [illegible]
BOREHOLE NO.: 5803 / BH 302 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 5 | 8 | 14 | 28 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA gray brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F Tr %
SAND: C - M - F 45 %
SILT: 55 %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: probable fill - pale gray in upper part becomes gray brown in lower part to sample. Sandy silt throughout. No odor or stain.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLE DATE: 11/26/96
SITE: CHL-STA 6 LOGGER: V. DELLASKUSA
BOREHOLE NO.: SB03 / GH303 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 0.5 / 0.5 FT/M NA
BLOW COUNT: 120 / 0.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 6.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA (VSTY brn - pale yellow)
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/80/20 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

GRAPHIC LOG

SECONDARY

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT: Poorly sorted Sandy gravel

NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL 6.5 TO 8
NOT SAMPLED NO RECOVERY

COMMENTS: Augered from 6.5-8'. Poor recovery. No stain or odor. Re-stained weathering. Possible natural

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CLIENT: CENAE
SITE: CAE - SAD 6
BOREHOLE NO.: SB03 / GH303
DATE: 10/2/98
LOGGER: W. Geologist
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.7 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

BLOW COUNT: 27 | 48 | 38 | 49 / IN/CM NA

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA yellow brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 90 %
SILT: 10/40/50 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - ESE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Poorly sorted gravelly sand.

NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stains — wet silty lens, pale gray from 8-8.3'
sharp contact @ 8.3 — below is rusty yellow brn poorly sorted sandy gravel. Probably natural below 8.3' bgs.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: OU-SA-6
BOREHOLE NO.: SB03 / GA303
DATE: 10/26/93
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA
BLOW COUNT: 34 | 66 | 66 | 34 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Reddish-yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 ~~45~~ %
SAND: C - M - F 80 ~~55~~ %
SILT: — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRB - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - SED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: No Odor or Stain. Sample Lith no Lost. Tightly packed gravel in sand matrix - poorly sorted.

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/12/98
SITE: [illegible] LOGGER: V. Dillahasso
BOREHOLE NO.: 5B23/5H302 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 12 TO 14 FT/M BGS
RECOVERY: / 2 FT/M NA
BLOW COUNT: 40 | 42 | 36 | 35 / IN/CM NA

RQD: / % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 13 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA yell brw
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 %
SAND: C - M - F 80 %
SILT: 30/50/20 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Poorly sorted Sand w/ gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 7, 2 INTERVAL 13 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: poor recovery. Same as last - abundant cobbles.
No odor or stain.

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: Cyanamid
SITE: Pit-Stack
BOREHOLE NO.: SB03
DATE: 10/26/92
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 14 TO 16 FT/M BGS
RECOVERY: 0 / 2 FT/M NA
BLOW COUNT: / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 8
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 14 TO 16 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING:
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
BED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT/M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: Auger Refusal @ 14' Bgs Pull Forward 5' or so + Drill Again

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

Last Page xi of SB03 Log!

CLIENT: CMAC
SITE: CMC - STC G
BOREHOLE NO.: 5803B
DATE: 10/22/93
LOGGER: V. Dellacchiappa
SIGNATURE: VDA

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 8 | 10 | 25 | 30 / IN/CM NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA very brn-yellbrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 70 %
SILT: 20/80 25 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Silty Fine Sand w/ gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1/1 INTERVAL 0 TO 4
NOT SAMPLED NO RECOVERY

COMMENTS: No cuttings observed in hand auger cuttings. Auger refusal at 4'. No odor or stain.
Top 6" is Dk brn w/ coal fragments - Bottom 6" is very yellbrn
Silty F Sand w/ gravel. SHARP contact @ 4.5' bgs probable bottom of fill.

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLE DATE: 10/26/88
SITE: CEC-SITE 6 LOGGER: V. Dellerson
BOREHOLE NO.: SB03A SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 60 | 120 | — | — / 0.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN GSA yellow
COLORATION: UNI STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 %
SAND: C - M - F 80 %
SILT: %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: poorly sorted sand-gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 3 / 2 INTERVAL 7 TO 8
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 7' bgs. Abundant cobbles.
No odor or stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: 3003A SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 8 TO 9.5 (FT/M BGS)
RECOVERY: 1 / 1.5 (FT/M) NA
BLOW COUNT: 7 | 21 | 120 | — / 0.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9 (FT/M BGS) NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 %
SAND: C - M - F 80 %
SILT: 20/60/20 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 9 TO 7.5
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 9.5' bgs. augured from 9.5-10' interval 4/3
No odor or stain, abundant cobbles.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: 3B03A SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 11.5+2 FT/M BGS
RECOVERY: 1 / 1.5 - 2 FT/M NA
BLOW COUNT: 12 | 42 | 60 | | / 0.5 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA medium brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/50/30 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	# /FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT: Poorly sorted sand + gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 5 / 2 INTERVAL 11 TO 12.5
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 11.5 Auger to 12' + try again
Cobbles common
No odor or stain.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/29/98
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB03A / BH303A SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 12 TO 13.2 FT/M BGS
RECOVERY: 1 / 1.2 FT/M NA
BLOW COUNT: 27 | 51 | 120 | | / 0.2 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
BH303A-5013	12 - 13.2	VOC
	-	TRPH, PB, MC, SVOC

1455

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 13 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA 7.5 red/yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 25 %
SAND: C - M - F 75 %
SILT: 20/60/30 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 6.2 INTERVAL 13.2 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: Spoon refusal @ 13.2' bgs gravel + cobbles.
No ODOR Lusty stained - petroleum stain on soil - No ODOR
No reading of OVM - comes off on glove.

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/26/92
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB03A / [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 13.2 TO 13.5 FT/M BGS
RECOVERY: TR / 0.3 FT/M NA
BLOW COUNT: / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 13.2 TO 13.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: [illegible]
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: Auger refusal @ 13.5' - Drive Spoon.
Piece of granite in Spoon. Possible bedrock. Ground auger to confirm -

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

Last Page xi of Log SB03A!

10/27/98

V. Dellokuzzo

SB04 = BH304

0715 VDR on-site w/ Drill crew H&S Briefing - General Drilling procedures

725 DTW in CN-09 = 16.81' TIC ~17' bgs.

Set up to Drill.

735 Begin Driving split spoons. OVM calibrated OK w/ 245 ppm Isobutylene

935 Auger refusal at 17 ft. Abandone bore hole at site six. Demobilization. Plug cap replaced CN09

1015 Mobilized to Site 2

0815 Sam Combs/Weston Arrived on site to assist V. Dellokuzzo.

H+S Safety Briefing - review Hospital route - Sign Hasp.

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GEOLIS - NOTES & SKETCH FORM No. 3 063-1290

xviii

CLIENT: CSXRR DATE: 12/27/98
SITE: SMC 6 LOGGER: [illegible]
BOREHOLE NO.: SS4-BH304 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA
BLOW COUNT: 8 | 10 | 10 | 9 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: dm READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Dkgrn yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 60 %
SILT: 40 %
CLAY: ✓ %
ORGANIC: tr %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 / 2 INTERVAL 1.5 TO 3
NOT SAMPLED NO RECOVERY

COMMENTS: Very silty fine sand. No stained odor. Trace coal pieces.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CLARK
SITE: CAS - Site 6
BOREHOLE NO.: SB04 - DM304
DATE: 10/27/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: NOT SAMPLED
OVERBURDEN: SSS - STS - CTS - CUT - COR
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 1.6 / 2 FT/M NA
BLOW COUNT: 6 | 6 | 7 | 9 | / | IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 3.6 FT/M BGS NO RECOVERY
MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray to rusty brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 55 %
SILT: 45 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - STR - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 2 / 2 INTERVAL 1.6 TO 2
NOT SAMPLED NO RECOVERY

COMMENTS: Very silty F sand to sandy silt. Possibly natural?

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: OXNARD DATE: 1/31/1993
SITE: CAP - SITE 6 LOGGER: V. [illegible]
BOREHOLE NO.: B4304 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA
BLOW COUNT: 8 | 14 | 29 | 39 / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: N.D.
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray
COLORATION: UNI STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 55 %
SILT: 100% 45 %
CLAY: — %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 3 / 2 INTERVAL 5.5 TO 6
NOT SAMPLED NO RECOVERY

COMMENTS: N/D ODR or Stain. Contact @ 4.9' below is sand + gravel
Rusty Fe-stained below 4.9' bgs. Gradational contact w/ poorly sorted sand w/ gravel

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENAF
SITE: CERP - SITE 6
BOREHOLE NO.: SB04 - SB3D4
DATE: 10/2/98
LOGGER: V. Drahovzal
SIGNATURE: [illegible]

SAMPLING METHOD: NOT SAMPLED
OVERBURDEN: SSS - STS - CTS - CUT - COR
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
SAMPLING INTERVAL: 6 TO 7 FT/M BGS
RECOVERY: 0.9 / 1'2 FT/M NA
BLOW COUNT: 85 | 120 | | | / 0.5 IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 6.9 FT/M BGS NO RECOVERY
MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA rusty yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 30/50/20 - %
CLAY: - %
ORGANIC: - %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT: Poorly sorted fine to gravel
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 7 TO 8
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: Augered from 7-8' No odor or stain
Spoon refusal @ 7' bgs. Cobbles & gravel

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: Site 6
BOREHOLE NO.: SB04 - SM504
DATE: 10/27/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.2 / 2 FT/M NA
BLOW COUNT: 10 | 24 | 64 | 54 / • IN/CM NA

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.2 FT/M BGS NO RECOVERY
MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA medium hor-Red
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/60/20 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF / BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 5 / 3 INTERVAL 9.2 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: Rusty Fe-stained poorly sorted Sand & gravel
No odor or other problem.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: BH-204 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 1.1 / 2 FT/M NA
BLOW COUNT: 12 | 39 | 40 | 36 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11.1 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA [illegible]
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 80 %
SILT: 15/60/25 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 6 / 2 INTERVAL 11.1 TO 12
NOT SAMPLED NO RECOVERY

COMMENTS: no odor or stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/27/99
SITE: [illegible] - SITE G LOGGER: [illegible]
BOREHOLE NO.: SB-4 - B1304 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER: 12.8
SAMPLING INTERVAL: 12 TO 14 FT/M BGS
RECOVERY: 0.6 / 0.8 FT/M NA
BLOW COUNT: 14 | 12 | | | / 0.3 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 12.6 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 80 %
SILT: 10 % 10/60/30
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 7 / 7 INTERVAL 12.8 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: 12.8-14 augered for recovery
No odor or stain

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/12/94
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 14 TO 15.5 FT/M BGS
RECOVERY: 1.5 / 1.8 FT/M NA
BLOW COUNT: 14 | 43 | 57 | 120 / 0.3 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 8
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 14 TO 15.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA dark gray
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 65 %
SILT: 10/35/55 25 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 8 / 2 INTERVAL 15.5 TO 15.8
NOT SAMPLED NO RECOVERY

COMMENTS: Saturation reached @ 15.8!
No odor or stain - wet [illegible] from last interval

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENAE
SITE: [illegible]
BOREHOLE NO.: SBOW-BH304
DATE: [illegible]
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 16 TO 17.2 / 18 FT/M BGS
RECOVERY: 1.0 / 1.2 FT/M NA
BLOW COUNT: 44 | 95 | 120 | | / 0.2 IN/CM NA

RQD: % NA
WATER ENTRY ZONES: 16.1 FT/M BGS wt GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE
BH304-S017 | 16 - 17 | VOC, TPH, Pb, Mg, SVOC + QA sample
BH304-S017-QA

910

SAMPLING INTERVAL No.: 9
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 16 TO 17 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVA READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA medyellbrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F .10 %
SAND: C - M - F .85 %
SILT: 25/35/40 5 %
CLAY: = %
ORGANIC: = %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - MRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 9 / 2 INTERVAL 17.2 TO 18
NOT SAMPLED NO RECOVERY

COMMENTS: Beyond cfg from 17.2 - ~~[illegible]~~ No cfg! - Stopped @ 16.1' bgs
Zone refusal @ 17.2! No odor or staining or sheen.
Stopped refusal @ 17.2

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

Last page of Log!

930

10/27/98

SB05 SITE 2 monitor well LF201

V. Dellothrago

[1030] walk through @ Site 2 - Gary Andrews gave VOC access key for gate.

Set up Rig on Location SB05. clear Brush

[1100] Begin spacing Bgs.

[1200] completed Sampling to 14' Bgs

Bottom of Fill Between 5-6' approx

water table @ ~6' Bgs.

Let Augers stand + check DTW in Augers. Drillers go for cement.

VOC spoke w/ Peter Hayle - approved installation of well @ SB05 and SB07.

He will fax approval to John Hargopian

[1255] DTW in SB05 inside Augers = 6.79' Bgs.

8.32' Top of Augers [1255] ST. 8.15 Top of Augers @ 1310 pm

1.3 - Stick up 8.12 Top of Augers @ 1325

7.02 DTW Bgs check again Still coming up.

7.79 - 1.3 = 6.49 19:30 TOC

Stick up 2.75 overcoming Augers

CW-16 cut Bolt/Lock + Replaced DTW TIC = 8.21 Stick up = 2.55'

Time 1333 ~~Contractor - Remove Locks~~! Elev of TIC = 8.74' Surveyed

7.81 + 2.55 = 5.66

[1348] CW06 cut Lock + replaced. DTW TIC = 8.29' OC Stickup = 2.65

PVC/OC = 0.28 2.65 - .28 = 2.37

7.29 - 2.37 = 4.92

Well Construction is as follows: 10' of 10-slot 2" Dia PVC. Set @ 14' Bgs.

Screen from 4-14'; Top of #1 Sand pack @ 3.5'; Bentonite chips from 1.8 to 3.5 - Hydrated w/ Potable water. Riser w/ ~2' stickup.

4" Dia x 5' Guard Pipe set to 2.5' Below grade w/ 2.5' stickup.

Plug cap + Lock installed. Guard Pipe cemented w/ Sakrete 0-1'

LF201 = Well Designation [1355] well installation complete/Mix Sakrete for PC.

[1342] CW-07 replace Lock, DTW TIC = 7.12' PVC/TOC = 0.28 OC Stickup 2.04'

[1346] CW-08 Replace Lock DTW TIC = 6.63' PVC/TOC = 0.30 Stickup TOC = 1.93' (Includes 0.3 pad tip)

[1415] MOB Rig to SB06.

7.12 - 1.76 = 5.36; 5.36 - 2.04 = 3.32; 3.32 - 0.28 = 1.76

6.63 - 1.63 = 5.00

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LF201 [1500] check water level + Stickup DTW TIC = 8.39' DTW TOC = 8.58 Stickup OTW Casing = 2.42

0.19 PVC/TIC IC Stickup = 2.42 - 0.19 = 2.23

CLIENT: [illegible] DATE: 10/27/94
SITE: SITE 2 [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.1 / 2 FT/M NA
BLOW COUNT: 4 6 7 7 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.1 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA v. dk brn
COLORATION: UNM - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 65 %
SILT: 10/30/60 15 %
CLAY: 1 %
ORGANIC: 15 %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - SE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 / 2 INTERVAL 1 / 10.2
NOT SAMPLED NO RECOVERY

COMMENTS: Mod organic odor. Abundant roots
No petroleum stain or odor

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: [illegible]
BOREHOLE NO.: 3005-LF201
DATE: 10/27/95
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 0.7 / 2 FT/M NA

BLOW COUNT: 9 | 11 | 2 | 1 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 2.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Dk brn
COLORATION: UNI - STN - MOT - VAR

TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 65 %
SILT: 10/30/60 15 %
CLAY: — %
ORGANIC: 15 %

ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA

SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA

BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC

TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %

GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMPLE No. 2.1.2 INTERVAL 2.7 TO 4
NOT SAMPLED NO RECOVERY

COMMENTS: Natural Organic odor - Pieces of Brick, rubble

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: ACAAL
SITE: Sec 2 CAS
BOREHOLE NO.: LF2-01-SB25
DATE: 10/12/92
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: NOT SAMPLED
OVERBURDEN: SSS STS - CTS - CUT - COR
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 0.5 / 2 FT/M NA
BLOW COUNT: 6 | 12 | 60 | 51 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 4.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA med brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 70 %
SILT: 20/20/60 15 %
CLAY: %
ORGANIC: 5 %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY %

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRG - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY %

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 3 / 2 INTERVAL 4.5 TO 6
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: No petroleum odor or stain - natural organic odor

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: DENAT DATE: 7/21/93
SITE: CRC - SEC 2 LOGGER: [illegible]
BOREHOLE NO.: 3505 - LT 231 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 0.3 / 2 FT/M NA
BLOW COUNT: 29 | 54 | 48 | 11 | / | IN/CM NA

RQD: / % NA
WATER ENTRY ZONES: approx 6 FT/M BGS WT GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 6.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 90 %
SILT: 10/40/50 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: Saturated Below approx 6' Bgs. Poor recovery due to cobbles in borehole. No petroleum/chemical odor or staining

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: LENART
SITE: CAE-SYRE 2
BOREHOLE NO.: BBOS - LF201
DATE: 1/12/95
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA
BLOW COUNT: 2 2 3 5 / IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
LF201-S009	8 - 9.5	
LF201-S009-QA	-	

VOC, SVOC RCRA MET, MOISTURE 1145
MS/MSD
QA-DUP RCRA METALS only

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Med gray to black
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F — %
SAND: C - M - F 40-50 %
SILT: 100 50 %
CLAY: %
ORGANIC: 10 %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 5, 2 INTERVAL 9.5 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: FIELD organic ODOR - MAO stained Sandy Silt
slightly cohesive contact @ 9.0 sharp - DARK sandy silt
Above and Pale gray mod sorted C-M Sand Lens 9.0-9.2 contact @ 9.2' below
15 gray fine silty sand

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: Area - Site 2
BOREHOLE NO.: SB05-2-1-201
DATE: 10/27/98
LOGGER: V. Exelbierd
SIGNATURE: [illegible]

SAMPLING METHOD: NOT SAMPLED
OVERBURDEN: SSS - STS - CTS - CUT - COR
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 0.8 / 2 FT/M NA
BLOW COUNT: 4 | 3 | 4 | 5 / IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 10.8 FT/M BGS NO RECOVERY
MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA gray brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 85 %
SILT: 20/30/50 10 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL/
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 6.2 INTERVAL 10.8 TO 12
NOT SAMPLED NO RECOVERY

COMMENTS: Interlayered Sandy Silt - Red gray to Black Wet - Stained and poorly sorted M-F Sand w/ gravel + Lithic Silt.
Stg described above

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CEARL DATE: 10/27/93
SITE: UST - SEC 2 LOGGER: C. Etheridge
BOREHOLE NO.: 3605-LT-101 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 12 TO 14 (FT/M BGS)
RECOVERY: 1.2 / 2 (FT/M) NA
BLOW COUNT: 5 | 8 | 11 | 12 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 13.2 (FT/M BGS) NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA dark gray to yellowish
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 85 %
SILT: 10/35/55 10 %
CLAY: 55/35 %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 7.2 INTERVAL 13.2 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: No Stain or odor primarily medium sand. Poorly sorted.
Install monitor well to 14' Bgs.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

Last page of Log 3605!

10/27/98

SB06 = LF202

V. Delbarrow

1415 Set up on Location SB06 - Clear Brush.

1430 Begin spooning Bgs.

* Need Duplicate Sample of RCRA metals only

1500 DTW in LF201 = 8.39' TIC / 8.58 TOC Stickup TOC = 2.42

1510 Scan Combs/Weston off site.

8.58
2.42
6.16 Bgs

1550 Completed sampling to 16' bgs, running Sand.

Let Augers set to take DTW

DTW 8.59' Top of augers Auger stickup = 1.70' TMW=1610

-1.70

6.89 6.89' Bgs DTW.

Pull augers + Abandon Borehole w/ soil + Chips.

1630 Borehole abandonment complete Mob off site.

1700 VOA screens gated - off site for the day.

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CLIENT: [illegible] DATE: 8/27/98
SITE: [illegible] SITE 2 LOGGER: [illegible]
BOREHOLE NO.: SB06-[illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: ____ % NA
WATER ENTRY ZONES: ____ FT/M BGS ____ GPM
____ FT/M BGS ____ GPM

SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 1.5 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

BLOW COUNT: 2 | 2 | 7 | 9 / ____ IN/CM NA

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0
INSTRUMENT 2 TYPE: ____ READING: ____

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA med yellow brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F — %
SAND: C - M - F 70 %
SILT: 30 %
CLAY: ____ %
ORGANIC: ____ %
100
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: ____ IN/CM
NUMBER: ____
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA ____
ROCK TYPE: OTHER: ____
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F ____ %
SAND: C - M - F ____ %
SILT: ____ %
CLAY: ____ %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1.2 INTERVAL 1.5 TO 2
NOT SAMPLED NO RECOVERY

COMMENTS: Mod Earthy odor, abundant rootlets
Contact @ 1.3' Below is well sorted medium sand, med yellow brown.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA DATE: 10/27/88
SITE: Cas. Site 2 LOGGER: [illegible]
BOREHOLE NO.: 5846 L-2.02 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 0.8 / 2 FT/M NA
BLOW COUNT: 10 | 16 | 17 | 16 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 2.8 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA med yellow
COLORATION: UN - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/60/20 — %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 2 / 2 INTERVAL 2.8 TO 4
NOT SAMPLED NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: No odor or stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CBANK
SITE: CASE STREET
BOREHOLE NO.: SB06-LF232
DATE: 10/23/90
LOGGER: V. [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 0.9 / 2 FT/M NA
BLOW COUNT: 10 | 12 | 13 | 15 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 4.9 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow brown
COLORATION: UN - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/60/20 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAB - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 3/2 INTERVAL 4.9 TO 6
NOT SAMPLED <- NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: No Stain or Odor - clean fill

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CEWM DATE: 10/27/98
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB06-[illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: 6 FT/M BGS WET GPM
FT/M BGS GPM

SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 1.4 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

BLOW COUNT: 10 | 12 | 15 | 19 / IN/CM NA

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7.4 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA gray brn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 60 %
SILT: 40/60 30 %
CLAY: 5 %
ORGANIC: – %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

SEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 7.4 TO 8
NOT SAMPLED NO RECOVERY

COMMENTS: Saturated @ approx 6' bgs. No odor or stain
Silty m-f sand w/ gravel & trace clay. Bottom of fill @ ~ 6' bgs
probable natural soil - slightly cohesive

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CLIENT: CDMS DATE: 10/27/95
SITE: Upper Sec 2 LOGGER: J. Dellapenna
BOREHOLE NO.: 3506-LB2-02 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.2 / 2 FT/M NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

BLOW COUNT: 9 | 13 | 21 | 20 / IN/CM NA

1520

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.2 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA gray brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 70 %
SILT: 10/30/60 20 %
CLAY: 5 %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 5/2 INTERVAL 9.2 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: poorly sorted silty sand w/ gravel
No odor or stain. Slightly cheesy

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: CRC - SHEZ
BOREHOLE NO.: SPOL-LF202
DATE: 10/2/95
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 0.9 / 2.0 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

BLOW COUNT: 8 | 14 | 20 | 25 / IN/CM NA

1530

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 10.9 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA yellow orange
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 65 %
SILT: 10/35/50 20 %
CLAY: 5 %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 6 / 2 INTERVAL 10.9 TO 12
NOT SAMPLED NO RECOVERY

COMMENTS: Contact @ 10.3 / color change from graybrown to bright yellow orange. Poorly sorted gravel + sand very rusty. Poor recovery. Probably Natural -

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GEOLIS - LITHOLOGIC LOGGING FORM 030-0391

CLIENT: Cyanamid
SITE: CPS-Site 2
BOREHOLE NO.: SB2-2012
DATE: 10/2/93
LOGGER: W. Beatty
SIGNATURE:

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 12 TO 14 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 6 | 9 | 14 | 21 | / | IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
LF202-S013	12 - 13	VOC, RCRA metal 1540
LF202-S113	12 - 13 RCRA metal	+SVOC moisture + Duplicate RCRA metals

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 13 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA very yellow brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 65 %
SILT: 20 %
CLAY: % %
ORGANIC: % %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 7 / 2 INTERVAL 13 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS:

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CSMC
SITE: CKT-SS 2
BOREHOLE NO.: SBOW-SS 202
DATE: 10/27/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 14 TO 16 FT/M BGS
RECOVERY: 1.2 / 2 FT/M NA
BLOW COUNT: 8 | 12 | 16 | 25 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE

SAMPLING INTERVAL No.: 8
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 14 TO 15.2 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

1545

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA heavy grn
COLORATION: UNS - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 %
SAND: C - M - F 65 %
SILT: 30/40/30 15 %
CLAY: — %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 8 / 2 INTERVAL 14.0 TO 15.2 FT/M
NOT SAMPLED - NO RECOVERY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

COMMENTS: Running sand/gravel. Not so pasty as last.
Sand running up in augers.
Borehole TD = 16' bgs

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

Last Page of Log!

10/28/98

V. Delbolusso

SB07 / LF401

0730 on-site warm up dig + water up for Decon. Sewer Enter has water.

0740 mob to Landfill 4/Site 4.

755 Begin clearing brush at SB07. Proposed Monitor well location.

815 Begin spoiling bgs. Calibrate OVM. All ok w/ 249 ppm Isobutylene

955 completed Auger/Sampling to 14' Bgs install well to 13' Bgs

10' of 10-slot 2" DIA PVC. #1 Sand pack, Bentonite chips

PVC coming up w/augers. SWD Hammerhole dropping out.

Adding potable water to well to Flush sand into place - approx 5 gallons.

5' of Riser - 6" point on Bottom below screen

Top of Sand = 2.0' Bentonite chip from 1-2.0 0-1 Saknite

Screen from ~~3-13~~ 2.5-12.5' + 6" pan Bgs Sand Well TD = 13' (includes Bottom cap.

1020 well installation complete - install ground pipe.

→ LF402 development (SB08)

1400 DTW TIC LF401 = 8.30 TIC

1420 LF401 = 8.29 TIC

1350 Begin pumping on well - 15 gallon purged 1357 Stopped pumping

Silty at first cleaned up nicely!

DTW = 8.28' TIC during pumping +5 gallons +5

PID Headspace = 0.0 ppm 1408 Stopped pumping, let well rest. crystal clear - 25 gallons purged so far.

No odor or sheen. 1411.5 2.5 gal/min 5 gallons 2.5 $\sqrt{5}$ 2 gpm purge rate

+5 gallons = 30 cleans up nicely +5 gallon = 35 gallons total

1415 development of LF402 complete. mob to Site 2 to development on LF201

1423 CN-10 = 7.34' TIC 1422 DTW TIC LF402 = 8.00'

1400 to Site 6 LF201 1440 8.39' TIC DTW. Begin pumping 1441 1.5 gpm yield

1500 25 gallons purged - cleans up somewhat from Black/Orange to pale gray

Translucent PID Headspace = 0.0 ppm Slight Fetid odor at first.

Stick up 2.37' Top of other casing. DTW TIC LF201 = 8.46' @ 1510

Not cleaning up much more than translucent.

1505 Stopped development total 40 gallons purged

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GEOLIS -- NOTES & SKETCH FORM No. 3 063-1290

xviii

CLIENT: CCWRC DATE: 10/28/98
SITE: CAE - SEC 1 LOGGER: [illegible]
BOREHOLE NO.: 3907 - LF101 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 0.7 / 2 FT/M NA
BLOW COUNT: 6 | 10 | 15 | 10 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 0.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NO - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale yellow brn
COLORATION: UN - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 75 %
SILT: 30/35/40 15 %
CLAY: - %
ORGANIC: - %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 / 2 INTERVAL 0.7 TO 2
NOT SAMPLED NO RECOVERY

COMMENTS: Earthy odor
No Stain or petroleum/chemical odor.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/26/88
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB7-[illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 0 / 2 FT/M NA
BLOW COUNT: 11 | 2 | 6 | 5 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 4 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: NA
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMPLITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: probable fill, no recovery

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENAK DATE: 10/28/98
SITE: OU-SITE 4 LOGGER: W. DUMAS
BOREHOLE NO.: 3501-LP401 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: 4 FT/M BGS WT GPM
FT/M BGS GPM

SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

830

BLOW COUNT: 2 | 2 | 3 | 5 / IN/CM NA

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 5.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F — %
SAND: C - M - F 40 %
SILT: 100 60 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: Saturated @ 4' bgs. Color change @ 5' bgs from pale gray sandy silt to orange silty poorly sorted sand. Heavily stained below 5' bgs. Bottom of fill @ 4' bgs.

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 10/28/93
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB07-[illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

SAMPLING INTERVAL: 6 TO 8 FT/M BGS
RECOVERY: 1.4 / 2 FT/M NA
BLOW COUNT: 12 12 14 15 / IN/CM NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
LF401-5007	6 - 7.4	VOC, SVOC, PCBs, MET, MOISTURE, CONTROL

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7.4 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA orange-yellow orange
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 70 %
SILT: 30/15/30 15 %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: strong fe-stain No ODR

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CSXRR
SITE: CHE-3564
BOREHOLE NO.: SB07-CF42
DATE: 10/28/93
LOGGER: J. Dunn Ross
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 9 | 8 | 11 | 13 / IN/CM NA

RQD: / % NA
WATER ENTRY ZONES: / FT/M BGS GPM
/ FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

845

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 8.5 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA pale gray to yellow
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F %
SAND: C - M - F 40 %
SILT: 60 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: No odor
Pale gray sandy silt from 8-8.5 Contact @ 8.5 Below is poorly sorted C-M sand w/ gravel - loose slight fe stain also odor

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CONAE
SITE: ARE - SITE 4
BOREHOLE NO.: SB03 - LF401
DATE: 10/28/93
LOGGER: K. Coll - Enviro
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA
BLOW COUNT: 7 | 8 | 11 | 13 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 2
LITHOLOGIC INTERVAL: 8.5 TO 9.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
COLORATION: ENT - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 75 %
SILT: 30/50/20 10 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY:

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. / INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS:

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CERCLA
SITE: CAE - SITE 4
BOREHOLE NO.: SB07-LF4-01
DATE: 10/2/98
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 12 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 5 | 10 | 13 | 13 / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
/	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX SL
COLOR: MUN - GSA pale gy brn - Rusty
COLORATION: ON - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 80 %
SILT: 40/30/30 5 %
CLAY: 50/30/20 %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL TO
NOT SAMPLED NO RECOVERY

COMMENTS: Slightly Rusty, No odor

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: 11/23/98
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: SB7-LF401 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
BEDROCK: CUT - COR
NOT SAMPLED
OTHER:

SAMPLING INTERVAL: 12 TO 14 FT/M BGS

RECOVERY: 1 ~~0.8~~ / 2 FT/M NA

BLOW COUNT: 9 | 9 | 17 | 12 / IN/CM NA

ROD: % NA

WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

MATERIAL: NATURAL - FILL - UNCERTAIN

SAMPLING INTERVAL No.: 7

LITHOLOGIC INTERVAL No.: 1

LITHOLOGIC INTERVAL: 12 TO ~~12.5~~ 13' FT/M BGS NO RECOVERY

OBSERVED: SHN - ODR - PRD - NA - OTHER:

INSTRUMENT 1 TYPE: OVM READING: 0.0

INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX

COLOR: MUN - GSA pale yellow brown

COLORATION: UNI - STN - MOT - VAR

TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 20/50/20 %
CLAY: %
ORGANIC: %

ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA

SORTING: WEL - MOD - POR - NA

PLASTICITY: NON - LOW - MOD - HGH - NA

MOISTURE: DRY - MST - WET - SAT

CEMENTATION: NON - SLT - MOD - WEL

GRAIN TYPE: QTZ - FRG - FOS - NA

MATRIX: CAL - OXD - ARG - SIL - NA

STRENGTH: STF - FRM - SFT - LSE - NA

UPPER CONTACT: SHP - GRD - DIF - SME - NA

BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX

COLOR: MUN - GSA

ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC

TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %

GRAIN TYPE: QTZ - FRG - FOS - NA

MATRIX: CAL - OXD - ARG - SIL - ORG - NA

STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST

UPPER CONTACT: SHP - GRD - DIF - SME - NA

SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW

WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:

NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 1 INTERVAL 13 TO 14
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain.
50 well @ 13' w/10' of screen Borehole TD = 14'

950

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

Last page of log!

SB08 / LF402

10/28/98

V. Dellorhuso

(1050) Cleaned Brush + Set up on SB08.

(1100) Begin spooning Bgs. VUR spoke to P. Hugh / Drive Labiancy abt TN

installing a monitor well in SB08.

(1205) Install pvc well

Screen 10-slot 10' length ~~6" Bottom~~ PVC on Bottom Cap.

Top of Screen = 2' Bgs.

Top of #1 Sand pack = 1.5'

Top of Chips @ 1.0' Bgs Sakrete from 0-1' Bgs

Installed Protection casing

(980) Drive Labiancy on-site.

WELL Development for LF401

(1210) Set up to decon Augers Tools before Demobilization.

Set up to develop well LF401

(1300) purged well Dry after 5 minutes Very silty / opaque yellow Brown.

Purged w/ whale pump. Recovers quickly. Purge 5 gallons / run Dry. Surge

+ Pump again after waiting 5 minutes. (1317) 3 gallons more Purged

(1307) DTW TIC = 8.01' in LF402 (SB08) DTW TOC = 8.24' TD TIC = 14.83' (including probe tip)

Outer casing Stickup = 2.87' + 0.3 = 3.17 $\begin{array}{r} -3.17 \\ \hline 5.07 \end{array}$ 0.13 TOC/TIC

LF401 development (Cont). ~10 gallons purged so far yellow brown translucent / slightly

Silty. (1325) pump again. pale yellow translucent - sl silty. Cleaned up Nicely. + 5 gallon = 15 total

TOC Stickup = 2.88' Inner/outer casing Difference = 0.10' Well TD TIC =

(1420) DTW TIC = 8.29' LF401

Not running Dry Now. V.31 Cloudy pale gray. Transparent. yield ~ 1 gpm.

(1335) Let well stand (1338) + 5 gallons PID Headspace on water = 0.0 ppm

No odor or sheen. Not running Dry. Cleaned up Nicely (1345) Development complete.

Set up on LF402 ~~1300 15 gallons purged Dk gray Silty translucent cleaning up~~

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GEOLIS – NOTES & SKETCH FORM No. 3 063-1290

Somewhat.

CLIENT: CRMC
SITE: [illegible]
BOREHOLE NO.: [illegible]
DATE: 10/12/88
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 0 TO 2 FT/M BGS
RECOVERY: 13 / 2 FT/M NA
BLOW COUNT: 9 | 5 | 11 | 13 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE

SAMPLING INTERVAL No.: 1
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 0 TO 1.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Mbrn - mydbrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 63 %
SILT: 5/15/80 36 %
CLAY: %
ORGANIC: 2 %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
				FILL: CPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 1 / 2 INTERVAL 1.3 TO 2
NOT SAMPLED NO RECOVERY

COMMENTS: Earthy odor, No fuel or chemical odor

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS · STS · CTS · CUT · COR
BEDROCK: CUT · COR
OTHER:
NOT SAMPLED

SAMPLING INTERVAL: 2 TO 4 FT/M BGS
RECOVERY: 0.7 / 2 FT/M NA

BLOW COUNT: 12 | 10 | 7 | 5 | / | IN/CM NA

RQD: % NA
WATER ENTRY ZONES: 2.3 FT/M BGS Wt GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 2
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 2 TO 2.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL · FILL · UNCERTAIN
OBSERVED: SHN · ODR · PRD · NA · OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA · BED · CLS · MIX — SECONDARY
COLOR: MUN · GSA Maybrn · Mayrn
COLORATION: UNI · STN · MOT · VAR
TEXTURE:
GRAVEL: C · M · F 3 %
SAND: C · M · F %
SILT: 60 %
CLAY: 37 %
ORGANIC: NO 2 %
ROUNDNESS:
GRAVEL: FAC · STR · ANG · SUB · RND · NA
SAND: ANG · SUB · RND · NA
SORTING: WEL · MOD · POR · NA
PLASTICITY: NON · LOW · MOD · HGH · NA
MOISTURE: DRY · MST · WET · SAT
CEMENTATION: NON · SLT · MOD · WEL
GRAIN TYPE: QTZ · FRG · FOS · NA
MATRIX: CAL · OXD · ARG · SIL · NA
STRENGTH: STF · FRM · SFT · LSE · NA
UPPER CONTACT: SHP · GRD · DIF · SME · NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD · RPL · HOR · INC · NA
MAS · LNS · LAM · GRU · GRD

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA · BED · CLS · MIX — SECONDARY
COLOR: MUN · GSA
ROCK TYPE: OTHER:
SED: SHL · SLT · SST · CGL · LST · DOL · COL
MET: SLA · PHY · SHS · GNS · HRN · QZT · MBL
IGN: GRN · RHY · BSL · GBR · TUF · BRC
TEXTURE: NA
GRAVEL: C · M · F %
SAND: C · M · F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ · FRG · FOS · NA
MATRIX: CAL · OXD · ARG · SIL · ORG · NA
STRENGTH: EWK · VWK · WEK · MOD · STR · VST · EST
UPPER CONTACT: SHP · GRD · DIF · SME · NA
SECONDARY POROSITY: VUG · FRC · BED · NA · OTHER · HGH · MOD · LOW
WEATHERING: FRS · SLT · MOD · HGH · CPL · NA

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH
				FILL: OPN · PRT · FUL SHAPE: PLN · CUR · UND · STP · IRR ROUGH: SMH · MOD · RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMPLITH No. 2.7 INTERVAL 2.7 TO 4
NOT SAMPLED NO RECOVERY

COMMENTS: Situated @ 2.3' bgs in Sandy Silt

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CENAK
SITE: Oper-Site 4
BOREHOLE NO.: SB03 - LF 402
DATE: 12/12/93
LOGGER: [illegible]
SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 4 TO 6 FT/M BGS
RECOVERY: 0.7 / 2 FT/M NA
BLOW COUNT: 6 | 10 | 15 | 10 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 3
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 4 TO 4.7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA Medgyhrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 10 %
SAND: C - M - F 70/75 %
SILT: 20/30/50 20/15 %
CLAY: - %
ORGANIC: - %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 3 / 2 INTERVAL 4.7 TO 6
NOT SAMPLED NO RECOVERY

COMMENTS:

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: CSAAF DATE: 1/12/92
SITE: CSA SITE 4 LOGGER: [illegible]
BOREHOLE NO.: SB03 DP22 SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 6 8 TO 8 FT/M BGS
RECOVERY: 1 / 2 FT/M NA
BLOW COUNT: 7 | 16 | 14 | 21 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM
ANALYTICAL SAMPLE ID INTERVAL (FT/M BGS) TYPE

SAMPLING INTERVAL No.: 4
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 6 TO 7 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA red gyhrn
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 20 %
SAND: C - M - F 75 %
SILT: 30/40/30 5 %
CLAY: %
ORGANIC: %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-MI	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 4 / 2 INTERVAL 7 TO 8
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED
BEDROCK: CUT - COR
OTHER:

RQD: ____ % NA
WATER ENTRY ZONES: ____ FT/M BGS ____ GPM
____ FT/M BGS ____ GPM

SAMPLING INTERVAL: 8 TO 10 FT/M BGS
RECOVERY: 1.2 / 2 FT/M NA
BLOW COUNT: 9 | 12 | 21 | 15 / ____ IN/CM NA

ANALYTICAL SAMPLE ID | INTERVAL (FT/M BGS) | TYPE
LF402-5089 | 8 - 9.2 | VOC, SVOC, PESTICIDES 1140

SAMPLING INTERVAL No.: 5
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 8 TO 9.2 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA gray brown
COLORATION: UNI - STN - MOT - VAR
TEXTURE:
GRAVEL: C - M - F 15 %
SAND: C - M - F 85 %
SILT: 50/30/15 — %
CLAY: — %
ORGANIC: ____ %
ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA
BEDDING:
THICKNESS: ____ IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - NA
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F ____ %
SAND: C - M - F ____ %
SILT: ____ %
CLAY: ____ %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRG - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 5 / 2 INTERVAL 9.2 TO 10
NOT SAMPLED NO RECOVERY

COMMENTS: No odor or stain
Poorly sorted Sand w/ gravel

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GEOLIS -- LITHOLOGIC LOGGING FORM 030-0391

CLIENT: C.C.NAC DATE: 10/20/93
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: (SSS) STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:
SAMPLING INTERVAL: 10 TO 12 (FT/M BGS)
RECOVERY: 1 / 2 (FT/M) NA
BLOW COUNT: 11 | 16 | 12 | 13 / IN/CM NA

RQD: % NA
WATER ENTRY ZONES: FT/M BGS GPM
FT/M BGS GPM

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

SAMPLING INTERVAL No.: 6
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 10 TO 11 (FT/M BGS) NO RECOVERY

MATERIAL: (NATURAL) - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - (NA) - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: READING:

OVERBURDEN

SECONDARY TYPE: (NA) BED - CLS - MIX
COLOR: (MUN) GSA pale greyish
COLORATION: (UNI) STN - MOT - VAR
TEXTURE:
GRAVEL: (C - M - F) 10 %
SAND: (C - M - F) 90 %
SILT: 20/0/90 — %
CLAY: — %
ORGANIC: — %
ROUNDNESS:
GRAVEL: FAC - STR - (ANG - SUB) - RND - NA
SAND: (ANG - SUB) - RND - NA
SORTING: WEL - MOD - (POR) - NA
PLASTICITY: (NON) - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - (SAT)
CEMENTATION: (NON) - SLT - MOD - WEL
GRAIN TYPE: (QTZ) - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - (NA)
STRENGTH: STF - FRM - (SFT) - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - (SME) - NA
BEDDING:
THICKNESS: IN/CM
NUMBER:
TYPE: XBD - RPL - HOR - INC - (NA)
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA
ROCK TYPE: OTHER:
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC
TEXTURE: NA
GRAVEL: C - M - F %
SAND: C - M - F %
SILT: %
CLAY: %
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD
STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER
HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

STRAT UNIT:
NOTE LINE:

NEXT INTERVAL: SAMP/LITH No. 6 / 2 INTERVAL 11 TO 12
NOT SAMPLED (NO RECOVERY)

COMMENTS: Dominantly Med Sand

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

CLIENT: [illegible] DATE: [illegible]
SITE: [illegible] LOGGER: [illegible]
BOREHOLE NO.: [illegible] SIGNATURE: [illegible]

SAMPLING METHOD: OVERBURDEN: SSS - STS - CTS - CUT - COR
NOT SAMPLED BEDROCK: CUT - COR
OTHER:

RQD: _____ % NA
WATER ENTRY ZONES: _____ FT/M BGS _____ GPM
_____ FT/M BGS _____ GPM

SAMPLING INTERVAL: 12 TO 14 FT/M BGS
RECOVERY: 1.3 / 2 FT/M NA

ANALYTICAL SAMPLE ID	INTERVAL (FT/M BGS)	TYPE
	-	
	-	

BLOW COUNT: 9 | 12 | 15 | 16 / ____ IN/CM NA

SAMPLING INTERVAL No.: 7
LITHOLOGIC INTERVAL No.: 1
LITHOLOGIC INTERVAL: 12 TO 13.3 FT/M BGS NO RECOVERY

MATERIAL: NATURAL - FILL - UNCERTAIN
OBSERVED: SHN - ODR - PRD - NA - OTHER:
INSTRUMENT 1 TYPE: OVM READING: 0.0
INSTRUMENT 2 TYPE: _____ READING: _____

OVERBURDEN

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN GSA pale yellowish
COLORATION: UNI - STN - MOT - VAR

TEXTURE:
GRAVEL: C - M - F 5 %
SAND: C - M - F 50 %
SILT: 5/30/25 5 %
CLAY: _____ %
ORGANIC: _____ %

ROUNDNESS:
GRAVEL: FAC - STR - ANG - SUB - RND - NA
SAND: ANG - SUB - RND - NA
SORTING: WEL - MOD - POR - NA
PLASTICITY: NON - LOW - MOD - HGH - NA
MOISTURE: DRY - MST - WET - SAT
CEMENTATION: NON - SLT - MOD - WEL
GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - NA
STRENGTH: STF - FRM - SFT - LSE - NA
UPPER CONTACT: SHP - GRD - DIF - SME - NA

BEDDING:
THICKNESS: _____ IN/CM
NUMBER: _____
TYPE: XBD - RPL - HOR - INC - NBD
MAS - LNS - LAM - GRU - GRD

SECONDARY

GRAPHIC LOG

BEDROCK

SECONDARY TYPE: NA - BED - CLS - MIX
COLOR: MUN - GSA _____
ROCK TYPE: OTHER: _____
SED: SHL - SLT - SST - CGL - LST - DOL - COL
MET: SLA - PHY - SHS - GNS - HRN - QZT - MBL
IGN: GRN - RHY - BSL - GBR - TUF - BRC

TEXTURE: NA
GRAVEL: C - M - F _____ %
SAND: C - M - F _____ %
SILT: _____ %
CLAY: _____ %

GRAIN TYPE: QTZ - FRG - FOS - NA
MATRIX: CAL - OXD - ARG - SIL - ORG - NA
STRENGTH: EWK - VWK - WEK - MOD STR - VST - EST
UPPER CONTACT: SHP - GRD - DIF - SME - NA
SECONDARY POROSITY: VUG - FRC - BED - NA - OTHER HGH - MOD - LOW
WEATHERING: FRS - SLT - MOD - HGH - CPL - NA

SECONDARY

STRAT UNIT:
NOTE LINE:

NATURAL FRACTURING

INTERVAL (FT/M BGS)	#/FT-M	DIP	DIR	FILL / SHAPE / ROUGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH
-				FILL: OPN - PRT - FUL SHAPE: PLN - CUR - UND - STP - IRR ROUGH: SMH - MOD - RGH

NEXT INTERVAL: SAMP/LITH No. 7 / 2 INTERVAL 13.3 TO ____
NOT SAMPLED NO RECOVERY

COMMENTS: Running Sand. 1-80 Sorted

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GEOLIS – LITHOLOGIC LOGGING FORM 030-0391

Last Page of Log

APPENDIX C

CONTRACT LAB ANALYTICAL DATA PACKAGES

SOIL DATA

Inter-Office Memorandum

TO: Vinnie Dellorusso CC:

FROM: Diane Quigley DATE: 31 December 1998

PROJECT: Charlestown, RI W. O. NO.: 10971-036-001-0010-01

SUBJECT: Data Review of WO-3344:

Samples: BH301-S019, BH302-SO11, BH303A-S013, BH302-S111, BH304-S017, TB-1, LF201-S009, LF202-S013, LF401-S007, LF402-S009, and LF202-S113.

ACTION:

Volatile (8260B), semivolatile (8270C), TPH, lead, and total metals submitted by Katahdin Analytical Services for the above-listed samples were reviewed. Chain-of-custodies were reviewed to verify methodologies, sample preservation, and to ensure holding times were met.

The laboratory was contacted on 17 December 1998 (telephone log is attached) and asked to resubmit volatile soil result pages with PQLs that matched the QAPP. Also, to identify associated samples with each prep blank in the metals analysis. The resubmittals were received on 22 December 1998.

The following discrepancies were noted and qualifications added:

Volatiles

- U[1] – Qualify positive results for methylene chloride and acetone due to laboratory or field blank contamination.

- J[6]UJ[6] – Positive and non-detected results for hexachlorocyclopentadiene were estimated in all samples due to low MS/MSD and low LCS recoveries.

- J[7]UJ[7]; – Estimate non-detected 3,3'-dichlorobenzidine, 4-chloroaniline, 3-nitroaniline, and hexachlorocyclopentadiene in sample LF201-S009 due to low MS/MSD recoveries.

Lead

- J[4] – Estimate positive lead results in all samples due to high spike recovery.

Metals

U^2-Quality arsenic as undetected in samples LF202-S013 and LF401-S007 due to prep. Blank contamination.

TPH

J^5 – Estimate positive TPH result in sample BH301-S019 due to high MS/MSD recoveries.

All qualifiers were added to result pages. Footnotes explaining qualifiers should be presented at the bottom of the analytical result table.

If you have any questions, please call me at x5534. "Data Review Checklists," telephone logs and resubmittals are attached.

DQ:day

Attachments

DATA REVIEW CHECKLIST

Site: Charlestown, RI

Katahdin Lab Number: WO-3344

WESTON Sample IDs: BH301-S019, BH301-S019E, BH302-S011(E), BH303A-S013(D), BH302-S111, BH304-S017, TB-1, LF201-S009(A), LF202-S013, LF401-S007, LF402-S009, LF202-S113

Data Reviewed	Fraction						Comments
	TS	Lead	TPH	~~8260~~ 8260B	8270C SVOA	Total metals	
Chain of Custody	✓	✓	✓	✓	✓	✓	
Log-in Sheet	✓	✓	✓	✓	✓	✓	
Preservation	✓	✓	✓	✓	✓	✓	
Holding Time	✓	✓	✓	✓	✓	✓	
Trip Blanks	NA →			Acetone = 290 BSD = methylene chloride U1	NA →		U1- Quality MeCl2 + acetone in samples as undetected due to trip blank contam.
Instrument/Method Blanks (soils/solids)	NA	✓	✓	✓	✓	✓ U2 = arsenic	
Instrument/Method Blanks (Aqueous)	NA →			NA met	→		
MS/MSD - Soil/Solid		✓	J5	✓	J6/UJ6	Lead above QC limits = J4	
MS/MSD - Aqueous	NA →			several spike compounds not met			but no action since no pos. results
LCS/LFB		✓	✓	✓	J6/UJ6	✓	
Blank Spikes (BS/BSD)	NA →						
Lab Duplicates		NA ✓	✓	✓	✓	→	
Field Duplicates		✓	BH302-S011/S111 ✓	✓	✓	LF202-S013 + LF202-S113	All field dup criteria was met
Surrogate Recoveries	NA →		✓	✓	✓		

✓ = Data reviewed
NA = Not Applicable
Note: Data reviewed but not commented on is considered acceptable.

~~* incorrect~~ units on MS/MSD + LCS + ~~blank forms for 8260 results~~ DQ

Qualifiers Used:
U1 - $MeCl_2$ + acetone in all samples
J4 - Estimate pos. lead results due to high spike recovery
J5 - Estimate TPH result in BH301-S019 due to high MS/MSD recovery.
U2 - Qualify arsenic as undetected due to prep blank contamination in samples LF202-S013, LF401-S007
J6/UJ6 - Pos + non-detected results for hexachlorocyclopentadiene were estimated

Data ~~Reviewer Initials~~: _____

Date: _____

in all samples due to low MS/MSD + LCS recoveries.

J7/UJ2 Estimate non-detected 3,3'-dichlorobenzidine, 4-Chloroaniline, 3-nitroaniline + hexachlorocyclopentadiene in LF201-5409 due to low MS/MSD recoveries

Results

Katahdin
ANALYTICAL SERVICES

FAX TRANSMISSION

Date: 12/22/98 Time: 14:05

To: Diane Quigley

FAX No: 603 - 656 - 5401

From: Chris Dodd

Number of Pages (Including This Cover): 7

Comments:

Prep Blanks and Prep logs for SDG. WO3344

From: Katahdin Analytical Services, Inc.
340 County Road No. 5
Westbrook, ME 04092
Tel: (207) 874-2400 Fax: (207) 775-4029

The information contained in this facsimile transmission is privileged and confidential and intended for the use of the addressee named above. If the receiver of the following pages is not (one of) the above named recipient(s), you are hereby notified that any retention, dissemination, distribution, or copying of this facsimile is prohibited. If you received this facsimile in error, please notify us immediately by telephone. Thank you.

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID: PBSOJ30ICS1**

Matrix: SOIL **SDG Name: WO3344**

QC Batch ID: OJ30ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C	
ARSENIC	-0.344	B	x 5 = 1.72
BARIUM	0.020	U	
CADMIUM	0.030	U	
CHROMIUM	0.060	U	
LEAD	0.236	B	x 5 = 1.18
SELENIUM	0.320	U	
SILVER	-0.085	B	x 5 = 0.425

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID: PBSOK03HGS1**

Matrix: SOIL **SDG Name: WO3344**

QC Batch ID: OK03HGS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
MERCURY	0.010	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID: PBSOK16ICS1**

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OK16ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
LEAD	0.433	B

13

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OJ30ICS1

Matrix: SOIL **SDG Name:** WO3344

Method: P **Prep Date:** 10/30/98

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSSOJ30ICS1	LCSSOJ30ICS1	0.5	0.1
PBSOJ30ICS1	PBSOJ30ICS1	1	0.1
BH301-S019	WO3344-001	1.04	0.1
BH302-S011	WO3344-002	1.16	0.1
BH303A-S013	WO3344-003	1.23	0.1
BH302-S111	WO3344-004	1.41	0.1
BH304-S017	WO3344-005	1.12	0.1
LF201-S009	WO3344-007	1.18	0.1
LF201-S009D	WO3344-007D	1.04	0.1
LF201-S009S	WO3344-007S	1.13	0.1
LF202-S013	WO3344-008	1.68	0.1
LF401-S007	WO3344-009	1.07	0.1
LF402-S009	WO3344-010	1.31	0.1
LF202-S113	WO3344-011	1.01	0.1

13

PREPARATION LOG

Lab Name: Katahdin Analytical Services

QC Batch ID: OK03HGS1

Matrix: SOIL

SDG Name: WO3344

Method: CV

Prep Date: 11/3/98

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSSOK03HGS1	LCSSOK03HGS1	0.15	0.1
PBSOK03HGS1	PBSOK03HGS1	0.6	0.1
LF201-S009	WO3344-007	0.6	0.1
LF201-S009P	WO3344-007P	0.7	0.1
LF201-S009S	WO3344-007S	0.71	0.1
LF202-S013	WO3344-008	0.55	0.1
LF401-S007	WO3344-009	0.67	0.1
LF402-S009	WO3344-010	0.74	0.1
LF202-S113	WO3344-011	0.79	0.1

PREPARATION LOG

Lab Name: Katahdin Analytical Services

QC Batch ID: OK16ICS1

Matrix: SOIL

SDG Name: WO3344

Method: P

Prep Date: 11/16/98

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSSOK16ICS1	LCSSOK16ICS1	0.52	0.1
PBSOK16ICS1	PBSOK16ICS1	1	0.1
BH303A-S013D	WO3344-003D	1.31	0.1
BH303A-S013S	WO3344-003S	1.19	0.1

Resub

Katahdin
ANALYTICAL SERVICES

FAX TRANSMISSION

Date: 12/22/98 Time: 14:10

To: Diane Quigley

FAX No: 603-656-5401

From: Chris Dodd

Number of Pages (Including This Cover): 5

Comments: Prep blanks and Prep log for SDG WO 3377

From: Katahdin Analytical Services, Inc.
340 County Road No. 5
Westbrook, ME 04092
Tel: (207) 874-2400 Fax: (207) 775-4029

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3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID: PBSOK02ICS1**

Matrix: SOIL **SDG Name: WO3377**

QC Batch ID: OK02ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
ARSENIC	0.190	U
BARIUM	0.020	B
CADMIUM	0.030	U
CHROMIUM	0.089	B
LEAD	0.296	B
SELENIUM	0.320	U
SILVER	0.070	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID: PBSOK03HGS1**

Matrix: SOIL **SDG Name: WO3377**

QC Batch ID: OK03HGS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
MERCURY	0.010	U

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OK02ICS1

Matrix: SOIL **SDG Name:** WO3377

Method: P **Prep Date:** 11/2/98

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSSOK02ICS1	LCSSOK02ICS1	0.52	0.1
PBSOK02ICS1	PBSOK02ICS1	1	0.1
DISP-GEN-S19-A	WO3377-001	1.01	0.1
DISP-GEN-S20-A	WO3377-002	1.24	0.1
DISP-GEN-S21-A	WO3377-003	1.15	0.1
DISP-GEN-S21-AD	WO3377-003D	1.17	0.1
DISP-GEN-S21-AS	WO3377-003S	1.22	0.1
DISP-GEN-S22-A	WO3377-004	1.84	0.1

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID: OK03HGS1**

Matrix: SOIL **SDG Name: WO3377**

Method: CV **Prep Date: 11/3/98**

Client ID	Lab Sample ID	Initial (g)	Final (L)
LCSSOK03HGS1	LCSSOK03HGS1	0.15	0.1
PBSOK03HGS1	PBSOK03HGS1	0.6	0.1
DISP-GEN-S19-A	WO3377-001	0.77	0.1
DISP-GEN-S20-A	WO3377-002	0.67	0.1
DISP-GEN-S21-A	WO3377-003	0.78	0.1
DISP-GEN-S22-A	WO3377-004	0.73	0.1

Katahdin
ANALYTICAL SERVICES

December 1, 1998

DEC - 2 1998
ROY F. WESTON, INC.

Mr. Vincent DelloRusso
Roy F. Weston
One Wall Street
Manchester, NH 03101-1501

RE: Katahdin Lab Number: WO-3344
Project ID: Charleston, RI Sites 2, 4, 6
Project Manager: Ms. Lil Pepin
Sample Receipt Date: October 29, 1998

Dear Mr. DelloRusso:

Please find enclosed the following information:

* Report of Analysis
* Quality Control Data Summary
* Confirmation
* Chain of Custody

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES

María Crouch
Authorized Signature

12/1/98
Date

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

http://katahdinlab.com

210 West Road No.5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services | **Client Field ID:** BH301-S019

Matrix: SOIL | **SDG Name:** WO3344

Percent Solids: 90.0 | **Lab Sample ID:** WO3344-001

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	6.2	J4	N*	P	1

J4 - high spike recovery

Color Before: | **Texture:** | **Artifacts:**

Color After: | **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-1
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH301-S019	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	90.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-1
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH301-S019	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	270 J5	mg/kgdrywt	2.0	25	E418.1	11/12/98	TB	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/12/98 by TCB

J5 - High matrix spike recovery

12/01/98

LJO/mrckp(dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 90
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHYL)ETHER	<360	ug/Kg	1.1	360	330
2-CHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,3-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,4-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,2-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
2-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<360	ug/Kg	1.1	360	330
4-METHYLPHENOL	<360	ug/Kg	1.1	360	330
N-NITROSO-DI-N-PROPYLAMINE	<360	ug/Kg	1.1	360	330
HEXACHLOROETHANE	<360	ug/Kg	1.1	360	330
NITROBENZENE	<360	ug/Kg	1.1	360	330
ISOPHORONE	<360	ug/Kg	1.1	360	330
2-NITROPHENOL	<360	ug/Kg	1.1	360	330
2,4-DIMETHYLPHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHOXY)METHANE	<360	ug/Kg	1.1	360	330
2,4-DICHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,2,4-TRICHLOROBENZENE	<360	ug/Kg	1.1	360	330
NAPHTHALENE	<360	ug/Kg	1.1	360	330
4-CHLOROANILINE	<360	ug/Kg	1.1	360	330
HEXACHLOROBUTADIENE	<360	ug/Kg	1.1	360	330
4-CHLORO-3-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2-METHYLNAPHTHALENE	<360	ug/Kg	1.1	360	330
HEXACHLOROCYCLOPENTADIEN	<360 UJ6	ug/Kg	1.1	360	330
2,4,6-TRICHLOROPHENOL	<360	ug/Kg	1.1	360	330
2,4,5-TRICHLOROPHENOL	<900	ug/Kg	1.1	900	820
2-CHLORONAPHTHALENE	<360	ug/Kg	1.1	360	330
2-NITROANILINE	<900	ug/Kg	1.1	900	820
DIMETHYL PHTHALATE	<360	ug/Kg	1.1	360	330
ACENAPHTHYLENE	<360	ug/Kg	1.1	360	330
2,6-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
3-NITROANILINE	<900	ug/Kg	1.1	900	820
ACENAPHTHENE	<360	ug/Kg	1.1	360	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 90
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<900	ug/Kg	1.1	900	820
4-NITROPHENOL	<900	ug/Kg	1.1	900	820
DIBENZOFURAN	<360	ug/Kg	1.1	360	330
2,4-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
DIETHYLPHTHALATE	<360	ug/Kg	1.1	360	330
4-CHLOROPHENYL-PHENYLETHE	<360	ug/Kg	1.1	360	330
FLUORENE	<360	ug/Kg	1.1	360	330
4-NITROANILINE	<900	ug/Kg	1.1	900	820
4,6-DINITRO-2-METHYLPHENOL	<900	ug/Kg	1.1	900	820
N-NITROSODIPHENYLAMINE	<360	ug/Kg	1.1	360	330
4-BROMOPHENYL-PHENYLETHER	<360	ug/Kg	1.1	360	330
HEXACHLOROBENZENE	<360	ug/Kg	1.1	360	330
PENTACHLOROPHENOL	<900	ug/Kg	1.1	900	820
PHENANTHRENE	<360	ug/Kg	1.1	360	330
ANTHRACENE	<360	ug/Kg	1.1	360	330
CARBAZOLE	<360	ug/Kg	1.1	360	330
DI-N-BUTYLPHTHALATE	<360	ug/Kg	1.1	360	330
FLUORANTHENE	<360	ug/Kg	1.1	360	330
PYRENE	<360	ug/Kg	1.1	360	330
BUTYLBENZYLPHTHALATE	<360	ug/Kg	1.1	360	330
3,3'-DICHLOROBENZIDINE	<360	ug/Kg	1.1	360	330
BENZO[A]ANTHRACENE	<360	ug/Kg	1.1	360	330
CHRYSENE	<360	ug/Kg	1.1	360	330
BIS(2-ETHYLHEXYL)PHTHALATE	<360	ug/Kg	1.1	360	330
DI-N-OCTYLPHTHALATE	<360	ug/Kg	1.1	360	330
BENZO[B]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[K]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[A]PYRENE	<360	ug/Kg	1.1	360	330
INDENO[1,2,3-CD]PYRENE	<360	ug/Kg	1.1	360	330
DIBENZ[A,H]ANTHRACENE	<360	ug/Kg	1.1	360	330
BENZO[G,H,I]PERYLENE	<360	ug/Kg	1.1	360	330
2-FLUOROPHENOL	71	ug/Kg	1.1		
PHENOL-D5	78	ug/Kg	1.1		

Report Notes:

0000007

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 90
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	67	ug/Kg	1.1		
2-FLUOROBIPHENYL	82	ug/Kg	1.1		
2,4,6-TRIBROMOPHENOL	71	ug/Kg	1.1		
TERPHENYL-D14	69	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 90
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<240	ug/Kgdrywt	48	240	5
CHLOROMETHANE	<240	ug/Kgdrywt	48	240	5
VINYL CHLORIDE	<480	ug/Kgdrywt	48	480	10
BROMOMETHANE	<240	ug/Kgdrywt	48	240	5
CHLOROETHANE	<240	ug/Kgdrywt	48	240	5
TRICHLOROFLUOROMETHANE	<240	ug/Kgdrywt	48	240	5
1,1-DICHLOROETHENE	<240	ug/Kgdrywt	48	240	5
METHYLENE CHLORIDE	400 U	ug/Kgdrywt	48	240	5
1,2-DICHLOROETHENE (TRANS)	<240	ug/Kgdrywt	48	240	5
1,1-DICHLOROETHANE	<240	ug/Kgdrywt	48	240	5
1,2-DICHLOROETHENE (CIS)	<240	ug/Kgdrywt	48	240	5
2,2-DICHLOROPROPANE	<240	ug/Kgdrywt	48	240	5
CHLOROFORM	<240	ug/Kgdrywt	48	240	5
BROMOCHLOROMETHANE	<240	ug/Kgdrywt	48	240	5
1,1,1-TRICHLOROETHANE	<240	ug/Kgdrywt	48	240	5
1,2-DICHLOROETHANE	<240	ug/Kgdrywt	48	240	5
1,1-DICHLOROPROPENE	<240	ug/Kgdrywt	48	240	5
CARBON TETRACHLORIDE	<240	ug/Kgdrywt	48	240	5
BENZENE	<240	ug/Kgdrywt	48	240	5
1,2-DICHLOROPROPANE	<240	ug/Kgdrywt	48	240	5
TRICHLOROETHENE	<240	ug/Kgdrywt	48	240	5
DIBROMOMETHANE	<240	ug/Kgdrywt	48	240	5
BROMODICHLOROMETHANE	<240	ug/Kgdrywt	48	240	5
CIS-1,3-DICHLOROPROPENE	<240	ug/Kgdrywt	48	240	5
TOLUENE	<240	ug/Kgdrywt	48	240	5
TRANS-1,3-DICHLOROPROPENE	<240	ug/Kgdrywt	48	240	5
1,1,2-TRICHLOROETHANE	<240	ug/Kgdrywt	48	240	5
1,3-DICHLOROPROPANE	<240	ug/Kgdrywt	48	240	5
DIBROMOCHLOROMETHANE	<240	ug/Kgdrywt	48	240	5
TETRACHLOROETHENE	<240	ug/Kgdrywt	48	240	5
1,2-DIBROMOETHANE	<240	ug/Kgdrywt	48	240	5
CHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
1,1,1,2-TETRACHLOROETHANE	<240	ug/Kgdrywt	48	240	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 90
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<240	ug/Kgdrywt	48	240	5
BROMOFORM	<240	ug/Kgdrywt	48	240	5
STYRENE	<240	ug/Kgdrywt	48	240	5
1,1,2,2-TETRACHLOROETHANE	<240	ug/Kgdrywt	48	240	5
1,2,3-TRICHLOROPROPANE	<240	ug/Kgdrywt	48	240	5
ISOPROPYLBENZENE	<240	ug/Kgdrywt	48	240	5
BROMOBENZENE	<240	ug/Kgdrywt	48	240	5
2-CHLOROTOLUENE	<240	ug/Kgdrywt	48	240	5
N-PROPYLBENZENE	<240	ug/Kgdrywt	48	240	5
4-CHLOROTOLUENE	<240	ug/Kgdrywt	48	240	5
1,3,5-TRIMETHYLBENZENE	<240	ug/Kgdrywt	48	240	5
TERT-BUTYLBENZENE	<240	ug/Kgdrywt	48	240	5
1,2,4-TRICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
SEC-BUTYLBENZENE	<240	ug/Kgdrywt	48	240	5
1,3-DICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
P-ISOPROPYLTOLUENE	<240	ug/Kgdrywt	48	240	5
1,4-DICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
1,2-DICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
N-BUTYLBENZENE	<240	ug/Kgdrywt	48	240	5
1,2-DIBROMO-3-CHLOROPROPAN	<240	ug/Kgdrywt	48	240	5
1,2,4-TRIMETHYLBENZENE	<240	ug/Kgdrywt	48	240	5
NAPHTHALENE	<240	ug/Kgdrywt	48	240	5
HEXACHLOROBUTADIENE	<240	ug/Kgdrywt	48	240	5
1,2,3-TRICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
MTBE	<240	ug/Kgdrywt	48	240	5
ACETONE	<480	ug/Kgdrywt	48	480	10
2-BUTANONE	<480	ug/Kgdrywt	48	480	10
4-METHYL-2-PENTANONE	<480	ug/Kgdrywt	48	480	10
2-HEXANONE	<480	ug/Kgdrywt	48	480	10
M+P-XYLENE	<240	ug/Kgdrywt	48	240	5
O-XYLENE	<240	ug/Kgdrywt	48	240	5
1,3,5-TRICHLOROBENZENE	<240	ug/Kgdrywt	48	240	5
VINYL ACETATE	<240	ug/Kgdrywt	48	240	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-1
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 90
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH301-S019E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<240	ug/Kgdrywt	48	240	5
DIETHYL ETHER	<240	ug/Kgdrywt	48	240	5
TETRAHYDROFURAN	<480	ug/Kgdrywt	48	480	10
DIBROMOFLUOROMETHANE	118	%	48		
1,2-DICHLOROETHANE-D4	122	%	48		
TOLUENE-D8	97	%	48		
P-BROMOFLUOROBENZENE	82	%	48		

Report Notes:

0000011

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** BH302-S011

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 92.8 **Lab Sample ID:** WO3344-002

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	4.0	J4	N*	P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-2
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH302-S011	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	93.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-2
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH302-S011	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<25.	mg/kgdrywt	1.0	25	E418.1	11/12/98	TB	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/12/98 by TCB

12/01/98

LJO/mrckp(dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHYL)ETHER	<360	ug/Kg	1.1	360	330
2-CHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,3-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,4-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,2-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
2-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<360	ug/Kg	1.1	360	330
4-METHYLPHENOL	<360	ug/Kg	1.1	360	330
N-NITROSO-DI-N-PROPYLAMINE	<360	ug/Kg	1.1	360	330
HEXACHLOROETHANE	<360	ug/Kg	1.1	360	330
NITROBENZENE	<360	ug/Kg	1.1	360	330
ISOPHORONE	<360	ug/Kg	1.1	360	330
2-NITROPHENOL	<360	ug/Kg	1.1	360	330
2,4-DIMETHYLPHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHOXY)METHANE	<360	ug/Kg	1.1	360	330
2,4-DICHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,2,4-TRICHLOROBENZENE	<360	ug/Kg	1.1	360	330
NAPHTHALENE	<360	ug/Kg	1.1	360	330
4-CHLOROANILINE	<360	ug/Kg	1.1	360	330
HEXACHLOROBUTADIENE	<360	ug/Kg	1.1	360	330
4-CHLORO-3-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2-METHYLNAPHTHALENE	<360	ug/Kg	1.1	360	330
HEXACHLOROCYCLOPENTADIEN	<360	ug/Kg	1.1	360	330
2,4,6-TRICHLOROPHENOL	<360	ug/Kg	1.1	360	330
2,4,5-TRICHLOROPHENOL	<900	ug/Kg	1.1	900	820
2-CHLORONAPHTHALENE	<360	ug/Kg	1.1	360	330
2-NITROANILINE	<900	ug/Kg	1.1	900	820
DIMETHYL PHTHALATE	<360	ug/Kg	1.1	360	330
ACENAPHTHYLENE	<360	ug/Kg	1.1	360	330
2,6-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
3-NITROANILINE	<900	ug/Kg	1.1	900	820
ACENAPHTHENE	<360	ug/Kg	1.1	360	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<900	ug/Kg	1.1	900	820
4-NITROPHENOL	<900	ug/Kg	1.1	900	820
DIBENZOFURAN	<360	ug/Kg	1.1	360	330
2,4-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
DIETHYLPHTHALATE	<360	ug/Kg	1.1	360	330
4-CHLOROPHENYL-PHENYLETHE	<360	ug/Kg	1.1	360	330
FLUORENE	<360	ug/Kg	1.1	360	330
4-NITROANILINE	<900	ug/Kg	1.1	900	820
4,6-DINITRO-2-METHYLPHENOL	<900	ug/Kg	1.1	900	820
N-NITROSODIPHENYLAMINE	<360	ug/Kg	1.1	360	330
4-BROMOPHENYL-PHENYLETHER	<360	ug/Kg	1.1	360	330
HEXACHLOROBENZENE	<360	ug/Kg	1.1	360	330
PENTACHLOROPHENOL	<900	ug/Kg	1.1	900	820
PHENANTHRENE	<360	ug/Kg	1.1	360	330
ANTHRACENE	<360	ug/Kg	1.1	360	330
CARBAZOLE	<360	ug/Kg	1.1	360	330
DI-N-BUTYLPHTHALATE	<360	ug/Kg	1.1	360	330
FLUORANTHENE	<360	ug/Kg	1.1	360	330
PYRENE	<360	ug/Kg	1.1	360	330
BUTYLBENZYLPHTHALATE	<360	ug/Kg	1.1	360	330
3,3'-DICHLOROBENZIDINE	<360	ug/Kg	1.1	360	330
BENZO[A]ANTHRACENE	<360	ug/Kg	1.1	360	330
CHRYSENE	<360	ug/Kg	1.1	360	330
BIS(2-ETHYLHEXYL)PHTHALATE	<360	ug/Kg	1.1	360	330
DI-N-OCTYLPHTHALATE	<360	ug/Kg	1.1	360	330
BENZO[B]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[K]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[A]PYRENE	<360	ug/Kg	1.1	360	330
INDENO[1,2,3-CD]PYRENE	<360	ug/Kg	1.1	360	330
DIBENZ[A,H]ANTHRACENE	<360	ug/Kg	1.1	360	330
BENZO[G,H,I]PERYLENE	<360	ug/Kg	1.1	360	330
2-FLUOROPHENOL	71	ug/Kg	1.1		
PHENOL-D5	82	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	64	ug/Kg	1.1		
2-FLUOROBIPHENYL	75	ug/Kg	1.1		
2,4,6-TRIBROMOPHENOL	61	ug/Kg	1.1		
TERPHENYL-D14	76	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<280	ug/Kgdrywt	56	280	5
CHLOROMETHANE	<280	ug/Kgdrywt	56	280	5
VINYL CHLORIDE	<560	ug/Kgdrywt	56	560	10
BROMOMETHANE	<280	ug/Kgdrywt	56	280	5
CHLOROETHANE	<280	ug/Kgdrywt	56	280	5
TRICHLOROFLUOROMETHANE	<280	ug/Kgdrywt	56	280	5
1,1-DICHLOROETHENE	<280	ug/Kgdrywt	56	280	5
METHYLENE CHLORIDE	580 J	ug/Kgdrywt	56	280	5
1,2-DICHLOROETHENE (TRANS)	<280	ug/Kgdrywt	56	280	5
1,1-DICHLOROETHANE	<280	ug/Kgdrywt	56	280	5
1,2-DICHLOROETHENE (CIS)	<280	ug/Kgdrywt	56	280	5
2,2-DICHLOROPROPANE	<280	ug/Kgdrywt	56	280	5
CHLOROFORM	<280	ug/Kgdrywt	56	280	5
BROMOCHLOROMETHANE	<280	ug/Kgdrywt	56	280	5
1,1,1-TRICHLOROETHANE	<280	ug/Kgdrywt	56	280	5
1,2-DICHLOROETHANE	<280	ug/Kgdrywt	56	280	5
1,1-DICHLOROPROPENE	<280	ug/Kgdrywt	56	280	5
CARBON TETRACHLORIDE	<280	ug/Kgdrywt	56	280	5
BENZENE	<280	ug/Kgdrywt	56	280	5
1,2-DICHLOROPROPANE	<280	ug/Kgdrywt	56	280	5
TRICHLOROETHENE	<280	ug/Kgdrywt	56	280	5
DIBROMOMETHANE	<280	ug/Kgdrywt	56	280	5
BROMODICHLOROMETHANE	<280	ug/Kgdrywt	56	280	5
CIS-1,3-DICHLOROPROPENE	<280	ug/Kgdrywt	56	280	5
TOLUENE	<280	ug/Kgdrywt	56	280	5
TRANS-1,3-DICHLOROPROPENE	<280	ug/Kgdrywt	56	280	5
1,1,2-TRICHLOROETHANE	<280	ug/Kgdrywt	56	280	5
1,3-DICHLOROPROPANE	<280	ug/Kgdrywt	56	280	5
DIBROMOCHLOROMETHANE	<280	ug/Kgdrywt	56	280	5
TETRACHLOROETHENE	<280	ug/Kgdrywt	56	280	5
1,2-DIBROMOETHANE	<280	ug/Kgdrywt	56	280	5
CHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
1,1,1,2-TETRACHLOROETHANE	<280	ug/Kgdrywt	56	280	5

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<280	ug/Kgdrywt	56	280	5
BROMOFORM	<280	ug/Kgdrywt	56	280	5
STYRENE	<280	ug/Kgdrywt	56	280	5
1,1,2,2-TETRACHLOROETHANE	<280	ug/Kgdrywt	56	280	5
1,2,3-TRICHLOROPROPANE	<280	ug/Kgdrywt	56	280	5
ISOPROPYLBENZENE	<280	ug/Kgdrywt	56	280	5
BROMOBENZENE	<280	ug/Kgdrywt	56	280	5
2-CHLOROTOLUENE	<280	ug/Kgdrywt	56	280	5
N-PROPYLBENZENE	<280	ug/Kgdrywt	56	280	5
4-CHLOROTOLUENE	<280	ug/Kgdrywt	56	280	5
1,3,5-TRIMETHYLBENZENE	<280	ug/Kgdrywt	56	280	5
TERT-BUTYLBENZENE	<280	ug/Kgdrywt	56	280	5
1,2,4-TRICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
SEC-BUTYLBENZENE	<280	ug/Kgdrywt	56	280	5
1,3-DICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
P-ISOPROPYLTOLUENE	<280	ug/Kgdrywt	56	280	5
1,4-DICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
1,2-DICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
N-BUTYLBENZENE	<280	ug/Kgdrywt	56	280	5
1,2-DIBROMO-3-CHLOROPROPAN	<280	ug/Kgdrywt	56	280	5
1,2,4-TRIMETHYLBENZENE	<280	ug/Kgdrywt	56	280	5
NAPHTHALENE	<280	ug/Kgdrywt	56	280	5
HEXACHLOROBUTADIENE	<280	ug/Kgdrywt	56	280	5
1,2,3-TRICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
MTBE	<280	ug/Kgdrywt	56	280	5
ACETONE	J310	ug/Kgdrywt	56	560	10
2-BUTANONE	<560	ug/Kgdrywt	56	560	10
4-METHYL-2-PENTANONE	<560	ug/Kgdrywt	56	560	10
2-HEXANONE	<560	ug/Kgdrywt	56	560	10
M+P-XYLENE	<280	ug/Kgdrywt	56	280	5
O-XYLENE	<280	ug/Kgdrywt	56	280	5
1,3,5-TRICHLOROBENZENE	<280	ug/Kgdrywt	56	280	5
VINYL ACETATE	<280	ug/Kgdrywt	56	280	5.0

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-2
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S011E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<280	ug/Kgdrywt	56	280	5
DIETHYL ETHER	<280	ug/Kgdrywt	56	280	5
TETRAHYDROFURAN	<560	ug/Kgdrywt	56	560	10
DIBROMOFLUOROMETHANE	112	%	56		
1,2-DICHLOROETHANE-D4	117	%	56		
TOLUENE-D8	95	%	56		
P-BROMOFLUOROBENZENE	82	%	56		

Report Notes: J

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** BH303A-S013

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 97.8 **Lab Sample ID:** WO3344-003

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	6.8	J4	N*	P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-3
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH303A-S013	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	98.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-3
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH303A-S013	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	33	mg/kgdrywt	1.0	25	E418.1	11/12/98	TB	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/12/98 by TCB

12/01/98

LJO/mrckp(dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 98
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHYL)ETHER	<330	ug/Kg	1.0	330	330
2-CHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,3-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,4-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,2-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
2-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<330	ug/Kg	1.0	330	330
4-METHYLPHENOL	<330	ug/Kg	1.0	330	330
N-NITROSO-DI-N-PROPYLAMINE	<330	ug/Kg	1.0	330	330
HEXACHLOROETHANE	<330	ug/Kg	1.0	330	330
NITROBENZENE	<330	ug/Kg	1.0	330	330
ISOPHORONE	<330	ug/Kg	1.0	330	330
2-NITROPHENOL	<330	ug/Kg	1.0	330	330
2,4-DIMETHYLPHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHOXY)METHANE	<330	ug/Kg	1.0	330	330
2,4-DICHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,2,4-TRICHLOROBENZENE	<330	ug/Kg	1.0	330	330
NAPHTHALENE	<330	ug/Kg	1.0	330	330
4-CHLOROANILINE	<330	ug/Kg	1.0	330	330
HEXACHLOROBUTADIENE	<330	ug/Kg	1.0	330	330
4-CHLORO-3-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2-METHYLNAPHTHALENE	<330	ug/Kg	1.0	330	330
HEXACHLOROCYCLOPENTADIEN	<330 UJ	ug/Kg	1.0	330	330
2,4,6-TRICHLOROPHENOL	<330	ug/Kg	1.0	330	330
2,4,5-TRICHLOROPHENOL	<820	ug/Kg	1.0	820	820
2-CHLORONAPHTHALENE	<330	ug/Kg	1.0	330	330
2-NITROANILINE	<820	ug/Kg	1.0	820	820
DIMETHYL PHTHALATE	<330	ug/Kg	1.0	330	330
ACENAPHTHYLENE	<330	ug/Kg	1.0	330	330
2,6-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
3-NITROANILINE	<820	ug/Kg	1.0	820	820
ACENAPHTHENE	<330	ug/Kg	1.0	330	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 98
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<820	ug/Kg	1.0	820	820
4-NITROPHENOL	<820	ug/Kg	1.0	820	820
DIBENZOFURAN	<330	ug/Kg	1.0	330	330
2,4-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
DIETHYLPHTHALATE	<330	ug/Kg	1.0	330	330
4-CHLOROPHENYL-PHENYLETHE	<330	ug/Kg	1.0	330	330
FLUORENE	<330	ug/Kg	1.0	330	330
4-NITROANILINE	<820	ug/Kg	1.0	820	820
4,6-DINITRO-2-METHYLPHENOL	<820	ug/Kg	1.0	820	820
N-NITROSODIPHENYLAMINE	<330	ug/Kg	1.0	330	330
4-BROMOPHENYL-PHENYLETHER	<330	ug/Kg	1.0	330	330
HEXACHLOROBENZENE	<330	ug/Kg	1.0	330	330
PENTACHLOROPHENOL	<820	ug/Kg	1.0	820	820
PHENANTHRENE	<330	ug/Kg	1.0	330	330
ANTHRACENE	<330	ug/Kg	1.0	330	330
CARBAZOLE	<330	ug/Kg	1.0	330	330
DI-N-BUTYLPHTHALATE	<330	ug/Kg	1.0	330	330
FLUORANTHENE	<330	ug/Kg	1.0	330	330
PYRENE	<330	ug/Kg	1.0	330	330
BUTYLBENZYLPHTHALATE	<330	ug/Kg	1.0	330	330
3,3'-DICHLOROBENZIDINE	<330	ug/Kg	1.0	330	330
BENZO[A]ANTHRACENE	<330	ug/Kg	1.0	330	330
CHRYSENE	<330	ug/Kg	1.0	330	330
BIS(2-ETHYLHEXYL)PHTHALATE	<330	ug/Kg	1.0	330	330
DI-N-OCTYLPHTHALATE	<330	ug/Kg	1.0	330	330
BENZO[B]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[K]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[A]PYRENE	<330	ug/Kg	1.0	330	330
INDENO[1,2,3-CD]PYRENE	<330	ug/Kg	1.0	330	330
DIBENZ[A,H]ANTHRACENE	<330	ug/Kg	1.0	330	330
BENZO[G,H,I]PERYLENE	<330	ug/Kg	1.0	330	330
2-FLUOROPHENOL	80	ug/Kg	1.0		
PHENOL-D5	91	ug/Kg	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 98
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	79	ug/Kg	1.0		
2-FLUOROBIPHENYL	87	ug/Kg	1.0		
2,4,6-TRIBROMOPHENOL	78	ug/Kg	1.0		
TERPHENYL-D14	71	ug/Kg	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 98
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013D 1.94	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<470	ug/Kgdrywt	94	470	5
CHLOROMETHANE	<470	ug/Kgdrywt	94	470	5
VINYL CHLORIDE	<940	ug/Kgdrywt	94	940	10
BROMOMETHANE	<470	ug/Kgdrywt	94	470	5
CHLOROETHANE	<470	ug/Kgdrywt	94	470	5
TRICHLOROFLUOROMETHANE	<470	ug/Kgdrywt	94	470	5
1,1-DICHLOROETHENE	<470	ug/Kgdrywt	94	470	5
METHYLENE CHLORIDE	1300 U'	ug/Kgdrywt	94	470	5
1,2-DICHLOROETHENE (TRANS)	<470	ug/Kgdrywt	94	470	5
1,1-DICHLOROETHANE	<470	ug/Kgdrywt	94	470	5
1,2-DICHLOROETHENE (CIS)	<470	ug/Kgdrywt	94	470	5
2,2-DICHLOROPROPANE	<470	ug/Kgdrywt	94	470	5
CHLOROFORM	<470	ug/Kgdrywt	94	470	5
BROMOCHLOROMETHANE	<470	ug/Kgdrywt	94	470	5
1,1,1-TRICHLOROETHANE	<470	ug/Kgdrywt	94	470	5
1,2-DICHLOROETHANE	<470	ug/Kgdrywt	94	470	5
1,1-DICHLOROPROPENE	<470	ug/Kgdrywt	94	470	5
CARBON TETRACHLORIDE	<470	ug/Kgdrywt	94	470	5
BENZENE	<470	ug/Kgdrywt	94	470	5
1,2-DICHLOROPROPANE	<470	ug/Kgdrywt	94	470	5
TRICHLOROETHENE	<470	ug/Kgdrywt	94	470	5
DIBROMOMETHANE	<470	ug/Kgdrywt	94	470	5
BROMODICHLOROMETHANE	<470	ug/Kgdrywt	94	470	5
CIS-1,3-DICHLOROPROPENE	<470	ug/Kgdrywt	94	470	5
TOLUENE	<470	ug/Kgdrywt	94	470	5
TRANS-1,3-DICHLOROPROPENE	<470	ug/Kgdrywt	94	470	5
1,1,2-TRICHLOROETHANE	<470	ug/Kgdrywt	94	470	5
1,3-DICHLOROPROPANE	<470	ug/Kgdrywt	94	470	5
DIBROMOCHLOROMETHANE	<470	ug/Kgdrywt	94	470	5
TETRACHLOROETHENE	<470	ug/Kgdrywt	94	470	5
1,2-DIBROMOETHANE	<470	ug/Kgdrywt	94	470	5
CHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
1,1,1,2-TETRACHLOROETHANE	<470	ug/Kgdrywt	94	470	5

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 98
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013D	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<470	ug/Kgdrywt	94	470	5
BROMOFORM	<470	ug/Kgdrywt	94	470	5
STYRENE	<470	ug/Kgdrywt	94	470	5
1,1,2,2-TETRACHLOROETHANE	<470	ug/Kgdrywt	94	470	5
1,2,3-TRICHLOROPROPANE	<470	ug/Kgdrywt	94	470	5
ISOPROPYLBENZENE	<470	ug/Kgdrywt	94	470	5
BROMOBENZENE	<470	ug/Kgdrywt	94	470	5
2-CHLOROTOLUENE	<470	ug/Kgdrywt	94	470	5
N-PROPYLBENZENE	<470	ug/Kgdrywt	94	470	5
4-CHLOROTOLUENE	<470	ug/Kgdrywt	94	470	5
1,3,5-TRIMETHYLBENZENE	<470	ug/Kgdrywt	94	470	5
TERT-BUTYLBENZENE	<470	ug/Kgdrywt	94	470	5
1,2,4-TRICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
SEC-BUTYLBENZENE	<470	ug/Kgdrywt	94	470	5
1,3-DICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
P-ISOPROPYLTOLUENE	<470	ug/Kgdrywt	94	470	5
1,4-DICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
1,2-DICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
N-BUTYLBENZENE	<470	ug/Kgdrywt	94	470	5
1,2-DIBROMO-3-CHLOROPROPAN	<470	ug/Kgdrywt	94	470	5
1,2,4-TRIMETHYLBENZENE	<470	ug/Kgdrywt	94	470	5
NAPHTHALENE	<470	ug/Kgdrywt	94	470	5
HEXACHLOROBUTADIENE	<470	ug/Kgdrywt	94	470	5
1,2,3-TRICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
MTBE	<470	ug/Kgdrywt	94	470	5
ACETONE	500 U	ug/Kgdrywt	94	940	10
2-BUTANONE	<940	ug/Kgdrywt	94	940	10
4-METHYL-2-PENTANONE	<940	ug/Kgdrywt	94	940	10
2-HEXANONE	<940	ug/Kgdrywt	94	940	10
M+P-XYLENE	<470	ug/Kgdrywt	94	470	5
O-XYLENE	<470	ug/Kgdrywt	94	470	5
1,3,5-TRICHLOROBENZENE	<470	ug/Kgdrywt	94	470	5
VINYL ACETATE	<470	ug/Kgdrywt	94	470	5.0

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-3
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 98
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH303A-S013D	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<470	ug/Kgdrywt	94	470	5
DIETHYL ETHER	<470	ug/Kgdrywt	94	470	5
TETRAHYDROFURAN	<940	ug/Kgdrywt	94	940	10
DIBROMOFLUOROMETHANE	113	%	94		
1,2-DICHLOROETHANE-D4	115	%	94		
TOLUENE-D8	94	%	94		
P-BROMOFLUOROBENZENE	77	%	94		

Report Notes: J

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** BH302-S111

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 97.9 **Lab Sample ID:** WO3344-004

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	4.2	J4	N*	P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

Katahdin ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-4
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH302-S111	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	98.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-4
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH302-S111	Solid	CLIENT	10/26/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<25.	mg/kgdrywt	1.0	25	E418.1	11/12/98	TB	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/12/98 by TCB

12/01/98

LJO/mrckp(dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 97
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHYL)ETHER	<330	ug/Kg	1.0	330	330
2-CHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,3-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,4-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,2-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
2-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<330	ug/Kg	1.0	330	330
4-METHYLPHENOL	<330	ug/Kg	1.0	330	330
N-NITROSO-DI-N-PROPYLAMINE	<330	ug/Kg	1.0	330	330
HEXACHLOROETHANE	<330	ug/Kg	1.0	330	330
NITROBENZENE	<330	ug/Kg	1.0	330	330
ISOPHORONE	<330	ug/Kg	1.0	330	330
2-NITROPHENOL	<330	ug/Kg	1.0	330	330
2,4-DIMETHYLPHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHOXY)METHANE	<330	ug/Kg	1.0	330	330
2,4-DICHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,2,4-TRICHLOROBENZENE	<330	ug/Kg	1.0	330	330
NAPHTHALENE	<330	ug/Kg	1.0	330	330
4-CHLOROANILINE	<330	ug/Kg	1.0	330	330
HEXACHLOROBUTADIENE	<330	ug/Kg	1.0	330	330
4-CHLORO-3-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2-METHYLNAPHTHALENE	<330	ug/Kg	1.0	330	330
HEXACHLOROCYCLOPENTADIEN	<330	ug/Kg	1.0	330	330
2,4,6-TRICHLOROPHENOL	<330	ug/Kg	1.0	330	330
2,4,5-TRICHLOROPHENOL	<820	ug/Kg	1.0	820	820
2-CHLORONAPHTHALENE	<330	ug/Kg	1.0	330	330
2-NITROANILINE	<820	ug/Kg	1.0	820	820
DIMETHYL PHTHALATE	<330	ug/Kg	1.0	330	330
ACENAPHTHYLENE	<330	ug/Kg	1.0	330	330
2,6-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
3-NITROANILINE	<820	ug/Kg	1.0	820	820
ACENAPHTHENE	<330	ug/Kg	1.0	330	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 97
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<820	ug/Kg	1.0	820	820
4-NITROPHENOL	<820	ug/Kg	1.0	820	820
DIBENZOFURAN	<330	ug/Kg	1.0	330	330
2,4-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
DIETHYLPHTHALATE	<330	ug/Kg	1.0	330	330
4-CHLOROPHENYL-PHENYLETHE	<330	ug/Kg	1.0	330	330
FLUORENE	<330	ug/Kg	1.0	330	330
4-NITROANILINE	<820	ug/Kg	1.0	820	820
4,6-DINITRO-2-METHYLPHENOL	<820	ug/Kg	1.0	820	820
N-NITROSODIPHENYLAMINE	<330	ug/Kg	1.0	330	330
4-BROMOPHENYL-PHENYLETHER	<330	ug/Kg	1.0	330	330
HEXACHLOROBENZENE	<330	ug/Kg	1.0	330	330
PENTACHLOROPHENOL	<820	ug/Kg	1.0	820	820
PHENANTHRENE	<330	ug/Kg	1.0	330	330
ANTHRACENE	<330	ug/Kg	1.0	330	330
CARBAZOLE	<330	ug/Kg	1.0	330	330
DI-N-BUTYLPHTHALATE	<330	ug/Kg	1.0	330	330
FLUORANTHENE	<330	ug/Kg	1.0	330	330
PYRENE	<330	ug/Kg	1.0	330	330
BUTYLBENZYLPHTHALATE	<330	ug/Kg	1.0	330	330
3,3'-DICHLOROBENZIDINE	<330	ug/Kg	1.0	330	330
BENZO[A]ANTHRACENE	<330	ug/Kg	1.0	330	330
CHRYSENE	<330	ug/Kg	1.0	330	330
BIS(2-ETHYLHEXYL)PHTHALATE	<330	ug/Kg	1.0	330	330
DI-N-OCTYLPHTHALATE	<330	ug/Kg	1.0	330	330
BENZO[B]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[K]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[A]PYRENE	<330	ug/Kg	1.0	330	330
INDENO[1,2,3-CD]PYRENE	<330	ug/Kg	1.0	330	330
DIBENZ[A,H]ANTHRACENE	<330	ug/Kg	1.0	330	330
BENZO[G,H,I]PERYLENE	<330	ug/Kg	1.0	330	330
2-FLUOROPHENOL	73	ug/Kg	1.0		
PHENOL-D5	90	ug/Kg	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 97
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111	SL	10/26/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	78	ug/Kg	1.0		
2-FLUOROBIPHENYL	94	ug/Kg	1.0		
2,4,6-TRIBROMOPHENOL	69	ug/Kg	1.0		
TERPHENYL-D14	82	ug/Kg	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 97
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<220	ug/Kgdrywt	44	220	5
CHLOROMETHANE	<220	ug/Kgdrywt	44	220	5
VINYL CHLORIDE	<440	ug/Kgdrywt	44	440	10
BROMOMETHANE	<220	ug/Kgdrywt	44	220	5
CHLOROETHANE	<220	ug/Kgdrywt	44	220	5
TRICHLOROFLUOROMETHANE	<220	ug/Kgdrywt	44	220	5
1,1-DICHLOROETHENE	<220	ug/Kgdrywt	44	220	5
METHYLENE CHLORIDE	470	ug/Kgdrywt	44	220	5
1,2-DICHLOROETHENE (TRANS)	<220	ug/Kgdrywt	44	220	5
1,1-DICHLOROETHANE	<220	ug/Kgdrywt	44	220	5
1,2-DICHLOROETHENE (CIS)	<220	ug/Kgdrywt	44	220	5
2,2-DICHLOROPROPANE	<220	ug/Kgdrywt	44	220	5
CHLOROFORM	<220	ug/Kgdrywt	44	220	5
BROMOCHLOROMETHANE	<220	ug/Kgdrywt	44	220	5
1,1,1-TRICHLOROETHANE	<220	ug/Kgdrywt	44	220	5
1,2-DICHLOROETHANE	<220	ug/Kgdrywt	44	220	5
1,1-DICHLOROPROPENE	<220	ug/Kgdrywt	44	220	5
CARBON TETRACHLORIDE	<220	ug/Kgdrywt	44	220	5
BENZENE	<220	ug/Kgdrywt	44	220	5
1,2-DICHLOROPROPANE	<220	ug/Kgdrywt	44	220	5
TRICHLOROETHENE	<220	ug/Kgdrywt	44	220	5
DIBROMOMETHANE	<220	ug/Kgdrywt	44	220	5
BROMODICHLOROMETHANE	<220	ug/Kgdrywt	44	220	5
CIS-1,3-DICHLOROPROPENE	<220	ug/Kgdrywt	44	220	5
TOLUENE	<220	ug/Kgdrywt	44	220	5
TRANS-1,3-DICHLOROPROPENE	<220	ug/Kgdrywt	44	220	5
1,1,2-TRICHLOROETHANE	<220	ug/Kgdrywt	44	220	5
1,3-DICHLOROPROPANE	<220	ug/Kgdrywt	44	220	5
DIBROMOCHLOROMETHANE	<220	ug/Kgdrywt	44	220	5
TETRACHLOROETHENE	<220	ug/Kgdrywt	44	220	5
1,2-DIBROMOETHANE	<220	ug/Kgdrywt	44	220	5
CHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
1,1,1,2-TETRACHLOROETHANE	<220	ug/Kgdrywt	44	220	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 97
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<220	ug/Kgdrywt	44	220	5
BROMOFORM	<220	ug/Kgdrywt	44	220	5
STYRENE	<220	ug/Kgdrywt	44	220	5
1,1,2,2-TETRACHLOROETHANE	<220	ug/Kgdrywt	44	220	5
1,2,3-TRICHLOROPROPANE	<220	ug/Kgdrywt	44	220	5
ISOPROPYLBENZENE	<220	ug/Kgdrywt	44	220	5
BROMOBENZENE	<220	ug/Kgdrywt	44	220	5
2-CHLOROTOLUENE	<220	ug/Kgdrywt	44	220	5
N-PROPYLBENZENE	<220	ug/Kgdrywt	44	220	5
4-CHLOROTOLUENE	<220	ug/Kgdrywt	44	220	5
1,3,5-TRIMETHYLBENZENE	<220	ug/Kgdrywt	44	220	5
TERT-BUTYLBENZENE	<220	ug/Kgdrywt	44	220	5
1,2,4-TRICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
SEC-BUTYLBENZENE	<220	ug/Kgdrywt	44	220	5
1,3-DICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
P-ISOPROPYLTOLUENE	<220	ug/Kgdrywt	44	220	5
1,4-DICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
1,2-DICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
N-BUTYLBENZENE	<220	ug/Kgdrywt	44	220	5
1,2-DIBROMO-3-CHLOROPROPAN	<220	ug/Kgdrywt	44	220	5
1,2,4-TRIMETHYLBENZENE	<220	ug/Kgdrywt	44	220	5
NAPHTHALENE	<220	ug/Kgdrywt	44	220	5
HEXACHLOROBUTADIENE	<220	ug/Kgdrywt	44	220	5
1,2,3-TRICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
MTBE	<220	ug/Kgdrywt	44	220	5
ACETONE	<440	ug/Kgdrywt	44	440	10
2-BUTANONE	<440	ug/Kgdrywt	44	440	10
4-METHYL-2-PENTANONE	<440	ug/Kgdrywt	44	440	10
2-HEXANONE	<440	ug/Kgdrywt	44	440	10
M+P-XYLENE	<220	ug/Kgdrywt	44	220	5
O-XYLENE	<220	ug/Kgdrywt	44	220	5
1,3,5-TRICHLOROBENZENE	<220	ug/Kgdrywt	44	220	5
VINYL ACETATE	<220	ug/Kgdrywt	44	220	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-4
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 97
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH302-S111E	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<220	ug/Kgdrywt	44	220	5
DIETHYL ETHER	<220	ug/Kgdrywt	44	220	5
TETRAHYDROFURAN	<440	ug/Kgdrywt	44	440	10
DIBROMOFLUOROMETHANE	114	%	44		
1,2-DICHLOROETHANE-D4	118	%	44		
TOLUENE-D8	98	%	44		
P-BROMOFLUOROBENZENE	83	%	44		

Report Notes:

0000038

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: BH304-S017
Matrix: SOIL
SDG Name: WO3344
Percent Solids: 92.6
Lab Sample ID: WO3344-005

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	4.8	J4	N*	P	1

Color Before:
Texture:
Artifacts:
Color After:
Clarity After:
Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-5
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH304-S017	Solid	CLIENT	10/27/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	93.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

Katahdin ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-5
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
BH304-S017	Solid	CLIENT	10/27/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<25.	mg/kgdrywt	1.0	25	E418.1	11/12/98	TB	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 11/12/98 by TCB

12/01/98

LJO/mrckp:dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHYL)ETHER	<360	ug/Kg	1.1	360	330
2-CHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,3-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,4-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,2-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
2-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<360	ug/Kg	1.1	360	330
4-METHYLPHENOL	<360	ug/Kg	1.1	360	330
N-NITROSO-DI-N-PROPYLAMINE	<360	ug/Kg	1.1	360	330
HEXACHLOROETHANE	<360	ug/Kg	1.1	360	330
NITROBENZENE	<360	ug/Kg	1.1	360	330
ISOPHORONE	<360	ug/Kg	1.1	360	330
2-NITROPHENOL	<360	ug/Kg	1.1	360	330
2,4-DIMETHYLPHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHOXY)METHANE	<360	ug/Kg	1.1	360	330
2,4-DICHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,2,4-TRICHLOROBENZENE	<360	ug/Kg	1.1	360	330
NAPHTHALENE	<360	ug/Kg	1.1	360	330
4-CHLOROANILINE	<360	ug/Kg	1.1	360	330
HEXACHLOROBUTADIENE	<360	ug/Kg	1.1	360	330
4-CHLORO-3-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2-METHYLNAPHTHALENE	<360	ug/Kg	1.1	360	330
HEXACHLOROCYCLOPENTADIEN	<360 UJ	ug/Kg	1.1	360	330
2,4,6-TRICHLOROPHENOL	<360	ug/Kg	1.1	360	330
2,4,5-TRICHLOROPHENOL	<900	ug/Kg	1.1	900	820
2-CHLORONAPHTHALENE	<360	ug/Kg	1.1	360	330
2-NITROANILINE	<900	ug/Kg	1.1	900	820
DIMETHYL PHTHALATE	<360	ug/Kg	1.1	360	330
ACENAPHTHYLENE	<360	ug/Kg	1.1	360	330
2,6-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
3-NITROANILINE	<900	ug/Kg	1.1	900	820
ACENAPHTHENE	<360	ug/Kg	1.1	360	330

Report Notes:

0000042

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2.4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<900	ug/Kg	1.1	900	820
4-NITROPHENOL	<900	ug/Kg	1.1	900	820
DIBENZOFURAN	<360	ug/Kg	1.1	360	330
2,4-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
DIETHYLPHTHALATE	<360	ug/Kg	1.1	360	330
4-CHLOROPHENYL-PHENYLETHE	<360	ug/Kg	1.1	360	330
FLUORENE	<360	ug/Kg	1.1	360	330
4-NITROANILINE	<900	ug/Kg	1.1	900	820
4,6-DINITRO-2-METHYLPHENOL	<900	ug/Kg	1.1	900	820
N-NITROSODIPHENYLAMINE	<360	ug/Kg	1.1	360	330
4-BROMOPHENYL-PHENYLETHER	<360	ug/Kg	1.1	360	330
HEXACHLOROBENZENE	<360	ug/Kg	1.1	360	330
PENTACHLOROPHENOL	<900	ug/Kg	1.1	900	820
PHENANTHRENE	<360	ug/Kg	1.1	360	330
ANTHRACENE	<360	ug/Kg	1.1	360	330
CARBAZOLE	<360	ug/Kg	1.1	360	330
DI-N-BUTYLPHTHALATE	<360	ug/Kg	1.1	360	330
FLUORANTHENE	<360	ug/Kg	1.1	360	330
PYRENE	<360	ug/Kg	1.1	360	330
BUTYLBENZYLPHTHALATE	<360	ug/Kg	1.1	360	330
3,3'-DICHLOROBENZIDINE	<360	ug/Kg	1.1	360	330
BENZO[A]ANTHRACENE	<360	ug/Kg	1.1	360	330
CHRYSENE	<360	ug/Kg	1.1	360	330
BIS(2-ETHYLHEXYL)PHTHALATE	<360	ug/Kg	1.1	360	330
DI-N-OCTYLPHTHALATE	<360	ug/Kg	1.1	360	330
BENZO[B]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[K]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[A]PYRENE	<360	ug/Kg	1.1	360	330
INDENO[1,2,3-CD]PYRENE	<360	ug/Kg	1.1	360	330
DIBENZ[A,H]ANTHRACENE	<360	ug/Kg	1.1	360	330
BENZO[G,H,I]PERYLENE	<360	ug/Kg	1.1	360	330
2-FLUOROPHENOL	76	ug/Kg	1.1		
PHENOL-D5	85	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 93
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	75	ug/Kg	1.1		
2-FLUOROBIPHENYL	86	ug/Kg	1.1		
2,4,6-TRIBROMOPHENOL	68	ug/Kg	1.1		
TERPHENYL-D14	73	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
VINYL CHLORIDE	<350	ug/Kgdrywt	35	350	10
BROMOMETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROETHANE	<180	ug/Kgdrywt	35	180	5
TRICHLOROFLUOROMETHANE	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROETHENE	<180	ug/Kgdrywt	35	180	5
METHYLENE CHLORIDE	300	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHENE (TRANS)	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHENE (CIS)	<180	ug/Kgdrywt	35	180	5
2,2-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
CHLOROFORM	<180	ug/Kgdrywt	35	180	5
BROMOCHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
1,1,1-TRICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
CARBON TETRACHLORIDE	<180	ug/Kgdrywt	35	180	5
BENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
TRICHLOROETHENE	<180	ug/Kgdrywt	35	180	5
DIBROMOMETHANE	<180	ug/Kgdrywt	35	180	5
BROMODICHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
CIS-1,3-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
TOLUENE	<180	ug/Kgdrywt	35	180	5
TRANS-1,3-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
1,1,2-TRICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,3-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
DIBROMOCHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
TETRACHLOROETHENE	<180	ug/Kgdrywt	35	180	5
1,2-DIBROMOETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
1,1,1,2-TETRACHLOROETHANE	<180	ug/Kgdrywt	35	180	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
BROMOFORM	<180	ug/Kgdrywt	35	180	5
STYRENE	<180	ug/Kgdrywt	35	180	5
1,1,2,2-TETRACHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2,3-TRICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
ISOPROPYLBENZENE	<180	ug/Kgdrywt	35	180	5
BROMOBENZENE	<180	ug/Kgdrywt	35	180	5
2-CHLOROTOLUENE	<180	ug/Kgdrywt	35	180	5
N-PROPYLBENZENE	<180	ug/Kgdrywt	35	180	5
4-CHLOROTOLUENE	<180	ug/Kgdrywt	35	180	5
1,3,5-TRIMETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
TERT-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,2,4-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
SEC-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,3-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
P-ISOPROPYLTOLUENE	<180	ug/Kgdrywt	35	180	5
1,4-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
N-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DIBROMO-3-CHLOROPROPAN	<180	ug/Kgdrywt	35	180	5
1,2,4-TRIMETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
NAPHTHALENE	<180	ug/Kgdrywt	35	180	5
HEXACHLOROBUTADIENE	<180	ug/Kgdrywt	35	180	5
1,2,3-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
MTBE	<180	ug/Kgdrywt	35	180	5
ACETONE	<350	ug/Kgdrywt	35	350	10
2-BUTANONE	<350	ug/Kgdrywt	35	350	10
4-METHYL-2-PENTANONE	<350	ug/Kgdrywt	35	350	10
2-HEXANONE	<350	ug/Kgdrywt	35	350	10
M+P-XYLENE	<180	ug/Kgdrywt	35	180	5
O-XYLENE	<180	ug/Kgdrywt	35	180	5
1,3,5-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
VINYL ACETATE	<180	ug/Kgdrywt	35	180	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-5
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 93
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
BH304-S017	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<180	ug/Kgdrywt	35	180	5
DIETHYL ETHER	<180	ug/Kgdrywt	35	180	5
TETRAHYDROFURAN	<350	ug/Kgdrywt	35	350	10
DIBROMOFLUOROMETHANE	109	%	35		
1,2-DICHLOROETHANE-D4	113	%	35		
TOLUENE-D8	99	%	35		
P-BROMOFLUOROBENZENE	81	%	35		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-6
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: -
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<250	ug/Kgdrywt	50	250	5
CHLOROMETHANE	<250	ug/Kgdrywt	50	250	5
VINYL CHLORIDE	<500	ug/Kgdrywt	50	500	10
BROMOMETHANE	<250	ug/Kgdrywt	50	250	5
CHLOROETHANE	<250	ug/Kgdrywt	50	250	5
TRICHLOROFLUOROMETHANE	<250	ug/Kgdrywt	50	250	5
1,1-DICHLOROETHENE	<250	ug/Kgdrywt	50	250	5
METHYLENE CHLORIDE	550	ug/Kgdrywt	50	250	5
1,2-DICHLOROETHENE (TRANS)	<250	ug/Kgdrywt	50	250	5
1,1-DICHLOROETHANE	<250	ug/Kgdrywt	50	250	5
1,2-DICHLOROETHENE (CIS)	<250	ug/Kgdrywt	50	250	5
2,2-DICHLOROPROPANE	<250	ug/Kgdrywt	50	250	5
CHLOROFORM	<250	ug/Kgdrywt	50	250	5
BROMOCHLOROMETHANE	<250	ug/Kgdrywt	50	250	5
1,1,1-TRICHLOROETHANE	<250	ug/Kgdrywt	50	250	5
1,2-DICHLOROETHANE	<250	ug/Kgdrywt	50	250	5
1,1-DICHLOROPROPENE	<250	ug/Kgdrywt	50	250	5
CARBON TETRACHLORIDE	<250	ug/Kgdrywt	50	250	5
BENZENE	<250	ug/Kgdrywt	50	250	5
1,2-DICHLOROPROPANE	<250	ug/Kgdrywt	50	250	5
TRICHLOROETHENE	<250	ug/Kgdrywt	50	250	5
DIBROMOMETHANE	<250	ug/Kgdrywt	50	250	5
BROMODICHLOROMETHANE	<250	ug/Kgdrywt	50	250	5
CIS-1,3-DICHLOROPROPENE	<250	ug/Kgdrywt	50	250	5
TOLUENE	<250	ug/Kgdrywt	50	250	5
TRANS-1,3-DICHLOROPROPENE	<250	ug/Kgdrywt	50	250	5
1,1,2-TRICHLOROETHANE	<250	ug/Kgdrywt	50	250	5
1,3-DICHLOROPROPANE	<250	ug/Kgdrywt	50	250	5
DIBROMOCHLOROMETHANE	<250	ug/Kgdrywt	50	250	5
TETRACHLOROETHENE	<250	ug/Kgdrywt	50	250	5
1,2-DIBROMOETHANE	<250	ug/Kgdrywt	50	250	5
CHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
1,1,1,2-TETRACHLOROETHANE	<250	ug/Kgdrywt	50	250	5

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-6
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: -
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<250	ug/Kgdrywt	50	250	5
BROMOFORM	<250	ug/Kgdrywt	50	250	5
STYRENE	<250	ug/Kgdrywt	50	250	5
1,1,2,2-TETRACHLOROETHANE	<250	ug/Kgdrywt	50	250	5
1,2,3-TRICHLOROPROPANE	<250	ug/Kgdrywt	50	250	5
ISOPROPYLBENZENE	<250	ug/Kgdrywt	50	250	5
BROMOBENZENE	<250	ug/Kgdrywt	50	250	5
2-CHLOROTOLUENE	<250	ug/Kgdrywt	50	250	5
N-PROPYLBENZENE	<250	ug/Kgdrywt	50	250	5
4-CHLOROTOLUENE	<250	ug/Kgdrywt	50	250	5
1,3,5-TRIMETHYLBENZENE	<250	ug/Kgdrywt	50	250	5
TERT-BUTYLBENZENE	<250	ug/Kgdrywt	50	250	5
1,2,4-TRICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
SEC-BUTYLBENZENE	<250	ug/Kgdrywt	50	250	5
1,3-DICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
P-ISOPROPYLTOLUENE	<250	ug/Kgdrywt	50	250	5
1,4-DICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
1,2-DICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
N-BUTYLBENZENE	<250	ug/Kgdrywt	50	250	5
1,2-DIBROMO-3-CHLOROPROPAN	<250	ug/Kgdrywt	50	250	5
1,2,4-TRIMETHYLBENZENE	<250	ug/Kgdrywt	50	250	5
NAPHTHALENE	<250	ug/Kgdrywt	50	250	5
HEXACHLOROBUTADIENE	<250	ug/Kgdrywt	50	250	5
1,2,3-TRICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
MTBE	<250	ug/Kgdrywt	50	250	5
ACETONE	J290	ug/Kgdrywt	50	500	10
2-BUTANONE	<500	ug/Kgdrywt	50	500	10
4-METHYL-2-PENTANONE	<500	ug/Kgdrywt	50	500	10
2-HEXANONE	<500	ug/Kgdrywt	50	500	10
M+P-XYLENE	<250	ug/Kgdrywt	50	250	5
O-XYLENE	<250	ug/Kgdrywt	50	250	5
1,3,5-TRICHLOROBENZENE	<250	ug/Kgdrywt	50	250	5
VINYL ACETATE	<250	ug/Kgdrywt	50	250	5.0

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-6
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: -
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	SL	10/26/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<250	ug/Kgdrywt	50	250	5
DIETHYL ETHER	<250	ug/Kgdrywt	50	250	5
TETRAHYDROFURAN	<500	ug/Kgdrywt	50	500	10
DIBROMOFLUOROMETHANE	120	%	50		
1,2-DICHLOROETHANE-D4	124	%	50		
TOLUENE-D8	96	%	50		
P-BROMOFLUOROBENZENE	78	%	50		

Report Notes: J

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF201-S009

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 55.6 **Lab Sample ID:** WO3344-007

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	7.1			P	1
7440-39-3	BARIUM	31.1			P	1
7440-43-9	CADMIUM	0.85	B		P	1
7440-47-3	CHROMIUM	13.6			P	1
7439-92-1	LEAD	91.6 J4		N*	P	1
7439-97-6	MERCURY	0.06	B		CV	1
7782-49-2	SELENIUM	1.2	B		P	1
7440-22-4	SILVER	0.11	U		P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-7
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
LF201-S009	Solid	CLIENT	10/27/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	56.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 56
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<590	ug/Kg	1.8	590	330
BIS(2-CHLOROETHYL)ETHER	<590	ug/Kg	1.8	590	330
2-CHLOROPHENOL	<590	ug/Kg	1.8	590	330
1,3-DICHLOROBENZENE	<590	ug/Kg	1.8	590	330
1,4-DICHLOROBENZENE	<590	ug/Kg	1.8	590	330
1,2-DICHLOROBENZENE	<590	ug/Kg	1.8	590	330
2-METHYLPHENOL	<590	ug/Kg	1.8	590	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<590	ug/Kg	1.8	590	330
4-METHYLPHENOL	<590	ug/Kg	1.8	590	330
N-NITROSO-DI-N-PROPYLAMINE	<590	ug/Kg	1.8	590	330
HEXACHLOROETHANE	<590	ug/Kg	1.8	590	330
NITROBENZENE	<590	ug/Kg	1.8	590	330
ISOPHORONE	<590	ug/Kg	1.8	590	330
2-NITROPHENOL	<590	ug/Kg	1.8	590	330
2,4-DIMETHYLPHENOL	<590	ug/Kg	1.8	590	330
BIS(2-CHLOROETHOXY)METHANE	<590	ug/Kg	1.8	590	330
2,4-DICHLOROPHENOL	<590	ug/Kg	1.8	590	330
1,2,4-TRICHLOROBENZENE	<590	ug/Kg	1.8	590	330
NAPHTHALENE	<590	ug/Kg	1.8	590	330
4-CHLORCANILINE	<590 UJ	ug/Kg	1.8	590	330
HEXACHLOROBUTADIENE	<590	ug/Kg	1.8	590	330
4-CHLORO-3-METHYLPHENOL	<590	ug/Kg	1.8	590	330
2-METHYLNAPHTHALENE	<590	ug/Kg	1.8	590	330
HEXACHLOROCYCLOPENTADIEN	<590 UJ	ug/Kg	1.8	590	330
2,4,6-TRICHLOROPHENOL	<590	ug/Kg	1.8	590	330
2,4,5-TRICHLOROPHENOL	<1500	ug/Kg	1.8	1500	820
2-CHLORONAPHTHALENE	<590	ug/Kg	1.8	590	330
2-NITROANILINE	<1500	ug/Kg	1.8	1500	820
DIMETHYL PHTHALATE	<590	ug/Kg	1.8	590	330
ACENAPHTHYLENE	<590	ug/Kg	1.8	590	330
2,6-DINITROTOLUENE	<590	ug/Kg	1.8	590	330
3-NITROANILINE	<1500 UJ	ug/Kg	1.8	1500	820
ACENAPHTHENE	<590	ug/Kg	1.8	590	330

Report Notes:

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KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 56
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<1500	ug/Kg	1.8	1500	820
4-NITROPHENOL	<1500	ug/Kg	1.8	1500	820
DIBENZOFURAN	<590	ug/Kg	1.8	590	330
2,4-DINITROTOLUENE	<590	ug/Kg	1.8	590	330
DIETHYLPHTHALATE	<590	ug/Kg	1.8	590	330
4-CHLOROPHENYL-PHENYLETHE	<590	ug/Kg	1.8	590	330
FLUORENE	<590	ug/Kg	1.8	590	330
4-NITROANILINE	<1500	ug/Kg	1.8	1500	820
4,6-DINITRO-2-METHYLPHENOL	<1500	ug/Kg	1.8	1500	820
N-NITROSODIPHENYLAMINE	<590	ug/Kg	1.8	590	330
4-BROMOPHENYL-PHENYLETHER	<590	ug/Kg	1.8	590	330
HEXACHLOROBENZENE	<590	ug/Kg	1.8	590	330
PENTACHLOROPHENOL	<1500	ug/Kg	1.8	1500	820
PHENANTHRENE	<590	ug/Kg	1.8	590	330
ANTHRACENE	<590	ug/Kg	1.8	590	330
CARBAZOLE	<590	ug/Kg	1.8	590	330
DI-N-BUTYLPHTHALATE	<590	ug/Kg	1.8	590	330
FLUORANTHENE	<590	ug/Kg	1.8	590	330
PYRENE	<590	ug/Kg	1.8	590	330
BUTYLBENZYLPHTHALATE	<590	ug/Kg	1.8	590	330
3,3'-DICHLOROBENZIDINE	<590 UJ?	ug/Kg	1.8	590	330
BENZO[A]ANTHRACENE	<590	ug/Kg	1.8	590	330
CHRYSENE	<590	ug/Kg	1.8	590	330
BIS(2-ETHYLHEXYL)PHTHALATE	<590	ug/Kg	1.8	590	330
DI-N-OCTYLPHTHALATE	<590	ug/Kg	1.8	590	330
BENZO[B]FLUORANTHENE	<590	ug/Kg	1.8	590	330
BENZO[K]FLUORANTHENE	<590	ug/Kg	1.8	590	330
BENZO[A]PYRENE	<590	ug/Kg	1.8	590	330
INDENO[1,2,3-CD]PYRENE	<590	ug/Kg	1.8	590	330
DIBENZ[A,H]ANTHRACENE	<590	ug/Kg	1.8	590	330
BENZO[G,H,I]PERYLENE	<590	ug/Kg	1.8	590	330
2-FLUOROPHENOL	70	ug/Kg	1.8		
PHENOL-D5	83	ug/Kg	1.8		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 56
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	69	ug/Kg	1.8		
2-FLUOROBIPHENYL	81	ug/Kg	1.8		
2,4,6-TRIBROMOPHENOL	78	ug/Kg	1.8		
TERPHENYL-D14	71	ug/Kg	1.8		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 56
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009H	SL	10/27/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<430	ug/Kgdrywt	86	430	5
CHLOROMETHANE	<430	ug/Kgdrywt	86	430	5
VINYL CHLORIDE	<860	ug/Kgdrywt	86	860	10
BROMOMETHANE	<430	ug/Kgdrywt	86	430	5
CHLOROETHANE	<430	ug/Kgdrywt	86	430	5
TRICHLOROFLUOROMETHANE	<430	ug/Kgdrywt	86	430	5
1,1-DICHLOROETHENE	<430	ug/Kgdrywt	86	430	5
METHYLENE CHLORIDE	660 J	ug/Kgdrywt	86	430	5
1,2-DICHLOROETHENE (TRANS)	<430	ug/Kgdrywt	86	430	5
1,1-DICHLOROETHANE	<430	ug/Kgdrywt	86	430	5
1,2-DICHLOROETHENE (CIS)	<430	ug/Kgdrywt	86	430	5
2,2-DICHLOROPROPANE	<430	ug/Kgdrywt	86	430	5
CHLOROFORM	<430	ug/Kgdrywt	86	430	5
BROMOCHLOROMETHANE	<430	ug/Kgdrywt	86	430	5
1,1,1-TRICHLOROETHANE	<430	ug/Kgdrywt	86	430	5
1,2-DICHLOROETHANE	<430	ug/Kgdrywt	86	430	5
1,1-DICHLOROPROPENE	<430	ug/Kgdrywt	86	430	5
CARBON TETRACHLORIDE	<430	ug/Kgdrywt	86	430	5
BENZENE	<430	ug/Kgdrywt	86	430	5
1,2-DICHLOROPROPANE	<430	ug/Kgdrywt	86	430	5
TRICHLOROETHENE	<430	ug/Kgdrywt	86	430	5
DIBROMOMETHANE	<430	ug/Kgdrywt	86	430	5
BROMODICHLOROMETHANE	<430	ug/Kgdrywt	86	430	5
CIS-1,3-DICHLOROPROPENE	<430	ug/Kgdrywt	86	430	5
TOLUENE	<430	ug/Kgdrywt	86	430	5
TRANS-1,3-DICHLOROPROPENE	<430	ug/Kgdrywt	86	430	5
1,1,2-TRICHLOROETHANE	<430	ug/Kgdrywt	86	430	5
1,3-DICHLOROPROPANE	<430	ug/Kgdrywt	86	430	5
DIBROMOCHLOROMETHANE	<430	ug/Kgdrywt	86	430	5
TETRACHLOROETHENE	<430	ug/Kgdrywt	86	430	5
1,2-DIBROMOETHANE	<430	ug/Kgdrywt	86	430	5
CHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
1,1,1,2-TETRACHLOROETHANE	<430	ug/Kgdrywt	86	430	5

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 56
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009H	SL	10/27/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<430	ug/Kgdrywt	86	430	5
BROMOFORM	<430	ug/Kgdrywt	86	430	5
STYRENE	<430	ug/Kgdrywt	86	430	5
1,1,2,2-TETRACHLOROETHANE	<430	ug/Kgdrywt	86	430	5
1,2,3-TRICHLOROPROPANE	<430	ug/Kgdrywt	86	430	5
ISOPROPYLBENZENE	<430	ug/Kgdrywt	86	430	5
BROMOBENZENE	<430	ug/Kgdrywt	86	430	5
2-CHLOROTOLUENE	<430	ug/Kgdrywt	86	430	5
N-PROPYLBENZENE	<430	ug/Kgdrywt	86	430	5
4-CHLOROTOLUENE	<430	ug/Kgdrywt	86	430	5
1,3,5-TRIMETHYLBENZENE	<430	ug/Kgdrywt	86	430	5
TERT-BUTYLBENZENE	<430	ug/Kgdrywt	86	430	5
1,2,4-TRICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
SEC-BUTYLBENZENE	<430	ug/Kgdrywt	86	430	5
1,3-DICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
P-ISOPROPYLTOLUENE	<430	ug/Kgdrywt	86	430	5
1,4-DICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
1,2-DICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
N-BUTYLBENZENE	<430	ug/Kgdrywt	86	430	5
1,2-DIBROMO-3-CHLOROPROPAN	<430	ug/Kgdrywt	86	430	5
1,2,4-TRIMETHYLBENZENE	<430	ug/Kgdrywt	86	430	5
NAPHTHALENE	<430	ug/Kgdrywt	86	430	5
HEXACHLOROBUTADIENE	<430	ug/Kgdrywt	86	430	5
1,2,3-TRICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
MTBE	<430	ug/Kgdrywt	86	430	5
ACETONE	~~J~~480 U	ug/Kgdrywt	86	860	10
2-BUTANONE	<860	ug/Kgdrywt	86	860	10
4-METHYL-2-PENTANONE	<860	ug/Kgdrywt	86	860	10
2-HEXANONE	<860	ug/Kgdrywt	86	860	10
M+P-XYLENE	<430	ug/Kgdrywt	86	430	5
O-XYLENE	<430	ug/Kgdrywt	86	430	5
1,3,5-TRICHLOROBENZENE	<430	ug/Kgdrywt	86	430	5
VINYL ACETATE	<430	ug/Kgdrywt	86	430	5.0

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-7
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 56
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-S009H	SL	10/27/98	10/29/98	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<430	ug/Kgdrywt	86	430	5
DIETHYL ETHER	<430	ug/Kgdrywt	86	430	5
TETRAHYDROFURAN	<860	ug/Kgdrywt	86	860	10
DIBROMOFLUOROMETHANE	123	%	86		
1,2-DICHLOROETHANE-D4	123	%	86		
TOLUENE-D8	99	%	86		
P-BROMOFLUOROBENZENE	80	%	86		

Report Notes: J

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF202-S013

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 84.0 **Lab Sample ID:** WO3344-008

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	0.31	~~B~~ U		P	1
7440-39-3	BARIUM	10.3			P	1
7440-43-9	CADMIUM	0.02	U		P	1
7440-47-3	CHROMIUM	1.6			P	1
7439-92-1	LEAD	3.2	J4	N*	P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	0.23	U		P	1
7440-22-4	SILVER	0.05	U		P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-8
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
LF202-S013	Solid	CLIENT	10/27/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	84.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/18/98
PO No.: 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 84
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<400	ug/Kg	1.2	400	330
BIS(2-CHLOROETHYL)ETHER	<400	ug/Kg	1.2	400	330
2-CHLOROPHENOL	<400	ug/Kg	1.2	400	330
1,3-DICHLOROBENZENE	<400	ug/Kg	1.2	400	330
1,4-DICHLOROBENZENE	<400	ug/Kg	1.2	400	330
1,2-DICHLOROBENZENE	<400	ug/Kg	1.2	400	330
2-METHYLPHENOL	<400	ug/Kg	1.2	400	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<400	ug/Kg	1.2	400	330
4-METHYLPHENOL	<400	ug/Kg	1.2	400	330
N-NITROSO-DI-N-PROPYLAMINE	<400	ug/Kg	1.2	400	330
HEXACHLOROETHANE	<400	ug/Kg	1.2	400	330
NITROBENZENE	<400	ug/Kg	1.2	400	330
ISOPHORONE	<400	ug/Kg	1.2	400	330
2-NITROPHENOL	<400	ug/Kg	1.2	400	330
2,4-DIMETHYLPHENOL	<400	ug/Kg	1.2	400	330
BIS(2-CHLOROETHOXY)METHANE	<400	ug/Kg	1.2	400	330
2,4-DICHLOROPHENOL	<400	ug/Kg	1.2	400	330
1,2,4-TRICHLOROBENZENE	<400	ug/Kg	1.2	400	330
NAPHTHALENE	<400	ug/Kg	1.2	400	330
4-CHLOROANILINE	<400	ug/Kg	1.2	400	330
HEXACHLOROBUTADIENE	<400	ug/Kg	1.2	400	330
4-CHLORO-3-METHYLPHENOL	<400	ug/Kg	1.2	400	330
2-METHYLNAPHTHALENE	<400	ug/Kg	1.2	400	330
HEXACHLOROCYCLOPENTADIEN	<400 UJ	ug/Kg	1.2	400	330
2,4,6-TRICHLOROPHENOL	<400	ug/Kg	1.2	400	330
2,4,5-TRICHLOROPHENOL	<980	ug/Kg	1.2	980	820
2-CHLORONAPHTHALENE	<400	ug/Kg	1.2	400	330
2-NITROANILINE	<980	ug/Kg	1.2	980	820
DIMETHYL PHTHALATE	<400	ug/Kg	1.2	400	330
ACENAPHTHYLENE	<400	ug/Kg	1.2	400	330
2,6-DINITROTOLUENE	<400	ug/Kg	1.2	400	330
3-NITROANILINE	<980	ug/Kg	1.2	980	820
ACENAPHTHENE	<400	ug/Kg	1.2	400	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 84
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<980	ug/Kg	1.2	980	820
4-NITROPHENOL	<980	ug/Kg	1.2	980	820
DIBENZOFURAN	<400	ug/Kg	1.2	400	330
2,4-DINITROTOLUENE	<400	ug/Kg	1.2	400	330
DIETHYLPHTHALATE	<400	ug/Kg	1.2	400	330
4-CHLOROPHENYL-PHENYLETHE	<400	ug/Kg	1.2	400	330
FLUORENE	<400	ug/Kg	1.2	400	330
4-NITROANILINE	<980	ug/Kg	1.2	980	820
4,6-DINITRO-2-METHYLPHENOL	<980	ug/Kg	1.2	980	820
N-NITROSODIPHENYLAMINE	<400	ug/Kg	1.2	400	330
4-BROMOPHENYL-PHENYLETHER	<400	ug/Kg	1.2	400	330
HEXACHLOROBENZENE	<400	ug/Kg	1.2	400	330
PENTACHLOROPHENOL	<980	ug/Kg	1.2	980	820
PHENANTHRENE	<400	ug/Kg	1.2	400	330
ANTHRACENE	<400	ug/Kg	1.2	400	330
CARBAZOLE	<400	ug/Kg	1.2	400	330
DI-N-BUTYLPHTHALATE	<400	ug/Kg	1.2	400	330
FLUORANTHENE	<400	ug/Kg	1.2	400	330
PYRENE	<400	ug/Kg	1.2	400	330
BUTYLBENZYLPHTHALATE	<400	ug/Kg	1.2	400	330
3,3'-DICHLOROBENZIDINE	<400	ug/Kg	1.2	400	330
BENZO[A]ANTHRACENE	<400	ug/Kg	1.2	400	330
CHRYSENE	<400	ug/Kg	1.2	400	330
BIS(2-ETHYLHEXYL)PHTHALATE	<400	ug/Kg	1.2	400	330
DI-N-OCTYLPHTHALATE	<400	ug/Kg	1.2	400	330
BENZO[B]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[K]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[A]PYRENE	<400	ug/Kg	1.2	400	330
INDENO[1,2,3-CD]PYRENE	<400	ug/Kg	1.2	400	330
DIBENZ[A,H]ANTHRACENE	<400	ug/Kg	1.2	400	330
BENZO[G,H,I]PERYLENE	<400	ug/Kg	1.2	400	330
2-FLUOROPHENOL	76	ug/Kg	1.2		
PHENOL-D5	83	ug/Kg	1.2		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 84
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	75	ug/Kg	1.2		
2-FLUOROBIPHENYL	84	ug/Kg	1.2		
2,4,6-TRIBROMOPHENOL	80	ug/Kg	1.2		
TERPHENYL-D14	71	ug/Kg	1.2		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 84
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<300	ug/Kgdrywt	59	300	5
CHLOROMETHANE	<300	ug/Kgdrywt	59	300	5
VINYL CHLORIDE	<590	ug/Kgdrywt	59	590	10
BROMOMETHANE	<300	ug/Kgdrywt	59	300	5
CHLOROETHANE	<300	ug/Kgdrywt	59	300	5
TRICHLOROFLUOROMETHANE	<300	ug/Kgdrywt	59	300	5
1,1-DICHLOROETHENE	<300	ug/Kgdrywt	59	300	5
METHYLENE CHLORIDE	460 U'	ug/Kgdrywt	59	300	5
1,2-DICHLOROETHENE (TRANS)	<300	ug/Kgdrywt	59	300	5
1,1-DICHLOROETHANE	<300	ug/Kgdrywt	59	300	5
1,2-DICHLOROETHENE (CIS)	<300	ug/Kgdrywt	59	300	5
2,2-DICHLOROPROPANE	<300	ug/Kgdrywt	59	300	5
CHLOROFORM	<300	ug/Kgdrywt	59	300	5
BROMOCHLOROMETHANE	<300	ug/Kgdrywt	59	300	5
1,1,1-TRICHLOROETHANE	<300	ug/Kgdrywt	59	300	5
1,2-DICHLOROETHANE	<300	ug/Kgdrywt	59	300	5
1,1-DICHLOROPROPENE	<300	ug/Kgdrywt	59	300	5
CARBON TETRACHLORIDE	<300	ug/Kgdrywt	59	300	5
BENZENE	<300	ug/Kgdrywt	59	300	5
1,2-DICHLOROPROPANE	<300	ug/Kgdrywt	59	300	5
TRICHLOROETHENE	<300	ug/Kgdrywt	59	300	5
DIBROMOMETHANE	<300	ug/Kgdrywt	59	300	5
BROMODICHLOROMETHANE	<300	ug/Kgdrywt	59	300	5
CIS-1,3-DICHLOROPROPENE	<300	ug/Kgdrywt	59	300	5
TOLUENE	<300	ug/Kgdrywt	59	300	5
TRANS-1,3-DICHLOROPROPENE	<300	ug/Kgdrywt	59	300	5
1,1,2-TRICHLOROETHANE	<300	ug/Kgdrywt	59	300	5
1,3-DICHLOROPROPANE	<300	ug/Kgdrywt	59	300	5
DIBROMOCHLOROMETHANE	<300	ug/Kgdrywt	59	300	5
TETRACHLOROETHENE	<300	ug/Kgdrywt	59	300	5
1,2-DIBROMOETHANE	<300	ug/Kgdrywt	59	300	5
CHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
1,1,1,2-TETRACHLOROETHANE	<300	ug/Kgdrywt	59	300	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 84
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<300	ug/Kgdrywt	59	300	5
BROMOFORM	<300	ug/Kgdrywt	59	300	5
STYRENE	<300	ug/Kgdrywt	59	300	5
1,1,2,2-TETRACHLOROETHANE	<300	ug/Kgdrywt	59	300	5
1,2,3-TRICHLOROPROPANE	<300	ug/Kgdrywt	59	300	5
ISOPROPYLBENZENE	<300	ug/Kgdrywt	59	300	5
BROMOBENZENE	<300	ug/Kgdrywt	59	300	5
2-CHLOROTOLUENE	<300	ug/Kgdrywt	59	300	5
N-PROPYLBENZENE	<300	ug/Kgdrywt	59	300	5
4-CHLOROTOLUENE	<300	ug/Kgdrywt	59	300	5
1,3,5-TRIMETHYLBENZENE	<300	ug/Kgdrywt	59	300	5
TERT-BUTYLBENZENE	<300	ug/Kgdrywt	59	300	5
1,2,4-TRICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
SEC-BUTYLBENZENE	<300	ug/Kgdrywt	59	300	5
1,3-DICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
P-ISOPROPYLTOLUENE	<300	ug/Kgdrywt	59	300	5
1,4-DICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
1,2-DICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
N-BUTYLBENZENE	<300	ug/Kgdrywt	59	300	5
1,2-DIBROMO-3-CHLOROPROPAN	<300	ug/Kgdrywt	59	300	5
1,2,4-TRIMETHYLBENZENE	<300	ug/Kgdrywt	59	300	5
NAPHTHALENE	<300	ug/Kgdrywt	59	300	5
HEXACHLOROBUTADIENE	<300	ug/Kgdrywt	59	300	5
1,2,3-TRICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
MTBE	<300	ug/Kgdrywt	59	300	5
ACETONE	<590	ug/Kgdrywt	59	590	10
2-BUTANONE	<590	ug/Kgdrywt	59	590	10
4-METHYL-2-PENTANONE	<590	ug/Kgdrywt	59	590	10
2-HEXANONE	<590	ug/Kgdrywt	59	590	10
M+P-XYLENE	<300	ug/Kgdrywt	59	300	5
O-XYLENE	<300	ug/Kgdrywt	59	300	5
1,3,5-TRICHLOROBENZENE	<300	ug/Kgdrywt	59	300	5
VINYL ACETATE	<300	ug/Kgdrywt	59	300	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-8
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 84
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF202-S013	SL	10/27/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<300	ug/Kgdrywt	59	300	5
DIETHYL ETHER	<300	ug/Kgdrywt	59	300	5
TETRAHYDROFURAN	<590	ug/Kgdrywt	59	590	10
DIBROMOFLUOROMETHANE	117	%	59		
1,2-DICHLOROETHANE-D4	121	%	59		
TOLUENE-D8	98	%	59		
P-BROMOFLUOROBENZENE	84	%	59		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF401-S007

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 88.8 **Lab Sample ID:** WO3344-009

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.5	UJ		P	1
7440-39-3	BARIUM	13.9			P	1
7440-43-9	CADMIUM	0.03	U		P	1
7440-47-3	CHROMIUM	2.3			P	1
7439-92-1	LEAD	4.2	J4	N*	P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	0.34	U		P	1
7440-22-4	SILVER	0.08	U		P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-9
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
LF401-S007	Solid	CLIENT	10/28/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	89.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 89
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHYL)ETHER	<360	ug/Kg	1.1	360	330
2-CHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,3-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,4-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,2-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
2-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<360	ug/Kg	1.1	360	330
4-METHYLPHENOL	<360	ug/Kg	1.1	360	330
N-NITROSO-DI-N-PROPYLAMINE	<360	ug/Kg	1.1	360	330
HEXACHLOROETHANE	<360	ug/Kg	1.1	360	330
NITROBENZENE	<360	ug/Kg	1.1	360	330
ISOPHORONE	<360	ug/Kg	1.1	360	330
2-NITROPHENOL	<360	ug/Kg	1.1	360	330
2,4-DIMETHYLPHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHOXY)METHANE	<360	ug/Kg	1.1	360	330
2,4-DICHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,2,4-TRICHLOROBENZENE	<360	ug/Kg	1.1	360	330
NAPHTHALENE	<360	ug/Kg	1.1	360	330
4-CHLOROANILINE	<360	ug/Kg	1.1	360	330
HEXACHLOROBUTADIENE	<360	ug/Kg	1.1	360	330
4-CHLORO-3-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2-METHYLNAPHTHALENE	<360	ug/Kg	1.1	360	330
HEXACHLOROCYCLOPENTADIEN	<360 UJ	ug/Kg	1.1	360	330
2,4,6-TRICHLOROPHENOL	<360	ug/Kg	1.1	360	330
2,4,5-TRICHLOROPHENOL	<900	ug/Kg	1.1	900	820
2-CHLORONAPHTHALENE	<360	ug/Kg	1.1	360	330
2-NITROANILINE	<900	ug/Kg	1.1	900	820
DIMETHYL PHTHALATE	<360	ug/Kg	1.1	360	330
ACENAPHTHYLENE	<360	ug/Kg	1.1	360	330
2,6-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
3-NITROANILINE	<900	ug/Kg	1.1	900	820
ACENAPHTHENE	<360	ug/Kg	1.1	360	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 89
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<900	ug/Kg	1.1	900	820
4-NITROPHENOL	<900	ug/Kg	1.1	900	820
DIBENZOFURAN	<360	ug/Kg	1.1	360	330
2,4-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
DIETHYLPHTHALATE	<360	ug/Kg	1.1	360	330
4-CHLOROPHENYL-PHENYLETHE	<360	ug/Kg	1.1	360	330
FLUORENE	<360	ug/Kg	1.1	360	330
4-NITROANILINE	<900	ug/Kg	1.1	900	820
4,6-DINITRO-2-METHYLPHENOL	<900	ug/Kg	1.1	900	820
N-NITROSODIPHENYLAMINE	<360	ug/Kg	1.1	360	330
4-BROMOPHENYL-PHENYLETHER	<360	ug/Kg	1.1	360	330
HEXACHLOROBENZENE	<360	ug/Kg	1.1	360	330
PENTACHLOROPHENOL	<900	ug/Kg	1.1	900	820
PHENANTHRENE	<360	ug/Kg	1.1	360	330
ANTHRACENE	<360	ug/Kg	1.1	360	330
CARBAZOLE	<360	ug/Kg	1.1	360	330
DI-N-BUTYLPHTHALATE	<360	ug/Kg	1.1	360	330
FLUORANTHENE	<360	ug/Kg	1.1	360	330
PYRENE	<360	ug/Kg	1.1	360	330
BUTYLBENZYLPHTHALATE	<360	ug/Kg	1.1	360	330
3,3'-DICHLOROBENZIDINE	<360	ug/Kg	1.1	360	330
BENZO[A]ANTHRACENE	<360	ug/Kg	1.1	360	330
CHRYSENE	<360	ug/Kg	1.1	360	330
BIS(2-ETHYLHEXYL)PHTHALATE	<360	ug/Kg	1.1	360	330
DI-N-OCTYLPHTHALATE	<360	ug/Kg	1.1	360	330
BENZO[B]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[K]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[A]PYRENE	<360	ug/Kg	1.1	360	330
INDENO[1,2,3-CD]PYRENE	<360	ug/Kg	1.1	360	330
DIBENZ[A,H]ANTHRACENE	<360	ug/Kg	1.1	360	330
BENZO[G,H,I]PERYLENE	<360	ug/Kg	1.1	360	330
2-FLUOROPHENOL	74	ug/Kg	1.1		
PHENOL-D5	88	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 89
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	79	ug/Kg	1.1		
2-FLUOROBIPHENYL	93	ug/Kg	1.1		
2,4,6-TRIBROMOPHENOL	68	ug/Kg	1.1		
TERPHENYL-D14	83	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 89
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<260	ug/Kgdrywt	52	260	5
CHLOROMETHANE	<260	ug/Kgdrywt	52	260	5
VINYL CHLORIDE	<520	ug/Kgdrywt	52	520	10
BROMOMETHANE	<260	ug/Kgdrywt	52	260	5
CHLOROETHANE	<260	ug/Kgdrywt	52	260	5
TRICHLOROFLUOROMETHANE	<260	ug/Kgdrywt	52	260	5
1,1-DICHLOROETHENE	<260	ug/Kgdrywt	52	260	5
METHYLENE CHLORIDE	450 U	ug/Kgdrywt	52	260	5
1,2-DICHLOROETHENE (TRANS)	<260	ug/Kgdrywt	52	260	5
1,1-DICHLOROETHANE	<260	ug/Kgdrywt	52	260	5
1,2-DICHLOROETHENE (CIS)	<260	ug/Kgdrywt	52	260	5
2,2-DICHLOROPROPANE	<260	ug/Kgdrywt	52	260	5
CHLOROFORM	<260	ug/Kgdrywt	52	260	5
BROMOCHLOROMETHANE	<260	ug/Kgdrywt	52	260	5
1,1,1-TRICHLOROETHANE	<260	ug/Kgdrywt	52	260	5
1,2-DICHLOROETHANE	<260	ug/Kgdrywt	52	260	5
1,1-DICHLOROPROPENE	<260	ug/Kgdrywt	52	260	5
CARBON TETRACHLORIDE	<260	ug/Kgdrywt	52	260	5
BENZENE	<260	ug/Kgdrywt	52	260	5
1,2-DICHLOROPROPANE	<260	ug/Kgdrywt	52	260	5
TRICHLOROETHENE	<260	ug/Kgdrywt	52	260	5
DIBROMOMETHANE	<260	ug/Kgdrywt	52	260	5
BROMODICHLOROMETHANE	<260	ug/Kgdrywt	52	260	5
CIS-1,3-DICHLOROPROPENE	<260	ug/Kgdrywt	52	260	5
TOLUENE	<260	ug/Kgdrywt	52	260	5
TRANS-1,3-DICHLOROPROPENE	<260	ug/Kgdrywt	52	260	5
1,1,2-TRICHLOROETHANE	<260	ug/Kgdrywt	52	260	5
1,3-DICHLOROPROPANE	<260	ug/Kgdrywt	52	260	5
DIBROMOCHLOROMETHANE	<260	ug/Kgdrywt	52	260	5
TETRACHLOROETHENE	<260	ug/Kgdrywt	52	260	5
1,2-DIBROMOETHANE	<260	ug/Kgdrywt	52	260	5
CHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
1,1,1,2-TETRACHLOROETHANE	<260	ug/Kgdrywt	52	260	5

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 89
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<260	ug/Kgdrywt	52	260	5
BROMOFORM	<260	ug/Kgdrywt	52	260	5
STYRENE	<260	ug/Kgdrywt	52	260	5
1,1,2,2-TETRACHLOROETHANE	<260	ug/Kgdrywt	52	260	5
1,2,3-TRICHLOROPROPANE	<260	ug/Kgdrywt	52	260	5
ISOPROPYLBENZENE	<260	ug/Kgdrywt	52	260	5
BROMOBENZENE	<260	ug/Kgdrywt	52	260	5
2-CHLOROTOLUENE	<260	ug/Kgdrywt	52	260	5
N-PROPYLBENZENE	<260	ug/Kgdrywt	52	260	5
4-CHLOROTOLUENE	<260	ug/Kgdrywt	52	260	5
1,3,5-TRIMETHYLBENZENE	<260	ug/Kgdrywt	52	260	5
TERT-BUTYLBENZENE	<260	ug/Kgdrywt	52	260	5
1,2,4-TRICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
SEC-BUTYLBENZENE	<260	ug/Kgdrywt	52	260	5
1,3-DICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
P-ISOPROPYLTOLUENE	<260	ug/Kgdrywt	52	260	5
1,4-DICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
1,2-DICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
N-BUTYLBENZENE	<260	ug/Kgdrywt	52	260	5
1,2-DIBROMO-3-CHLOROPROPAN	<260	ug/Kgdrywt	52	260	5
1,2,4-TRIMETHYLBENZENE	<260	ug/Kgdrywt	52	260	5
NAPHTHALENE	<260	ug/Kgdrywt	52	260	5
HEXACHLOROBUTADIENE	<260	ug/Kgdrywt	52	260	5
1,2,3-TRICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
MTBE	<260	ug/Kgdrywt	52	260	5
ACETONE	270 U	ug/Kgdrywt	52	520	10
2-BUTANONE	<520	ug/Kgdrywt	52	520	10
4-METHYL-2-PENTANONE	<520	ug/Kgdrywt	52	520	10
2-HEXANONE	<520	ug/Kgdrywt	52	520	10
M+P-XYLENE	<260	ug/Kgdrywt	52	260	5
O-XYLENE	<260	ug/Kgdrywt	52	260	5
1,3,5-TRICHLOROBENZENE	<260	ug/Kgdrywt	52	260	5
VINYL ACETATE	<260	ug/Kgdrywt	52	260	5.0

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-9
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 89
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-S007	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<260	ug/Kgdrywt	52	260	5
DIETHYL ETHER	<260	ug/Kgdrywt	52	260	5
TETRAHYDROFURAN	<520	ug/Kgdrywt	52	520	10
DIBROMOFLUOROMETHANE	120	%	52		
1,2-DICHLOROETHANE-D4	122	%	52		
TOLUENE-D8	100	%	52		
P-BROMOFLUOROBENZENE	82	%	52		

Report Notes: J

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF402-S009

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 91.3 **Lab Sample ID:** WO3344-010

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	0.15	U		P	1
7440-39-3	BARIUM	4.1			P	1
7440-43-9	CADMIUM	0.02	U		P	1
7440-47-3	CHROMIUM	0.56	B		P	1
7439-92-1	LEAD	3.2	J4	N*	P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	0.27	U		P	1
7440-22-4	SILVER	0.06	U		P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-10
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
LF402-S009	Solid	CLIENT	10/28/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	91.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 91
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHYL)ETHER	<360	ug/Kg	1.1	360	330
2-CHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,3-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,4-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
1,2-DICHLOROBENZENE	<360	ug/Kg	1.1	360	330
2-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<360	ug/Kg	1.1	360	330
4-METHYLPHENOL	<360	ug/Kg	1.1	360	330
N-NITROSO-DI-N-PROPYLAMINE	<360	ug/Kg	1.1	360	330
HEXACHLOROETHANE	<360	ug/Kg	1.1	360	330
NITROBENZENE	<360	ug/Kg	1.1	360	330
ISOPHORONE	<360	ug/Kg	1.1	360	330
2-NITROPHENOL	<360	ug/Kg	1.1	360	330
2,4-DIMETHYLPHENOL	<360	ug/Kg	1.1	360	330
BIS(2-CHLOROETHOXY)METHANE	<360	ug/Kg	1.1	360	330
2,4-DICHLOROPHENOL	<360	ug/Kg	1.1	360	330
1,2,4-TRICHLOROBENZENE	<360	ug/Kg	1.1	360	330
NAPHTHALENE	<360	ug/Kg	1.1	360	330
4-CHLOROANILINE	<360	ug/Kg	1.1	360	330
HEXACHLOROBUTADIENE	<360	ug/Kg	1.1	360	330
4-CHLORO-3-METHYLPHENOL	<360	ug/Kg	1.1	360	330
2-METHYLNAPHTHALENE	<360	ug/Kg	1.1	360	330
HEXACHLOROCYCLOPENTADIEN	<360	ug/Kg	1.1	360	330
2,4,6-TRICHLOROPHENOL	<360	ug/Kg	1.1	360	330
2,4,5-TRICHLOROPHENOL	<900	ug/Kg	1.1	900	820
2-CHLORONAPHTHALENE	<360	ug/Kg	1.1	360	330
2-NITROANILINE	<900	ug/Kg	1.1	900	820
DIMETHYL PHTHALATE	<360	ug/Kg	1.1	360	330
ACENAPHTHYLENE	<360	ug/Kg	1.1	360	330
2,6-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
3-NITROANILINE	<900	ug/Kg	1.1	900	820
ACENAPHTHENE	<360	ug/Kg	1.1	360	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 91
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<900	ug/Kg	1.1	900	820
4-NITROPHENOL	<900	ug/Kg	1.1	900	820
DIBENZOFURAN	<360	ug/Kg	1.1	360	330
2,4-DINITROTOLUENE	<360	ug/Kg	1.1	360	330
DIETHYLPHTHALATE	<360	ug/Kg	1.1	360	330
4-CHLOROPHENYL-PHENYLETHE	<360	ug/Kg	1.1	360	330
FLUORENE	<360	ug/Kg	1.1	360	330
4-NITROANILINE	<900	ug/Kg	1.1	900	820
4,6-DINITRO-2-METHYLPHENOL	<900	ug/Kg	1.1	900	820
N-NITROSODIPHENYLAMINE	<360	ug/Kg	1.1	360	330
4-BROMOPHENYL-PHENYLETHER	<360	ug/Kg	1.1	360	330
HEXACHLOROBENZENE	<360	ug/Kg	1.1	360	330
PENTACHLOROPHENOL	<900	ug/Kg	1.1	900	820
PHENANTHRENE	<360	ug/Kg	1.1	360	330
ANTHRACENE	<360	ug/Kg	1.1	360	330
CARBAZOLE	<360	ug/Kg	1.1	360	330
DI-N-BUTYLPHTHALATE	<360	ug/Kg	1.1	360	330
FLUORANTHENE	<360	ug/Kg	1.1	360	330
PYRENE	<360	ug/Kg	1.1	360	330
BUTYLBENZYLPHTHALATE	<360	ug/Kg	1.1	360	330
3,3'-DICHLOROBENZIDINE	<360	ug/Kg	1.1	360	330
BENZO[A]ANTHRACENE	<360	ug/Kg	1.1	360	330
CHRYSENE	<360	ug/Kg	1.1	360	330
BIS(2-ETHYLHEXYL)PHTHALATE	<360	ug/Kg	1.1	360	330
DI-N-OCTYLPHTHALATE	<360	ug/Kg	1.1	360	330
BENZO[B]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[K]FLUORANTHENE	<360	ug/Kg	1.1	360	330
BENZO[A]PYRENE	<360	ug/Kg	1.1	360	330
INDENO[1,2,3-CD]PYRENE	<360	ug/Kg	1.1	360	330
DIBENZ[A,H]ANTHRACENE	<360	ug/Kg	1.1	360	330
BENZO[G,H,I]PERYLENE	<360	ug/Kg	1.1	360	330
2-FLUOROPHENOL	70	ug/Kg	1.1		
PHENOL-D5	84	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/18/98
PO No.: 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 91
Method: EPA 8270B
Date Analyzed: 11/9/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	78	ug/Kg	1.1		
2-FLUOROBIPHENYL	91	ug/Kg	1.1		
2,4,6-TRIBROMOPHENOL	59	ug/Kg	1.1		
TERPHENYL-D14	81	ug/Kg	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 91
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
VINYL CHLORIDE	<350	ug/Kgdrywt	35	350	10
BROMOMETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROETHANE	<180	ug/Kgdrywt	35	180	5
TRICHLOROFLUOROMETHANE	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROETHENE	<180	ug/Kgdrywt	35	180	5
METHYLENE CHLORIDE	400 U'	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHENE (TRANS)	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHENE (CIS)	<180	ug/Kgdrywt	35	180	5
2,2-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
CHLOROFORM	<180	ug/Kgdrywt	35	180	5
BROMOCHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
1,1,1-TRICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,1-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
CARBON TETRACHLORIDE	<180	ug/Kgdrywt	35	180	5
BENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
TRICHLOROETHENE	<180	ug/Kgdrywt	35	180	5
DIBROMOMETHANE	<180	ug/Kgdrywt	35	180	5
BROMODICHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
CIS-1,3-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
TOLUENE	<180	ug/Kgdrywt	35	180	5
TRANS-1,3-DICHLOROPROPENE	<180	ug/Kgdrywt	35	180	5
1,1,2-TRICHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,3-DICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
DIBROMOCHLOROMETHANE	<180	ug/Kgdrywt	35	180	5
TETRACHLOROETHENE	<180	ug/Kgdrywt	35	180	5
1,2-DIBROMOETHANE	<180	ug/Kgdrywt	35	180	5
CHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
1,1,1,2-TETRACHLOROETHANE	<180	ug/Kgdrywt	35	180	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 91
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
BROMOFORM	<180	ug/Kgdrywt	35	180	5
STYRENE	<180	ug/Kgdrywt	35	180	5
1,1,2,2-TETRACHLOROETHANE	<180	ug/Kgdrywt	35	180	5
1,2,3-TRICHLOROPROPANE	<180	ug/Kgdrywt	35	180	5
ISOPROPYLBENZENE	<180	ug/Kgdrywt	35	180	5
BROMOBENZENE	<180	ug/Kgdrywt	35	180	5
2-CHLOROTOLUENE	<180	ug/Kgdrywt	35	180	5
N-PROPYLBENZENE	<180	ug/Kgdrywt	35	180	5
4-CHLOROTOLUENE	<180	ug/Kgdrywt	35	180	5
1,3,5-TRIMETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
TERT-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,2,4-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
SEC-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,3-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
P-ISOPROPYLTOLUENE	<180	ug/Kgdrywt	35	180	5
1,4-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
N-BUTYLBENZENE	<180	ug/Kgdrywt	35	180	5
1,2-DIBROMO-3-CHLOROPROPAN	<180	ug/Kgdrywt	35	180	5
1,2,4-TRIMETHYLBENZENE	<180	ug/Kgdrywt	35	180	5
NAPHTHALENE	<180	ug/Kgdrywt	35	180	5
HEXACHLOROBUTADIENE	<180	ug/Kgdrywt	35	180	5
1,2,3-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
MTBE	<180	ug/Kgdrywt	35	180	5
ACETONE	<350	ug/Kgdrywt	35	350	10
2-BUTANONE	<350	ug/Kgdrywt	35	350	10
4-METHYL-2-PENTANONE	<350	ug/Kgdrywt	35	350	10
2-HEXANONE	<350	ug/Kgdrywt	35	350	10
M+P-XYLENE	<180	ug/Kgdrywt	35	180	5
O-XYLENE	<180	ug/Kgdrywt	35	180	5
1,3,5-TRICHLOROBENZENE	<180	ug/Kgdrywt	35	180	5
VINYL ACETATE	<180	ug/Kgdrywt	35	180	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3344-10
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: 91
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-S009	SL	10/28/98	10/29/98	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<180	ug/Kgdrywt	35	180	5
DIETHYL ETHER	<180	ug/Kgdrywt	35	180	5
TETRAHYDROFURAN	<350	ug/Kgdrywt	35	350	10
DIBROMOFLUOROMETHANE	117	%	35		
1,2-DICHLOROETHANE-D4	119	%	35		
TOLUENE-D8	100	%	35		
P-BROMOFLUOROBENZENE	83	%	35		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF202-S113

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 88.9 **Lab Sample ID:** WO3344-011

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	0.21	U		P	1
7440-39-3	BARIUM	14.0			P	1
7440-43-9	CADMIUM	0.03	U		P	1
7440-47-3	CHROMIUM	1.1	B		P	1
7439-92-1	LEAD	2.7		N*	P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	0.36	U		P	1
7440-22-4	SILVER	0.08	U		P	1

Color Before: **Texture:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3344-11
Report Date: 12/01/98
PO No. : 96113L
Project : CHARLESTON RI-SITES 2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
LF202-S113	Solid	CLIENT	10/27/98	10/29/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	89.	wt %	1.0	0.10	CLP/CIP SOW	11/02/98	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 10/30/98 by JF

12/01/98

LJO/mrckp(dw)/msm

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSOJ30ICS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OJ30ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C	
ARSENIC	-0.344	B	x5 = 1.72
BARIUM	0.020	U	
CADMIUM	0.030	U	
CHROMIUM	0.060	U	
LEAD	0.236	B	x5 1.18
SELENIUM	0.320	U	
SILVER	-0.085	B	0.425

FORM III (Part 2) - IN

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSOK03HGS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OK03HGS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
MERCURY	0.010	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSOK16ICS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OK16ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	RESULT	C
LEAD	0.433	B x5- 2.165

FORM III (Part 2) - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSSOJ30ICS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OJ30ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	71.5	71.38	99.8	74	126
BARIUM	91.1	100.32	110.1	77	123
CADMIUM	58.9	65.53	111.3	77	123
CHROMIUM	90.2	100.39	111.3	80	120
LEAD	143.0	166.40	116.4	76	124
SELENIUM	67.5	60.55	89.7	74	126
SILVER	73.3	78.46	107.0	74	126

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSSOK03HGS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OK03HGS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	4.4	5.29	120.2	68	132

FORM VII - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSSOK16ICS1

Matrix: SOIL **SDG Name:** WO3344

QC Batch ID: OK16ICS1

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	TRUE	FOUND	% R	LIMITS (%)	
LEAD	143.0	159.94	111.8	76	124

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** BH303A-S013S

Matrix: SOIL | **SDG Name:** WO3344

Percent Solids: 97.8 | **Lab Sample ID:** WO3344-003S

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
LEAD	42.2731		6.8003		42.97	82.6		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** LF201-S009S

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 55.6 **Lab Sample ID:** WO3344-007P

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
MERCURY	0.2802		0.0600	B	0.26	84.7		75	125	CV

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** LF201-S009S

Matrix: SOIL **SDG Name:** WO3344

Percent Solids: 55.6 **Lab Sample ID:** WO3344-007S

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC	283.3604		7.1474		318.48	86.7		75	125	P
BARIUM	350.4679		31.1484		318.48	100.3		75	125	P
CADMIUM	8.3108		0.8509	B	7.96	93.7		75	125	P
CHROMIUM	45.9140		13.6177		31.85	101.4		75	125	P
LEAD	195.6534		91.6152		79.62	130.7	N	75	125	P
MERCURY	0.2484		0.0600	B	0.25	75.4		75	125	CV
SELENIUM	246.9037		1.2017	B	318.48	77.1		75	125	P
SILVER	7.2518		-0.0198	U	7.96	91.1		75	125	P

Comments:

Katahdin Analytical Services, Inc.
Quality Control Report

Method Blank and Laboratory Control Sample Results

Client: Roy F. Weston
Work Order: WO3344

			METHOD BLANK RESULTS					LABORATORY CONTROL SAMPLE RESULTS					
Parameter	Date of Prep	Date of Analysis	Units		Concentration Measured in Blank		Acceptance Range	Practical Quantitation Level**	Units	True Value	Measured Value	Percent Recovered	Acceptance Range (%)	Acceptance Range (mg/kg)
Total Petroleum Hydrocarbons	11/12/98	11/12/98	mg/kg	<	25	<	25	25	mg	2.53	3.36	133	40-147	@

** Practical quantitation level is the lowest concentration measurable for samples with normal chemical and physical composition during routine laboratory operations.

DATA QUALITY COMMENTS:
Results of all quality control measurements are within the laboratory and method specified acceptance range except as noted.

@ The laboratory uses the internally established statistical 99% confidence range as the acceptance range for this LCS.

Katahdin Analytical Services, Inc.
Quality Control Report

Duplicate and Matrix Spike/Matrix Spike Duplicate Results

Client: Roy F. Weston	
Work Order: WO3344	

			DUPLICATE RESULTS					*MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS*									
			Sample				Acceptance		Concentration or Quantity				Matrix Spike Recovery (%)				
Parameter	PACE Sample No	Units	Measurements Rep 1	Rep 2	Mean Conc	RPD (%)	Range for RPD (%)	Units	Sampl Only	Spike Added	Sample +Spike Dup 1	Sample +Spike Dup 2	Sample +Spike Dup 1	Sample +Spike Dup 2	Acceptance Range (%)	RPD (%)	Acceptance Range (%)
TPH	WO3344-1	mg/L	NA	NA	NA	NA	0-20	mg	0.97	0.51	2.60	2.45	322	293	40-147	9.5	0-20

RPD = Relative percent difference, which is the absolute value of the difference between two replicate results divided by the mean concentration then multiplied by 100%.

NA = Not applicable.

DATA QUALITY COMMENTS:

Results of all quality control measurements are within the laboratory or contract specified acceptance range except as noted. The laboratory does not use the sample duplicate and matrix spike acceptance ranges as acceptance criteria for a specific analysis. Sample duplicate and matrix spike data are used to evaluate method performance in the environmental sample matrix only. Please refer to LCS data for assessment of quality control for each parameter.

* Matrix spike recovery is outside the laboratory's specified acceptance range indicating potential sample matrix interference and potential bias of reported value for this parameter.

4B
SEMIVOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK;110598

Lab Name: Katahdin Analytical Services SDG No.: WO3344

Lab File ID: K9292 Lab Sample ID: SBLK;110598

Instrument ID: 5970-K Date Extracted: 11/5/98

GC Column: RTX-5 ID: 0.25 (mm) Date Analyzed: 11/06/98

Matrix: (soil/water) SOIL Time Analyzed: 16:13

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCS;110598	LCS;110598	K9293	11/6/98	4:56:00 PM
BH301-S019	WO3344-1	K9294	11/6/98	5:39:00 PM
BH302-S011	WO3344-2	K9295	11/6/98	6:22:00 PM
BH303A-S013	WO3344-3	K9296	11/6/98	7:04:00 PM
BH304-S017	WO3344-5	K9297	11/6/98	7:48:00 PM
LF201-S009	WO3344-7	K9298	11/6/98	8:30:00 PM
LF202-S013	WO3344-8	K9299	11/6/98	9:14:00 PM
BH302-S111	WO3344-4	K9308	11/9/98	1:58:00 PM
LF401-S007	WO3344-9	K9309	11/9/98	2:40:00 PM
LF402-S009	WO3344-10	K9310	11/9/98	3:22:00 PM
LF201-S009MS	WO3344-7MS	K9311	11/9/98	4:05:00 PM
LF201-S009MSD	WO3344-7MSD	K9312	11/9/98	4:48:00 PM

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK;110598
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 100
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;110598	SL	-	-	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHYL)ETHER	<330	ug/Kg	1.0	330	330
2-CHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,3-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,4-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
1,2-DICHLOROBENZENE	<330	ug/Kg	1.0	330	330
2-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2,2'-OXYBIS(1-CHLOROPROPANE)	<330	ug/Kg	1.0	330	330
4-METHYLPHENOL	<330	ug/Kg	1.0	330	330
N-NITROSO-DI-N-PROPYLAMINE	<330	ug/Kg	1.0	330	330
HEXACHLOROETHANE	<330	ug/Kg	1.0	330	330
NITROBENZENE	<330	ug/Kg	1.0	330	330
ISOPHORONE	<330	ug/Kg	1.0	330	330
2-NITROPHENOL	<330	ug/Kg	1.0	330	330
2,4-DIMETHYLPHENOL	<330	ug/Kg	1.0	330	330
BIS(2-CHLOROETHOXY)METHANE	<330	ug/Kg	1.0	330	330
2,4-DICHLOROPHENOL	<330	ug/Kg	1.0	330	330
1,2,4-TRICHLOROBENZENE	<330	ug/Kg	1.0	330	330
NAPHTHALENE	<330	ug/Kg	1.0	330	330
4-CHLOROANILINE	<330	ug/Kg	1.0	330	330
HEXACHLOROBUTADIENE	<330	ug/Kg	1.0	330	330
4-CHLORO-3-METHYLPHENOL	<330	ug/Kg	1.0	330	330
2-METHYLNAPHTHALENE	<330	ug/Kg	1.0	330	330
HEXACHLOROCYCLOPENTADIEN	<330	ug/Kg	1.0	330	330
2,4,6-TRICHLOROPHENOL	<330	ug/Kg	1.0	330	330
2,4,5-TRICHLOROPHENOL	<820	ug/Kg	1.0	820	820
2-CHLORONAPHTHALENE	<330	ug/Kg	1.0	330	330
2-NITROANILINE	<820	ug/Kg	1.0	820	820
DIMETHYL PHTHALATE	<330	ug/Kg	1.0	330	330
ACENAPHTHYLENE	<330	ug/Kg	1.0	330	330
2,6-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
3-NITROANILINE	<820	ug/Kg	1.0	820	820
ACENAPHTHENE	<330	ug/Kg	1.0	330	330

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK;110598
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 100
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;110598	SL	-	-	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<820	ug/Kg	1.0	820	820
4-NITROPHENOL	<820	ug/Kg	1.0	820	820
DIBENZOFURAN	<330	ug/Kg	1.0	330	330
2,4-DINITROTOLUENE	<330	ug/Kg	1.0	330	330
DIETHYLPHTHALATE	<330	ug/Kg	1.0	330	330
4-CHLOROPHENYL-PHENYLETHE	<330	ug/Kg	1.0	330	330
FLUORENE	<330	ug/Kg	1.0	330	330
4-NITROANILINE	<820	ug/Kg	1.0	820	820
4,6-DINITRO-2-METHYLPHENOL	<820	ug/Kg	1.0	820	820
N-NITROSODIPHENYLAMINE	<330	ug/Kg	1.0	330	330
4-BROMOPHENYL-PHENYLETHER	<330	ug/Kg	1.0	330	330
HEXACHLOROBENZENE	<330	ug/Kg	1.0	330	330
PENTACHLOROPHENOL	<820	ug/Kg	1.0	820	820
PHENANTHRENE	<330	ug/Kg	1.0	330	330
ANTHRACENE	<330	ug/Kg	1.0	330	330
CARBAZOLE	<330	ug/Kg	1.0	330	330
DI-N-BUTYLPHTHALATE	<330	ug/Kg	1.0	330	330
FLUORANTHENE	<330	ug/Kg	1.0	330	330
PYRENE	<330	ug/Kg	1.0	330	330
BUTYLBENZYLPHTHALATE	<330	ug/Kg	1.0	330	330
3,3'-DICHLOROBENZIDINE	<330	ug/Kg	1.0	330	330
BENZO[A]ANTHRACENE	<330	ug/Kg	1.0	330	330
CHRYSENE	<330	ug/Kg	1.0	330	330
BIS(2-ETHYLHEXYL)PHTHALATE	<330	ug/Kg	1.0	330	330
DI-N-OCTYLPHTHALATE	<330	ug/Kg	1.0	330	330
BENZO[B]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[K]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[A]PYRENE	<330	ug/Kg	1.0	330	330
INDENO[1,2,3-CD]PYRENE	<330	ug/Kg	1.0	330	330
DIBENZ[A,H]ANTHRACENE	<330	ug/Kg	1.0	330	330
BENZO[G,H,I]PERYLENE	<330	ug/Kg	1.0	330	330
2-FLUOROPHENOL	84	ug/Kg	1.0		
PHENOL-D5	93	ug/Kg	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK;110598
Report Date: 11/18/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,6
% Solids: 100
Method: EPA 8270B
Date Analyzed: 11/6/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;110598	SL	-	-	11/5/98	TCB	3540	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	82	ug/Kg	1.0		
2-FLUOROBIPHENYL	90	ug/Kg	1.0		
2,4,6-TRIBROMOPHENOL	75	ug/Kg	1.0		
TERPHENYL-D14	78	ug/Kg	1.0		

Report Notes:

0000099

Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: K9293 **Sample ID:** LCS;110598 **Date Run:** 11/6/98

Analyst: SW **Time Injected** 4:56:00 PM **Matrix:** SL

Compound Name	Spike Amt (ug/Kg)	Result (ug/Kg)	Rec (%)	Limits (%)
1,2,4-TRICHLOROBENZENE	1667	1520	91	60-140
1,2-DICHLOROBENZENE	1667	1540	92	60-140
1,3-DICHLOROBENZENE	1667	1480	89	60-140
1,4-DICHLOROBENZENE	1667	1500	90	60-140
2,2'-OXYBIS(1-CHLOROPROPANE)	1667	1670	100	60-140
2,4,5-TRICHLOROPHENOL	1667	2990	*180	60-140
2,4,6-TRICHLOROPHENOL	1667	2850	*171	60-140
2,4-DICHLOROPHENOL	1667	2740	*165	60-140
2,4-DIMETHYLPHENOL	1667	2320	139	60-140
2,4-DINITROPHENOL	1667	1590	95	60-140
2,4-DINITROTOLUENE	1667	1480	89	60-140
2,6-DINITROTOLUENE	1667	1480	89	60-140
2-CHLORONAPHTHALENE	1667	1580	95	60-140
2-CHLOROPHENOL	1667	2890	*174	60-140
2-METHYLNAPHTHALENE	1667	1190	71	60-140
2-METHYLPHENOL	1667	2570	*154	60-140
2-NITROANILINE	1667	1490	89	60-140
2-NITROPHENOL	1667	2800	*168	60-140
3,3'-DICHLOROBENZIDINE	1667	1100	66	60-140
3-NITROANILINE	1667	1190	71	60-140
4,6-DINITRO-2-METHYLPHENOL	1667	2870	*172	60-140
4-BROMOPHENYL-PHENYLETHER	1667	1490	90	60-140
4-CHLORO-3-METHYLPHENOL	1667	2670	*160	60-140
4-CHLOROANILINE	1667	1110	66	60-140
4-CHLOROPHENYL-PHENYLETHER	1667	1640	98	60-140
4-METHYLPHENOL	3333	2590	78	60-140
4-NITROANILINE	1667	1520	91	60-140
4-NITROPHENOL	1667	2960	*178	60-140
ACENAPHTHENE	1667	1710	103	60-140
ACENAPHTHYLENE	1667	1650	99	60-140
ANTHRACENE	1667	1770	106	60-140
BENZO[A]ANTHRACENE	1667	1670	100	60-140
BENZO[A]PYRENE	1667	1520	91	60-140
BENZO[B]FLUORANTHENE	1667	1610	97	60-140
BENZO[G,H,I]PERYLENE	1667	1520	91	60-140
BENZO[K]FLUORANTHENE	1667	1520	92	60-140
BIS(2-CHLOROETHOXY)METHANE	1667	1440	87	60-140
BIS(2-CHLOROETHYL)ETHER	1667	1560	93	60-140
BIS(2-ETHYLHEXYL)PHTHALATE	1667	1370	82	60-140
BUTYLBENZYLPHTHALATE	1667	1390	83	60-140
CARBAZOLE	1667	1720	104	60-140

*** Out of Limits** 1

No other action since no pos. values detected in samples.

Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: K9293 **Sample ID:** LCS;110598 **Date Run:** 11/6/98

Analyst: SW **Time Injected** 4:56:00 PM **Matrix:** SL

Compound Name	Spike Amt (ug/Kg)	Result (ug/Kg)	Rec (%)	Limits (%)
CHRYSENE	1667	1690	101	60-140
DI-N-BUTYLPHTHALATE	1667	1530	92	60-140
DI-N-OCTYLPHTHALATE	1667	1340	80	60-140
DIBENZ[A,H]ANTHRACENE	1667	1450	87	60-140
DIBENZOFURAN	1667	1560	93	60-140
DIETHYLPHTHALATE	1667	1610	97	60-140
DIMETHYL PHTHALATE	1667	1540	93	60-140
FLUORANTHENE	1667	1770	106	60-140
FLUORENE	1667	1770	106	60-140
HEXACHLOROBENZENE	1667	1490	90	60-140
HEXACHLOROBUTADIENE	1667	1600	96	60-140
HEXACHLOROCYCLOPENTADIENE	1667	613	*37	60-140
HEXACHLOROETHANE	1667	1490	89	60-140
INDENO[1,2,3-CD]PYRENE	1667	1520	91	60-140
ISOPHORONE	1667	1420	85	60-140
N-NITROSO-DI-N-PROPYLAMINE	1667	1320	79	60-140
N-NITROSODIPHENYLAMINE	1667	1610	97	60-140
NAPHTHALENE	1667	1620	97	60-140
NITROBENZENE	1667	1440	86	60-140
PENTACHLOROPHENOL	1667	2990	*179	60-140
PHENANTHRENE	1667	1730	104	60-140
PHENOL	1667	2900	*174	60-140
PYRENE	1667	1610	97	60-140

✓ 45 of 56 - Estimate pos + non-detected hexachlorocyclopentadiene results in all samples.

* Out of Limits

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3344-7	K9298	11/6/98	8:30:00 PM	SW	SL	8270
WO3344-7MS	K9311	11/9/98	4:05:00 PM	SW	SL	8270
WO3344-7MSD	K9312	11/9/98	4:48:00 PM	SW	SL	8270

Compound Name	Native (ug/Kg)	MS Spk Amount (ug/Kg)	MSD Spk Amount (ug/Kg)	MS Result (ug/Kg)	MSD Result (ug/Kg)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
4-CHLOROPHENYL-PHENYLETHER	0	3000	3000	2340	2680	78	89	60-140	14	50
BENZO[A]ANTHRACENE	0	3000	3000	2100	2860	70	95	60-140	30	50
3,3'-DICHLOROBENZIDINE	0	3000	3000	1360	1660	*45	*55	60-140	20	50
3-NITROANILINE	0	3000	3000	1020	1400	*34	*46	60-140	31	50
4,6-DINITRO-2-METHYLPHENOL	0	6000	6000	5290	7050	88	118	60-140	28	50
4-BROMOPHENYL-PHENYLETHER	0	3000	3000	2010	2710	67	90	60-140	30	50
2-NITROANILINE	0	3000	3000	1900	2500	63	83	60-140	27	50
4-CHLOROANILINE	0	3000	3000	843	1240	*28	*41	60-140	38	50
2-METHYLPHENOL	0	6000	6000	3640	4120	61	69	60-140	12	50
4-METHYLPHENOL	0	6000	6000	3700	4270	62	71	60-140	14	50
4-NITROANILINE	0	3000	3000	1520	1800	*51	60	60-140	17	50
4-NITROPHENOL	0	6000	6000	3820	5380	64	90	60-140	34	50
ACENAPHTHENE	0	3000	3000	2540	2910	85	97	60-140	13	50
ACENAPHTHYLENE	0	3000	3000	2490	2790	83	93	60-140	11	50
1,2,4-TRICHLOROBENZENE	0	3000	3000	1850	2100	62	70	60-140	13	50
4-CHLORO-3-METHYLPHENOL	0	6000	6000	3620	4790	60	80	60-140	28	50
2,4-DIMETHYLPHENOL	0	6000	6000	3820	4640	64	77	60-140	19	50
1,2-DICHLOROBENZENE	0	3000	3000	2140	2200	71	73	60-140	2.6	50
1,3-DICHLOROBENZENE	0	3000	3000	2020	2070	67	69	60-140	2.4	50
1,4-DICHLOROBENZENE	0	3000	3000	1970	2080	66	69	60-140	5.5	50
2,2'-OXYBIS(1-CHLOROPROPANE)	0	3000	3000	2030	2140	68	71	60-140	5.2	50
2,4,5-TRICHLOROPHENOL	0	6000	6000	4010	5220	67	87	60-140	26	50
2-NITROPHENOL	0	6000	6000	3890	4470	65	74	60-140	14	50
2,4-DICHLOROPHENOL	0	6000	6000	4090	4680	68	78	60-140	13	50
BENZO[A]PYRENE	0	3000	3000	2480	2850	83	95	60-140	14	50
2,4-DINITROPHENOL	0	6000	6000	3560	5480	*59	91	60-140	42	50
2,4-DINITROTOLUENE	0	3000	3000	2050	2520	68	84	60-140	20	50
2,6-DINITROTOLUENE	0	3000	3000	2050	2560	68	85	60-140	22	50
2-CHLORONAPHTHALENE	0	3000	3000	2370	2560	79	85	60-140	7.8	50
2-CHLOROPHENOL	0	6000	6000	4220	4310	70	72	60-140	2.2	50
2-METHYLNAPHTHALENE	0	3000	3000	2510	1870	84	62	60-140	29	50
2,4,6-TRICHLOROPHENOL	0	6000	6000	4150	5080	69	85	60-140	20	50
N-NITROSO-DI-N-PROPYLAMINE	0	3000	3000	1920	2090	64	70	60-140	8.3	50
ANTHRACENE	0	3000	3000	2540	3070	84	102	60-140	19	50
HEXACHLOROBENZENE	0	3000	3000	2020	2510	67	84	60-140	21	50
HEXACHLOROBUTADIENE	0	3000	3000	1350	2080	*45	69	60-140	42	50
HEXACHLOROCYCLOPENTADIENE	0	3000	3000	382	250	*13	*8.3	60-140	42	50
HEXACHLOROETHANE	0	3000	3000	1920	1850	64	62	60-140	4.0	50
FLUORANTHENE	0	3000	3000	2380	2730	79	91	60-140	14	50
ISOPHORONE	0	3000	3000	1910	2330	64	78	60-140	20	50
DIMETHYL PHTHALATE	0	3000	3000	2290	2700	76	90	60-140	16	50
N-NITROSODIPHENYLAMINE	0	3000	3000	2410	2820	80	94	60-140	15	50
NAPHTHALENE	0	3000	3000	2360	2600	79	87	60-140	9.6	50
NITROBENZENE	0	3000	3000	2000	2210	67	74	60-140	10	50

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100 *** Out of Limits**

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3344-7	K9298	11/6/98	8:30:00 PM	SW	SL	8270
WO3344-7MS	K9311	11/9/98	4:05:00 PM	SW	SL	8270
WO3344-7MSD	K9312	11/9/98	4:48:00 PM	SW	SL	8270

Compound Name	Native (ug/Kg)	MS Spk Amount (ug/Kg)	MSD Spk Amount (ug/Kg)	MS Result (ug/Kg)	MSD Result (ug/Kg)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
PENTACHLOROPHENOL	0	6000	6000	3780	6000	63	100	60-140	45	50
[redacted]ENANTHRENE	0	3000	3000	2460	3100	82	103	60-140	23	50
[redacted]ENOL	0	6000	6000	4240	4340	71	72	60-140	2.2	50
INDENO[1,2,3-CD]PYRENE	0	3000	3000	2060	2660	69	89	60-140	25	50
[redacted]RBAZOLE	0	3000	3000	2060	2660	69	89	60-140	26	50
[redacted]NZO[B]FLUORANTHENE	0	3000	3000	2490	2830	83	94	60-140	12	50
BENZO[G,H,I]PERYLENE	0	3000	3000	1960	2600	65	87	60-140	28	50
BENZO[K]FLUORANTHENE	0	3000	3000	2290	2910	76	97	60-140	24	50
[redacted](2-CHLOROETHOXY)METHANE	0	3000	3000	2080	2300	69	77	60-140	10	50
[redacted](2-CHLOROETHYL)ETHER	0	3000	3000	2270	2310	76	77	60-140	2.0	50
FLUORENE	0	3000	3000	2490	2940	83	98	60-140	17	50
[redacted]TYLBENZYLPHTHALATE	0	3000	3000	2570	2670	86	89	60-140	4.0	50
[redacted]RENE	0	3000	3000	3200	3040	106	101	60-140	4.9	50
CHRYSENE	0	3000	3000	2300	2830	76	94	60-140	21	50
[redacted]N-BUTYLPHTHALATE	0	3000	3000	2180	2580	73	86	60-140	17	50
[redacted]N-OCTYLPHTHALATE	0	3000	3000	2600	2670	86	89	60-140	2.9	50
DIBENZ[A,H]ANTHRACENE	0	3000	3000	2050	2520	68	84	60-140	20	50
DIBENZOFURAN	0	3000	3000	2180	2620	73	87	60-140	18	50
[redacted]THYLPHTHALATE	0	3000	3000	2340	2710	78	90	60-140	15	50
[redacted](2-ETHYLHEXYL)PHTHALATE	0	3000	3000	2550	2540	85	85	60-140	0.1	50

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100

* Out of Limits

0000103

4A
VOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKZ03A

Lab Name: Katahdin Analytical Services SDG No.: WO3344

Lab File ID: Z7941 Lab Sample ID: VBLKZ03A

Date Analyzed: 11/03/98 Time Analyzed: 10:24

GC Column: RTX-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-Z

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S :

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCSZ03A	LCSZ03A	Z7940	11/3/98	9:33:00 AM
TB-1	WO3344-6	Z7947	11/3/98	2:33:00 PM
BH301-S019E	WO3344-1	Z7948	11/3/98	3:13:00 PM
BH302-S011E	WO3344-2	Z7949	11/3/98	3:51:00 PM
BH303A-S013D	WO3344-3	Z7950	11/3/98	4:31:00 PM
BH302-S111E	WO3344-4	Z7951	11/3/98	5:10:00 PM
LF201-S009H	WO3344-7	Z7953	11/3/98	6:28:00 PM
LF201-S009H MS	WO3344-7MS	Z7954	11/3/98	7:07:00 PM
LF201-S009H MSD	WO3344-7MSD	Z7955	11/3/98	7:47:00 PM

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ03A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ03A	AQ	-	-	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<5	ug/L	1.0	5	5
CHLOROMETHANE	<5	ug/L	1.0	5	5
VINYL CHLORIDE	<10	ug/L	1.0	10	10
BROMOMETHANE	<5	ug/L	1.0	5	5
CHLOROETHANE	<5	ug/L	1.0	5	5
TRICHLOROFLUOROMETHANE	<5	ug/L	1.0	5	5
1,1-DICHLOROETHENE	<5	ug/L	1.0	5	5
METHYLENE CHLORIDE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHENE (TRANS)	<5	ug/L	1.0	5	5
1,1-DICHLOROETHANE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHENE (CIS)	<5	ug/L	1.0	5	5
2,2-DICHLOROPROPANE	<5	ug/L	1.0	5	5
CHLOROFORM	<5	ug/L	1.0	5	5
BROMOCHLOROMETHANE	<5	ug/L	1.0	5	5
1,1,1-TRICHLOROETHANE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHANE	<5	ug/L	1.0	5	5
1,1-DICHLOROPROPENE	<5	ug/L	1.0	5	5
CARBON TETRACHLORIDE	<5	ug/L	1.0	5	5
BENZENE	<5	ug/L	1.0	5	5
1,2-DICHLOROPROPANE	<5	ug/L	1.0	5	5
TRICHLOROETHENE	<5	ug/L	1.0	5	5
DIBROMOMETHANE	<5	ug/L	1.0	5	5
BROMODICHLOROMETHANE	<5	ug/L	1.0	5	5
CIS-1,3-DICHLOROPROPENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
TRANS-1,3-DICHLOROPROPENE	<5	ug/L	1.0	5	5
1,1,2-TRICHLOROETHANE	<5	ug/L	1.0	5	5
1,3-DICHLOROPROPANE	<5	ug/L	1.0	5	5
DIBROMOCHLOROMETHANE	<5	ug/L	1.0	5	5
TETRACHLOROETHENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
CHLOROBENZENE	<5	ug/L	1.0	5	5
1,1,1,2-TETRACHLOROETHANE	<5	ug/L	1.0	5	5

Report Notes:

0000105

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ03A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ03A	AQ	-	-	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<5	ug/L	1.0	5	5
BROMOFORM	<5	ug/L	1.0	5	5
STYRENE	<5	ug/L	1.0	5	5
1,1,2,2-TETRACHLOROETHANE	<5	ug/L	1.0	5	5
1,2,3-TRICHLOROPROPANE	<5	ug/L	1.0	5	5
ISOPROPYLBENZENE	<5	ug/L	1.0	5	5
BROMOBENZENE	<5	ug/L	1.0	5	5
2-CHLOROTOLUENE	<5	ug/L	1.0	5	5
N-PROPYLBENZENE	<5	ug/L	1.0	5	5
4-CHLOROTOLUENE	<5	ug/L	1.0	5	5
1,3,5-TRIMETHYLBENZENE	<5	ug/L	1.0	5	5
TERT-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,2,4-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
SEC-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,3-DICHLOROBENZENE	<5	ug/L	1.0	5	5
P-ISOPROPYLTOLUENE	<5	ug/L	1.0	5	5
1,4-DICHLOROBENZENE	<5	ug/L	1.0	5	5
1,2-DICHLOROBENZENE	<5	ug/L	1.0	5	5
N-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,2-DIBROMO-3-CHLOROPROPAN	<5	ug/L	1.0	5	5
1,2,4-TRIMETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
HEXACHLOROBUTADIENE	<5	ug/L	1.0	5	5
1,2,3-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
ACETONE	<10	ug/L	1.0	10	10
2-BUTANONE	<10	ug/L	1.0	10	10
4-METHYL-2-PENTANONE	<10	ug/L	1.0	10	10
2-HEXANONE	<10	ug/L	1.0	10	10
M+P-XYLENE	<5	ug/L	1.0	5	5
O-XYLENE	<5	ug/L	1.0	5	5
1,3,5-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
VINYL ACETATE	<5.0	ug/L	1.0	5.0	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ03A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/3/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ03A	AQ	-	-	11/3/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<5	ug/L	1.0	5	5
DIETHYL ETHER	<5	ug/L	1.0	5	5
TETRAHYDROFURAN	<10	ug/L	1.0	10	10
DIBROMOFLUOROMETHANE	104	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		
TOLUENE-D8	92	%	1.0		
P-BROMOFLUOROBENZENE	82	%	1.0		

Report Notes:

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKZ04A

Lab Name: Katahdin Analytical Services SDG No.: WO3344

Lab File ID: Z7960 Lab Sample ID: VBLKZ04A

Date Analyzed: 11/04/98 Time Analyzed: 10:05

GC Column: RTX-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-Z

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S :

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCSZ04A	LCSZ04A	Z7959	11/4/98	9:14:00 AM
BH304-S017	WO3344-5	Z7962	11/4/98	11:40:00 AM
LF202-S013	WO3344-8	Z7963	11/4/98	12:19:00 PM
LF401-S007	WO3344-9	Z7964	11/4/98	12:58:00 PM
LF402-S009	WO3344-10	Z7965	11/4/98	1:37:00 PM

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ04A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ04A	AQ	-	-	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<5	ug/L	1.0	5	5
CHLOROMETHANE	<5	ug/L	1.0	5	5
VINYL CHLORIDE	<10	ug/L	1.0	10	10
BROMOMETHANE	<5	ug/L	1.0	5	5
CHLOROETHANE	<5	ug/L	1.0	5	5
TRICHLOROFLUOROMETHANE	<5	ug/L	1.0	5	5
1,1-DICHLOROETHENE	<5	ug/L	1.0	5	5
METHYLENE CHLORIDE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHENE (TRANS)	<5	ug/L	1.0	5	5
1,1-DICHLOROETHANE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHENE (CIS)	<5	ug/L	1.0	5	5
2,2-DICHLOROPROPANE	<5	ug/L	1.0	5	5
CHLOROFORM	<5	ug/L	1.0	5	5
BROMOCHLOROMETHANE	<5	ug/L	1.0	5	5
1,1,1-TRICHLOROETHANE	<5	ug/L	1.0	5	5
1,2-DICHLOROETHANE	<5	ug/L	1.0	5	5
1,1-DICHLOROPROPENE	<5	ug/L	1.0	5	5
CARBON TETRACHLORIDE	<5	ug/L	1.0	5	5
BENZENE	<5	ug/L	1.0	5	5
1,2-DICHLOROPROPANE	<5	ug/L	1.0	5	5
TRICHLOROETHENE	<5	ug/L	1.0	5	5
DIBROMOMETHANE	<5	ug/L	1.0	5	5
BROMODICHLOROMETHANE	<5	ug/L	1.0	5	5
CIS-1,3-DICHLOROPROPENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
TRANS-1,3-DICHLOROPROPENE	<5	ug/L	1.0	5	5
1,1,2-TRICHLOROETHANE	<5	ug/L	1.0	5	5
1,3-DICHLOROPROPANE	<5	ug/L	1.0	5	5
DIBROMOCHLOROMETHANE	<5	ug/L	1.0	5	5
TETRACHLOROETHENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
CHLOROBENZENE	<5	ug/L	1.0	5	5
1,1,1,2-TETRACHLOROETHANE	<5	ug/L	1.0	5	5

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ04A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ04A	AQ	-	-	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<5	ug/L	1.0	5	5
BROMOFORM	<5	ug/L	1.0	5	5
STYRENE	<5	ug/L	1.0	5	5
1,1,2,2-TETRACHLOROETHANE	<5	ug/L	1.0	5	5
1,2,3-TRICHLOROPROPANE	<5	ug/L	1.0	5	5
ISOPROPYLBENZENE	<5	ug/L	1.0	5	5
BROMOBENZENE	<5	ug/L	1.0	5	5
2-CHLOROTOLUENE	<5	ug/L	1.0	5	5
N-PROPYLBENZENE	<5	ug/L	1.0	5	5
4-CHLOROTOLUENE	<5	ug/L	1.0	5	5
1,3,5-TRIMETHYLBENZENE	<5	ug/L	1.0	5	5
TERT-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,2,4-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
SEC-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,3-DICHLOROBENZENE	<5	ug/L	1.0	5	5
P-ISOPROPYLTOLUENE	<5	ug/L	1.0	5	5
1,4-DICHLOROBENZENE	<5	ug/L	1.0	5	5
1,2-DICHLOROBENZENE	<5	ug/L	1.0	5	5
N-BUTYLBENZENE	<5	ug/L	1.0	5	5
1,2-DIBROMO-3-CHLOROPROPAN	<5	ug/L	1.0	5	5
1,2,4-TRIMETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
HEXACHLOROBUTADIENE	<5	ug/L	1.0	5	5
1,2,3-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
ACETONE	<10	ug/L	1.0	10	10
2-BUTANONE	<10	ug/L	1.0	10	10
4-METHYL-2-PENTANONE	<10	ug/L	1.0	10	10
2-HEXANONE	<10	ug/L	1.0	10	10
M+P-XYLENE	<5	ug/L	1.0	5	5
O-XYLENE	<5	ug/L	1.0	5	5
1,3,5-TRICHLOROBENZENE	<5	ug/L	1.0	5	5
VINYL ACETATE	<5.0	ug/L	1.0	5.0	5.0

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKZ04A
Report Date: 11/16/98
PO No. : 96113L
Project: CHARLESTON RI-SITES 2,4,
% Solids: N/A
Method: SW8260
Date Analyzed: 11/4/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKZ04A	AQ	-	-	11/4/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
CARBON DISULFIDE	<5	ug/L	1.0	5	5
DIETHYL ETHER	<5	ug/L	1.0	5	5
TETRAHYDROFURAN	<10	ug/L	1.0	10	10
DIBROMOFLUOROMETHANE	107	%	1.0		
1,2-DICHLOROETHANE-D4	109	%	1.0		
TOLUENE-D8	97	%	1.0		
P-BROMOFLUOROBENZENE	86	%	1.0		

Report Notes:

0000111

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: Z7940 **Sample ID:** LCSZ03A **Date Run:** 11/3/98

Analyst: KMC **Time Injected:** 9:33:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
1,1,1,2-TETRACHLOROETHANE	50	55.8	112	60-140
1,1,1-TRICHLOROETHANE	50	57.2	114	60-140
1,1,2,2-TETRACHLOROETHANE	50	55.3	110	60-140
1,1,2-TRICHLOROETHANE	50	58.9	118	60-140
1,1-DICHLOROETHANE	50	56.4	113	60-140
1,1-DICHLOROETHENE	50	58.7	117	60-140
1,1-DICHLOROPROPENE	50	53.7	107	60-140
1,2,3-TRICHLOROBENZENE	50	54.9	110	60-140
1,2,3-TRICHLOROPROPANE	50	36.9	74	60-140
1,2,4-TRICHLOROBENZENE	50	53.2	106	60-140
1,2,4-TRIMETHYLBENZENE	50	55.5	111	60-140
1,2-DIBROMO-3-CHLOROPROPANE	50	58.6	117	60-140
1,2-DIBROMOETHANE	50	59.3	119	60-140
1,2-DICHLOROBENZENE	50	56.4	113	60-140
1,2-DICHLOROETHANE	50	59.1	118	60-140
1,2-DICHLOROETHENE (CIS)	50	54.8	110	60-140
1,2-DICHLOROETHENE (TRANS)	50	56.5	113	60-140
1,2-DICHLOROPROPANE	50	50.6	101	60-140
1,3,5-TRICHLOROBENZENE	50	40.8	82	60-140
1,3,5-TRIMETHYLBENZENE	50	55.5	111	60-140
1,3-DICHLOROBENZENE	50	53.9	108	60-140
1,3-DICHLOROPROPANE	50	54.3	108	60-140
1,4-DICHLOROBENZENE	50	54.6	109	60-140
2,2-DICHLOROPROPANE	50	53.4	107	60-140
2-BUTANONE	50	55.5	111	60-140
2-CHLOROTOLUENE	50	53.0	106	60-140
2-HEXANONE	50	50.8	102	60-140
4-CHLOROTOLUENE	50	56.6	113	60-140
4-METHYL-2-PENTANONE	50	59.5	119	60-140
ACETONE	50	52.3	104	60-140
BENZENE	50	55.2	110	60-140
BROMOBENZENE	50	53.6	107	60-140
BROMOCHLOROMETHANE	50	56.3	112	60-140
BROMODICHLOROMETHANE	50	58.0	116	60-140
BROMOFORM	50	58.6	117	60-140
BROMOMETHANE	50	59.0	118	60-140
CARBON DISULFIDE	50	48.7	97	60-140
CARBON TETRACHLORIDE	50	56.0	112	60-140
CHLOROBENZENE	50	54.5	109	60-140
CHLOROETHANE	50	63.2	126	60-140
CHLOROFORM	50	56.0	112	60-140

*** Out of Limits**

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: Z7940 **Sample ID:** LCSZ03A **Date Run:** 11/3/98

Analyst: KMC **Time Injected:** 9:33:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
CHLOROMETHANE	50	62.0	124	60-140
CIS-1,3-DICHLOROPROPENE	50	57.2	114	60-140
DIBROMOCHLOROMETHANE	50	57.4	115	60-140
DIBROMOMETHANE	50	57.9	116	60-140
DICHLORODIFLUOROMETHANE	50	68.8	138	60-140
DIETHYL ETHER	50	46.3	93	60-140
ETHYLBENZENE	50	56.5	113	60-140
HEXACHLOROBUTADIENE	50	52.3	104	60-140
ISOPROPYLBENZENE	50	54.6	109	60-140
M+P-XYLENE	100	116	116	60-140
METHYLENE CHLORIDE	50	57.0	114	60-140
MTBE	50	52.5	105	60-140
N-BUTYLBENZENE	50	55.1	110	60-140
N-PROPYLBENZENE	50	54.4	109	60-140
NAPHTHALENE	50	56.8	114	60-140
O-XYLENE	50	56.8	114	60-140
P-ISOPROPYLTOLUENE	50	55.0	110	60-140
SEC-BUTYLBENZENE	50	53.7	107	60-140
STYRENE	50	59.6	119	60-140
TERT-BUTYLBENZENE	50	53.2	106	60-140
TETRACHLOROETHENE	50	55.1	110	60-140
TETRAHYDROFURAN	50	54.1	108	60-140
TOLUENE	50	58.3	117	60-140
TRANS-1,3-DICHLOROPROPENE	50	60.9	122	60-140
TRICHLOROETHENE	50	54.2	108	60-140
TRICHLOROFLUOROMETHANE	50	65.0	130	60-140
VINYL ACETATE	50	52.7	105	60-140
VINYL CHLORIDE	50	66.7	133	60-140

*** Out of Limits**

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: Z7959 **Sample ID:** LCSZ04A **Date Run:** 11/4/98

Analyst: KMC **Time Injected:** 9:14:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
1,1,1,2-TETRACHLOROETHANE	50	51.1	102	60-140
1,1,1-TRICHLOROETHANE	50	50.6	101	60-140
1,1,2,2-TETRACHLOROETHANE	50	48.5	97	60-140
1,1,2-TRICHLOROETHANE	50	49.2	98	60-140
1,1-DICHLOROETHANE	50	49.6	99	60-140
1,1-DICHLOROETHENE	50	53.1	106	60-140
1,1-DICHLOROPROPENE	50	47.6	95	60-140
1,2,3-TRICHLOROBENZENE	50	49.8	100	60-140
1,2,3-TRICHLOROPROPANE	50	32.7	65	60-140
1,2,4-TRICHLOROBENZENE	50	47.5	95	60-140
1,2,4-TRIMETHYLBENZENE	50	50.5	101	60-140
1,2-DIBROMO-3-CHLOROPROPANE	50	48.9	98	60-140
1,2-DIBROMOETHANE	50	51.0	102	60-140
1,2-DICHLOROBENZENE	50	51.1	102	60-140
1,2-DICHLOROETHANE	50	50.3	101	60-140
1,2-DICHLOROETHENE (CIS)	50	47.3	94	60-140
1,2-DICHLOROETHENE (TRANS)	50	51.5	103	60-140
1,2-DICHLOROPROPANE	50	44.3	88	60-140
1,3,5-TRICHLOROBENZENE	50	38.9	78	60-140
1,3,5-TRIMETHYLBENZENE	50	50.6	101	60-140
1,3-DICHLOROBENZENE	50	48.2	96	60-140
1,3-DICHLOROPROPANE	50	49.5	99	60-140
1,4-DICHLOROBENZENE	50	48.4	97	60-140
2,2-DICHLOROPROPANE	50	51.1	102	60-140
2-BUTANONE	50	42.2	84	60-140
2-CHLOROTOLUENE	50	48.2	96	60-140
2-HEXANONE	50	42.1	84	60-140
4-CHLOROTOLUENE	50	49.5	99	60-140
4-METHYL-2-PENTANONE	50	44.2	88	60-140
ACETONE	50	29.0	*58	60-140
BENZENE	50	47.6	95	60-140
BROMOBENZENE	50	47.9	96	60-140
BROMOCHLOROMETHANE	50	47.8	96	60-140
BROMODICHLOROMETHANE	50	50.2	100	60-140
BROMOFORM	50	50.0	100	60-140
BROMOMETHANE	50	53.2	106	60-140
CARBON DISULFIDE	50	45.4	91	60-140
CARBON TETRACHLORIDE	50	49.4	99	60-140
CHLOROBENZENE	50	49.6	99	60-140
CHLOROETHANE	50	54.4	109	60-140
CHLOROFORM	50	48.2	96	60-140

*** Out of Limits**

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: Z7959 | Sample ID: LCSZ04A | Date Run: 11/4/98

Analyst: KMC | Time Injected: 9:14:00 AM | Matrix: AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
CHLOROMETHANE	50	53.7	107	60-140
CIS-1,3-DICHLOROPROPENE	50	48.1	96	60-140
DIBROMOCHLOROMETHANE	50	51.3	102	60-140
DIBROMOMETHANE	50	47.4	95	60-140
DICHLORODIFLUOROMETHANE	50	57.5	115	60-140
DIETHYL ETHER	50	45.0	90	60-140
ETHYLBENZENE	50	51.5	103	60-140
HEXACHLOROBUTADIENE	50	46.2	92	60-140
ISOPROPYLBENZENE	50	49.0	98	60-140
M+P-XYLENE	100	105	105	60-140
METHYLENE CHLORIDE	50	50.3	101	60-140
MTBE	50	50.2	100	60-140
N-BUTYLBENZENE	50	49.5	99	60-140
N-PROPYLBENZENE	50	48.1	96	60-140
NAPHTHALENE	50	50.3	100	60-140
O-XYLENE	50	51.7	103	60-140
P-ISOPROPYLTOLUENE	50	49.5	99	60-140
SEC-BUTYLBENZENE	50	47.8	96	60-140
STYRENE	50	53.5	107	60-140
TERT-BUTYLBENZENE	50	49.0	98	60-140
TETRACHLOROETHENE	50	49.0	98	60-140
TETRAHYDROFURAN	50	45.9	92	60-140
TOLUENE	50	50.9	102	60-140
TRANS-1,3-DICHLOROPROPENE	50	52.2	104	60-140
TRICHLOROETHENE	50	47.1	94	60-140
TRICHLOROFLUOROMETHANE	50	60.1	120	60-140
VINYL ACETATE	50	43.8	88	60-140
VINYL CHLORIDE	50	61.0	122	60-140

* Out of Limits

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3344-7	Z7953	11/3/98	6:28:00 PM	KMC	AQ	8260
WO3344-7MS	Z7954	11/3/98	7:07:00 PM	KMC	AQ	8260
WO3344-7MSD	Z7955	11/3/98	7:47:00 PM	KMC	AQ	8260

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
2-HEXANONE	0	4300	4300	4440	3700	103	86	60-140	18	20
1,1,1,2-TETRACHLOROETHANE	0	4300	4300	5690	4840	132	112	60-140	16	20
1,3,5-TRIMETHYLBENZENE	0	4300	4300	4900	4060	114	94	60-140	19	20
1,3-DICHLOROBENZENE	0	4300	4300	4670	3920	109	91	60-140	18	20
1,3-DICHLOROPROPANE	0	4300	4300	5160	4530	120	105	60-140	13	20
1,4-DICHLOROBENZENE	0	4300	4300	4710	3930	110	91	60-140	18	20
2,2-DICHLOROPROPANE	0	4300	4300	4930	4080	115	95	60-140	19	20
1,2-DICHLOROPROPANE	0	4300	4300	5260	4310	122	100	60-140	20	20
2-CHLOROTOLUENE	0	4300	4300	4740	3980	110	92	60-140	18	20
1,2-DICHLOROETHENE (TRANS)	0	4300	4300	5720	4480	133	104	60-140	*24	20
4-CHLOROTOLUENE	0	4300	4300	5060	4110	118	96	60-140	*21	20
4-METHYL-2-PENTANONE	0	4300	4300	5150	4460	120	104	60-140	14	20
ACETONE	482	4300	4300	5800	3300	124	66	60-140	*61	20
BENZENE	0	4300	4300	5740	4560	134	106	60-140	*23	20
BROMOBENZENE	0	4300	4300	4810	3960	112	92	60-140	20	20
BROMOCHLOROMETHANE	0	4300	4300	5980	4640	139	108	60-140	*25	20
2-BUTANONE	0	4300	4300	6190	4810	*144	112	60-140	*25	20
1,2,4-TRICHLOROBENZENE	0	4300	4300	3780	3510	88	82	60-140	7.4	20
1,1,1-TRICHLOROETHANE	0	4300	4300	5950	4610	138	107	60-140	*25	20
1,1,2,2-TETRACHLOROETHANE	0	4300	4300	5010	4150	117	96	60-140	19	20
1,1,2-TRICHLOROETHANE	0	4300	4300	6040	4720	140	110	60-140	*24	20
1,1-DICHLOROETHANE	0	4300	4300	6050	4850	*141	113	60-140	*22	20
1,1-DICHLOROETHENE	0	4300	4300	6250	4930	*145	115	60-140	*23	20
1,1-DICHLOROPROPENE	0	4300	4300	5220	4260	121	99	60-140	20	20
1,3,5-TRICHLOROBENZENE	0	4300	4300	4320	4280	100	100	60-140	1	20
1,2,3-TRICHLOROPROPANE	0	4300	4300	3460	2840	81	66	60-140	20	20
BROMOMETHANE	0	4300	4300	3620	2950	84	69	60-140	20	20
1,2,4-TRIMETHYLBENZENE	0	4300	4300	4800	3970	112	92	60-140	19	20
1,2-DIBROMO-3-CHLOROPROPANE	0	4300	4300	5060	4110	118	96	60-140	20	20
1,2-DIBROMOETHANE	0	4300	4300	5790	4650	134	108	60-140	*22	20
1,2-DICHLOROBENZENE	79.2	4300	4300	5060	4250	116	97	60-140	18	20
1,2-DICHLOROETHANE	0	4300	4300	6300	4950	*146	115	60-140	*24	20
1,2-DICHLOROETHENE (CIS)	0	4300	4300	5460	4370	127	102	60-140	*22	20
1,2,3-TRICHLOROBENZENE	0	4300	4300	3880	3820	90	89	60-140	1.7	20
TETRACHLOROETHENE	0	4300	4300	5240	4310	122	100	60-140	20	20
N-BUTYLBENZENE	0	4300	4300	4530	3780	105	88	60-140	18	20
N-PROPYLBENZENE	0	4300	4300	4660	3840	108	89	60-140	19	20
NAPHTHALENE	0	4300	4300	4150	3680	96	86	60-140	12	20
O-XYLENE	0	4300	4300	5220	4460	122	104	60-140	16	20
P-ISOPROPYLTOLUENE	0	4300	4300	4680	3920	109	91	60-140	18	20
SEC-BUTYLBENZENE	0	4300	4300	4560	3800	106	88	60-140	18	20
BROMODICHLOROMETHANE	0	4300	4300	6250	4900	*145	114	60-140	*24	20
TERT-BUTYLBENZENE	0	4300	4300	4520	3780	105	88	60-140	18	20
M+P-XYLENE	0	8600	8600	11100	9240	129	107	60-140	18	20

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100 *** Out of Limits**

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3344-7	Z7953	11/3/98	6:28:00 PM	KMC	AQ	8260
WO3344-7MS	Z7954	11/3/98	7:07:00 PM	KMC	AQ	8260
WO3344-7MSD	Z7955	11/3/98	7:47:00 PM	KMC	AQ	8260

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
TETRAHYDROFURAN	0	4300	4300	4690	3640	109	84	60-140	*25	20
TOLUENE	0	4300	4300	5860	4640	136	108	60-140	*23	20
TRANS-1,3-DICHLOROPROPENE	0	4300	4300	5770	4780	134	111	60-140	19	20
TRICHLOROETHENE	0	4300	4300	5450	4350	127	101	60-140	*22	20
TRICHLOROFLUOROMETHANE	0	4300	4300	6660	5140	*155	120	60-140	*26	20
VINYL ACETATE	0	4300	4300	4410	3990	102	93	60-140	9.9	20
STYRENE	0	4300	4300	5750	4720	134	110	60-140	20	20
DIBROMOCHLOROMETHANE	0	4300	4300	5720	4860	133	113	60-140	16	20
VINYL CHLORIDE	0	4300	4300	7100	5680	*165	132	60-140	*22	20
CARBON DISULFIDE	0	4300	4300	5270	4100	122	95	60-140	*25	20
CARBON TETRACHLORIDE	0	4300	4300	5720	4530	133	105	60-140	*23	20
CHLOROBENZENE	0	4300	4300	5300	4460	123	104	60-140	17	20
CHLOROETHANE	0	4300	4300	4370	3410	102	79	60-140	*25	20
CHLOROFORM	0	4300	4300	5940	4650	138	108	60-140	*24	20
MTBE	0	4300	4300	5050	4170	118	97	60-140	19	20
CIS-1,3-DICHLOROPROPENE	0	4300	4300	5500	4520	128	105	60-140	20	20
METHYLENE CHLORIDE	657	4300	4300	6580	4700	138	94	60-140	*38	20
DIBROMOMETHANE	0	4300	4300	6100	4810	*142	112	60-140	*24	20
DICHLORODIFLUOROMETHANE	0	4300	4300	6890	5100	*160	119	60-140	*30	20
DIETHYL ETHER	0	4300	4300	6110	5430	*142	126	60-140	12	20
ETHYLBENZENE	0	4300	4300	5330	4500	124	105	60-140	17	20
HEXACHLOROBUTADIENE	0	4300	4300	4040	3740	94	87	60-140	7.6	20
ISOPROPYLBENZENE	0	4300	4300	4720	3860	110	90	60-140	20	20
BROMOFORM	0	4300	4300	5460	4770	127	111	60-140	13	20
CHLOROMETHANE	0	4300	4300	6630	5220	*154	121	60-140	*24	20

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100

* Out of Limits

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Drinking Water Analysis

Issued to
Katahdin Analytical Services

Located at
340 County Road, #5, Westbrook, ME

Under the provisions of the Regulations in Env-C300 for the following analyses:

FULL CERTIFICATION: Volatile Organics, Trihalomethanes, Nitrite-N, Thallium, Boron, Manganese, Molybdenum, Zinc, Residual Free Chlorine, Mercury, Nitrate-N, Beryllium, Total Coliform by MF, Coliform (Compliance Testing), Orthophosphate, Vinyl Chloride, Turbidity, Total Filterable Residue, Calcium Hardness, pH, Alkalinity, Fluoride, Cadmium, TOC, Sulfate, Sodium, Antimony, Copper, Selenium, Lead, Chromium, Total Cyanide, Nickel, Barium, Arsenic.

PROVISIONAL CERTIFICATION: Fecal Coliform by MF.

REPLACES CERTIFICATE #: 200198-A

CERTIFICATE NUMBER: 200198-C

DATE OF ISSUE: July 07, 1998

EXPIRATION DATE: April 02, 1999

Charles M. Ayer
Certifying Officer

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT

Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # CW03344

PAGE: 1 OF 1

COOLER: 1 OF 1

COC#

SDG#

DATE / TIME RECEIVED: 10/29/98 0945

DELIVERED BY: FEDEX

RECEIVED BY: KAS

LIMS ENTRY BY: KAS

LIMS REVIEW BY / PM: LMP

CLIENT: Weston

PROJECT: Charleston R. Sites

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☒	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☒	☐	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☒	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☒	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☒	☐	☐	TEMP BLANK TEMP (°C)= 2.3	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT (Y) or N?	☒	☐	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☒	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☒	☐	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☒	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☒	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☒	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☒	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC (ACOE) AFCEE OTHER (STATE OF ORIGIN): NJ

LOG - IN NOTES[1]:

(1) Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

0000119

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Client: Roy F. Weston Inc.
Contact: Vinnie DelloRusso
Phone #: (603) 656-5467
Fax #: (603) 656-5401
Address: One Wall St.
City: Manchester
State: NH
Zip Code: 03242
Purchase Order #:
Proj. Name / No.: EB772 Charlestown RI - SSES 2,4,6
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign): Vincent DelloRusso
Copies To:

LAB USE ONLY
WORK ORDER #: W0334 7.
KATAHDIN PROJECT MANAGER:
REMARKS:
SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C: ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	VOC 5035/8260B 40mL w/ MeOH	SVOC 3540/8270C 4oz clear glass	TRPH 418.1 9071/418.1 4oz clear glass	TOTAL Lead 3050B/6010B 4oz clear glass	RCRA Metals * 3050B/6010B 4oz clear glass	Moisture Content 2oz clear glass		Field Screening PID ppm	VOC FD #
	BH301-5019	10/24/98/1205	S	5	1	1	1	1		1		6ppm	#2251
	BH302-5011	10/24/98/1555	S	5	1	1	1	1		1		0ppm	#2235
	BH303A-5013	10/26/98/1455	S	5	1	1	1	1		1		0ppm	TRPH+TLP MS/MSD #2245
	~~BH303A~~ BH302-5111	10/26/98/1555	S	5	1	1	1	1		1		0ppm	#2240
	TB-1	10/24/98/9AM	MeOH	2	2					Lab Prepared			2250 2251
	BH304-5017	10/27/98/910	S	5	1	1	1	1		1		0ppm	#2231 ~~#2230~~ #2233
	LF201-5009	10/27/98/1145	S	8	2	2			2	2		0ppm	MS/MSD
	LF202-5013	10/27/98/1540	S	4	1	1			1	1		0ppm	#2243
	LF202-5113	10/27/98/1540	S	1					1			0ppm	
	LF401-5007	10/28/98/840	S	4	1	1			1	1		0ppm	#2234
	LF402-5009	10/28/98/1140	S	4	1	1			1	1		0ppm	#2240
		/											
		/											
		/											
		/											
		/											

COMMENTS: * Mercury by 7471A for Soil

Temperature Blank in Cooler

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Vincent DelloRusso	10/28/98 8pm	FEDEX			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
			10/29/98	0945	

KATAHDIN ANALYTICAL SERVICES, INCORPORATED
New England-ME Laboratory (207) 874-2400
CONFIRMATION

ORDER NO WO-3344

Project Manager: Lil Pepin
ORDER DATE: 10/29/98
PHONE: 603/656-5400
FAX: 603/656-5401
DUE: 12 NOV

REPORT TO: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

INVOICE: V. DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

PHONE: 603/656-5400
PO: 96113L

PROJECT: CHARLESTON RI-SITES 2,4,6

SAMPLED BY: CLIENT DELIVERED BY: FEDEX DISPOSE: AFTER 28 NOV

ITEM	LOG NUMBER	SAMPLE DESCRIPTION	SAMPLED DATE/TIME	RECEIVED	MATRIX
1	WO3344-1	BH301-S019	26 OCT 1205	29 OCT	SL
	WO3344-2	BH302-S011	26 OCT 1555		
	WO3344-3	BH303A-S013	26 OCT 1455		
	WO3344-4	BH302-S111	26 OCT 1555		
	WO3344-5	BH304-S017	27 OCT 0910		

DETERMINATION	METHOD	QTY	PRICE	AMOUNT
Solids-Total Residue (TS)	CLP/CIP SO	5	0.00	0.00
TCL Semivolatile Organics by USEPA 8270B	EPA 8270B	5	200.00	1000.00
Total Petroleum Hydrocarbons (TPH)	E418.1	5	75.00	375.00
Lead, Total	6010	5	20.00	100.00
Volatile Organics by 8260A	SW8260	5	120.00	600.00
TOTALS		5	415.00	2075.00

	LOG NUMBER	SAMPLE DESCRIPTION	SAMPLED DATE/TIME	RECEIVED	MATRIX
2	WO3344-6	TB-1	26 OCT 0900	29 OCT	SL

DETERMINATION	METHOD	QTY	PRICE	AMOUNT
Volatile Organics by 8260A	SW8260	1	120.00	120.00

LABORATORY ORDER CONTINUED ON PAGE 2

KATAHDIN ANALYTICAL SERVICES, INCORPORATED
New England-ME Laboratory (207) 874-2400
CONFIRMATION

ORDER NO WO-3344

Project Manager: Lil Pepin
ORDER DATE: 10/29/98
PHONE: 603/656-5400
FAX: 603/656-5401
DUE: 12 NOV

REPORT TO: MR. VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

INVOICE: V. DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

PHONE: 603/656-5400
PO: 96113L

PROJECT: CHARLESTON RI-SITES 2,4,6

SAMPLED BY: CLIENT DELIVERED BY: FEDEX DISPOSE: AFTER 28 NOV

	LOG NUMBER	SAMPLE DESCRIPTION	SAMPLED DATE/TIME	RECEIVED	MATRIX
3	WO3344-7	LF201-S009	27 OCT 1145	29 OCT	SL
	WO3344-8	LF202-S013	27 OCT 1540		
	WO3344-9	LF401-S007	28 OCT 0840		
	WO3344-10	LF402-S009	28 OCT 1140		

DETERMINATION	METHOD	QTY	PRICE	AMOUNT
Solids-Total Residue (TS)	CLP/CIP SO	4	0.00	0.00
TCL Semivolatile Organics by USEPA 8270B	EPA 8270B	4	200.00	800.00
RCRA Metals, Total		4	80.00	320.00
Volatile Organics by 8260A	SW8260	4	120.00	480.00
TOTALS		4	400.00	1600.00

	LOG NUMBER	SAMPLE DESCRIPTION	SAMPLED DATE/TIME	RECEIVED	MATRIX
4	WO3344-11	LF202-S113	27 OCT 1540	29 OCT	SL

DETERMINATION	METHOD	QTY	PRICE	AMOUNT
Solids-Total Residue (TS)	CLP/CIP SO	1	0.00	0.00
RCRA Metals, Total		1	80.00	80.00
TOTALS		1	80.00	80.00

ORDER NOTE: QC-II+
CHARLESTON, RI SITES 2,4,6

INVOICE: With Report

TOTAL ORDER AMOUNT $3,875.00
This is NOT an Invoice

BKR/KP/LP/WEST.KP(dw)/WEST.LP(dw)
11-11Please contact KATAHDIN ANALYTICAL SERVICES promptly if you have any questi

GROUNDWATER SAMPLE RESULTS

Inter-Office Memorandum

WESTON

TO:	Vinnie DelloRusso	CC:	John Hagopian
FROM:	Diane Quigley	DATE:	4 February, 1999
PROJECT:	Charlestown, R.I.	W.O. No.:	10971-036-001-0010-01
SUBJECT:	Data Review of W0-3843		

Samples: CN06-M001, CN08-M001, CN08-M001, CN09-M001, CN09-M101, CN09-M201, CN10-M001, CN16-M001, LF201-M001, LF201-M101, LF401-M001, LF402-M001, and TB-1

Action: Volatile (8260B), semivolatile (8270C), TPH, lead and total metals data submitted by Katahdin Analytical Services for the above-listed samples were reviewed. Chain of custodies were reviewed to verify methodologies, sample preservation, and to ensure holding times were met.

The laboratory was contacted on 1/26/99 (telephone log attached) to submit internal standard recoveries for semivolatile samples WO3842-4, 8 and 9 since it was stated in the case narrative recoveries were poor. The information was received by facsimile on 2/02/99. The following discrepancies were noted.

Volatile: U^1 – Qualify methylene chloride as undetected (U^1) due to method blank contamination in samples CN09-M001, CN09-M101, LF401-M001, LF402-M001, CN10-M001, CN08-M001, CN06-M001, CN16-M001, and LF201-M001.

U^4 – Qualify naphthalene as undetected (U^4) in volatile sample LF201-M001 due to method blank contamination.

Semivolatiles: J^6/UJ^6 – Estimate positive and non-detected results for re-extracted semivolatile sample CN16-M001 (WO3843-5RE) due to exceeded holding times.

J^7/UJ^7 – Estimate positive and non-detected results for 3,3'-dichlorobenzidine, 3-nitroaniline, 4-chloroaniline, 4-nitroaniline and hexachlorocyclopentadiene in all samples due to consistently low recoveries in the LCS samples.

J^8/UJ^8 – Estimate positive and non-detected results for compounds quantitated using internal standard perylene-d12 in semivolatile samples LF201-M001, CN10-M001, and LF402-M001 due to poor internal standard recoveries.

Lead: U^3 – Qualify the positive lead result in sample CN16-M001 due to field blank contamination.

Total Metals: U^2 – Qualify the positive chromium result in samples LF401-M001 and CN06-M001 due to field blank contamination.

All qualifications were added to the result pages. Footnotes explaining qualifiers should be presented at the bottom of the analytical result table.

If you have any questions, please call me at x5534. The "Data Review Checklist", telephone logs, and resubmittals are attached.

DATA REVIEW CHECKLIST

Site: Charlestown RI

Katahdin Lab Number: WO - 3843

WESTON Sample IDs: CN09-M001 CN09-M101 LF201-M101, LF201-M00
CN09-M201 (FB), CN09-M101, CN16-M001, CN06-M001, CN08-M00
TB-1 (TB) CN08-M001, CN10-M001 LF402-M001, LF401-M00

Data Reviewed	Fraction						Comments
	metals	Mercury	8270	Lead	TPH	8260	
Chain of Custody	✓	✓	✓	✓	✓	✓	
Log-in Sheet	✓	✓	✓	✓	✓	✓	
Preservation	✓	✓	✓	✓	✓	✓	
Holding Time	~~J4/UJ4~~	✓	J6/UJ6	✓	✓	✓	
Trip Blanks / Field Blanks	CN09-M201	✓	✓	✓	✓	✓	Barium 2.5 ug/L x5 = 12.5; Chromium 1.2 x5 = 6.0; Lead 2.8 x5 = 14
Instrument/Method Blanks (soils/solids)	NA						
Instrument/Method Blanks (Aqueous)	PBW001 08ECMI = Barium = 0.27 x5 = 1.35 ug/L						
	✓	✓	✓	✓	✓	✓	
MS/MSD - Soil/Solid	NA					NA	
MS/MSD - Aqueous	✓	✓	*	✓	✓	*	several cmpds ~~did recov~~ slightly below QC limits in 8260 MS/MSD → no action since LCS met criteria
LCS/LFB	✓	✓	~~J4/UJ4~~ J7/UJ7	✓	✓		
Blank Spikes (BS/BSD)	NA						
Lab Duplicates	✓	✓					Qualifications in 8270 results made only on LCS recoveries, not MS/MSD results.
Field Duplicates	~~NA~~	✓	✓	✓	✓		
Surrogate Recoveries	NA →	✓		NA	✓		
Internal stds			J8/UJ8				

✓ = Data reviewed

NA = Not Applicable

Note: Data reviewed but not commented on is considered acceptable.

Qualifiers Used:

~~TJ/TA - Estimated positive non-detected chromium results in LF201-M101 and LF201-M001 since field dup criteria was not met~~

J - Estimated positive results in ~~sample WO3~~ CN16-M001 ~~CW03843-5~~

J4/J6 - Est pos non-detected results due to exceeded holding times.

Data Reviewer Initials: DFG

Date: 1/29/99

CN09-M201
$MeCl_2$ = 5

TB-1
$MeCl_2$ 3
Acetone 3

~~CN09-M201~~
LF401-M001
LF402-M001
CN10-M001
CN08-M001
CN06-M001
CN16-M001
LF201-M001

U1 - Qualify $MeCl_2$ as undetected due to method blank contam in CN09-M001, CN09-M101, LF401-M001

U2 - Qualify the pos chromium result in CN06-M001, CN08-M001, LF201-M101 as undetected due to field blank contam.

U3 - Qualify the pos lead result in CN16-M001 due to field blank contam.

U4 - Qualify napthalene as undetected in sample LF201-M001 due to method blank contamination.

**J7/UJ7 - Est pos + non-detected results for 3,3'-dichlorobenzidine, 3-nitroaniline, 4-chloroaniline, 4-nitroaniline & hexachlorocyclopentadiene in many samples due to consistently low recoveries in LCS samples

J8/UJ8 - Estimate pos + non-detected results for compounds quantitated using internal stds perylene-d12 in semivolatile samples LF201-M001, CN10-M001 and LF402-M001 due to poor internal std recovery.

Katahdin
ANALYTICAL SERVICES

FAX TRANSMISSION

Date: 2/2/99 **Time:** 1525

To: Diane Quigley

From: Lil Pepin

FAX No: 603/656-5401

Number of Pages (Including This Cover): 8

Comments: Internal Standards requested for Charleston, RI sites 2, 4, 6 - 8270 - W03843-4-8-9 sample ID's: "LF201-M001", "CN10-M001" and "LF402-M001"

W03843-4 W03843-8 W03843-9

From: **Katahdin Analytical Services, Inc.**
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

The information contained in this facsimile transmission is privileged and confidential and intended for the use of the addressee named above. If the receiver of the following pages is not (one of) the above named recipients(s), you are hereby notified that any retention, dissemination, distribution, or copying of this facsimile is prohibited. If you received this facsimile in error, please notify us immediately by telephone. Thank you.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\I1917.D
Acq On : 18 Dec 98 5:47 pm
Sample : WO3843-4
Misc : 5970-I;120998;3520
Quant Time: Dec 22 9:13 1998

Vial: 13
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.10
Quant Results File: 82AW1218.RE

Quant Method : C:\HPCHEM\1\METHODS\82AW1218.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1218

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.50	152	221335	40.00 ug/L	-0.04
19) Naphthalene-d8	7.19	136	905685	40.00 ug/L	-0.05
34) Acenaphthene-d10	9.45	164	443878	40.00 ug/L	-0.05
56) Phenanthrene-d10	11.29	188	1043629	40.00 ug/L	-0.06
68) Chrysene-d12	15.99	240	406870	40.00 ug/L	-0.11
78) Perylene-d12	20.40	264	1417705	40.00 ug/L	-0.13

System Monitoring Compounds

2) 2-Fluorophenol	3.78	112	250826	45.62 ug/L	-0.05
Surrogate Spike 100.000	Range 22 - 110		Recovery = 45.62%		
3) Phenol-d5	5.30	99	353602	46.41 ug/L	-0.05
Surrogate Spike 100.000	Range 10 - 110		Recovery = 46.41%		
20) Nitrobenzene-d5	6.32	82	289291	28.50 ug/L	-0.05
Surrogate Spike 50.000	Range 35 - 114		Recovery = 57.00%		
38) 2-Fluorobiphenyl	8.64	172	734654	55.91 ug/L	-0.05
Surrogate Spike 50.000	Range 43 - 116		Recovery = 111.82%		
55) 2,4,6-Tribromophenol	10.48	330	313072	96.95 ug/L	-0.05
Surrogate Spike 100.000	Range 23 - 123		Recovery = 96.95%		
71) Terphenyl-d14	13.67	244	739001	65.89 ug/L	-0.07
Surrogate Spike 50.000	Range 33 - 141		Recovery = 131.78%		

Target Compounds

Qvalue

Footnote C-13

ND
DF=1.1

ext 120998 by 3520

Initial Volume of 910 mls resulting in elevated PQLs

(#) = qualifier out of range (m) = manual integration
I1917.D 82AW1218.M Tue Dec 22 09:14:12 1998

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\I1937.D
Acq On : 21 Dec 98 9:27 pm
Sample : WO3843-4RA
Misc : 5970-I;120998;3520
Quant Time: Dec 22 8:07 1998

Vial: 15
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.10
Quant Results File: 82AW1221.RES

Quant Method : C:\HPCHEM\1\METHODS\82AW1221.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1221

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.48	152	125810	40.00	ug/L	-0.06
19) Naphthalene-d8	7.17	136	562938	40.00	ug/L	-0.07
34) Acenaphthene-d10	9.42	164	262026	40.00	ug/L	-0.07
56) Phenanthrene-d10	11.28	188	766379	40.00	ug/L	-0.07
68) Chrysene-d12	15.95	240	368694	40.00	ug/L	-0.14
78) Perylene-d12	20.34	264	8726m	40.00	ug/L	-0.19

System Monitoring Compounds						
2) 2-Fluorophenol	3.74	112	158340	50.66	ug/L	-0.09
Surrogate Spike 100.000	Range 22 - 110		Recovery = 50.66%			
3) Phenol-d5	5.27	99	183394	42.35	ug/L	-0.07
Surrogate Spike 100.000	Range 10 - 110		Recovery = 42.35%			
20) Nitrobenzene-d5	6.30	82	163943	25.99	ug/L	-0.07
Surrogate Spike 50.000	Range 35 - 114		Recovery = 51.98%			
38) 2-Fluorobiphenyl	8.62	172	497368	64.12	ug/L	-0.07
Surrogate Spike 50.000	Range 43 - 116		Recovery = 128.24%#			
55) 2,4,6-Tribromophenol	10.45	330	217704	114.21	ug/L	-0.07
Surrogate Spike 100.000	Range 23 - 123		Recovery = 114.21%			
71) Terphenyl-d14	13.65	244	622554	61.25	ug/L	-0.09
Surrogate Spike 50.000	Range 33 - 141		Recovery = 122.50%			

Target Compounds Qvalue

ND footnote #, a-13

DF=1.1

ext 120998 by 3520

Initial Volume of 910 mls, resulting in elevated PQLs

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\I1921.D
Acq On : 18 Dec 98 8:41 pm
Sample : WO3843-8
Misc : 5970-I;120998;3520
Quant Time: Dec 22 9:23 1998

Vial: 17
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.12
Quant Results File: 82AW1218.RES

Quant Method : C:\HPCHEM\1\METHODS\82AW1218.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1218

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.49	152	225813	40.00	ug/L	-0.05
19) Naphthalene-d8	7.18	136	923916	40.00	ug/L	-0.06
34) Acenaphthene-d10	9.45	164	553065	40.00	ug/L	-0.05
56) Phenanthrene-d10	11.29	188	1146604	40.00	ug/L	-0.06
68) Chrysene-d12	15.99	240	696518	40.00	ug/L	-0.11
78) Perylene-d12	20.38	264	887560-13	40.00	ug/L	-0.15

System Monitoring Compounds						
2) 2-Fluorophenol	3.76	112	183127	32.64	ug/L	-0.07
Surrogate Spike 100.000	Range 22 - 110		Recovery = 32.64%			
3) Phenol-d5	5.29	99	339095	43.62	ug/L	-0.06
Surrogate Spike 100.000	Range 10 - 110		Recovery = 43.62%			
20) Nitrobenzene-d5	6.31	82	244678	23.63	ug/L	-0.06
Surrogate Spike 50.000	Range 35 - 114		Recovery = 47.26%			
38) 2-Fluorobiphenyl	8.64	172	627004	38.30	ug/L	-0.05
Surrogate Spike 50.000	Range 43 - 116		Recovery = 76.60%			
55) 2,4,6-Tribromophenol	10.48	330	296500	73.69	ug/L	-0.05
Surrogate Spike 100.000	Range 23 - 123		Recovery = 73.69%			
71) Terphenyl-d14	13.67	244	784650	40.87	ug/L	-0.07
Surrogate Spike 50.000	Range 33 - 141		Recovery = 81.74%			

Target Compounds Qvalue

ND footnote C-13

DF=1.1

ext 120998 by 3520

Initial Volume of 890 mls resulting in elevated PQL's

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\I1925.D
Acq On : 21 Dec 98 12:51 pm
Sample : WO3843-8RA
Misc : 5970-I;120998;3520
Quant Time: Dec 22 7:19 1998

Vial: 3
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.12
Quant Results File: 82AW1221.RES

Quant Method : C:\HPCHEM\1\METHODS\82AW1221.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1221

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.47	152	118347	40.00 ug/L	-0.07
19) Naphthalene-d8	7.16	136	517109	40.00 ug/L	-0.08
34) Acenaphthene-d10	9.42	164	293755	40.00 ug/L	-0.07
56) Phenanthrene-d10	11.27	188	703401	40.00 ug/L	-0.08
68) Chrysene-d12	15.93	240	564310	40.00 ug/L	-0.16
78) Perylene-d12	20.30	264	713540-3	40.00 ug/L	-0.23

System Monitoring Compounds					
2) 2-Fluorophenol	3.73	112	105245	35.80 ug/L	-0.10
Surrogate Spike 100.000	Range 22 - 110		Recovery = 35.80%		
3) Phenol-d5	5.26	99	193375	47.47 ug/L	-0.08
Surrogate Spike 100.000	Range 10 - 110		Recovery = 47.47%		
20) Nitrobenzene-d5	6.29	82	147037	25.37 ug/L	-0.07
Surrogate Spike 50.000	Range 35 - 114		Recovery = 50.74%		
38) 2-Fluorobiphenyl	8.62	172	370930	42.66 ug/L	-0.07
Surrogate Spike 50.000	Range 43 - 116		Recovery = 85.32%		
55) 2,4,6-Tribromophenol	10.45	330	167638	78.45 ug/L	-0.07
Surrogate Spike 100.000	Range 23 - 123		Recovery = 78.45%		
71) Terphenyl-d14	13.63	244	580845	37.34 ug/L	-0.11
Surrogate Spike 50.000	Range 33 - 141		Recovery = 74.68%		

Target Compounds Qvalue

ND

DF=1.1

ext 120998 by 3520

Initial Volume of 890 mls, resulting in elevated PQLs

footnote 0-13

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\I1926.D
Acq On : 21 Dec 98 1:34 pm
Sample : WO3843-9
Misc : 5970-I;120998;3520
Quant Time: Dec 22 7:24 1998

Vial: 4
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.10
Quant Results File: 82AW1221.RES

Quant Method : C:\HPCHEM\1\METHODS\82AW1221.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1221

Internal Standards

	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.47	152	130321	40.00 ug/L	-0.07
19) Naphthalene-d8	7.16	136	568111	40.00 ug/L	-0.08
34) Acenaphthene-d10	9.43	164	268105	40.00 ug/L	-0.07
56) Phenanthrene-d10	11.27	188	770661	40.00 ug/L	-0.08
68) Chrysene-d12	15.93	240	419382	40.00 ug/L	-0.17
78) Perylene-d12	20.30	264	21891	40.00 ug/L	-0.23

System Monitoring Compounds

2) 2-Fluorophenol	3.73	112	138427	42.76 ug/L	-0.10
Surrogate Spike 100.000	Range 22 - 110		Recovery = 42.76%		
3) Phenol-d5	5.27	99	209929	46.79 ug/L	-0.08
Surrogate Spike 100.000	Range 10 - 110		Recovery = 46.79%		
20) Nitrobenzene-d5	6.29	82	196492	30.86 ug/L	-0.08
Surrogate Spike 50.000	Range 35 - 114		Recovery = 61.72%		
38) 2-Fluorobiphenyl	8.62	172	467513	58.91 ug/L	-0.07
Surrogate Spike 50.000	Range 43 - 116		Recovery = 117.82%#		
55) 2,4,6-Tribromophenol	10.45	330	229978	117.91 ug/L	-0.08
Surrogate Spike 100.000	Range 23 - 123		Recovery = 117.91%		
71) Terphenyl-d14	13.63	244	639440	55.31 ug/L	-0.11
Surrogate Spike 50.000	Range 33 - 141		Recovery = 110.62%		

Target Compounds

Qvalue

ND

DF=1.1

ext 120998 by 3520

Initial Volume of 910 mls, resulting in elevated PQLs

footnote 0-13, #

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\I1940.D
Acq On : 22 Dec 98 9:38 am
Sample : WO3843-9RA
Misc : 5970-I;120998;3520
Quant Time: Dec 22 10:11 1998

Vial: 3
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.10
Quant Results File: 82AW1222.RES

Quant Method : C:\HPCHEM\1\METHODS\82AW1222.M
Title : Katahdin 8270C WATER Calibration (with aniline)
Last Update : Tue Dec 15 15:34:13 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1222

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.50	152	102377	40.00 ug/L	0.03
19) Naphthalene-d8	7.19	136	421001	40.00 ug/L	0.02
34) Acenaphthene-d10	9.44	164	228513 0-13	40.00 ug/L	0.02
56) Phenanthrene-d10	11.30	188	575279	40.00 ug/L	0.03
68) Chrysene-d12	15.99	240	369568 0-13	40.00 ug/L	0.05
78) Perylene-d12	20.40	264	32593 0-13	40.00 ug/L	0.08

System Monitoring Compounds

2) 2-Fluorophenol	3.77	112	121774	47.88 ug/L	0.02
Surrogate Spike 100.000	Range 22 - 110		Recovery = 47.88%		
3) Phenol-d5	5.30	99	197812	56.13 ug/L	0.02
Surrogate Spike 100.000	Range 10 - 110		Recovery = 56.13%		
20) Nitrobenzene-d5	6.31	82	162826	34.51 ug/L	0.02
Surrogate Spike 50.000	Range 35 - 114		Recovery = 69.02%		
38) 2-Fluorobiphenyl	8.64	172	405278	59.91 ug/L	0.03
Surrogate Spike 50.000	Range 43 - 116		Recovery = 119.82%# #		
55) 2,4,6-Tribromophenol	10.48	330	171406	103.11 ug/L	0.03
Surrogate Spike 100.000	Range 23 - 123		Recovery = 103.11%		
71) Terphenyl-d14	13.68	244	566141	55.57 ug/L	0.04
Surrogate Spike 50.000	Range 33 - 141		Recovery = 111.14%		

Target Compounds Qvalue

ND 23 122398
DF=~~10~~ 1.1
ext 120998 by 3520

Initial Volume of 910 mls, resulting in elevated PQL's

footnote #, 0-13

CAR

(#) = qualifier out of range (m) = manual integration
I1940.D 82AW1222.M Tue Dec 22 10:12:24 1998

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\K9765.D
Acq On : 30 Dec 98 8:13 pm
Sample : WO3843-9RE
Misc : 5970-K;122898;3520;INIT.VOL.=900 ML
Quant Time: Dec 31 8:06 1998

Vial: 16
Operator: SW
Inst : GC/MS Ins
Multiplr: 1.11
Quant Results File: 82AW1230.RE

Quant Method : C:\HPCHEM\1\METHODS\82AW1230.M
Title : Katahdin 8270 Water Calibration
Last Update : Thu Dec 03 07:41:12 1998
Response via : Initial Calibration
DataAcq Meth : 82AW1230

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.71	152	241536	40.00 ug/L	-0.02
20) Naphthalene-d8	11.57	136	907167	40.00 ug/L	-0.02
35) Acenaphthene-d10	15.71	164	412881	40.00 ug/L	-0.02
58) Phenanthrene-d10	19.16	188	609127	40.00 ug/L	-0.02
69) Chrysene-d12	25.44	240	495924	40.00 ug/L	-0.02
79) Perylene-d12	28.59	264	520323	40.00 ug/L	-0.02

System Monitoring Compounds

2) 2-Fluorophenol	6.20	112	550236	62.65 ug/L	0.00
Surrogate Spike 100.000	Range 22 - 110		Recovery = 62.65%		
3) Phenol-d5	8.25	99	875117	76.07 ug/L	-0.01
Surrogate Spike 100.000	Range 10 - 110		Recovery = 76.07%		
21) Nitrobenzene-d5	10.04	82	462532	41.62 ug/L	-0.03
Surrogate Spike 50.000	Range 35 - 114		Recovery = 83.24%		
39) 2-Fluorobiphenyl	14.20	172	603558	42.01 ug/L	-0.02
Surrogate Spike 50.000	Range 43 - 116		Recovery = 84.02%		
57) 2,4,6-Tribromophenol	17.61	330	169705	72.84 ug/L	-0.02
Surrogate Spike 100.000	Range 23 - 123		Recovery = 72.84%		
72) Terphenyl-d14	23.07	244	490207	37.74 ug/L	-0.01
Surrogate Spike 50.000	Range 33 - 141		Recovery = 75.48%		

Target Compounds Qvalue

ND=

DF=1.1

0-6

ext 122898 by 3520

Initial Volume of 900 mls, resulting in elevated PQL's

(#) = qualifier out of range (m) = manual integration

Katahdin
ANALYTICAL SERVICES

January 6, 1999

Mr. Vincent Dellorusso
Roy F. Weston
One Wall Street
Manchester, NH 03101-1501

RE: Katahdin Lab Numbers: WO-3843
Project ID: Charlestown-RI/Sites: 2,4,6
Project Manager: Ms. Lil Pepin
Sample Receipt Date: December 3, 1998

Dear Mr. Dellorusso:

Please find enclosed the following information:

* Report of Analysis
* Quality Control Data Summary
* Confirmation
* Chain of Custody

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES

Mary S. Monell
Authorized Signature

1·6·99
Date

540 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

http://katahdinlab.com

210 West Road No.5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

Katahdin
ANALYTICAL SERVICES

TECHNICAL NARRATIVE

Metals Analysis

Katahdin Work Order WO3843 samples were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Waste", SW-846, November 1986, Third Edition.

Inductively-Coupled Plasma (ICP) Atomic Emission Spectroscopic Analysis

The samples of Katahdin Work Order WO3843 were digested for ICP analysis on 12/08/98 (QC Batch OL08ICW1) in accordance with USEPA Method 3010A. Katahdin Sample Nos. WO3843-1 and WO3843-4 were digested with duplicate matrix-spiked aliquots.

ICP analyses of Katahdin Work Order WO3843 sample digestates were performed in accordance with USEPA method 6010B, using a Thermo Jarrell Ash (TJA) Trace ICP spectrometer and a TJA 61 ICP spectrometer. All samples were analyzed within holding times and all QC criteria were met with the following comments or exceptions:

Some of the results for run QC samples (ICV, ICB, CCV, CCB, ICSA, and ICSAB) included in the accompanying data package may have exceeded acceptance limits for some elements. Please note that all client samples and batch QC samples associated with out-of-control results for run QC samples were subsequently reanalyzed for the analytes in question.

Analysis of Mercury by Cold Vapor Atomic Absorption (CVAA)

The samples of Katahdin Work Order WO3843 were digested on 12/05/98 (QC Batch OL05HGW1) and analyzed for mercury in accordance with USEPA method 7470A. Katahdin Sample No. WO3843-4 was digested with duplicate matrix-spiked aliquots.

Mercury analyses of Katahdin Work Order WO3843 sample digestates were performed using a Leeman Labs PS200 automated mercury analyzer. All samples were analyzed within holding times and all QC criteria were met.

GC/MS – Semivolatile

Samples WO3843-1, -2, -4 and -5 through 11 were received on December 3,1998. The samples were analyzed for the TCL list of analytes by SW-846 method 8270. All samples were originally extracted and analyzed within holding time. Initial analysis of the following samples WO3843-4, 5,8,9, and 10 displayed anomalies in several quality control indicators. Initial analysis of WO3843-5 showed low acid surrogate recoveries, a re-extraction was performed out of analytical hold time. The subsequent reanalysis recovered the acid surrogates within QC limits. The original base-neutral data is useable based upon surrogate recoveries, and neither the original nor the re-extract showed any positive detects. Sample WO3843-4 and 8 were reanalyzed due to internal

standard area deviations and reanalysis confirmed matrix interference. Samples WO3843-9 and 10 were re-extracted outside of analytical hold time due to the elevated recovery of one or more base-neutral surrogates. Both the original and the re-extracted samples were none detect. The original sample data should be useable since elevated recoveries would be consistent with a high bias and the samples were none detect. Sample WO3843-9 was also reanalyzed due to internal standard area deviations reanalysis confirmed low internal standard area recovery again.

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
B	'B' flag denotes detection of this analyte in the laboratory method blank analyzed concurrently with the sample.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
#	'#' flag denotes surrogate compound recovery is out of criteria.
A-1	Insufficient sample was provided to enable laboratory to achieve the laboratory's standard Practical Quantitation Level.
O-13	Internal standard area(s) are out of criteria. Reanalysis confirmedmatrix interference.
O-6	Sample reextraction was required due to exceedance of quality control criteria. The original extraction was performed within hold time while reextraction was not within hold time. Results for the reextracted sample met all quality control criteria and are reported here.

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN09-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-001

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	1.4	B		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin ANALYTICAL SERVICES

CLIENT: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3843-1
Report Date: 01/06/99
PO No. : 96113L
Project : CHARLESTOWN-RI/SITES:2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
CN09-M001	Aqueous	CLIENT	12/02/98	12/03/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<1.1	mg/L	1.1	1.0	E418.1	12/10/98	TB	1,2

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/98 by TCB
(2) The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

01/06/99

LJO/mrclp(dw)/mft

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

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KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~JB0.7~~ <1	~~ug/L~~	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B, J

0000009

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	110	%	1.0		
TOLUENE-D8	111	%	1.0		
P-BROMOFLUOROBENZENE	100	%	1.0		
1,2-DICHLOROETHANE-D4	109	%	1.0		

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHYL)ETHER	<10	ug/L	1.0	10	10
2-CHLOROPHENOL	<10	ug/L	1.0	10	10
1,3-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,4-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,2-DICHLOROBENZENE	<10	ug/L	1.0	10	10
2-METHYLPHENOL	<10	ug/L	1.0	10	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<10	ug/L	1.0	10	10
4-METHYLPHENOL	<10	ug/L	1.0	10	10
N-NITROSO-DI-N-PROPYLAMINE	<10	ug/L	1.0	10	10
HEXACHLOROETHANE	<10	ug/L	1.0	10	10
NITROBENZENE	<10	ug/L	1.0	10	10
ISOPHORONE	<10	ug/L	1.0	10	10
2-NITROPHENOL	<10	ug/L	1.0	10	10
2,4-DIMETHYLPHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHOXY)METHAN	<10	ug/L	1.0	10	10
2,4-DICHLOROPHENOL	<10	ug/L	1.0	10	10
1,2,4-TRICHLOROBENZENE	<10	ug/L	1.0	10	10
NAPHTHALENE	<10	ug/L	1.0	10	10
4-CHLOROANILINE	<10	ug/L UJ	1.0	10	10
HEXACHLOROBUTADIENE	<10	ug/L	1.0	10	10
4-CHLORO-3-METHYLPHENOL	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
HEXACHLOROCYCLOPENTADIEN	<10	ug/L UJ	1.0	10	10
2,4,6-TRICHLOROPHENOL	<10	ug/L	1.0	10	10
2,4,5-TRICHLOROPHENOL	<25	ug/L	1.0	25	25
2-CHLORONAPHTHALENE	<10	ug/L	1.0	10	10
2-NITROANILINE	<25	ug/L	1.0	25	25
DIMETHYL PHTHALATE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
2,6-DINITROTOLUENE	<10	ug/L	1.0	10	10
3-NITROANILINE	<25	ug/L UJ	1.0	25	25
ACENAPHTHENE	<10	ug/L	1.0	10	10

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<25	ug/L	1.0	25	25
4-NITROPHENOL	<25	ug/L	1.0	25	25
DIBENZOFURAN	<10	ug/L	1.0	10	10
2,4-DINITROTOLUENE	<10	ug/L	1.0	10	10
DIETHYLPHTHALATE	<10	ug/L	1.0	10	10
4-CHLOROPHENYL-PHENYLETHE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
4-NITROANILINE	<25	ug/L UJ	1.0	25	25
4,6-DINITRO-2-METHYLPHENOL	<25	ug/L	1.0	25	25
N-NITROSODIPHENYLAMINE	<10	ug/L	1.0	10	10
4-BROMOPHENYL-PHENYLETHER	<10	ug/L	1.0	10	10
HEXACHLOROBENZENE	<10	ug/L	1.0	10	10
PENTACHLOROPHENOL	<25	ug/L	1.0	25	25
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
CARBAZOLE	<10	ug/L	1.0	10	10
DI-N-BUTYLPHTHALATE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BUTYLBENZYLPHTHALATE	<10	ug/L	1.0	10	10
3,3'-DICHLOROBENZIDINE	<10	ug/L UJ 7	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BIS(2-ETHYLHEXYL)PHTHALATE	<10	ug/L	1.0	10	10
DI-N-OCTYLPHTHALATE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
2-FLUOROPHENOL	38	ug/L	1.0		
PHENOL-D5	60	ug/L	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-1
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	60	ug/L	1.0		
2-FLUOROBIPHENYL	85	ug/L	1.0		
2,4,6-TRIBROMOPHENOL	78	ug/L	1.0		
TERPHENYL-D14	89	ug/L	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN09-M101

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-002

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7439-92-1	LEAD	1.31	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin ANALYTICAL SERVICES

Lab Number : WO-3843-2
Report Date: 01/06/99
PO No. : 96113L
Project : CHARLESTOWN-RI/SITES:2,4,6

CLIENT: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
CN09-M101	Aqueous	CLIENT	12/02/98	12/03/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<1.1	mg/L	1.1	1.0	E418.1	12/10/98	TB	1,2

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/98 by TCB
(2) The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

01/06/99

LJO/mrclp(dw)/mft

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~JB0.6~~ <1 U	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	112	%	1.0		
TOLUENE-D8	114	%	1.0		
P-BROMOFLUOROBENZENE	101	%	1.0		
1,2-DICHLOROETHANE-D4	108	%	1.0		

Report Notes: B, J

0000018

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ7	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ7	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ7	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L U57	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L U57	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	50	%	1.1		
PHENOL-D5	63	%	1.1		

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-2
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M101	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	51	%	1.1		
2-FLUOROBIPHENYL	76	%	1.1		
2,4,6-TRIBROMOPHENOL	73	%	1.1		
TERPHENYL-D14	75	%	1.1		

Report Notes: A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF201-M101

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-003

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	28.5			P	1
7440-43-9	CADMIUM	0.25	U		P	1
7440-47-3	CHROMIUM	1.1	B		P	1
7439-92-1	LEAD	1.31	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: LF201-M001
Matrix: WATER
SDG Name: WO3843
Percent Solids: 0.00
Lab Sample ID: WO3843-004

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	29.4			P	1
7440-43-9	CADMIUM	0.25	U		P	1
7440-47-3	CHROMIUM	0.63	U		P	1
7439-92-1	LEAD	1.31	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**
Color After: **Clarity After:**
Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~B~~2 U'	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

0000024

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	3	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	112	%	1.0		
TOLUENE-D8	114	%	1.0		
P-BROMOFLUOROBENZENE	100	%	1.0		
1,2-DICHLOROETHANE-D4	111	%	1.0		

Report Notes: B

0000026

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

use original analysis -

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ?	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ?	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ?	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ7	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ7	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L UJ8	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	46	%	1.1		
PHENOL-D5	46	%	1.1		

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	57	%	1.1		
2-FLUOROBIPHENYL	112	%	1.1		
2,4,6-TRIBROMOPHENOL	97	%	1.1		
TERPHENYL-D14	132	%	1.1		

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

reextracted due to IS problems matrix interf
Do not report

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: #, O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	51	%	1.1		
PHENOL-D5	42	%	1.1		

Report Notes: #, O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-4RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF201-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	52	%	1.1		
2-FLUOROBIPHENYL	#128	%	1.1		
2,4,6-TRIBROMOPHENOL	114	%	1.1		
TERPHENYL-D14	122	%	1.1		

Report Notes: #, O-13, A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN16-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-005

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	232			P	1
7440-43-9	CADMIUM	1.3	B		P	1
7440-47-3	CHROMIUM	51.4			P	1
7439-92-1	LEAD	6.8	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.82	B		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~B~~2 U'	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	114	%	1.0		
TOLUENE-D8	111	%	1.0		
P-BROMOFLUOROBENZENE	99	%	1.0		
1,2-DICHLOROETHANE-D4	108	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ?	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ?	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ?	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Do not report due to poor surrogate recov.

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28 UJ?	ug/L ~~UJ~~	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11 UJ?	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	#0	%	1.1		
PHENOL-D5	#2	%	1.1		

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	30	%	1.1		
2-FLUOROBIPHENYL	58	%	1.1		
2,4,6-TRIBROMOPHENOL	#9	%	1.1		
TERPHENYL-D14	55	%	1.1		

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Report reextracted results

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11 LT 6	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-6, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28 UJ	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	74	%	1.1		
PHENOL-D5	81	%	1.1		

Report Notes: O-6, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-5RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN16-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	75	%	1.1		
2-FLUOROBIPHENYL	76	%	1.1		
2,4,6-TRIBROMOPHENOL	66	%	1.1		
TERPHENYL-D14	80	%	1.1		

Report Notes: O-6, A-1

0000042

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN06-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-006

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	218			P	1
7440-43-9	CADMIUM	2.4	B		P	1
7440-47-3	CHROMIUM	3.9	~~B~~ U		P	1
7439-92-1	LEAD	29.6			P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~JB0.6~~ <1 U	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	108	%	1.0		
TOLUENE-D8	111	%	1.0		
P-BROMOFLUOROBENZENE	85	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ 7	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ 7	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ 7	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ7	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ7	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	26	%	1.1		
PHENOL-D5	43	%	1.1		

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-6
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN06-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	42	%	1.1		
2-FLUOROBIPHENYL	65	%	1.1		
2,4,6-TRIBROMOPHENOL	55	%	1.1		
TERPHENYL-D14	65	%	1.1		

Report Notes: A-1

0000049

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN08-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-007

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	2.2	B		P	1
7440-39-3	BARIUM	131			P	1
7440-43-9	CADMIUM	0.30	B		P	1
7440-47-3	CHROMIUM	1.4	~~B~~ U		P	1
7439-92-1	LEAD	1.31	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~B~~2 U'	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

0000051

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	112	%	1.0		
TOLUENE-D8	116	%	1.0		
P-BROMOFLUOROBENZENE	101	%	1.0		
1,2-DICHLOROETHANE-D4	109	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ7	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ7	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ7	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-MI001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ7	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ7	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	22	%	1.1		
PHENOL-D5	42	%	1.1		

Report Notes: A-1

0000055

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-7
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN08-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	50	%	1.1		
2-FLUOROBIPHENYL	75	%	1.1		
2,4,6-TRIBROMOPHENOL	63	%	1.1		
TERPHENYL-D14	72	%	1.1		

Report Notes: A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~B~~ <1 U	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

0000057

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** CN10-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-008

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	21.0			P	1
7440-43-9	CADMIUM	0.25	U		P	1
7440-47-3	CHROMIUM	0.63	U		P	1
7439-92-1	LEAD	1.31	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	117	%	1.0		
TOLUENE-D8	113	%	1.0		
P-BROMOFLUOROBENZENE	101	%	1.0		
1,2-DICHLOROETHANE-D4	114	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ7	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ7	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ7	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

use this analysis — Internal Stds did not due to matrix interfere

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ7	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ7	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L UJ8	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	33	%	1.1		
PHENOL-D5	44	%	1.1		

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	47	%	1.1		
2-FLUOROBIPHENYL	77	%	1.1		
2,4,6-TRIBROMOPHENOL	74	%	1.1		
TERPHENYL-D14	82	%	1.1		

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Report original analysis

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WQ3843-8RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-13, A-1

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KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO(A)ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO(B)FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO(K)FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO(A)PYRENE	<11	ug/L	1.1	11	10
INDENO(1,2,3-CD)PYRENE	<11	ug/L	1.1	11	10
DIBENZ(A,H)ANTHRACENE	<11	ug/L	1.1	11	10
BENZO(G,H,I)PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	36	%	1.1		
PHENOL-D5	47	%	1.1		

Report Notes: O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-8RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN10-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	51	%	1.1		
2-FLUOROBIPHENYL	85	%	1.1		
2,4,6-TRIBROMOPHENOL	78	%	1.1		
TERPHENYL-D14	75	%	1.1		

Report Notes: O-13, A-1

0000066

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** LF402-M001

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-009

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	20.6			P	1
7440-43-9	CADMIUM	1.4	B		P	1
7440-47-3	CHROMIUM	1.4	~~B~~ U		P	1
7439-92-1	LEAD	6.2	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~B~~1 U'	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	114	%	1.0		
TOLUENE-D8	114	%	1.0		
P-BROMOFLUOROBENZENE	99	%	1.0		
1,2-DICHLOROETHANE-D4	112	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Report this original analysis: Low Internal std recov due to matrix interfe

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L UJ7	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L UJ7	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L UJ7	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-13, #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ7	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ7	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L UJ8	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	43	%	1.1		
PHENOL-D5	47	%	1.1		

Report Notes: O-13, #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	62	%	1.1		
2-FLUOROBIPHENYL	#118	%	1.1		
2,4,6-TRIBROMOPHENOL	118	%	1.1		
TERPHENYL-D14	111	%	1.1		

No action since only one surrogate out high + no results detected

Report Notes: O-13, #, A-1

0000073

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Don't report

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/22/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: #, O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RA
Report Date: 12/31/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/22/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	48	%	1.1		
PHENOL-D5	56	%	1.1		

Report Notes: #, O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RA
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/22/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	69	%	1.1		
2-FLUOROBIPHENYL	#120	%	1.1		
2,4,6-TRIBROMOPHENOL	103	%	1.1		
TERPHENYL-D14	111	%	1.1		

Report Notes: #, O-13, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

X pon 4 report

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-6, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	63	%	1.1		
PHENOL-D5	76	%	1.1		

Report Notes: O-6, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-9RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF402-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	83	%	1.1		
2-FLUOROBIPHENYL	84	%	1.1		
2,4,6-TRIBROMOPHENOL	73	%	1.1		
TERPHENYL-D14	75	%	1.1		

Report Notes: O-6, A-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services
Client Field ID: LF401-M001
Matrix: WATER
SDG Name: WO3843
Percent Solids: 0.00
Lab Sample ID: WO3843-010

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	29.6			P	1
7440-43-9	CADMIUM	0.25	U		P	1
7440-47-3	CHROMIUM	1.8	~~B~~ U		P	1
7439-92-1	LEAD	1.31	U		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before:
Clarity Before:
Artifacts:
Color After:
Clarity After:
Comments:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	~~<1~~ <1 U1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

0000081

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER. NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	112	%	1.0		
TOLUENE-D8	113	%	1.0		
P-BROMOFLUOROBENZENE	101	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Report original analysis

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L U57	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L U57	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L U57	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L UJ?	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L UJ?	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	73	ug/L	1.1		
PHENOL-D5	106	ug/L	1.1		

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10
Report Date: 1/4/99
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	102	ug/L	1.1		
2-FLUOROBIPHENYL	#137	ug/L	1.1		
2,4,6-TRIBROMOPHENOL	#137	ug/L	1.1		
TERPHENYL-D14	128	ug/L	1.1		

No action since no pos. results were detected

Report Notes: #, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Draft report

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHYL)ETHER	<11	ug/L	1.1	11	10
2-CHLOROPHENOL	<11	ug/L	1.1	11	10
1,3-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,4-DICHLOROBENZENE	<11	ug/L	1.1	11	10
1,2-DICHLOROBENZENE	<11	ug/L	1.1	11	10
2-METHYLPHENOL	<11	ug/L	1.1	11	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<11	ug/L	1.1	11	10
4-METHYLPHENOL	<11	ug/L	1.1	11	10
N-NITROSO-DI-N-PROPYLAMINE	<11	ug/L	1.1	11	10
HEXACHLOROETHANE	<11	ug/L	1.1	11	10
NITROBENZENE	<11	ug/L	1.1	11	10
ISOPHORONE	<11	ug/L	1.1	11	10
2-NITROPHENOL	<11	ug/L	1.1	11	10
2,4-DIMETHYLPHENOL	<11	ug/L	1.1	11	10
BIS(2-CHLOROETHOXY)METHAN	<11	ug/L	1.1	11	10
2,4-DICHLOROPHENOL	<11	ug/L	1.1	11	10
1,2,4-TRICHLOROBENZENE	<11	ug/L	1.1	11	10
NAPHTHALENE	<11	ug/L	1.1	11	10
4-CHLOROANILINE	<11	ug/L	1.1	11	10
HEXACHLOROBUTADIENE	<11	ug/L	1.1	11	10
4-CHLORO-3-METHYLPHENOL	<11	ug/L	1.1	11	10
2-METHYLNAPHTHALENE	<11	ug/L	1.1	11	10
HEXACHLOROCYCLOPENTADIEN	<11	ug/L	1.1	11	10
2,4,6-TRICHLOROPHENOL	<11	ug/L	1.1	11	10
2,4,5-TRICHLOROPHENOL	<28	ug/L	1.1	28	25
2-CHLORONAPHTHALENE	<11	ug/L	1.1	11	10
2-NITROANILINE	<28	ug/L	1.1	28	25
DIMETHYL PHTHALATE	<11	ug/L	1.1	11	10
ACENAPHTHYLENE	<11	ug/L	1.1	11	10
2,6-DINITROTOLUENE	<11	ug/L	1.1	11	10
3-NITROANILINE	<28	ug/L	1.1	28	25
ACENAPHTHENE	<11	ug/L	1.1	11	10

Report Notes: O-6, A-1

0000087

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<28	ug/L	1.1	28	25
4-NITROPHENOL	<28	ug/L	1.1	28	25
DIBENZOFURAN	<11	ug/L	1.1	11	10
2,4-DINITROTOLUENE	<11	ug/L	1.1	11	10
DIETHYLPHTHALATE	<11	ug/L	1.1	11	10
4-CHLOROPHENYL-PHENYLETHE	<11	ug/L	1.1	11	10
FLUORENE	<11	ug/L	1.1	11	10
4-NITROANILINE	<28	ug/L	1.1	28	25
4,6-DINITRO-2-METHYLPHENOL	<28	ug/L	1.1	28	25
N-NITROSODIPHENYLAMINE	<11	ug/L	1.1	11	10
4-BROMOPHENYL-PHENYLETHER	<11	ug/L	1.1	11	10
HEXACHLOROBENZENE	<11	ug/L	1.1	11	10
PENTACHLOROPHENOL	<28	ug/L	1.1	28	25
PHENANTHRENE	<11	ug/L	1.1	11	10
ANTHRACENE	<11	ug/L	1.1	11	10
CARBAZOLE	<11	ug/L	1.1	11	10
DI-N-BUTYLPHTHALATE	<11	ug/L	1.1	11	10
FLUORANTHENE	<11	ug/L	1.1	11	10
PYRENE	<11	ug/L	1.1	11	10
BUTYLBENZYLPHTHALATE	<11	ug/L	1.1	11	10
3,3'-DICHLOROBENZIDINE	<11	ug/L	1.1	11	10
BENZO[A]ANTHRACENE	<11	ug/L	1.1	11	10
CHRYSENE	<11	ug/L	1.1	11	10
BIS(2-ETHYLHEXYL)PHTHALATE	<11	ug/L	1.1	11	10
DI-N-OCTYLPHTHALATE	<11	ug/L	1.1	11	10
BENZO[B]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[K]FLUORANTHENE	<11	ug/L	1.1	11	10
BENZO[A]PYRENE	<11	ug/L	1.1	11	10
INDENO[1,2,3-CD]PYRENE	<11	ug/L	1.1	11	10
DIBENZ[A,H]ANTHRACENE	<11	ug/L	1.1	11	10
BENZO[G,H,I]PERYLENE	<11	ug/L	1.1	11	10
2-FLUOROPHENOL	56	%	1.1		
PHENOL-D5	68	%	1.1		

Report Notes: O-6, A-1

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-10RE
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
LF401-M001	AQ	12/2/98	12/3/98	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	74	%	1.1		
2-FLUOROBIPHENYL	72	%	1.1		
2,4,6-TRIBROMOPHENOL	70	%	1.1		
TERPHENYL-D14	71	%	1.1		

Report Notes: O-6, A-1

INORGANIC ANALYSIS DATA SHEET

Rinsate

Lab Name: Katahdin Analytical Services **Client Field ID:** CN09-M201

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-011

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7440-38-2	ARSENIC	1.85	U		P	1
7440-39-3	BARIUM	2.5	B		P	1
7440-43-9	CADMIUM	0.25	U		P	1
7440-47-3	CHROMIUM	1.2	B		P	1
7439-92-1	LEAD	2.8	B		P	1
7439-97-6	MERCURY	0.01	U		CV	1
7782-49-2	SELENIUM	3.19	U		P	1
7440-22-4	SILVER	0.75	U		P	1

Color Before: **Clarity Before:** **Artifacts:**

Color After: **Clarity After:**

Comments:

FORM I - IN

Katahdin
ANALYTICAL SERVICES

CLIENT: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET
MANCHESTER, NH 03101-1501

Lab Number : WO-3843-11
Report Date: 01/06/99
PO No. : 96113L
Project : CHARLESTOWN-RI/SITES:2,4,6

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
CN09-M201	Aqueous	CLIENT	12/02/98	12/03/98

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Total Petroleum Hydrocarbons (TPH)	<1.2	mg/L	1.2	1.0	E418.1	12/10/98	TB	1,2

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 12/08/98 by TCB
(2) The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

01/06/99

LJO/mrclp(dw)/mft

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 87[illegible] Fax: 207) 775-4029

http://katahdinlab.com

210 West Road No.5, Portsmouth, NH 03801
Tel: [illegible] Fax: (603) 436-3356

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	85	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B

0000083

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B

0000093

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	113	%	1.0		
TOLUENE-D8	113	%	1.0		
P-BROMOFLUOROBENZENE	101	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		

Report Notes: B

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-12
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	B3	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-12
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	<1	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	<1	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
ACETONE	J3	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-12
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
TB-1	AQ	12/2/98	12/3/98	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	114	%	1.0		
TOLUENE-D8	114	%	1.0		
P-BROMOFLUOROBENZENE	100	%	1.0		
1,2-DICHLOROETHANE-D4	111	%	1.0		

Report Notes: B, J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<12	ug/L	1.2	12	10
BIS(2-CHLOROETHYL)ETHER	<12	ug/L	1.2	12	10
2-CHLOROPHENOL	<12	ug/L	1.2	12	10
1,3-DICHLOROBENZENE	<12	ug/L	1.2	12	10
1,4-DICHLOROBENZENE	<12	ug/L	1.2	12	10
1,2-DICHLOROBENZENE	<12	ug/L	1.2	12	10
2-METHYLPHENOL	<12	ug/L	1.2	12	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<12	ug/L	1.2	12	10
4-METHYLPHENOL	<12	ug/L	1.2	12	10
N-NITROSO-DI-N-PROPYLAMINE	<12	ug/L	1.2	12	10
HEXACHLOROETHANE	<12	ug/L	1.2	12	10
NITROBENZENE	<12	ug/L	1.2	12	10
ISOPHORONE	<12	ug/L	1.2	12	10
2-NITROPHENOL	<12	ug/L	1.2	12	10
2,4-DIMETHYLPHENOL	<12	ug/L	1.2	12	10
BIS(2-CHLOROETHOXY)METHAN	<12	ug/L	1.2	12	10
2,4-DICHLOROPHENOL	<12	ug/L	1.2	12	10
1,2,4-TRICHLOROBENZENE	<12	ug/L	1.2	12	10
NAPHTHALENE	<12	ug/L	1.2	12	10
4-CHLOROANILINE	<12	ug/L UJ7	1.2	12	10
HEXACHLOROBUTADIENE	<12	ug/L	1.2	12	10
4-CHLORO-3-METHYLPHENOL	<12	ug/L	1.2	12	10
2-METHYLNAPHTHALENE	<12	ug/L	1.2	12	10
HEXACHLOROCYCLOPENTADIEN	<12	ug/L UJ7	1.2	12	10
2,4,6-TRICHLOROPHENOL	<12	ug/L	1.2	12	10
2,4,5-TRICHLOROPHENOL	<30	ug/L	1.2	30	25
2-CHLORONAPHTHALENE	<12	ug/L	1.2	12	10
2-NITROANILINE	<30	ug/L	1.2	30	25
DIMETHYL PHTHALATE	<12	ug/L	1.2	12	10
ACENAPHTHYLENE	<12	ug/L	1.2	12	10
2,6-DINITROTOLUENE	<12	ug/L	1.2	12	10
3-NITROANILINE	<30	ug/L UJ7	1.2	30	25
ACENAPHTHENE	<12	ug/L	1.2	12	10

Report Notes: A-1

0000098

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<30	ug/L	1.2	30	25
4-NITROPHENOL	<30	ug/L	1.2	30	25
DIBENZOFURAN	<12	ug/L	1.2	12	10
2,4-DINITROTOLUENE	<12	ug/L	1.2	12	10
DIETHYLPHTHALATE	<12	ug/L	1.2	12	10
4-CHLOROPHENYL-PHENYLETHE	<12	ug/L	1.2	12	10
FLUORENE	<12	ug/L	1.2	12	10
4-NITROANILINE	<30	ug/L UJ7	1.2	30	25
4,6-DINITRO-2-METHYLPHENOL	<30	ug/L	1.2	30	25
N-NITROSODIPHENYLAMINE	<12	ug/L	1.2	12	10
4-BROMOPHENYL-PHENYLETHER	<12	ug/L	1.2	12	10
HEXACHLOROBENZENE	<12	ug/L	1.2	12	10
PENTACHLOROPHENOL	<30	ug/L	1.2	30	25
PHENANTHRENE	<12	ug/L	1.2	12	10
ANTHRACENE	<12	ug/L	1.2	12	10
CARBAZOLE	<12	ug/L	1.2	12	10
DI-N-BUTYLPHTHALATE	<12	ug/L	1.2	12	10
FLUORANTHENE	<12	ug/L	1.2	12	10
PYRENE	<12	ug/L	1.2	12	10
BUTYLBENZYLPHTHALATE	<12	ug/L	1.2	12	10
3,3'-DICHLOROBENZIDINE	<12	ug/L UJ7	1.2	12	10
BENZO(A)ANTHRACENE	<12	ug/L	1.2	12	10
CHRYSENE	<12	ug/L	1.2	12	10
BIS(2-ETHYLHEXYL)PHTHALATE	<12	ug/L	1.2	12	10
DI-N-OCTYLPHTHALATE	<12	ug/L	1.2	12	10
BENZO(B)FLUORANTHENE	<12	ug/L	1.2	12	10
BENZO(K)FLUORANTHENE	<12	ug/L	1.2	12	10
BENZO(A)PYRENE	<12	ug/L	1.2	12	10
INDENO(1,2,3-CD)PYRENE	<12	ug/L	1.2	12	10
DIBENZ(A,H)ANTHRACENE	<12	ug/L	1.2	12	10
BENZO(G,H,I)PERYLENE	<12	ug/L	1.2	12	10
2-FLUOROPHENOL	25	%	1.2		
PHENOL-D5	44	%	1.2		

Report Notes: A-1

0000088

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: WO3843-11
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/21/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
CN09-M201	AQ	12/2/98	12/3/98	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	51	%	1.2		
2-FLUOROBIPHENYL	72	%	1.2		
2,4,6-TRIBROMOPHENOL	61	%	1.2		
TERPHENYL-D14	68	%	1.2		

Report Notes: A-1

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOL05HGW1

Matrix: WATER **SDG Name:** WO3843

QC Batch ID: OL05HGW1

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	RESULT	C
MERCURY	0.010	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWOL08ICW1

Matrix: WATER **SDG Name:** WO3843

QC Batch ID: OL08ICW1

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	RESULT	C
ARSENIC	.850	U
BARIUM	0.270	B
CADMIUM	0.250	U
CHROMIUM	0.630	U
LEAD	1.310	U
SELENIUM	3.190	U
SILVER	0.750	U

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** CN09-M001S

Matrix: WATER **SDG Name:** WO3843

Percent Solids: 0.00 **Lab Sample ID:** WO3843-001P

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
LEAD	511.1800		1.4200	B	500	102.0		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** CN09-M001S

Matrix: WATER | **SDG Name:** WO3843

Percent Solids: 0.00 | **Lab Sample ID:** WO3843-001S

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
LEAD	494.2700		1.4200	B	500	98.6		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** LF201-M001S

Matrix: WATER | **SDG Name:** WO3843

Percent Solids: 0.00 | **Lab Sample ID:** WO3843-004P

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC	1982.9900		0.0400	U	2000	99.1		75	125	P
BARIUM	2091.4600		29.4200		2000	103.1		75	125	P
CADMIUM	54.0000		-0.1300	U	50	108.0		75	125	P
CHROMIUM	206.9900		0.1000	U	200	103.5		75	125	P
LEAD	509.2800		0.6600	U	500	101.9		75	125	P
MERCURY	0.9190		-0.0490	U	1	91.9		75	125	CV
SELENIUM	1874.4100		-1.5600	U	2000	93.7		75	125	P
SILVER	49.8300		-0.1600	U	50	99.7		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** LF201-M001S

Matrix: WATER | **SDG Name:** WO3843

Percent Solids: 0.00 | **Lab Sample ID:** WO3843-004S

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ARSENIC	2062.9100		0.0400	U	2000	103.1		75	125	P
BARIUM	2173.8200		29.4200		2000	107.2		75	125	P
CADMIUM	56.4700		-0.1300	U	50	112.9		75	125	P
CHROMIUM	215.5600		0.1000	U	200	107.8		75	125	P
LEAD	530.3300		0.6600	U	500	106.1		75	125	P
MERCURY	1.0300		-0.0490	U	1	103.0		75	125	CV
SELENIUM	1928.5100		-1.5600	U	2000	96.4		75	125	P
SILVER	51.6900		-0.1600	U	50	103.4		75	125	P

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOL05HGW1

Matrix: WATER **SDG Name:** WO3843

QC Batch ID: OL05HGW1

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	4.63	92.6	80	120

FORM VII - IN

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWOL08ICW1

Matrix: WATER **SDG Name:** WO3843

QC Batch ID: OL08ICW1

Concentration Units (ug/L or mg/Kg dry weight): ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	2000.0	2024.11	101.2	80	120
BARIUM	2000.0	2080.65	104.0	80	120
CADMIUM	50.0	55.95	111.9	80	120
CHROMIUM	200.0	212.61	106.3	80	120
LEAD	500.0	523.84	104.8	80	120
SELENIUM	2000.0	1902.10	95.1	80	120
SILVER	50.0	49.55	99.1	80	120

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OL05HGW1

Matrix: WATER **SDG Name:** WO3843

Method: CV **Prep Date:** 12/5/98

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWOL05HGW1	LCSWOL05HGW1	0.1	0.1
PBWOL05HGW1	PBWOL05HGW1	0.1	0.1
LF201-M101	WO3843-003	0.1	0.1
LF201-M001	WO3843-004	0.1	0.1
LF201-M001P	WO3843-004P	0.1	0.1
LF201-M001S	WO3843-004S	0.1	0.1
CN16-M001	WO3843-005	0.1	0.1
CN06-M001	WO3843-006	0.1	0.1
CN08-M001	WO3843-007	0.1	0.1
CN10-M001	WO3843-008	0.1	0.1
LF402-M001	WO3843-009	0.1	0.1
LF401-M001	WO3843-010	0.1	0.1
CN09-M201	WO3843-011	0.1	0.1

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** OL08ICW1

Matrix: WATER **SDG Name:** WO3843

Method: P **Prep Date:** 12/8/98

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWOL08ICW1	LCSWOL08ICW1	0.05	0.05
PBWOL08ICW1	PBWOL08ICW1	0.05	0.05
CN09-M001	WO3843-001	0.05	0.05
CN09-M001P	WO3843-001P	0.05	0.05
CN09-M001S	WO3843-001S	0.05	0.05
CN09-M101	WO3843-002	0.05	0.05
LF201-M101	WO3843-003	0.05	0.05
LF201-M001	WO3843-004	0.05	0.05
LF201-M001P	WO3843-004P	0.05	0.05
LF201-M001S	WO3843-004S	0.05	0.05
CN16-M001	WO3843-005	0.05	0.05
CN06-M001	WO3843-006	0.05	0.05
CN08-M001	WO3843-007	0.05	0.05
CN10-M001	WO3843-008	0.05	0.05
LF402-M001	WO3843-009	0.05	0.05
LF401-M001	WO3843-010	0.05	0.05
CN09-M201	WO3843-011	0.05	0.05

⇒ Barium present in blank 0.27 x 5 = 1.35 ug
No action since much high levels in these samples

Katahdin Analytical Services, Inc.
Quality Control Report

Method Blank and Laboratory Control Sample Results

Client: Roy F. Weston	
Work Order: WO3843	

			METHOD BLANK RESULTS					LABORATORY CONTROL SAMPLE RESULTS						
Parameter	Date of Prep	Date of Analysis	Units	Concentration Measured in Blank		Acceptance Range	Practical Quantitation Level**	Units	True Value	Measured Value	Percent Recovered	Acceptance Range (%)	Acceptance Range (mg/kg)
Total Petroleum Hydrocarbons	12/08/98	12/10/98	mg/L	<	1.0	< 1.0	1.0	mg	2.5	2.43	97	57-137	@

** Practical quantitation level is the lowest concentration measurable for samples with normal chemical and physical composition during routine laboratory operations.

DATA QUALITY COMMENTS:
Results of all quality control measurements are within the laboratory and method specified acceptance range except as noted.

@ The laboratory uses the internally established statistical 99% confidence range as the acceptance range for this LCS.

Katahdin Analytical Services, Inc.
Quality Control Report

Duplicate and Matrix Spike/Matrix Spike Duplicate Results

Client: Roy F. Weston	
Work Order: WO3843	

			DUPLICATE RESULTS					*MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS*									
			Sample				Acceptance		Concentration or Quantity				Matrix Spike Recovery (%)				
Parameter	Katahdin Sample No	Units	Measurements Rep 1	Rep 2	Mean Conc	RPD (%)	Range for RPD (%)	Units	Sampl Only	Spike Added	Sample +Spike Dup 1	Sample +Spike Dup 2	Sample +Spike Dup 1	Sample +Spike Dup 2	Acceptance Range (%)	RPD (%)	Acceptance Range (%)
TPH	WO3843-1	mg/L	NA	NA	NA	NA	0-20	mg	0.03	2.51	2.61	2.72	103	107	57-137	4	0-20

RPD = Relative percent difference, which is the absolute value of the difference between two replicate results divided by the mean concentration then multiplied by 100%.

NA = Not applicable.

Because of the large uncertainty (i.e., 33% or greater) associated with measurements made near the detection level, the acceptance range for relative percent difference for duplicate measurements at such low concentrations is 0-100%.

DATA QUALITY COMMENTS:
Results of all quality control measurements are within the laboratory or contract specified acceptance range except as noted. The laboratory does not use the sample duplicate and matrix spike acceptance ranges as acceptance criteria for a specific analysis. Sample duplicate and matrix spike data are used to evaluate method performance in the environmental sample matrix only. Please refer to LCS data for assessment of quality control for each parameter.

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKS08A

Lab Name: Katahdin Analytical Services SDG No.: WO3843

Lab File ID: S2587 Lab Sample ID: VBLKS08A

Date Analyzed: 12/08/98 Time Analyzed: 10:09

GC Column: RTX-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-S

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCSS08A	LCSS08A	S2586	12/8/98	9:20:00 AM
CN09-M001	WO3843-1	S2588	12/8/98	11:04:00 AM
CN09-M101	WO3843-2	S2589	12/8/98	11:42:00 AM
LF201-M001	WO3843-4	S2590	12/8/98	12:20:00 PM
CN16-M001	WO3843-5	S2591	12/8/98	12:58:00 PM
CN06-M001	WO3843-6	S2592	12/8/98	2:09:00 PM
CN08-M001	WO3843-7	S2593	12/8/98	2:47:00 PM
CN10-M001	WO3843-8	S2594	12/8/98	3:25:00 PM
LF402-M001	WO3843-9	S2595	12/8/98	4:03:00 PM
LF401-M001	WO3843-10	S2596	12/8/98	4:40:00 PM
CN09-M201	WO3843-11	S2597	12/8/98	5:18:00 PM
TB-1	WO3843-12	S2598	12/8/98	5:55:00 PM
CN09-M001MS	WO3843-1MS	S2599	12/8/98	6:33:00 PM
CN09-M001MSD	WO3843-1MSD	S2600	12/8/98	7:10:00 PM

MeCl2 - 2ug/L x 10 = 20
sec butylbenzene 0.6 x 5 = 3
p-isopropyltoluene 0.5 x 5 = 2.5
n-butylbenzene 0.7 x 5 = 3.5
naphthalene 0.6 x 5 = 3.0
1,2,3-trichlorobenzene 0.6 x 5 = 3

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKS08A
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKS08A	AQ	-	-	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DICHLORODIFLUOROMETHANE	<2	ug/L	1.0	2	2
CHLOROMETHANE	<2	ug/L	1.0	2	2
VINYL CHLORIDE	<2	ug/L	1.0	2	2
BROMOMETHANE	<2	ug/L	1.0	2	2
CHLOROETHANE	<2	ug/L	1.0	2	2
TRICHLOROFLUOROMETHANE	<2	ug/L	1.0	2	2
1,1-DICHLOROETHENE	<1	ug/L	1.0	1	1
METHYLENE CHLORIDE	2	ug/L	1.0	1	1
1,2-DICHLOROETHENE (TRANS)	<1	ug/L	1.0	1	1
1,1-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHENE (CIS)	<1	ug/L	1.0	1	1
2,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
BROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
CHLOROFORM	<1	ug/L	1.0	1	1
1,1,1-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,2-DICHLOROETHANE	<1	ug/L	1.0	1	1
1,1-DICHLOROPROPENE	<1	ug/L	1.0	1	1
CARBON TETRACHLORIDE	<1	ug/L	1.0	1	1
BENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROPROPANE	<1	ug/L	1.0	1	1
TRICHLOROETHENE	<1	ug/L	1.0	1	1
CIS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
DIBROMOMETHANE	<1	ug/L	1.0	1	1
BROMODICHLOROMETHANE	<1	ug/L	1.0	1	1
TOLUENE	<1	ug/L	1.0	1	1
TRANS-1,3-DICHLOROPROPENE	<1	ug/L	1.0	1	1
1,1,2-TRICHLOROETHANE	<1	ug/L	1.0	1	1
1,3-DICHLOROPROPANE	<1	ug/L	1.0	1	1
DIBROMOCHLOROMETHANE	<1	ug/L	1.0	1	1
TETRACHLOROETHENE	<1	ug/L	1.0	1	1
1,2-DIBROMOETHANE	<1	ug/L	1.0	1	1
CHLOROBENZENE	<1	ug/L	1.0	1	1
1,1,1,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKS08A
Report Date: 12/24/98
PO No.: 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKS08A	AQ	-	-	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
ETHYLBENZENE	<1	ug/L	1.0	1	1
M+P-XYLENE	<1	ug/L	1.0	1	1
BROMOFORM	<1	ug/L	1.0	1	1
O-XYLENE	<1	ug/L	1.0	1	1
STYRENE	<1	ug/L	1.0	1	1
1,1,2,2-TETRACHLOROETHANE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROPROPANE	<1	ug/L	1.0	1	1
ISOPROPYLBENZENE	<1	ug/L	1.0	1	1
BROMOBENZENE	<1	ug/L	1.0	1	1
2-CHLOROTOLUENE	<1	ug/L	1.0	1	1
N-PROPYLBENZENE	<1	ug/L	1.0	1	1
4-CHLOROTOLUENE	<1	ug/L	1.0	1	1
1,3,5-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
TERT-BUTYLBENZENE	<1	ug/L	1.0	1	1
1,2,4-TRIMETHYLBENZENE	<1	ug/L	1.0	1	1
SEC-BUTYLBENZENE	J0.6	ug/L	1.0	1	1
1,3-DICHLOROBENZENE	<1	ug/L	1.0	1	1
P-ISOPROPYLTOLUENE	J0.5	ug/L	1.0	1	1
1,4-DICHLOROBENZENE	<1	ug/L	1.0	1	1
1,2-DICHLOROBENZENE	<1	ug/L	1.0	1	1
N-BUTYLBENZENE	J0.7	ug/L	1.0	1	1
1,2-DIBROMO-3-CHLOROPROPAN	<1	ug/L	1.0	1	1
1,2,4-TRICHLOROBENZENE	<1	ug/L	1.0	1	1
NAPHTHALENE	J0.6	ug/L	1.0	1	1
HEXACHLOROBUTADIENE	<1	ug/L	1.0	1	1
1,2,3-TRICHLOROBENZENE	J0.6	ug/L	1.0	1	1
ACETONE	<5	ug/L	1.0	5	5
2-BUTANONE	<5	ug/L	1.0	5	5
4-METHYL-2-PENTANONE	<3	ug/L	1.0	3	3
2-HEXANONE	<4	ug/L	1.0	4	4
TETRAHYDROFURAN	<1	ug/L	1.0	1	1
MTBE	<1	ug/L	1.0	1	1
VINYL ACETATE	<1	ug/L	1.0	1	1

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: VBLKS08A
Report Date: 12/24/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8260
Date Analyzed: 12/8/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKS08A	AQ	-	-	12/8/98	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
DIBROMOFLUOROMETHANE	108	%	1.0		
TOLUENE-D8	112	%	1.0		
P-BROMOFLUOROBENZENE	100	%	1.0		
1,2-DICHLOROETHANE-D4	107	%	1.0		

Report Notes: J

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: S2586 **Sample ID:** LCSS08A **Date Run:** 12/8/98

Analyst: KMC **Time Injected** 9:20:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
1,1,1,2-TETRACHLOROETHANE	50	53.3	106	60-140
1,1,1-TRICHLOROETHANE	50	52.4	105	60-140
1,1,2,2-TETRACHLOROETHANE	50	52.0	104	60-140
1,1,2-TRICHLOROETHANE	50	51.7	103	60-140
1,1-DICHLOROETHANE	50	55.7	111	60-140
1,1-DICHLOROETHENE	50	56.1	112	60-140
1,1-DICHLOROPROPENE	50	52.4	105	60-140
1,2,3-TRICHLOROBENZENE	50	51.6	103	60-140
1,2,3-TRICHLOROPROPANE	50	35.8	72	60-140
1,2,4-TRICHLOROBENZENE	50	52.3	105	60-140
1,2,4-TRIMETHYLBENZENE	50	54.6	109	60-140
1,2-DIBROMO-3-CHLOROPROPANE	50	53.3	106	60-140
1,2-DIBROMOETHANE	50	52.7	105	60-140
1,2-DICHLOROBENZENE	50	54.4	109	60-140
1,2-DICHLOROETHANE	50	53.4	107	60-140
1,2-DICHLOROETHENE (CIS)	50	54.5	109	60-140
1,2-DICHLOROETHENE (TRANS)	50	56.9	114	60-140
1,2-DICHLOROPROPANE	50	51.3	102	60-140
1,3,5-TRIMETHYLBENZENE	50	55.2	110	60-140
1,3-DICHLOROBENZENE	50	54.1	108	60-140
1,3-DICHLOROPROPANE	50	53.2	106	60-140
1,4-DICHLOROBENZENE	50	52.7	105	60-140
2,2-DICHLOROPROPANE	50	53.5	107	60-140
2,2-DICHLOROPROPANE	50	53.5	107	64-140
2-BUTANONE	50	43.2	86	60-140
2-CHLOROTOLUENE	50	53.8	108	60-140
2-HEXANONE	50	44.4	89	60-140
4-CHLOROTOLUENE	50	55.2	110	60-140
4-METHYL-2-PENTANONE	50	49.1	98	60-140
ACETONE	50	32.9	66	60-140
BENZENE	50	54.1	108	60-140
BROMOBENZENE	50	54.2	108	60-140
BROMOCHLOROMETHANE	50	53.8	108	60-140
BROMODICHLOROMETHANE	50	54.9	110	60-140
BROMOFORM	50	52.2	104	60-140
BROMOMETHANE	50	54.5	109	60-140
CARBON TETRACHLORIDE	50	50.8	102	60-140
CHLOROBENZENE	50	53.4	107	60-140
CHLOROETHANE	50	54.8	110	60-140
CHLOROFORM	50	52.7	105	60-140
CHLOROMETHANE	50	59.3	118	60-140

*** Out of Limits**

Katahdin Analytical Services
8260 LCS Recovery Sheet

Lab File: S2586 **Sample ID:** LCSS08A **Date Run:** 12/8/98

Analyst: KMC **Time Injected** 9:20:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
CIS-1,3-DICHLOROPROPENE	50	55.1	110	60-140
DIBROMOCHLOROMETHANE	50	54.5	109	60-140
DIBROMOMETHANE	50	50.9	102	60-140
DICHLORODIFLUOROMETHANE	50	61.0	122	60-140
ETHYLBENZENE	50	54.8	110	60-140
HEXACHLOROBUTADIENE	50	48.5	97	60-140
ISOPROPYLBENZENE	50	54.6	109	60-140
M+P-XYLENE	100	110	110	60-140
METHYLENE CHLORIDE	50	50.0	100	60-140
MTBE	50	51.0	102	60-140
N-BUTYLBENZENE	50	52.6	105	60-140
N-PROPYLBENZENE	50	53.3	106	60-140
N-PROPYLBENZENE	50	53.3	106	60-145
NAPHTHALENE	50	53.5	107	60-140
O-XYLENE	50	53.5	107	60-140
P-ISOPROPYLTOLUENE	50	53.6	107	60-140
SEC-BUTYLBENZENE	50	52.6	105	60-140
STYRENE	50	55.6	111	60-140
TERT-BUTYLBENZENE	50	53.6	107	60-140
TETRACHLOROETHENE	50	52.1	104	60-140
TETRAHYDROFURAN	50	51.7	103	60-140
TOLUENE	50	54.2	108	60-140
TRANS-1,3-DICHLOROPROPENE	50	53.7	107	60-140
TRICHLOROETHENE	50	53.2	106	60-140
TRICHLOROFLUOROMETHANE	50	54.1	108	60-140
VINYL ACETATE	50	51.7	103	60-140
VINYL CHLORIDE	50	57.4	115	60-140

*** Out of Limits**

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3843-1	S2588	12/8/98	11:04:00 AM	KMC	AQ	8260
WO3843-1MS	S2599	12/8/98	6:33:00 PM	KMC	AQ	8260
WO3843-1MSD	S2600	12/8/98	7:10:00 PM	KMC	AQ	8260

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
[illegible]NONE	0	50	50	40.7	42.6	81	85	60-140	4.8	20
[illegible],5-TRIMETHYLBENZENE	0	50	50	40.0	34.3	80	68	60-140	15	20
1,3-DICHLOROBENZENE	0	50	50	45.6	39.2	91	78	60-140	15	20
1,3-DICHLOROPROPANE	0	50	50	50.1	46.0	100	92	60-140	8.4	20
[illegible]-DICHLOROBENZENE	0	50	50	46.3	40.1	92	80	60-140	14	20
[illegible]-DICHLOROPROPANE	0	50	50	32.8	28.6	66	*57	60-140	14	20
BROMODICHLOROMETHANE	0	50	50	49.0	44.0	98	88	60-140	11	20
[illegible]CHLOROTOLUENE	0	50	50	43.1	37.6	86	75	60-140	14	20
[illegible]-DICHLOROETHENE (CIS)	0	50	50	46.0	40.1	92	80	60-140	14	20
4-CHLOROTOLUENE	0	50	50	45.6	39.2	91	78	60-140	15	20
4-METHYL-2-PENTANONE	0	50	50	48.5	49.7	97	99	60-140	2.4	20
[illegible]ETONE	0	50	50	31.4	31.4	63	63	60-140	0.2	20
[illegible]ENZENE	0	50	50	45.1	38.1	90	76	60-140	17	20
BROMOBENZENE	0	50	50	46.9	41.8	94	84	60-140	11	20
[illegible],1,2-TETRACHLOROETHANE	0	50	50	47.3	40.4	94	81	60-140	16	20
[illegible]UTANONE	0	50	50	40.9	41.7	82	83	60-140	2.0	20
1,2,4-TRICHLOROBENZENE	0	50	50	43.6	38.5	87	77	60-140	12	20
[illegible],1-TRICHLOROETHANE	0	50	50	36.0	31.0	72	62	60-140	15	20
[illegible],2,2-TETRACHLOROETHANE	0	50	50	51.4	50.0	103	100	60-140	2.6	20
1,1,2-TRICHLOROETHANE	0	50	50	50.9	46.5	102	93	60-140	9.1	20
1,1-DICHLOROETHANE	0	50	50	45.6	39.9	91	80	60-140	13	20
[illegible]-DICHLOROETHENE	0	50	50	33.4	30.3	67	60	60-140	9.9	20
[illegible]-DICHLOROPROPENE	0	50	50	32.4	28.0	65	*56	60-140	14	20
1,2-DICHLOROPROPANE	0	50	50	46.2	40.2	92	80	60-140	14	20
[illegible],3-TRICHLOROPROPANE	0	50	50	35.1	34.6	70	69	60-140	1.3	20
[illegible]-DICHLOROETHENE (TRANS)	0	50	50	42.8	37.0	86	74	60-140	14	20
1,2,4-TRIMETHYLBENZENE	0	50	50	42.7	36.0	85	72	60-140	17	20
[illegible]-DIBROMO-3-CHLOROPROPANE	0	50	50	48.8	48.9	98	98	60-140	0.2	20
[illegible]-DIBROMOETHANE	0	50	50	51.6	47.3	103	95	60-140	8.7	20
1,2-DICHLOROBENZENE	0	50	50	48.8	43.5	98	87	60-140	12	20
1,2-DICHLOROETHANE	0	50	50	51.7	46.9	103	94	60-140	9.8	20
[illegible]OMOFORM	0	50	50	49.9	45.5	100	91	60-140	9.2	20
[illegible]3-TRICHLOROBENZENE	0	50	50	45.8	41.6	92	83	60-140	9.6	20
TETRACHLOROETHENE	0	50	50	34.2	29.9	68	60	60-140	14	20
[illegible]ROPYLBENZENE	0	50	50	37.7	32.2	75	64	60-140	16	20
[illegible]PHTHALENE	0	50	50	48.5	46.4	97	93	60-140	4.5	20
O-XYLENE	0	50	50	44.7	38.1	89	76	60-140	16	20
P-ISOPROPYLTOLUENE	0	50	50	37.3	31.7	74	63	60-140	16	20
[illegible]C-BUTYLBENZENE	0	50	50	34.6	30.0	69	60	60-140	14	20
BROMOCHLOROMETHANE	0	50	50	51.9	45.6	104	91	60-140	13	20
TERT-BUTYLBENZENE	0	50	50	37.4	32.2	75	64	60-140	15	20
[illegible]THYLENE CHLORIDE	0.680	50	50	47.2	41.5	93	82	60-140	13	20
[illegible]TRAHYDROFURAN	0	50	50	47.9	50.9	96	102	60-140	6.1	20
TOLUENE	0	50	50	43.5	37.2	87	74	60-140	16	20

[illegible]D = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100 *** Out of Limits**

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3843-1	S2588	12/8/98	11:04:00 AM	KMC	AQ	8260
WO3843-1MS	S2599	12/8/98	6:33:00 PM	KMC	AQ	8260
WO3843-1MSD	S2600	12/8/98	7:10:00 PM	KMC	AQ	8260

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
TRANS-1,3-DICHLOROPROPENE	0	50	50	50.1	45.7	100	91	60-140	9.2	20
TRICHLOROETHENE	0	50	50	39.9	33.5	80	67	60-140	18	20
TRICHLOROFLUOROMETHANE	0	50	50	28.9	26.6	*58	*53	60-140	8.2	20
VINYL ACETATE	0	50	50	47.8	46.1	96	92	60-140	3.4	20
STYRENE	0	50	50	46.0	38.6	92	77	60-140	18	20
DIBROMOMETHANE	0	50	50	49.0	45.2	98	90	60-140	7.9	20
BROMOMETHANE	0	50	50	40.6	36.8	81	74	60-140	9.9	20
CARBON TETRACHLORIDE	0	50	50	31.3	27.4	62	*55	60-140	13	20
CHLOROBENZENE	0	50	50	46.4	39.7	93	79	60-140	16	20
CHLOROETHANE	0	50	50	39.3	35.0	78	70	60-140	12	20
CHLOROFORM	0	50	50	45.2	39.4	90	79	60-140	14	20
CHLOROMETHANE	0	50	50	43.3	40.7	87	81	60-140	6.3	20
N-BUTYLBENZENE	0	50	50	35.4	30.2	71	60	60-140	16	20
DIBROMOCHLOROMETHANE	0	50	50	51.8	46.4	104	93	60-140	11	20
MTBE	0	50	50	47.3	45.3	95	90	60-140	4.3	20
DICHLORODIFLUOROMETHANE	0	50	50	28.4	29.1	*57	*58	60-140	2.5	20
ETHYLBENZENE	0	50	50	42.6	35.8	85	72	60-140	17	20
HEXACHLOROBUTADIENE	0	50	50	30.2	26.4	60	*53	60-140	13	20
ISOPROPYLBENZENE	0	50	50	38.6	32.8	77	66	60-140	16	20
M+P-XYLENE	0	100	100	85.1	71.7	85	72	60-140	17	20
VINYL CHLORIDE	0	50	50	31.8	31.0	64	62	60-140	2.4	20
CIS-1,3-DICHLOROPROPENE	0	50	50	47.7	42.6	95	85	60-140	11	20

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100

*** Out of Limits**

4B
SEMIVOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK;120998

Lab Name: Katahdin Analytical Services SDG No.: WO3843

Lab File ID: I1907 Lab Sample ID: SBLK;120998

Instrument ID: 5970-I Date Extracted: 12/9/98

GC Column: RTX-5 ID: 0.25 (mm) Date Analyzed: 12/18/98

Matrix: (soil/water) WATER Time Analyzed: 10:38

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S :

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCS;120998	LCS;120998	I1908	12/18/98	11:21:00 AM
CN09-M001	WO3843-1	I1913	12/18/98	2:55:00 PM
CN09-M001MS	WO3843-1MS	I1914	12/18/98	3:39:00 PM
CN09-M001MSD	WO3843-1MSD	I1915	12/18/98	4:22:00 PM
CN09-M101	WO3843-2	I1916	12/18/98	5:05:00 PM
LF201-M001	WO3843-4	I1917	12/18/98	5:47:00 PM
CN16-M001	WO3843-5	I1918	12/18/98	6:30:00 PM
CN06-M001	WO3843-6	I1919	12/18/98	7:14:00 PM
CN08-M001	WO3843-7	I1920	12/18/98	7:58:00 PM
CN10-M001	WO3843-8	I1921	12/18/98	8:41:00 PM
CN10-M001	WO3843-8RA	I1925	12/21/98	12:51:00 PM
LF402-M001	WO3843-9	I1926	12/21/98	1:34:00 PM
LF401-M001	WO3843-10	I1927	12/21/98	2:17:00 PM
CN09-M201	WO3843-11	I1928	12/21/98	3:00:00 PM
LF201-M001	WO3843-4RA	I1937	12/21/98	9:27:00 PM
LF402-M001	WO3843-9RA	I1940	12/22/98	9:38:00 AM

4B

SEMIVOLATILE ORGANICS METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2;122898

Lab Name: Katahdin Analytical Services SDG No.: WO3843

Lab File ID: K9762

Lab Sample ID: SBLK2;122898

Instrument ID: 5970-K

Date Extracted: 12/28/98

GC Column: RTX-5 ID: 0.25 (mm)

Date Analyzed: 12/30/98

Matrix: (soil/water) WATER

Time Analyzed: 18:04

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS'S, MS AND MSD'S :

Client Sample ID	Lab Sample ID	Lab Data File	Date Injected	Time Injected
LCS2;122898	LCS2;122898	K9763	12/30/98	6:47:00 PM
CN16-M001	WO3843-5RE	K9764	12/30/98	7:30:00 PM
LF402-M001	WO3843-9RE	K9765	12/30/98	8:13:00 PM
LF401-M001	WO3843-10RE	K9766	12/30/98	8:56:00 PM

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK:120998
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;120998	AQ	-	-	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHYL)ETHER	<10	ug/L	1.0	10	10
2-CHLOROPHENOL	<10	ug/L	1.0	10	10
1,3-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,4-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,2-DICHLOROBENZENE	<10	ug/L	1.0	10	10
2-METHYLPHENOL	<10	ug/L	1.0	10	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<10	ug/L	1.0	10	10
4-METHYLPHENOL	<10	ug/L	1.0	10	10
N-NITROSO-DI-N-PROPYLAMINE	<10	ug/L	1.0	10	10
HEXACHLOROETHANE	<10	ug/L	1.0	10	10
NITROBENZENE	<10	ug/L	1.0	10	10
ISOPHORONE	<10	ug/L	1.0	10	10
2-NITROPHENOL	<10	ug/L	1.0	10	10
2,4-DIMETHYLPHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHOXY)METHAN	<10	ug/L	1.0	10	10
2,4-DICHLOROPHENOL	<10	ug/L	1.0	10	10
1,2,4-TRICHLOROBENZENE	<10	ug/L	1.0	10	10
NAPHTHALENE	<10	ug/L	1.0	10	10
4-CHLOROANILINE	<10	ug/L	1.0	10	10
HEXACHLOROBUTADIENE	<10	ug/L	1.0	10	10
4-CHLORO-3-METHYLPHENOL	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
HEXACHLOROCYCLOPENTADIEN	<10	ug/L	1.0	10	10
2,4,6-TRICHLOROPHENOL	<10	ug/L	1.0	10	10
2,4,5-TRICHLOROPHENOL	<25	ug/L	1.0	25	25
2-CHLORONAPHTHALENE	<10	ug/L	1.0	10	10
2-NITROANILINE	<25	ug/L	1.0	25	25
DIMETHYL PHTHALATE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
2,6-DINITROTOLUENE	<10	ug/L	1.0	10	10
3-NITROANILINE	<25	ug/L	1.0	25	25
ACENAPHTHENE	<10	ug/L	1.0	10	10

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK;120998
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;120998	AQ	-	-	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<25	ug/L	1.0	25	25
4-NITROPHENOL	<25	ug/L	1.0	25	25
DIBENZOFURAN	<10	ug/L	1.0	10	10
2,4-DINITROTOLUENE	<10	ug/L	1.0	10	10
DIETHYLPHTHALATE	<10	ug/L	1.0	10	10
4-CHLOROPHENYL-PHENYLETHE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
4-NITROANILINE	<25	ug/L	1.0	25	25
4,6-DINITRO-2-METHYLPHENOL	<25	ug/L	1.0	25	25
N-NITROSODIPHENYLAMINE	<10	ug/L	1.0	10	10
4-BROMOPHENYL-PHENYLETHER	<10	ug/L	1.0	10	10
HEXACHLOROBENZENE	<10	ug/L	1.0	10	10
PENTACHLOROPHENOL	<25	ug/L	1.0	25	25
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
CARBAZOLE	<10	ug/L	1.0	10	10
DI-N-BUTYLPHTHALATE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BUTYLBENZYLPHTHALATE	<10	ug/L	1.0	10	10
3,3'-DICHLOROBENZIDINE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BIS(2-ETHYLHEXYL)PHTHALATE	<10	ug/L	1.0	10	10
DI-N-OCTYLPHTHALATE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
2-FLUOROPHENOL	43	%	1.0		
PHENOL-D5	66	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK;120998
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/18/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;120998	AQ	-	-	12/9/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	65	%	1.0		
2-FLUOROBIPHENYL	94	%	1.0		
2,4,6-TRIBROMOPHENOL	78	%	1.0		
TERPHENYL-D14	84	%	1.0		

Report Notes:

Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: I1908 **Sample ID:** LCS;120998 **Date Run:** 12/18/98

Analyst: SW **Time Injected:** 11:21:00 AM **Matrix:** AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)	
1,2,4-TRICHLOROBENZENE	50	39.0	78	70-130	
1,2-DICHLOROBENZENE	50	36.1	72	70-130	
1,3-DICHLOROBENZENE	50	30.5	*61	70-130	met 12/30
1,4-DICHLOROBENZENE	50	31.1	*62	70-130	
2,2'-OXYBIS(1-CHLOROPROPANE)	50	40.8	82	70-130	
2,4,5-TRICHLOROPHENOL	100	84.2	84	70-130	
2,4,6-TRICHLOROPHENOL	100	84.4	84	70-130	
2,4-DICHLOROPHENOL	100	94.4	94	70-130	
2,4-DIMETHYLPHENOL	100	79.1	79	70-130	
2,4-DINITROPHENOL	100	100	100	70-130	
2,4-DINITROTOLUENE	50	47.2	94	70-130	
2,6-DINITROTOLUENE	50	48.6	97	70-130	
2-CHLORONAPHTHALENE	50	43.7	87	70-130	
2-CHLOROPHENOL	100	83.0	83	70-130	
2-METHYLNAPHTHALENE	50	55.8	112	70-130	
2-METHYLPHENOL	100	80.3	80	70-130	
2-NITROANILINE	50	19.2	*38	70-130	met 12/30
2-NITROPHENOL	100	88.5	88	70-130	
3,3'-DICHLOROBENZIDINE	50	0	*0	70-130	*
3-NITROANILINE	50	5.59	*11	70-130	*
4,6-DINITRO-2-METHYLPHENOL	100	120	120	70-130	
4-BROMOPHENYL-PHENYLETHER	50	49.5	99	70-130	
4-CHLORO-3-METHYLPHENOL	100	81.4	81	70-130	
4-CHLOROANILINE	50	12.0	*24	70-130	*
4-CHLOROPHENYL-PHENYLETHER	50	48.7	97	70-130	
4-METHYLPHENOL	50	76.6	*153	70-130	* inactive above QC
4-NITROANILINE	50	16.4	*33	70-130	
4-NITROPHENOL	100	64.2	*64	70-130	met 12/30
ACENAPHTHENE	50	47.2	94	70-130	
ACENAPHTHYLENE	50	41.2	82	70-130	
ANTHRACENE	50	47.4	95	70-130	
BENZO[A]ANTHRACENE	50	44.9	90	70-130	
BENZO[A]PYRENE	50	47.5	95	70-130	
BENZO[B]FLUORANTHENE	50	52.8	106	70-130	
BENZO[G,H,I]PERYLENE	50	47.9	96	70-130	
BENZO[K]FLUORANTHENE	50	55.9	112	70-130	
BIS(2-CHLOROETHOXY)METHANE	50	36.3	72	70-130	
BIS(2-CHLOROETHYL)ETHER	50	38.2	76	70-130	
BIS(2-ETHYLHEXYL)PHTHALATE	50	51.1	102	70-130	
BUTYLBENZYLPHTHALATE	50	46.5	93	70-130	
CARBAZOLE	50	26.2	*52	70-130	met 12/30

*** Out of Limits**

Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: 11908 | Sample ID: LCS:120998 | Date Run: 12/18/98

Analyst: SW | Time Injected: 11:21:00 AM | Matrix: AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)	
CHRYSENE	50	47.0	94	70-130	
DI-N-BUTYLPHTHALATE	50	51.2	102	70-130	
DI-N-OCTYLPHTHALATE	50	59.9	120	70-130	
DIBENZ[A,H]ANTHRACENE	50	53.6	107	70-130	
DIBENZOFURAN	50	44.9	90	70-130	
DIETHYLPHTHALATE	50	50.8	102	70-130	
DIMETHYL PHTHALATE	50	51.2	102	70-130	
FLUORANTHENE	50	47.4	95	70-130	
FLUORENE	50	47.6	95	70-130	
HEXACHLOROBENZENE	50	49.2	98	70-130	
HEXACHLOROBUTADIENE	50	36.5	73	70-130	
HEXACHLOROCYCLOPENTADIENE	50	3.09	*6.2	70-130	* met 12/30
HEXACHLOROETHANE	50	26.8	*54	70-130	
INDENO[1,2,3-CD]PYRENE	50	48.4	97	70-130	
ISOPHORONE	50	37.3	75	70-130	
N-NITROSO-DI-N-PROPYLAMINE	50	36.6	73	70-130	
N-NITROSODIPHENYLAMINE	50	9.06	*18	70-130	met 12/30
NAPHTHALENE	50	40.9	82	70-130	
NITROBENZENE	50	38.0	76	70-130	
PENTACHLOROPHENOL	100	89.8	90	70-130	
PHENANTHRENE	50	45.3	90	70-130	
PHENOL	100	75.7	76	70-130	
PYRENE	50	46.6	93	70-130	

* Out of Limits

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK2;122898
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK2;122898	AQ	-	-	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
PHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHYL)ETHER	<10	ug/L	1.0	10	10
2-CHLOROPHENOL	<10	ug/L	1.0	10	10
1,3-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,4-DICHLOROBENZENE	<10	ug/L	1.0	10	10
1,2-DICHLOROBENZENE	<10	ug/L	1.0	10	10
2-METHYLPHENOL	<10	ug/L	1.0	10	10
2,2'-OXYBIS(1-CHLOROPROPANE)	<10	ug/L	1.0	10	10
4-METHYLPHENOL	<10	ug/L	1.0	10	10
N-NITROSO-DI-N-PROPYLAMINE	<10	ug/L	1.0	10	10
HEXACHLOROETHANE	<10	ug/L	1.0	10	10
NITROBENZENE	<10	ug/L	1.0	10	10
ISOPHORONE	<10	ug/L	1.0	10	10
2-NITROPHENOL	<10	ug/L	1.0	10	10
2,4-DIMETHYLPHENOL	<10	ug/L	1.0	10	10
BIS(2-CHLOROETHOXY)METHAN	<10	ug/L	1.0	10	10
2,4-DICHLOROPHENOL	<10	ug/L	1.0	10	10
1,2,4-TRICHLOROBENZENE	<10	ug/L	1.0	10	10
NAPHTHALENE	<10	ug/L	1.0	10	10
4-CHLOROANILINE	<10	ug/L	1.0	10	10
HEXACHLOROBUTADIENE	<10	ug/L	1.0	10	10
4-CHLORO-3-METHYLPHENOL	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
HEXACHLOROCYCLOPENTADIEN	<10	ug/L	1.0	10	10
2,4,6-TRICHLOROPHENOL	<10	ug/L	1.0	10	10
2,4,5-TRICHLOROPHENOL	<25	ug/L	1.0	25	25
2-CHLORONAPHTHALENE	<10	ug/L	1.0	10	10
2-NITROANILINE	<25	ug/L	1.0	25	25
DIMETHYL PHTHALATE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
2,6-DINITROTOLUENE	<10	ug/L	1.0	10	10
3-NITROANILINE	<25	ug/L	1.0	25	25
ACENAPHTHENE	<10	ug/L	1.0	10	10

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK2;122898
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2.
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK2;122898	AQ	-	-	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
2,4-DINITROPHENOL	<25	ug/L	1.0	25	25
4-NITROPHENOL	<25	ug/L	1.0	25	25
DIBENZOFURAN	<10	ug/L	1.0	10	10
2,4-DINITROTOLUENE	<10	ug/L	1.0	10	10
DIETHYLPHTHALATE	<10	ug/L	1.0	10	10
4-CHLOROPHENYL-PHENYLETHE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
4-NITROANILINE	<25	ug/L	1.0	25	25
4,6-DINITRO-2-METHYLPHENOL	<25	ug/L	1.0	25	25
N-NITROSODIPHENYLAMINE	<10	ug/L	1.0	10	10
4-BROMOPHENYL-PHENYLETHER	<10	ug/L	1.0	10	10
HEXACHLOROBENZENE	<10	ug/L	1.0	10	10
PENTACHLOROPHENOL	<25	ug/L	1.0	25	25
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
CARBAZOLE	<10	ug/L	1.0	10	10
DI-N-BUTYLPHTHALATE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BUTYLBENZYLPHTHALATE	<10	ug/L	1.0	10	10
3,3'-DICHLOROBENZIDINE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BIS(2-ETHYLHEXYL)PHTHALATE	<10	ug/L	1.0	10	10
DI-N-OCTYLPHTHALATE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
2-FLUOROPHENOL	56	%	1.0		
PHENOL-D5	74	%	1.0		

Report Notes:

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KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: VINCENT DELLORUSSO
ROY F. WESTON
ONE WALL STREET

MANCHESTER, NH 03101-1501

Proj. ID:

Lab Number: SBLK2;122898
Report Date: 12/31/98
PO No. : 96113L
Project: CHARLESTOWN-RI/SITES:2,
% Solids: N/A
Method: EPA 8270B
Date Analyzed: 12/30/98

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK2;122898	AQ	-	-	12/28/98	ESE	SW3520	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NITROBENZENE-D5	82	%	1.0		
2-FLUOROBIPHENYL	83	%	1.0		
2,4,6-TRIBROMOPHENOL	75	%	1.0		
TERPHENYL-D14	77	%	1.0		

Report Notes:

Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: K9763 | Sample ID: LCS2:122898 | Date Run: 12/30/98

Analyst: SW | Time Injected: 6:47:00 PM | Matrix: AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)	
1,2,4-TRICHLOROBENZENE	50	42.6	85	70-130	
1,2-DICHLOROBENZENE	50	45.5	91	70-130	
1,3-DICHLOROBENZENE	50	44.4	89	70-130	
1,4-DICHLOROBENZENE	50	42.3	85	70-130	
2,2'-OXYBIS(1-CHLOROPROPANE)	50	70.5	*141	70-130	met 12/18
2,4,5-TRICHLOROPHENOL	100	85.9	86	70-130	
2,4,6-TRICHLOROPHENOL	100	79.9	80	70-130	
2,4-DICHLOROPHENOL	100	88.1	88	70-130	
2,4-DIMETHYLPHENOL	100	71.4	71	70-130	
2,4-DINITROPHENOL	100	147	*147	70-130	met on 12/18
2,4-DINITROTOLUENE	50	50.6	101	70-130	
2,6-DINITROTOLUENE	50	50.7	101	70-130	
2-CHLORONAPHTHALENE	50	40.6	81	70-130	
2-CHLOROPHENOL	100	79.7	80	70-130	
2-METHYLNAPHTHALENE	50	43.8	88	70-130	
2-METHYLPHENOL	100	81.8	82	70-130	
2-NITROANILINE	50	48.0	96	70-130	
2-NITROPHENOL	100	94.0	94	70-130	
3,3'-DICHLOROBENZIDINE	50	24.6	*49	70-130	*
3-NITROANILINE	50	29.3	*58	70-130	*
4,6-DINITRO-2-METHYLPHENOL	100	118	118	70-130	
4-BROMOPHENYL-PHENYLETHER	50	45.4	91	70-130	
4-CHLORO-3-METHYLPHENOL	100	91.1	91	70-130	
4-CHLOROANILINE	50	17.0	*34	70-130	*
4-CHLOROPHENYL-PHENYLETHER	50	43.3	86	70-130	
4-METHYLPHENOL	50	90.8	*182	70-130	* no action above GC
4-NITROANILINE	50	43.6	87	70-130	
4-NITROPHENOL	100	106	106	70-130	
ACENAPHTHENE	50	41.3	82	70-130	
ACENAPHTHYLENE	50	40.2	80	70-130	
ANTHRACENE	50	41.0	82	70-130	
BENZO[A]ANTHRACENE	50	45.0	90	70-130	
BENZO[A]PYRENE	50	39.0	78	70-130	
BENZO[B]FLUORANTHENE	50	44.8	90	70-130	
BENZO[G,H,I]PERYLENE	50	37.7	75	70-130	
BENZO[K]FLUORANTHENE	50	38.8	78	70-130	
BIS(2-CHLOROETHOXY)METHANE	50	49.2	98	70-130	
BIS(2-CHLOROETHYL)ETHER	50	47.4	95	70-130	
BIS(2-ETHYLHEXYL)PHTHALATE	50	48.1	96	70-130	
BUTYLBENZYLPHTHALATE	50	46.0	92	70-130	
CARBAZOLE	50	44.7	89	70-130	

* Out of Limits

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Katahdin Analytical Services
8270 LCS Recovery Sheet

Lab File: K9763 | Sample ID: LCS2;122898 | Date Run: 12/30/98

Analyst: SW | Time Injected: 6:47:00 PM | Matrix: AQ

Compound Name	Spike Amt (ug/L)	Result (ug/L)	Rec (%)	Limits (%)
CHRYSENE	50	43.0	86	70-130
DI-N-BUTYLPHTHALATE	50	47.5	95	70-130
DI-N-OCTYLPHTHALATE	50	49.1	98	70-130
DIBENZ[A,H]ANTHRACENE	50	37.1	74	70-130
DIBENZOFURAN	50	40.6	81	70-130
DIETHYLPHTHALATE	50	41.6	83	70-130
DIMETHYL PHTHALATE	50	44.1	88	70-130
FLUORANTHENE	50	44.9	90	70-130
FLUORENE	50	43.0	86	70-130
HEXACHLOROBENZENE	50	42.0	84	70-130
HEXACHLOROBUTADIENE	50	41.6	83	70-130
HEXACHLOROCYCLOPENTADIENE	50	6.94	*14	70-130
HEXACHLOROETHANE	50	44.8	90	70-130
INDENO[1,2,3-CD]PYRENE	50	40.5	81	70-130
ISOPHORONE	50	45.3	91	70-130
N-NITROSO-DI-N-PROPYLAMINE	50	47.4	95	70-130
N-NITROSODIPHENYLAMINE	50	39.5	79	70-130
NAPHTHALENE	50	43.8	88	70-130
NITROBENZENE	50	45.8	92	70-130
PENTACHLOROPHENOL	100	88.1	88	70-130
PHENANTHRENE	50	41.4	83	70-130
PHENOL	100	81.2	81	70-130
PYRENE	50	41.2	82	70-130

* Out of Limits

Katahdin Analytical Services

MS/MSD Report

No action taken; LCS qualifications used mod

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3843-1	I1913	12/18/98	2:55:00 PM	SW	AQ	8270
WO3843-1MS	I1914	12/18/98	3:39:00 PM	SW	AQ	8270
WO3843-1MSD	I1915	12/18/98	4:22:00 PM	SW	AQ	8270

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
4-CHLOROPHENYL-PHENYLETHER	0	100	100	157	82.7	*157	83	60-140	*62	30
BENZO[A]ANTHRACENE	0	100	100	50.9	79.0	*51	79	60-140	*43	30
3,3'-DICHLOROBENZIDINE	0	100	100	0	0	*0	*0	60-140		30
3-NITROANILINE	0	100	100	0	41.3	*0	*41	60-140	*200	30
4,6-DINITRO-2-METHYLPHENOL	0	200	200	242	192	121	96	60-140	23	30
4-BROMOPHENYL-PHENYLETHER	0	100	100	103	86.2	103	86	60-140	18	30
2-NITROANILINE	0	100	100	0	51.8	*0	*52	60-140	*200	30
4-CHLOROANILINE	0	100	100	22.0	20.7	*22	*21	60-140	5.9	30
2-METHYLPHENOL	0	200	200	90.4	102	*45	*51	60-140	12	30
4-METHYLPHENOL	0	200	200	111	97.4	*55	*49	60-140	13	30
4-NITROANILINE	0	100	100	0	40.8	*0	*41	60-140	*200	30
4-NITROPHENOL	0	200	200	101	97.7	*50	*49	60-140	3.3	30
ACENAPHTHENE	0	100	100	90.3	82.4	90	82	60-140	9.1	30
ACENAPHTHYLENE	0	100	100	33.7	76.2	*34	76	60-140	*77	30
1,2,4-TRICHLOROBENZENE	0	100	100	82.9	76.1	83	76	60-140	8.5	30
4-CHLORO-3-METHYLPHENOL	0	200	200	89.6	103	*45	*52	60-140	14	30
2,4-DIMETHYLPHENOL	0	200	200	80.2	103	*40	*51	60-140	25	30
1,2-DICHLOROBENZENE	0	100	100	86.8	66.7	87	67	60-140	26	30
1,3-DICHLOROBENZENE	0	100	100	22.0	59.8	*22	60	60-140	*92	30
1,4-DICHLOROBENZENE	0	100	100	72.2	62.2	72	62	60-140	15	30
2,2'-OXYBIS(1-CHLOROPROPANE)	0	100	100	80.5	66.4	80	66	60-140	19	30
2,4,6-TRICHLOROPHENOL	0	200	200	234	118	117	*59	60-140	*66	30
2-NITROPHENOL	0	200	200	127	104	64	*52	60-140	21	30
2,4-DICHLOROPHENOL	0	200	200	131	108	65	*54	60-140	19	30
BENZO[A]PYRENE	0	100	100	1900	73.7	*1900	74	60-140	*180	30
2,4-DINITROPHENOL	0	200	200	301	152	*150	76	60-140	*66	30
2,4-DINITROTOLUENE	0	100	100	149	84.3	*149	84	60-140	*55	30
2,6-DINITROTOLUENE	0	100	100	138	86.5	138	86	60-140	*46	30
2-CHLORONAPHTHALENE	0	100	100	145	79.5	*145	80	60-140	*58	30
2-CHLOROPHENOL	0	200	200	133	91.9	67	*46	60-140	*37	30
2-METHYLNAPHTHALENE	0	100	100	82.0	80.6	82	80	60-140	1.7	30
2,4,5-TRICHLOROPHENOL	0	200	200	213	109	107	*55	60-140	*64	30
N-NITROSO-DI-N-PROPYLAMINE	0	100	100	6.59	58.8	*6.6	*59	60-140	*160	30
ANTHRACENE	0	100	100	57.8	78.4	*58	78	60-140	30	30
HEXACHLOROBENZENE	0	100	100	105	89.6	105	90	60-140	16	30
HEXACHLOROBUTADIENE	0	100	100	86.8	75.6	87	76	60-140	14	30
HEXACHLOROCYCLOPENTADIENE	0	100	100	32.8	7.65	*33	*7.6	60-140	*120	30
HEXACHLOROETHANE	0	100	100	84.3	57.8	84	*58	60-140	*37	30
FLUORANTHENE	0	100	100	63.4	81.1	63	81	60-140	24	30
ISOPHORONE	0	100	100	16.1	58.5	*16	*58	60-140	*110	30
DIMETHYL PHTHALATE	0	100	100	162	88.6	*162	89	60-140	*59	30
N-NITROSODIPHENYLAMINE	0	100	100	9.61	79.6	*9.6	80	60-140	*160	30
NAPHTHALENE	0	100	100	74.0	68.7	74	69	60-140	7.4	30
NITROBENZENE	0	100	100	61.1	67.2	61	67	60-140	9.5	30

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100 * Out of Limits

1

Katahdin Analytical Services

MS/MSD Report

Sample	File Name	Date Acquired	Time inj	Analyst	Matrix	Method
WO3843-1	I1913	12/18/98	2:55:00 PM	SW	AQ	8270
WO3843-1MS	I1914	12/18/98	3:39:00 PM	SW	AQ	8270
WO3843-1MSD	I1915	12/18/98	4:22:00 PM	SW	AQ	8270

Compound Name	Native (ug/L)	MS Spk Amount (ug/L)	MSD Spk Amount (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	MS REC (%)	MSD REC (%)	Recovery Limits (%)	RPD (%)	RPD Limit (%)
PENTACHLOROPHENOL	0	200	200	158	128	79	64	60-140	21	30
PHENANTHRENE	0	100	100	92.4	83.0	92	83	60-140	11	30
PHENOL	0	200	200	93.2	86.2	*46	*43	60-140	7.8	30
INDENO[1,2,3-CD]PYRENE	0	100	100	4980	76.2	*4980	76	60-140	*190	[illegible]
CARBAZOLE	0	100	100	1.81	77.4	*1.8	77	60-140	*190	30
BENZO[B]FLUORANTHENE	0	100	100	21300	81.4	*21300	81	60-140	*200	30
BENZO[G,H,I]PERYLENE	0	100	100	3290	74.8	*3290	75	60-140	*190	30
BENZO[K]FLUORANTHENE	0	100	100	12400	82.1	*12400	82	60-140	*200	30
BIS(2-CHLOROETHOXY)METHANE	0	100	100	3.89	64.0	*3.9	64	60-140	*180	30
BIS(2-CHLOROETHYL)ETHER	0	100	100	76.9	63.0	77	63	60-140	20	30
FLUORENE	0	100	100	142	82.4	*142	82	60-140	*53	30
BUTYLBENZYLPHTHALATE	0	100	100	2.94	87.2	*2.9	87	60-140	*190	30
PYRENE	0	100	100	1.98	90.2	* 2.0	90	60-[illegible]	*190	30
CHRYSENE	0	100	100	100	85.4	100	85	60-[illegible]	16	30
DI-N-BUTYLPHTHALATE	0	100	100	61.5	85.3	61	85	60-140	*32	30
DI-N-OCTYLPHTHALATE	0	100	100	23100	92.7	*23100	93	60-140	*200	[illegible]
DIBENZ[A,H]ANTHRACENE	0	100	100	19400	75.0	*19400	75	60-140	*200	30
DIBENZOFURAN	0	100	100	138	76.0	138	76	60-140	*58	30
DIETHYLPHTHALATE	0	100	100	112	89.6	112	90	60-140	22	30
BIS(2-ETHYLHEXYL)PHTHALATE	0	100	100	100	97.7	100	98	60-140	2.7	30

RPD = (ms rec - msd rec) / (ms rec + msd rec)/2] * 100

* Out of Limits

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Wastewater Analysis

Issued to
Katahdin Analytical Services

Located at
340 County Road, #5, Westbrook, ME

Under the provisions of the Regulations in Env-C300 for the following analyses:

FULL CERTIFICATION: PCB's in Oil, Pesticides, Volatile Organics, PCB's in Water, Chloride, Arsenic, Aluminum, Specific Conductance, TDS, Total Hardness, Calcium, Magnesium, Sodium, Beryllium, Total Alkalinity, Titanium, Fluoride, Sulfate, Ammonia-N, Nitrate-N, Orthophosphate, Potassium, Oil & Grease (Freon), Manganese, Nickel, Lead, Selenium, Vanadium, Zinc, Cadmium, Silver, Mercury, Molybdenum, TKN, Iron, Copper, Chromium, Cobalt, Strontium, Fecal Coliform by MF, Antimony, Carbonaceous BOD, TOC, 5-Day BOD, pH, Thallium, Non-Filterable Residue, Total Phenolics, COD, Total Cyanide.

PROVISIONAL CERTIFICATION: Total Phosphorus.

REPLACES CERFICATE #: 200198-B

CERTIFICATE NUMBER: 200198-D

DATE OF ISSUE: July 07, 1998

EXPIRATION DATE: April 02, 1999

Charles M. Wyer
Certifying Officer

LITHO IN U.S.A.
© OOES 746

Charleston, RI

LL 12/4/98

COOLER RECEIPT FORM

Number of Coolers: 65

LIMS #: W03843 Date received: 12-3-98

Project: Charlestown R.I. 2, 4, 6

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? . . . . . YES NO

   If YES, enter carrier name and airbill number here: Katahdin Courier

2. Were custody seals on outside of cooler? . . . . . YES NO

   How many and where: 1, seal date: 12-2-98, seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? . . . . . YES NO
4. Did you screen samples for radioactivity using a Geiger Counter? . . . . . YES NO
5. Were custody papers sealed in a plastic bag and taped inside the lid? . . . . . YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? . . . . . YES NO
7. Did you sign custody papers in the appropriate place? . . . . . YES NO
8. Was project identifiable from custody papers? If YES, enter project name at the top of this form YES NO
9. If required, was enough ice used? Type of ice: Cube . . . . . YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BKR (date) 12-3-98

B. LOG-IN PHASE: Date samples were logged in: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

11. Describe type of packing in cooler: Bubble Pack
12. Were all bottles sealed in separate plastic bags? . . . . . YES NO
13. Did all bottles arrive unbroken and were labels in good condition? . . . . . YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? . . . . . YES NO
15. Did all bottle labels agree with custody papers? . . . . . YES NO
16. Were correct containers used for the tests indicated? . . . . . YES NO
17. Were correct preservatives added to samples? . . . . . YES NO
18. Was a sufficient amount of sample sent for tests indicated? . . . . . YES NO
19. Were bubbles absent in VOA samples? If NO, list by sample #: _____ . . . . . YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form YES NO
21. Who was called? _____ By whom? _____ (date): _____

FIGURE 6-4
LABORATORY COOLER RECEIPT FORM

Charleston, RI

COOLER RECEIPT FORM

LP 12/4/98

Number of Coolers: ~~6~~ 5

LIMS #: W03843

Date received: 12-3-98

Project: Charlestown R.I. 2,4,6

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? . . . . . YES NO

   If YES, enter carrier name and airbill number here: _____

2. Were custody seals on outside of cooler? . . . . . YES NO

   How many and where: 1, seal date: 12-2-98, seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? . . . . . YES NO
4. Did you screen samples for radioactivity using a Geiger Counter? . . . . . YES NO
5. Were custody papers sealed in a plastic bag and taped inside the lid? . . . . . YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? . . . . . YES NO
7. Did you sign custody papers in the appropriate place? . . . . . YES NO
8. Was project identifiable from custody papers? If YES, enter project name at the top of this form YES NO
9. If required, was enough ice used? Type of ice: Cube . . . . . YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BKR (date) 12-3-98

B. LOG-IN PHASE: Date samples were logged in: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

11. Describe type of packing in cooler: Bubble Pack
12. Were all bottles sealed in separate plastic bags? . . . . . YES NO
13. Did all bottles arrive unbroken and were labels in good condition? . . . . . YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? . . . . . YES NO
15. Did all bottle labels agree with custody papers? . . . . . YES NO
16. Were correct containers used for the tests indicated? . . . . . YES NO
17. Were correct preservatives added to samples? . . . . . YES NO
18. Was a sufficient amount of sample sent for tests indicated? . . . . . YES NO
19. Were bubbles absent in VOA samples? If NO, list by sample #: _____ . . . . . YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form YES NO
21. Who was called? _____ By whom? _____ (date): _____

FIGURE 6-4
LABORATORY COOLER RECEIPT FORM

Charleston, RI

COOLER RECEIPT FORM

LP 12/4/98

Number of Coolers: 6 5

LIMS #: WO 3543 Date received: 12-3-98

Project: Charleston RI 2, 4, 6

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? . . . . . YES NO

   If YES, enter carrier name and airbill number here: _____

2. Were custody seals on outside of cooler? . . . . . YES NO

   How many and where: 1, seal date: 12-2-98, seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? . . . . . YES NO
4. Did you screen samples for radioactivity using a Geiger Counter? . . . . . YES NO
5. Were custody papers sealed in a plastic bag and taped inside the lid? . . . . . YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? . . . . . YES NO
7. Did you sign custody papers in the appropriate place? . . . . . YES NO
8. Was project identifiable from custody papers? If YES, enter project name at the top of this form YES NO
9. If required, was enough ice used? Type of ice: Cube . . . . . YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BKR (date) 12-3-98

B. LOG-IN PHASE: Date samples were logged in: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

11. Describe type of packing in cooler: Bubble Pack
12. Were all bottles sealed in separate plastic bags? . . . . . YES NO
13. Did all bottles arrive unbroken and were labels in good condition? . . . . . YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? . . . . . YES NO
15. Did all bottle labels agree with custody papers? . . . . . YES NO
16. Were correct containers used for the tests indicated? . . . . . YES NO
17. Were correct preservatives added to samples? . . . . . YES NO
18. Was a sufficient amount of sample sent for tests indicated? . . . . . YES NO
19. Were bubbles absent in VOA samples? If NO, list by sample #: _____ . . . . . YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form YES NO
21. Who was called? _____ By whom? _____ (date): _____

FIGURE 6-4
LABORATORY COOLER RECEIPT FORM

Charleston, RI

LP 12/4/98

COOLER RECEIPT FORM

Number of Coolers: 65

LIMS #: W03843 Date received: 12-3-98

Project: Charleston R.I 2,4,6

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? . . . . . YES NO

   If YES, enter carrier name and airbill number here: _____

2. Were custody seals on outside of cooler? . . . . . YES NO

   How many and where: 1, seal date: 12-2-98, seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? . . . . . YES NO
4. Did you screen samples for radioactivity using a Geiger Counter? . . . . . YES NO
5. Were custody papers sealed in a plastic bag and taped inside the lid? . . . . . YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? . . . . . YES NO
7. Did you sign custody papers in the appropriate place? . . . . . YES NO
8. Was project identifiable from custody papers? If YES, enter project name at the top of this form YES NO
9. If required, was enough ice used? Type of ice: Cube . . . . . YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BKR (date) 12-3-98

B. LOG-IN PHASE: Date samples were logged in: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

11. Describe type of packing in cooler: Bubble Pack
12. Were all bottles sealed in separate plastic bags? . . . . . YES NO
13. Did all bottles arrive unbroken and were labels in good condition? . . . . . YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? . . . . . YES NO
15. Did all bottle labels agree with custody papers? . . . . . YES NO
16. Were correct containers used for the tests indicated? . . . . . YES NO
17. Were correct preservatives added to samples? . . . . . YES NO
18. Was a sufficient amount of sample sent for tests indicated? . . . . . YES NO
19. Were bubbles absent in VOA samples? If NO, list by sample #: _____ . . . . . YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form YES NO
21. Who was called? _____ By whom? _____ (date): _____

FIGURE 6-4
LABORATORY COOLER RECEIPT FORM

Charleston, RI

LP 12/4/98

COOLER RECEIPT FORM

Number of Coolers: 65

LIMS #: 403843 Date received: 12-3-98

Project: Charlestown R.I. 2, 4, 6

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? . . . . . YES NO

   If YES, enter carrier name and airbill number here: _____

2. Were custody seals on outside of cooler? . . . . . YES NO

   How many and where: 1, seal date: 12-2-98, seal name: _____

3. Were custody seals unbroken and intact at the date and time of arrival? . . . . . YES NO
4. Did you screen samples for radioactivity using a Geiger Counter? . . . . . YES NO
5. Were custody papers sealed in a plastic bag and taped inside the lid? . . . . . YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? . . . . . YES NO
7. Did you sign custody papers in the appropriate place? . . . . . YES NO
8. Was project identifiable from custody papers? If YES, enter project name at the top of this form YES NO
9. If required, was enough ice used? Type of ice: Cube . . . . . YES NO
10. Have designated person initial here to acknowledge receipt of cooler: BKR (date) 12-3-98

B. LOG-IN PHASE: Date samples were logged in: 12-3-98

by (print): BRIAN K. ROY (sign): [signature]

11. Describe type of packing in cooler: Bubble Pack
12. Were all bottles sealed in separate plastic bags? . . . . . YES NO
13. Did all bottles arrive unbroken and were labels in good condition? . . . . . YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? . . . . . YES NO
15. Did all bottle labels agree with custody papers? . . . . . YES NO
16. Were correct containers used for the tests indicated? . . . . . YES NO
17. Were correct preservatives added to samples? . . . . . YES NO
18. Was a sufficient amount of sample sent for tests indicated? . . . . . YES NO
19. Were bubbles absent in VOA samples? If NO, list by sample #: _____ . . . . . YES NO
20. Was the project manager called and status discussed? If YES, give details on the back of this form YES NO
21. Who was called? _____ By whom? _____ (date): _____

FIGURE 6-4
LABORATORY COOLER RECEIPT FORM

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT

Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # W03843

PAGE: 1 OF 5

COOLER: 1 OF 5 (BK)

CLIENT: Roy. F. Weston

PROJECT: Charleston RI Sites 2,4,6

COC#
SDG#
DATE / TIME RECEIVED: 12-3-98-0815
DELIVERED BY: KATAHDIN
RECEIVED BY: BKR
LIMS ENTRY BY: KS
LIMS REVIEW BY / PM: L. Pepin

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑	☐	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 1.2	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT Y or N?	☐	☑	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☑	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☑	☐	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

(1) Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) #: W03843

PAGE: 2 OF 5 (BF)

COOLER: 2 OF 5

CLIENT: Roy F. Weston

PROJECT: Charlestown, RI Sites 2, 4, 6

COC#:
SDG#:
DATE / TIME RECEIVED: 12-3-98 ~ 0815
DELIVERED BY: KATAHDIN
RECEIVED BY: BLK
LIMS ENTRY BY:
LIMS REVIEW BY / PM: L Pepin

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑ 12/4/98	☑	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 1.8	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT Y or N?	☐	☑	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☑	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

[1] Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # W7D3843

PAGE: 3 OF 6 5 (BF)

COOLER: 3 OF 6 5

CLIENT: Roy F. Weston

PROJECT: Charlestown RI : Sites 2,4,6

COC#
SDG#
DATE / TIME RECEIVED: 12-3-95 ~ 0815
DELIVERED BY: KATAHDIN
RECEIVED BY: BLK
LIMS ENTRY BY: KS
LIMS REVIEW BY / PM: L Pepin

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑	☐	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 1.9	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT Y or N?	☐	☑	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☑	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

[1] Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

0000143

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # WO3843

PAGE: 4 OF 6 (5) BK

COOLER: 4 OF 6 5

COC#

SDG#

DATE / TIME RECEIVED: 12-~~3~~-95 ~ 0815

DELIVERED BY: KATAHDIN

RECEIVED BY: BKR

LIMS ENTRY BY: KS

LIMS REVIEW BY / PM: LLepin

CLIENT: Roy F. Weston

PROJECT: Charlestown, RI: Sites 2, 4, 6

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑	☑	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 2.1	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT (Y) or N?	☑	☐	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☑	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

(1) Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # W03843

PAGE: 5 OF 45 (BR)

COOLER: 5 OF 45

CLIENT: Roy F. Weston

PROJECT: Charlestown, RI: Sites: 2, 4, 6

COC#
SDG#
DATE / TIME RECEIVED: 12-3-98 ~ 0815
DELIVERED BY: KATAHDIN
RECEIVED BY: BLK
LIMS ENTRY BY: KS
LIMS REVIEW BY / PM: L Pepin

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑	☑	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 1.0	
6. SAMPLES RECEIVED AT 4°C +/- 2? (CE / ICE PACKS PRESENT Y or N?	☐	☑	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☑	☐	☐		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

(1) Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

0000145

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

~~SEVERN TRENT LAB S~~ ~~SS S. PA~~ SPR

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Client	Contact	Phone #	Fax #
ROY F. WESTON, INC	V. DELCORUSSO	(603) 6565467	(603) 6565401

Address	City	State	Zip Code
1 WALL STREET	MANCHESTER	NH	03101 1501

Purchase Order # | Proj. Name / No. CHARLESTOWN RI | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign) STANLEY BONIS | Copies To:

LAB USE ONLY | WORK ORDER #: WO 3843-1

KATAHDIN PROJECT MANAGER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	VOCs w/HCL 3 x 40 mL 5030B/8260B	SVOCs 2 x 1L 3520C/8270C	TRPH 2 x 1L w/HCL 418.1	TOTAL LEAD 1x500 mL w/HNO3 3010A/6010B	TOTAL RCRA METALS 1x500 mL w/HNO3 3010A/6010B 7470 FOR Hg					
	CN09-M001	12/2/98/0950	W	24	X	X	X	X		VOC, SVOC, TPH, TLPb MS/MSD SAMPLE				
	CN09-M101	/0950	W	8	X	X	X	X						
	LF201-M001	/1220	W	8	X	X			X	RCRA METALS MS/MSD SAMPLE				
	LF201-M101	/1220	W	1					X					
	CN16-M001	/1303	W	6	X	X			X					
	CN06-M001	/1330	W	6	X	X			X					
	CN08-M001	/1402	W	6	X	X			X					
	CN10-M001	/1540	W	6	X	X			X					
	LF402-M001	/1500	W	6	X	X			X					
	LF401-M001	/1604	W	6	X	X			X					
	CN09-M201 ~~CN08-M201~~ SPR	12/2/98 /0950	W	8	X	X	X		X					
	TB-1	—	W	3	X					lab performed				
		/												
		/												
		/												
		/												

COMMENTS CN09-M001 = TRIPLE VOLUME FOR MS/MSD (VOCs, SVOCs, TRPH, TOTAL Pb)
LF201-M001 = " " " " RCRA METAL Temp Blank in cooler

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	12/2/98 1714	[signature]			
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
		[signature]		12/3/98 0825	

ORIGINAL

APPENDIX D

ELEVATION/LOCATION SURVEY DATA

LOUIS FEDERICI and ASSOCIATES

365 Smith Street, Providence, RI 02908 Tele: 401-331-1570 Fax: 401-331-1593
land surveyors biologists planners

Tabulation of field located environmental test points and physical features
for Roy F. Weston, Inc. - at Ninigret Park in Charlestown, RI
Date Surveyed: 12/8/98 LFA PROJECT NUMBER = 981201
The values below are based on the following datums:
Horizontal = Rhode Island State Plane Coordinate System, NAD 1983; Vertical = Mean Sea Level
Datum provided by Roy F. Weston, Inc.

LFA PT. NO.	WESTON I.D.	NORTHING	EASTING	EXISTING GRADE	TOP OF CASE	TOP OF PVC
50	CN-12	104080.2379	283912.0221	20.93	23.13	22.93
51	WP-10	104049.4865	283926.3618	20.10		
52	GSA-4	104038.4368	283930.8128	20.24	23.14	22.92
53	SB/WP-7	104079.2465	283930.3604	20.48		
54	SB-06	104066.4080	283866.3832	20.92		
55	SB/WP-6A	104064.9315	283854.1862	20.98		
56	GSA-1	104080.5273	283799.3563	21.82	24.42	24.24
57	SB/WP-3	104061.1526	283806.8983	20.78		
58	SB/WP-2	104046.0230	283825.1590	20.26		
59	SB/WP-1	104024.6246	283822.9415	20.53		
60	SB/WP-5	104010.3394	283830.0246	19.89		
61	WP-09	103984.1562	283846.0937	19.42		
62	GSA-3	103988.1395	283837.0700	19.71	22.21	22.11
63	CN-13	104046.3408	283800.2690	21.18	23.08	22.74
64	SB/WP-4	104037.9099	283788.6683	20.94		
65	GSA-5	104040.4546	283796.0102	20.97	23.68	NONE
66	Edge Pvmt.	104108.5431	283750.0817			
67	Edge Pvmt.	104089.9740	283780.4314			
68	Edge Pvmt.	104093.3003	283815.3162			
69	Edge Pvmt.	104112.7314	283849.7875			
70	Edge Pvmt.	104149.8890	283907.0968			
71	GSA-2	103984.6541	283778.4251	21.26	21.26	21.04
72	WP-08	104000.0542	283802.8441	19.96		
73	GSA-SG-1	103946.7902	283722.4216	5.92	8.72	NONE
74	Cl. Drive	103860.7393	283840.0170			
75	Cl. Drive	103903.3512	283817.9749			
76	Cl. Drive	103949.5880	283788.2713			
77	Cl. Drive	104002.5910	283753.5224			
78	Cl. Drive	104060.7499	283717.4430			
79	Cl. Drive	104125.1244	283687.8613			
80	LF-401	100920.2997	281835.5965	6.54	9.44	9.33
81	CN-10	100760.5712	281900.4672	6.56	8.86	8.31
82	Cl. Drive	100776.6572	281899.3062			
83	Cl. Drive	100869.6970	281906.9377			
84	Cl. Drive	100913.2145	282078.5866			
85	Cl. Drive	100888.6402	281881.8374			
86	Cl. Drive	100898.9938	281852.6255			
87	Cl. Drive	100898.5376	281828.9654			
88	Cl. Drive	100761.3344	281884.2318			
89	Cl. Drive	100749.6618	281854.9922			
90	Cl. Drive	100757.3695	281825.3046			
91	LF-402	100741.5885	281819.0935	6.06	9.20	8.96
92	Monument	103168.6804	282837.4844			
93	CN-9	104286.8740	283098.0019	22.34	22.42	22.12
94	BH-302	104282.5660	283085.2923	21.99		
95	BH-303	104276.8672	283095.0227	22.02		
96	BH-303A	104279.8366	283097.7774	21.94		
97	BH-301	104295.0567	283097.2473	22.36		
98	BH-304	104297.1718	283112.6211	22.35		
99	Cm. Court	104402.9034	283131.0555			
100	Cm. Court	104320.2251	283067.8395			
101	Cm. Court	104360.7487	283013.7132			
102	Edge Pvmt.	104330.5822	283031.4568			
103	Edge Pvmt.	104243.2799	283074.2269			
104	Edge Pvmt.	104274.3242	283134.2963			

LOUIS FEDERICI and ASSOCIATES

365 Smith Street, Providence, RI 02908 Tele: 401-331-1570 Fax: 401-331-1593

land surveyors biologists planners

LFA PT. NO.	WESTON I.D.	NORTHING	EASTING	EXISTING GRADE	TOP OF CASE	TOP OF PVC
105	Edge Pvmt.	104310.6715	283170.2692			
106	Monument	102398.3200	285418.5700	10.28		
107	Cl. Drive	102412.8191	285460.2024			
108	Cl. Drive	102363.7311	285572.0152			
109	Cl. Drive	102304.7702	285672.4875			
110	Cl. Drive	102283.3341	285714.2070			
111	Cl. Drive	102276.9590	285778.3203			
112	Cl. Drive	102292.2024	285808.0360			
113	Cl. Drive	102340.8558	285845.1175			
114	Cl. Drive	102431.4919	285884.4533			
115	Cl. Drive	102553.5434	285985.8007			
116	**CN-08**	102464.4519	285871.3325	**5.92**	**7.82**	**7.53**
117	LF-202	102443.0481	285863.0086	**7.16**		
118	Cl. Drive	102476.2228	285917.1988			
119	Cl. Drive	102539.6718	285493.6905			
120	Cl. Drive	102671.1899	285514.3786			
121	LF-201	102655.0391	285670.7399	7.49	9.89	9.73
122	CN-16	102636.2009	285846.8225	**6.57**	**9.27**	**9.07**
123	Cl. Drive	102621.8639	285852.1136			
124	Cl. Drive	102657.9064	285793.2563			
125	Cl. Drive	102676.9407	285739.8775			
126	Cl. Drive	102695.2252	285645.8518			
127	Cl. Drive	102699.1918	285607.0940			
128	**CN-07**	**102503.2038**	**285920.6086**	**5.86**	**8.26**	**7.99**
129	**CN-06**	**102545.5014**	**285916.4841**	**6.65**	**9.40**	**9.15**

NOTE:

1. THOSE VALUES IN BOLD SCRIPT ARE REVISED VALUES.

REVISION:

1. 2/3/99 CHANGED ELEVATION LFA POINTS 116 AND 117.
   AND ADDED LFA POINTS 128 AND 129.

Louis Federici pls

RI Reg. No. 1646

APPENDIX E

GROUNDWATER FIELD PARAMETER DATA

Turbidity std = 0.02 reading 0.21
OVM reading 248 ppm on 249.5 std

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Former NALF

Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number CN09 Date 12/2/98
Field Personnel KAT ESPO
Sampling Organization WESTON
Identify MP Initial DTW = 17.46

Depth to ____/____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)____
Purging Device; (pump type)____

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (mS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments
											TD = 21.75 TIC 17.46 4.29
0900	PUMP ON										
0905	17.6	3			14.7	-0.021	5.68	-149	—	—	
0910	17.6	3			14.9	-0.014	5.64	-326	5.70	24.4	
0915	17.6	3.5	350		15.0	-0.03	5.68	-337	3.72	12.41	
0920	17.6	5	500	2500	15.1	0.005	5.70	-346	2.91	7.96	
0925	17.6	5	500	5000	15.1	0.009	5.71	-327	2.79	10.12	OVM = 0 ppm
0930	17.6	5		7500	15.1	0.010	5.70	-320	2.64	13.02	
0935	17.6			10000	15.1	-0.004	5.70	-306	2.76	5.20	
0940	17.6			12500	15.1	0.003	5.71	-303	2.82	4.84	
0945	17.6			15000	15.1	-0.004	5.70	-303	2.94	4.72	
						Sampled @		0950			

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

(*) Reading 765 uS/cm on 1000 uS/cm

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM
Former NALF
Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number LF 201 Date 12/2/98
Field Personnel KAT
Sampling Organization WESTON
Identify MP TIC

Depth to _____/_____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)_____
Purging Device; (pump type)_____

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (mS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 16.50 TIC DTW = 8.30 TIC
1140	PUMP ON										
1142	8.30	6			12.2	.176	6.64	-46	11.80		
1145		6	600		11.9	.166	6.58	-149	2.65	21.8	
1150					11.8	.162	6.51	-173	1.53	10.60	~~[illegible]~~ =
1155					11.7	.164	6.52	-177	1.34	8.01	
1200					11.7	.155	6.54	-177	1.21	3.25	OVM - 0
1205					11.7	.147	6.51	-171	0.89	2.42	
1210					11.8	.153	6.51	-165	0.89	2.38	
1215					11.7	.157	6.53	-163	0.89	2.56	
					Sampled @			1220			

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM
Former NALF
Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number CN16 Date 12/2/98
Field Personnel SPB
Sampling Organization WESTON
Identify MP T/C

Depth to _____/_____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)_____
Purging Device; (pump type)_____

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (mS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 18.49 T/C 9.31 9.18
1201	9.21	3	275		11.6	.085	6.03	-355	—	75.4	DO. meter not working
1211	9.50	3	275	2750	11.4	.123	6.22	-361	—	76.9	"
1222	10.09	3	275	5775	11.5	.159	6.38	-363	—	50.3	"
1229	10.41	3	275	7700	11.6	.254	6.48	-363	—	105.6*	"
1239	—	3	275	10450	11.6	.296	6.59	-429	—	19.1	"
1249	—	3	275	13200	11.7	.378	6.63	-326	—	6.6	"
1259	—	3	275	15950	11.8	.350	6.68	-333	—	8.8	"

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

* removed DTW Probe

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(3)

~~30' tubing~~ ~40' tubing for next

CN-07 DTW below TIC -7.18

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Former NALF

Charlestown, Rhode Island

[redacted]

Location (Site/Facility Name) Charlestown Former NALF
Well Number CN-06 Date 12/2/98
Field Personnel KAF
Sampling Organization WESTON
Identify MP TIC

Depth to _____/_____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)_____
Purging Device; (pump type)_____

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (uS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 23.50 TIC DTW = 8.26
1240	PUMP ON										
1245	9.70	1	~100		13.0	.179	6.89	-33	(2)	30.4	
1250	9.76			500	12.8	.381	6.58	-50		25.3	
1255	9.88			1000	12.7	.891	6.44	-54		8.2	
1300	9.90			1500	12.6	1.06	6.26	-62		5.87	
1305	(2)			2000	12.5	1.28	6.28	-70		5.61	OVM = 0
1310				2500	12.5	1.87	6.28	-74		4.33	
1315				3000	12.4	1.65	6.28	-79		4.21	
1320				3500	12.4	2.02	6.28	-84		3.94	
1325				4000	12.4	1.96	6.28	-87		4.02	
							sampled @		1330		
	gave probe to stan										

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

(2) brief malfunction w/ probe trying to fix it

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM
Former NALF
Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number CW08 Date 12/2/98
Field Personnel SPB
Sampling Organization WESTON
Identify MP

Depth to ____/____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)
Purging Device; (pump type)

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (uS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 18.97 TIC DTW 6.70 12.27
1340	6.79	6.5	450		11.8	2.89	6.46	-275	—	1.6	DO meter not working
1350	—	6.5	450	4500	11.4	2.74	6.48	-334	—	1.2	"
1355	—	6.5	450	6250	11.1	3.30	6.48	-382	—	0.3	"
1400	—	6.5	450	9000	11.0	2.81	6.49	-366	—	0.2	"

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM
Former NALF
Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number LF401 Date 12/2/98
Field Personnel SPB
Sampling Organization WESTON
Identify MP

1604

Depth to _____/_____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)
Purging Device; (pump type)

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (mS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 15.15 TIC 8.20 / 6.95
1542 ~~8.4~~ SPB	8.4	7	450		12.4	-0.06	6.18	-178	—	4.5	P.a. meter not working
1552	8.41	7	450	4500	11.3	0.24	6.03	-443	—	1.7	"
1557	8.41	7	450	6750	10.9	0.40	6.00	-476	—	1.2	"
1602	8.41	7	450	9000	10.7	0.32	5.99	-421	—	1.2	"

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Former NALF

Charlestown, Rhode Island

UVM STD = 255 ppm (reading) → 250 ppm

Location (Site/Facility Name) Charlestown Former NALF
Well Number LF402 Date 12/2/98
Field Personnel FAT
Sampling Organization WESTON
Identify MP

Depth to ____/____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)
Purging Device; (pump type)

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (mS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments TD = 14.44 TIC DTW = 7.94
1430	PUMP ON										
1435	7.98	6	6000	3000	12.5	0.072	6.58	-14	7.44		
1440				6000	11.7	0.070	6.19	12	4.17	1.14	
1445				9000	11.5	0.071	5.92	56	2.99	0.72	
1450				12000	11.5	0.073	5.89	68	2.77	0.59	[redacted]
1455				15000	11.5	0.071	5.88	74	2.65	0.62	UVM = 0
1500				18000	11.5	0.070	5.97	78	2.57	0.49	
							Sampled @ 1500				

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

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WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM
Former NALF
Charlestown, Rhode Island

Location (Site/Facility Name) Charlestown Former NALF
Well Number CM10 Date 12/2/98
Field Personnel @ KMT
Sampling Organization WESTON
Identify MP

Depth to _____/_____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP)
Purging Device; (pump type)

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (C) (3%)	Specific Conduc.[2] (uS/cm) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%)	Comments
											TD = 15.37 TIC DTW 7.30
PUMP ON		1508									
1510	7.30	6	600		11.7	0.062	5.78	76	6.69		
1515	7.32			3000	11.8	0.068	5.72	89	2.44	6.63	
1520				6000	11.8	0.067	5.75	90	1.90	3.21	
1525				9000	11.8	0.067	5.79	87	1.71	1.33	
1530				12000	11.8	0.069	5.79	84	1.62	1.22	
1535				15000	11.8	0.078	5.82	82	1.59	1.20	
1540				18000	11.8	0.069	5.78	83	1.57	1.30	
					Sampled @			1540			

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. uSiemens per cm (same as umhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

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