RI99246DF

Raymark
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DRAFT FINAL
AREA II
REMEDIAL INVESTIGATION

VOLUME II OF II
APPENDICES

RAYMARK-FERRY CREEK-OPERABLE UNIT 3
STRATFORD, CONNECTICUT

RESPONSE ACTION CONTRACT (RAC), REGION I

For
U.S. Environmental Protection Agency

By
Tetra Tech NUS, Inc.

EPA Contract No. 68-W6-0045
EPA Work Assignment No. 002-RICO-01H3
TtNUS Project No. N7491

November 2000

TETRA TECH NUS, INC.

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Project Manager

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Appendix D - Foodchain Exposure Parameters (TtNUS); Ecological Risk Assessment (NOAA); Evaluation of Raymark Superfund Data for PRG Development (SAIC); Evaluation of Ecological Risk to Avian and Mammalian Receptors in the vicinity of Upper and Middle Ferry Creek (SAIC)
Appendix E - Supplemental Evaluation of Fate and Transport Processes
Appendix F - Human Health Risk Assessment Supporting Documentation

ACRONYMS AND ABBREVIATIONS USED IN THE REMEDIAL INVESTIGATION REPORT

ABS	Absorption Factor
ARARs	Applicable or Relevant and Appropriate Requirements
ARCS	Alternative Remedial Contracting Strategy
AST	aboveground storage tank
ATSDR	Agency for Toxic Substances and Disease Registry
AVS/SEM	acid volatile sulfide/simultaneously extractable metals
AWQC	Ambient Water Quality Criteria
bgs	below ground surface
B&RE	Brown & Root Environmental
°C	degree Celsius
CDM	Camp Dresser and McKee
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Amended by SARA in 1986. Also called the Superfund Law.
cc	cubic centimeter
cf	cubic foot
cfm	cubic foot per minute
cfs	cubic foot per second
CFR	Code of Federal Regulations
CLP	(EPA) Contract Laboratory Program
cm	centimeter
cm/sec	centimeter per second
COC	Contaminant of Concern
COPC	Contaminant of Potential Concern
CPF	Carcinogenic Potency Factor
CSF	Carcinogenic Slope Factor
CSI	Comprehensive Site Investigation
CT-AWQ	Connecticut Ambient Water Quality Criteria
CT DEC	Connecticut Direct Exposure Criteria
CT DEP	Connecticut Department of Environmental Protection
CT DHS	Connecticut Department of Health Services
CT DOH	Connecticut Department of Health
CT DOT	Connecticut Department of Transportation
CT DPHAS	Connecticut Department of Public Health and Addiction Services
CTE	Central Tendency Exposure
CT PMC	Connecticut Pollutant Mobility Criteria
CWA	Clean Water Act
CY	cubic yard
DAS	Direct Analytical Services
DDT	Dichloro diphenyl trichloroethane
dia	diameter
DNAPL	dense non-aqueous phase liquid
EE/CA	Engineering Evaluation/Cost Analysis
ELI	Environmental Laboratories, Inc.
EM	Electromagnetic
EPA	U.S. Environmental Protection Agency

ERA	ecological risk assessment
ERL	effects range low
ESI	Expanded Site Inspection
°F	degree Fahrenheit
FEMA	Federal Emergency Management Agency
FID	flame ionization detector
Foster Wheeler	Foster Wheeler Environmental Corporation
FS	Feasibility Study
ft	foot
ft^2/day	square foot per day
ft^3/day	cubic foot per day
g	gram
g/day	grams per day
GA/GAA	State of Connecticut classification for drinking water sources
gal	gallon
GB	State of Connecticut classification for non-drinking water sources
gpd	gallon per day
gpm	gallon per minute
GPR	Ground Penetrating Radar
GPS	Global Positioning System
HBC	Housatonic Boat Club
HEAST	EPA's Health Effects Assessment Summary Tables
HI	Hazard Index
HNUS	Halliburton NUS Corporation
hr	hour
HQ	Hazard Quotient
i	hydraulic index
ID	inner diameter
IEUBK	EPA's Integrated Exposure Uptake and Biokinetic Model for lead exposure
ILCR	Incremental Lifetime Cancer Risk
in.	inch
IDW	Investigation-Derived Waste
IRIS	EPA's Integrated Risk Information System Database
K	Hydraulic conductivity
K_d	Adsorption coefficient
kg	kilogram
kg/day	kilogram per day
K_{oc}	Adsorption partitioning coefficient
K_{ow}	Octanol-water partitioning coefficient
l	liter
lb	pound
LDR	land disposal restriction
LOAEL	Lowest Observed Adverse Effect Level
m	meter
µ	micro (prefix)
µg/dL	micrograms per deciliter
µg/kg	microgram per kilogram

µg/l or µg/L	microgram per liter
MATC	maximum allowable tissue concentrations
MCL	Federal Safe Drinking Water Act maximum contaminant level. The primary MCL is health-based; the secondary is aesthetic-based.
MCLG	Federal Safe Drinking Water Act maximum contaminant level goal.
MEP	Multiple Extraction Procedure
MFL	million fibers per liter
mg	milligram
mg/cm^2	milligrams per square centimeter
mg/kg	milligram per kilogram
mg/l or mg/L	milligram per liter
mi	mile
ml	milliliter
mph	miles per hour
MSL	mean sea level
NAPL	non-aqueous phase liquid
NCP	National Oil and Hazardous Substances Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGVD	National Geodetic Vertical Datum
NOAA	National Oceanic Atmospheric Administration
NOAEL	No Observed Adverse Effect Level
NPDES	National Pollutant Discharge Elimination System
NTCRA	Non-Time Critical Removal Action
OSHA	Occupational Safety and Health Administration
OSWER	(EPA's) Office of Solid Waste and Emergency Response
OU2	Operable Unit No. 2
OU3	Operable Unit No. 3
PAH	polynuclear aromatic hydrocarbon
PCA	principal components analysis
PCB	polychlorinated biphenyl
PCDD	Polychlorinated dibenzo dioxins
PCDF	Polychlorinated dibenzo furans
PCE	Tetrachloroethene
pH	hydrogen-ion concentration
PID	photoionization detector
ppb	part per billion
ppm	part per million
ppt	part per thousand
PRG	Preliminary Remediation Goal
PRP	Potentially Responsible Party
psi	pound per square inch
QA/QC	Quality Control/Quality Assurance
RAO	Remedial Action Objective
Raymark Facility	Raymark Industries, Inc. Facility
RBC	Risk Based Concentration
RRCs	EPA Region III Risk-based Calculation
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act

Removal Action	Action taken by EPA to address immediate danger to public health and the environment
RfC	Reference Concentration
RfD	Reference Dose
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RME	Reasonable Maximum Exposure
ROD	(EPA's) Record of Decision. Documents the selection of a cost-effective Superfund remedy.
RSRs	State of Connecticut Remediation Standard Regulations
SAIC	Science Applications International Corporation
SARA	Superfund Amendments and Reauthorization Act of 1986. Amended CERCLA. Also known as the Superfund law.
SB/SC	State of Connecticut Classification for Coastal and Marine Surface Water
SCT	Salinity-Conductivity-Temperature
SCV	Secondary Chronic Values
SDWA	Safe Drinking Water Act
SPLP	Synthetic Precipitation Leaching Procedure
SPT	Standard Penetration Testing
sq ft	square foot
sq in.	square inch
sq yd	square yard
SSL	EPA's generic soil screening levels
SVOC	Semivolatile Organic Compound
TAL	(CLP) Target Analyte List for Inorganics
TAT	Technical Assistance Team
TBC	To Be Considered
TC	Toxicity Characteristic
TCB	Trichlorobiphenyl
TCDD	2,3,7,8 – tetrachlorodibenzo-p-dioxin
TCE	Trichloroethene
TCL	(CLP) Target Compound List for Organics
TCLP	Toxicity Characteristic Leaching Procedure
TEF	Toxicity Equivalence Factor
TEL	threshold effect level
TEQ	Toxicity Equivalency
TERC	Total Environmental Restoration Contract
TOC	Total Organic Carbon
TOX	Total Organic Halides
TPH	Total Petroleum Hydrocarbons
TPY	ton per year
TRV	Toxicity Reference Value
TRW	Technical Review Workgroup
TSCA	Toxic Substances Control Act
TSD	(RCRA) Treatment, Storage, and Disposal
TtNUS	Tetra Tech NUS, Inc.
UCL	Upper Confidence Limit

USACE	U.S. Army Corps of Engineers
USCS	Unified Soils Classification System
USDOI	U.S. Department of the Interior
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	Volatile Organic Compound
VSP	Vertical Sampling Program
Weston	Roy F. Weston, Inc.
WQC	State of Connecticut water quality criteria
WQS	State of Connecticut water quality standards
XRF	x-ray fluorescence
1,1-DCA	1,1-Dichloroethane
1,1,1-TCA	1,1,1-Trichloroethane
1,2-DCE	1,2-Dichloroethene
1,1-DCE	1,1-Dichloroethene
2,4-D	2,4-dichlorophenoxyacetic acid

Appendix A

Boring Logs

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
0							Soil Surface			
							No samples 0-2'			
2										
	10	0.5	OU2-SO-312-0204			Orange	S-1A = 0.3' fine-medium poorly graded SAND	SP		FID = 84
	5					Brown		SM/ML	Saturated	(methane?)
	3	2.0				Dark	S-1B = 0.2' fine SAND & SILT abundant root fibers			PID = 0.0
4	7		1100 S-1			Brown				
	5	0.2	OU3-SO-312-0406		Soft	Dark	SILT – trace-few clay abundant roots and organic	OL / PT	Poor recovery	FID = 68
	3					brown	debris, not quite peat			PID = 0.0
	7	2.0								
6	2		1115 S-2							
	1	0.0	1.2/2.0 OU3-SO-		Very		Clayey, SILT, abundant roots and plant fiber. Trace fine		No recovery w/2 in.	FID = 111.6
	WOH		3" spoon 312-0608		Soft		Sand, borderline peat.		Re-sample w/3" spoon	PID = 13.1
	1	2.0	S-3						w/baggy in nose, = 1.2'	
8	1		1135 S-4						recovery	
	1	1.2	OU3-SO-312-0810				S-5A = 1.0' similar to above		PEAT =	FID-2092 PID-
	1		-1302 + S-5B 0910'							35.4
	2	2.0	-1300 = S-5A 0809'			Lt. gray	S-5B = 0.2' – SAND, mostly poorly graded Med. sand	SP	Saturated SAND =	FID = 1050
10	3		0910 S-5							PID = 26.1
	7	0.0	OU3-SO-312-1012		No	No	No Recovery	No	No recovery	
	2				recovery	Recovery		Recov.		
	4	2.0								
12	5		1320 S-6							
	15	0.8	OU3-SO-312-1214			Light	SAND, mostly fine-coarse well graded sand. Trace silt,	SW	Saturated	FID = 80
	10					Gray	trace fine-coarse subrounded gravel.			PID = 0.0
	11	2.0								
14	6		1345 S-7							
	5	1.3	OU3-SO-312-1416			Olive-	Mostly fine-med. Poorly graded SAND	SP	No structure noted.	FID = 20.7
	9		1410 = DUP-01			Gray				PID = 0.0
	11	2.0					Trace silt, trace subangular, fine gravel			
16	13		1400 S-8							

TYPE OF DRILLING RIG:	Mobile Drill – B59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in.ID D&W casing to 14ft.bgs. Wash out & change water,telescope to 4 in.ID drive & wash casing		
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven w/a 140lb.hammer w/a 30in. drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: SB-312B	PAGE: 1 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
16										
18										
20	22 / 28	1.0	OU2-SO-312-1921			yellow-Orange,red	Gravely, fine-coarse SAND, well graded	SW	Heavy oxidation in Bottom 4 in.	FID = 0.0 PID = 0.0
	19 / 30	2.0	1505 S-9			Orange in Bottom 4"				
22										
24										
	15 / 12	0.5	OU2-SO-312-2426			Yellow - orange	Similar to S-9 above	SW	Oxidation staining throughout	FID = 0.0 PID = 0.0
26	18 / 22	2.0	1525 S-10							
28										
30	8 / 7	1.0	OU2-SO-312-2931			Tan-Light	SAND, mostly fine poorly graded sand, trace-few silt	SP	minor oxidation & bedding noted	FID = 0.0 PID = 0.0
	15 / 18	2.0	1545 S-11			brown				
32										

TYPE OF DRILLING RIG:	Mobile Drill - B-59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in. ID D&W casing to 14 ft. bgs. Wash out & change water, telescope to 4 in. ID drive & wash casing		
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven with a 140lb hammer with a 30 in drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: SB-312B	PAGE: 2 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
32										
34										
	11	1.2	OU2-SO-312-3436			Tan	SAND fine - med. Poorly graded sand, trace few silt	SP	Minor bedding	FID = 0.0
	19		Raining			Light				PID = 0.0
	21	2.0				Brown				
36	22		1610 S-12			orange				
38										
40	18	1.3	OU2-SO-312-3941				Silty, fine poorly graded SAND	SM		FID = 0.0
	26									PID = 0.0
	33	2.0	1625 S-13							
	31									
42										
44										
	5	1.5	OU2-SO-312-4446				f-c well graded SAND, trace silt	SW		FID = 0.0
	8									PID = 0.0
	11	2.0								
46	13		1635 S-14							
48										

TYPE OF DRILLING RIG:	Mobile Drill - B59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in ID D&W casing to 14 ft. bgs. Wash out & change water, telescope to 4 in. ID drive & wash casing.		
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven with a 140 lb. Hammer with a 30 in drop		
METHOD OF ROCK CORING:	No wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	1-2' 99 d&w to 44', sample 44-46', secure borehole.	BORING NO.: SB-312B	PAGE: 3 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
48										
50	4 8	1.5	OU2-SO-312-4951			light brown with	Fine - med. Poorly graded SAND, trace silt	SP	Minor bedding	FID = 0.0 PID = 0.0
	15 12	2.0	0845 S-15			orange streaks				
52										
54										
	6 5	1.8	-5456			Light brown	FGR SAND, poorly graded	SP		FID = 0.0 PID = 0.0
56	7 8	2.0	1140 S-16							
58										
60	4 8	1.8	-5961			Light brown	FGR SAND, poorly graded	SP	Minor bedding	FID = 0.0 PID = 0.0
	11 13	2.0	1202 S-17							
62										
64										

TYPE OF DRILLING RIG:	Mobile Drill - B59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in. ID D&W casing to 14 ft. bgs. Wash out & change water, telescope to 4 in ID drive and wash casing		
METHOD OF SOIL SAMPLING:	2 in. split barrel sampler driven with a 140lb hammer with a 30 in drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	D. Waylon logged S-16 through S-21	BORING NO.: SB-312B	PAGE: 4 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
64										
	7	2.0	OU2-SO-312-6466			Light Brown	FGR SAND, poorly graded	SP		FID = 0.0 PID = 0.0
	6									
	11	2.0								
66	10		1234 S-18							
68										
	7	1.2	-6971			Light brown	FGR SAND and silty, FGR sand at bottom	SP	Minor Bedding	FID = 0.0 PID = 0.0
70	19									
	31	2.0	1305 S-19							
	47									
72										
74										
	4	2.0	-7476			Light brown	FGR SAND, poorly graded	SP	Minor bedding	FID = 0.0 PID = 0.0
	12		S-20:74'-76'							
	14	2.0								
76	29		1333 S-20							
78										
	7	1.8	OU2-SO-312-7981			Light brown	FGR sand, poorly graded	SP		FID = 0.0 PID = 0.0
80	19	2.0	1425 S-21							

TYPE OF DRILLING RIG:	Mobile Drill – B59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in ID D&W casing to 14 ft. bgs. Wash out & change water, telescope to 4 in ID drive and wash casing		
METHOD OF SOIL SAMPLING:	2 in. split barrel sampler driven with a 140 lb. Hammer with a 30 lb drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	D. Waylon logged S-16 through S-21.	BORING NO.: SB-312B	PAGE: 5 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
80										
	61	1.8	OU2-SO-312-7981			Light brown	Fine, poorly graded SAND	SP		FID&PID =0.0
	80	2.0								
82										
84										
	6	2.0	OU2-SO-312-8486			Light red brown	Fine - med. Poorly graded SAND	SP	No structure noted	FID = 0.0
	8									
	13	2.0								
86	34		1020 S-22							
88										
90	8	1.5	OU2-SO-312-8991	Top of Bedrock 90.5'		Red-brn Olive - brn gray	Similar to S-22 above for ~6" grades into a silty, fine Poorly graded SAND approximately 1 ft. sharp contact with Saprolitic schist in bottom 4 in.	SP SM	Fine bedding noted above rock contact. Roller bit (4 in) to 93', change water and clean out tub.	FID = 0.0
	13									
	41	1.7	1130 S-23					Bedrock		
	50/2									
92										
							GNEISS. Biotite, muscoite, quartz mafic gneiss with Near vertical foliation. Numerous horiz. To high			
94		~2:00	C-1 = 93-99			dark gray w/	angle fractures from 93-96.5'. Heavy oxidation staining and halo's, trace gouge.		Many fractures 45 & 90°	
		2:15	PEN = 6.0			light gray			to foliation plane in axis.	
			REC = 5.8							
96		2:10	RQD length = 28 in			white bands			~10 gal. lost	
			RQD 39%							

TYPE OF DRILLING RIG:	Mobile Drill - B59		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	5 in ID D&W casing to 14 ft bgs. Wash out & change water, telescope to 4 in ID drive & wash casing		
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven with a 140 lb. Hammer with a 30 in. drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	FID-B.	BORING NO.: SB-312B	PAGE: 6 OF 8

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET) 96	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
		2:30				Similar to above	Rock-type similar to above, GNEISS-PARAGNEISS? 45° angle fractures noted @ 98.25, 98.8 & 99.25 w/			
98		2:00					white calcite x-tals & light green calcite deposition. Two horiz. Frac. W/oxidation stains at 100'			
		2:30								
100			C-2 = 99'-106.2' Pen = 7.2' REC = 7.3' (picked up C-1 remnant) RQD length = 69.25" RQD = 65%							
		2:20								
102		2:00					Bedrock grading into a mica (biotite & muscovite) rich SCHIST from gneiss. High angle fractures parallel to		Jagged Fracture along Crinkle folds,	
		2:00					Foliation w/oxidation & gouge @ 101-101.5. Connected To horiz. Fracture. Also hgh angle fracture w/mica			
104		2:15					Gouge @ 102.5 rock is soft, numerous jagged Oxidized fracture @ 103& 104.			
		2:15							Approx. 100 gall. lost in C-2. Lost H_2O return.	
106		2:30					Degraded and saphrolitic with multi. Fracture 105-106.5		Core/rock jammed ~106	
		2:45	C3 = 106.2' - 109' Pen = 2.8' Rec = 2.45' RQD length = 21" RQD = 62%							
108		3:30								
		3:15					Jagged, oxidized fracture @ 108 & 108.8 - inc. chlorite and trace garnet noted with depth		Crinkle folding noted	
110		3:00	C-4 = 109'-118.7' Pen = 9.7' Rec = 10.3' RQD length = 103"				Quartz vein (vuggy) with chlorite, pyrite noted ~0.5' wide @ 110.			
		3:00								
112		3:15					Low angle fracture w/oxidation @ 111.5'			

TYPE OF DRILLING RIG:	Mobile Drill - B59
METHOD OF ADVANCING BORING:	4 in. ID drive and wash casing
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven with a 140 lb. Hammer with a 30 in. drop
METHOD OF ROCK CORING:	NQ wireline
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK OU2			BORING NO.:	SB-312B
PROJECT NO.:				START DATE:	01/21/99
LOGGED BY:	T. DORGAN	TRANSCRIBED BY:	MES	COMPLETION: DATE:	01/27/99
DRILLED BY (Company/Driller):	Aquifier Drilling & Testing Inc./M. Harrington			MON. WELL NO.:	MW-312B
GRD. SURFACE ELEVATION:	7.3'	ELEVATION FROM:	NGVD-1929	CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
112										
		3:30	RQD by Pen length = 88%			Similar To above	High angle fracture along foliation w/calcite deposition @ 112'-113'. Numerous oxidized high angle fractures to 113.5'			
114		3:15	RQD by Rez. Length = = 83%							
		3:45				dark gray green w/ white bands	Horiz. Fracture @ 115.5. High angle and 45° fracture @ 116'			
116		3:20								
		3:15								
118		3:25					High angle wavy fracture @ 118'.			
		3:50	C-5 = 118.7' – 122' Pen = 3.3' Rec = 3.3' RQD length = 33" RQD = 83%				High angle jagged fracture @ 119' and clean fracture @ 119.5			
120		3:00					High angle fracture with trace calcite deposit – 121-122'			
		3:25								
122		2:50								
		2:10	C-6 = 122'-124' Pen = 2' Rec = 1.4' RQD leng. 16.8" RQD by pen = 70% RQD by Recov. = 100%				C-6 = solid core, similar rock type to above			
124		2:30					Left 0.6' stub @ EOB			
							EOB = cored to 124' open to 123.4'			

TYPE OF DRILLING RIG:	Mobile Drill – B59		*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:	4 in. ID drive and wash casing		
METHOD OF SOIL SAMPLING:	2 in. split-barrel sampler driven with a 140 lb. Hammer with a 30 in. drop		
METHOD OF ROCK CORING:	NQ wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: SB-312B	PAGE: 8 OF 8

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB01
PROJECT NO.:	N7491-0320			START DATE:	8-4-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8-4-97
DRILLED BY (Company/Driller):	ATL / Mike Hawkins			MON. WELL NO.:	NA
GRD. SURFACE	8.0 Ft.	ELEVATION FROM:	Est. from topo. map	CHECKED BY:	TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG. (ft)	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L (ft)	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID PID]	
0											
	1/12	15	OU3-B2-SB1-0002			Brown Black	SILT -mostly silt, trace fine sand, large stems (organic), pot. asbestos tiles/boards, roots	ML	Damp, pot. asbestos gray fiber boards/pads (fill)	0	2.4
2'	1/12	24	1200 S-1								
	1/12	16	OU3-B2-SB1-0204			Brown Black	Similar to above w/more twigs, roots, pot. asbestos pads	ML	Damp, pot. asb. (fill)	0	3.1
4'	1/12	24	1210 S-2								
	1/12	16	OU3-B2-SB1-0406			Brown	Similar to above w/pot. asbestos pad, organics, fewer twigs, more roots	ML	Damp, pot. asb. - finer org. veg tissue, sea shells	0	3.4
6'	1/12	24	1220 S-3								
	1	24	OU3-B2-SB1-0608			Black	S-4A SILT w/org. fibers, trace fine sand, pot. asbestos boards	ML	Damp fill	37.4	10
8'	24	24	1225 S-4			Brown	S-4B PEAT-fibrous org. tissue, roots	PT	Saturated-water squeezed out of peat soil holding H_2O	157	13.6
	WOH	23	OU3-B2-SB1-0810			Brown	SILT/PEAT - mostly silt w/peat like fibrous tissue, roots, stems and pot asb. fiber board (gray)	ML/PT	Damp holding onto H_2O	16.0	8.7
10'	WOH	24	1230 S-5								
	WOH	24	OU3-B2-SB1-1012			Brown	SILT - mostly silt, trace fine sand, pot. asb. pads, roots, twigs fibers (plant)	ML	Damp, pot. asbestos, soft	56.2	30.3
12'	WOH	24	1235 S-6								
	WOH	24	OU3-B2-SB1-1214			brown	SILT - similar to above - no visible asbestos, fewer org. fibers than above, trace fine sand	ML	Damp	122	62
14'	WOH	24	1245 S-7								
	WOH WOH	24	OU3-B2-SB1-1416			brown	SILT - similar to above, few org. fibers, tr. fine sand	ML	Damp - no visual asbestos soft	59.1	26.2
16'	1/12	24	1250 S-8				EOB @ 16"				

TYPE OF DRILLING RIG:	CME-850 ATV TRACK MOUNT
METHOD OF ADVANCING BORING:	4.25' I D HSA, 8" O.D. HSA
METHOD OF SOIL SAMPLING:	3" BARRELS DROPPED W/300 LB HYDRAULIC HAMMER IN 18IN
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	NO WATER IN AUGERS @ 1305, BACKFILL W/BENT. SLURRY
OTHER OBSERVATIONS:	LEVEL C-S-2 TO S-8 DRILLING 0-16' BACKFILL POT. ASB. IN THE MORE SILTY LAYERS VERSUS THE PEAT LIKE LAYERS

BORING NO.: B2-SB01

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB02
PROJECT NO.:	N7491-0320			START DATE:	8/1/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	8/1/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE	10.5 ft.	ELEVATION FROM:	Est. from. topo. map	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG. (ft)	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L (ft)	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID PID]	
	1	18/24	OU3-B2-SB02-0002			brown	Silty SAND-mostly fine sand, some silt, trace. twigs, roots, plant fibers	SM	Dry, Crumbly, Loose	0	0.3
	1										
	1										
2'	1		1115 S-1								
	2	12/24	OU3-B2-SB02-0204			brown	silty SAND, fine sand, silt, trace organic fibers, trace asphalt shingles, pot. Asbestos fibers (?)	SM	Oxidized-like staining Fill, Dry	0	0.4
	4										
	5										
4'	5		1120 S-2								
	2	19/24	OU3-B2-SB02-0406			brown-black	Silty SAND, fine sand, silt, asphalt shingles, black crumbly waste material, pot asbestos tiles twigs,	SM	Dry, Upgrade 1130- Fill	0	0
	1										
	1						Roots				
6'	2		1130 S-3								
	2	21/24	OU3-B2-SB02-0608			brown-black	Silty SAND-similar to above w/pot asbestos tiles, asphalt shingles, vitrified clay pipe, twigs, roots	SM	Damp Fill	0	0
	3										
	3										
8'	2		1140 S-4								
	1	10/24	OU3-B2-SB02-0810			black	SILT w/tr. fine sand, plastic sheets (flexible) non-flexible plastic sheets, asphalt shingles, asbestos like hairs, organic	SM	Saturated Fill	0	0
	1										
	1						hairs, twigs		Jet black waste coloration		
10'	1		1150 S-5								
	1	24/24	OU3-B2-SB02-1012			brown-black	S-6A (0-17") - SILT w/org. fibers, pot-black man-made waste material, shingles	SM/ OL?	Damp Fill	60	8
	2										
	4						S-6B (17-24") asphalt shingles w/silt	SM/ FILL		120	10
12'	9		1200 S-6								
	4	8/24	OU3-B2-SB02-1214			black	FILL - asphalt-like shingles, tr.-silt pot. cardboard fibers in shingles	SM/ FILL	Damp	0	0
	2										
	1										
14'	1		1210 S-7								
	1	24/24	OU3-B2-SB02-1416			brown-black	S-8A (4in) org SILT w/large fibers (plant) stems, trace Shingles	OL/ FILL	Saturated	0	0
	1										
	2						S-8B (4-24) - SILT w/tr. fine thin plant fibers tr. fine sand	SM	Saturated	0	0
16'	2		1218 S-8								

TYPE OF DRILLING RIG:	CME 850 ATV TRACK MOUNT		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HAS, 8 in. O.D. HSA		
METHOD OF SOIL SAMPLING:	3 IN BARREL 300 LB HYDRAULIC HAMMER 18 INCH DROP		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	WATER @ 12.10 IN AUGERS AGS		
OTHER OBSERVATIONS:	UPGRACE TO C @ 1130 HRS, DRILL CREW DOWNGRADES 1120 FOR BREAK RESUME C @ 1230 - 1300	BORING NO.: B2-SB02	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB03
PROJECT NO.:	N7491-0320			START DATE:	7/31/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7/31/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE	8.5 FT.	ELEVATION FROM:	EST. FROM TOPO. MAP	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG. (ft)	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L (ft)	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID PID]	
	1	17	OU3-B2-SB03-0002			brown	SILT, trace fine sand, roots, grasses, organic fibers	SM	Loose, dry, crumbly	0	•
	1										
	1										
2'	1	24	1500 S-1								
	1	16	OU3-B2-SB03-0204			brown	SILT, trace fine sand, some organic fibers, roots, trace Brick-like material, twigs	SM	Dense Dry Fill	0	•
	1										
	2										
4'	2	24	1510 S-2								
	1	9	OU3-B2-SB03-0406			black	SILT, trace fine sand, some organics, grass, roots, twigs, Stems, asphalt-like shingles	SM	Sheen on most shingles moist soil fill	16.2	•
	2										
	2										
6'	1	24	1515 S-3								
	2	24	OU3-B2-SB03-0608			black	S-4A (0-7") SILT, w/organics, white specs-sea shells? Roots	SM or OL?	Moist soil holding water white specs may be from shingles, strong organic odor	125	•
	2				v-soft						
	1				dense or stiff	Brown-black	S-4B (7-24") PEAT, fibrous laden root system	PT			
8'	2	24	1522 S-4								
	WOH	24	OU3-B2-SB03-0810			brown	PEAT, some silt, fibrous root system Trace white specs (?)	PT	moist soil holding water strong methane like org. odor	32	•
	↓										
10'	WOH	24	1530 S-5								
	WOH	24	OU3-B2-SB03-1012			black	S-6A (0-15") PEAT and SILT w/organics	OL/ PT	moist soil holding H_2O strong organic odor	220	•
	↓				Soft-						
	↓				v-soft	Brown-black	S-6B (15-24") SILT, trace organics trace fine sand	SM	Moist	0	•
12'	WOH	24	1537 S-6								
	WOH	24	OU3-B2-SB03-1214		soft	brown-black	S-7 = SILT, trace organics, tr. fine sand	SM	holding water moist in Soil	133	•
	↓										
14'	WOH	24	1545 S-7								
	WOH	24	OU3-B2-SB03-1416			black	S-8 = SILT, trace organics, tr. fine sand	SM	Very soft in one 4-in interval-saturated-rest is damp-strong organic Odor	42	•
	WOH										
16'	1	24	1553 S-8								

TYPE OF DRILLING RIG:	CME 850 ATV TRACK MOUNTED		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25 in. I.D./8 in. O.D. HSA		
METHOD OF SOIL SAMPLING:	3 IN BARREL 300 LB HYDRAULIC HAMMER 18 INCH DROP		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	WATER @ 12.8 IN AUGERS AGS		
OTHER OBSERVATIONS:	AUGERS TO 14' • BATTERY CRITICALLY LOW	BORING NO.: B2-SB03	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB04
PROJECT NO.:	N7491-0320			START DATE:	7/31/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7/31/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE	7.0 Ft.	ELEVATION FROM:	Est. from topo. map	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG. (ft)	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L (ft)	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID PID]	
	1		OU3-B2-SB04-0002			brown	SAND - fine sand, tr. silt, roots, glass pieces, concrete,	SP	Loose, dry, fill		
	2	19					debris, asphalt, twigs, tr. coarse gravel, poorly graded			0	0
	4										
2'	4	24	1258 S-1								
	3		OU3-B2-SB04-0204			brown	- similar to above w/glass shards, chunks wood	SP	Loose dry, fill		
	3	18					red cloth			0	0
	4										
4'	2	24	1309 S-2								
	1		OU3-B2-SB04-0406			Brown-	SILT w/organics, tr. fine sand, tr. gravel, peat-like	OL/	Moist/Damp		
	1	21				Black	fibers, roots, twigs	PT		60	0
	1										
6'	▼	24	1315 S-3								
	WOH		OU3-B2-SB04-0608			Brown	S-4A (0-9in) SILT-similar to above, less org., glass	OL	Damp		
	1	24					Chunks		Fill	23	0
	2					Gray-	S-4B (9-24in) SILT w/fine to med. sand and tr. organics	SM	Damp		
8'	1	24	1320 S-4			Brown	fibers, roots			0	0
	1		OU3-B2-SB04-0810			Black	S-5A (0-4") SILT w/tr. fine sand, some org fibers, stems,	SM	Damp		
	3	18					twigs, roots			10	0
	3					Gray-	S-5B (4-18") SAND, some gravel – mostly f/m sand, coarse	SP	Loose, wet		
10'	3	24	1330 S-5			brown	subrounded gravel, poorly graded tr. coarse sand, tr. silt			26	0
	2		OU3-B2-SB04-1012			brown	SAND- mostly f/m, tr. coarse sand, tr. fine subrounded	SP	saturated loose no fill		
	2	24					tr. silt, no bedding or structures			0	0
	2										
12'	2	24	1340 S-6								
	1		OU3-B2-SB04-1214			brown	SAND - similar to above, no gravel	SP	saturated loose no fill		
	2	23								0	0
	2										
14'	2	24	1350 S-7								
	1		OU3-B2-SB04-1416			brown	SAND - similar to above w/coarse sand and tr. coarse	SP	saturated loose no fill		
	3	24					gravel at base of spoon			0	0
	3										
16'	4	24	1400 S-8				EOB @ 16' AUGERS TO 14'				

TYPE OF DRILLING RIG:	CME 850 ATV TRACK-MOUNTED.
METHOD OF ADVANCING BORING:	4.25' I.D. HSA 8 IN. O.D. HSA
METHOD OF SOIL SAMPLING:	3 IN BARREL 300 LB HAMMER 18 INCH DROP
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	WATER IN AUGERS @ 6.20 FT BGS
OTHER OBSERVATIONS:	

BORING NO.: B2-SB04

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB05
PROJECT NO.:	N7491-0320			START DATE:	7/30/98
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7/30/98
DRILLED BY (Company/Driller):	ATL MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE	2.5 FT.	ELEVATION FROM:	Est. from topo. map	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC./ SAMP LENG. (ft)	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L (ft)	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID	PID]
	1/12 in	18 / 24	OU3-B2-SB5-0002			brown	S-1 (0-8in) organic SILT w/ fine sand (trace) - large phragmite stems, grass, roots, twigs, org. (some)	OL/PT	3 in. recov. initial - relocated 2nd spoon w/recov., v. soft	0	2.9
2'	1/12 in		1320 S-1						(2 spoons), damp		
	WOH	3 / 24	OU3-B2-SB5-0204			brown	S-2 (0-3) organic SILT - similar to above	OL	Empty initially – retried barrel + spoon not much v. soft damp	0	2.6
4'	WOH		1330 S-2								
	WOH	0 / 24	OU3-B2-SB5-0406				S-3 No Recovery		No recovery		
6'	WOH		1340 S-3								
	WOH	9 / 24	OU3-B2-SB5-0608			Black	S-4 (0-9in) similar to S-2 w/ manufactured waste (sludge-like paste) and organics	OL/ FILL	Potential fill w/ glass like fibers - pot. asbestos, v. soft (wet)	0	2.8
8'	WOH		1345 S-4								
	WOH	6 / 24	OU3-B2-SB5-0810			Black	S-5 (0-6) similar to S-4	OL/ FILL	More fill, very soft wet	0	3.2
10'	WOH		1350 S-5								
	WOH	10 / 24	OU3-B2-SB5-1012			Black	S-6 (0-10) similar to above w/ more fine sand and pot. asbestos waste - hair like material	OL/ FILL	No basket used to try and get more recovery, wet	0	13.3
12'	WOH		1400 S-6				black pot. manufactured waste				
	WOH	12 / 24	OU3-B2-SB5-1214			Black	S-7 (0-12) SILT, some fine sand trace fine organic fibers	SM	No waste observed	0	0.2
14'	WOH		1420 S-7								
	WOH	24 / 24	OU3-B2-SB5-1416			black	S-8 (24 in) organic SILT, trace fine sand, organic twigs	OL? SM?	No visible waste, soft to v. soft wet	0	0.3
16'	WOH		1430 S-8				EOB @ 16'				

TYPE OF DRILLING RIG:	CME-850 TRACK MOUNTED ATV RIG
METHOD OF ADVANCING BORING:	4.25' I D HSA 8 in OD Has
METHOD OF SOIL SAMPLING:	3 IN. SPLIT-SPOON DRIVEN WITH A 300 LB. HAMMER W/18 IN. DROP
METHOD OF ROCK CORING:	
GROUNDWATER LEVELS:	NO WATER IN BORING @ 1435 HRS
OTHER OBSERVATIONS:	

BORING NO.: B2-SB05

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK	BORING NO.:	B2-SB06
PROJECT NO.:	N7491-0320	START DATE:	7/31/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY: FMD	COMPLETION DATE: 7/31/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS		MON. WELL NO.:
GRD. SURFACE	3.0 FT.	ELEVATION FROM: Est. from topo. map	CHECKED BY: TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID	PID]
	1/12 IN.	6	OU3-B2-SB6-0002			brown	Fibrous, organic, root mat, twigs		Difficult to recover - twigs, vegetation in way of	0	0
	W.O.H.								sample capture. Damp.		
2	W.O.H.	24	0850 S-1								
	W.O.H.	8	OU3-B2-SB6-0204		Very Soft	brown	Org. SILT – mostly silt, organic fibers,	OL	Saturated	2.2	0
4	W.O.H.	24	0856 S-2				TR fine sand				
	1	15	OU3-B2-SB6-0406			Gray-brown	S-3A (0-9") gravelly SAND - f/c sand, coarse gravel, Well graded, loose	SW	Saturated, seashells Loose	9.2	15.4
6	2 / 1	24	0900 S-3		Soft	brown	S-3B (9-24") SILT, tr. fine sand, tr. organic fibers	SM ML (?)	Damp	1.1	10.1
	1	9	OU3-B2-SB6-0608			Gray-brown	S-4 gravelly SAND - similar to S-3A	SW	Saturated, loose	0	8.1
8	1/12 IN.	24	0910 S-4								
	1	19	OU3-B2-SB6-0810			brown	S-5 gravelly, silty, SAND w/ organic fibers - f/c sand, trace coarse gravel, some silt,	SM	Saturated, loose	0	10
10	1	24	0916 S-5								
	1	13	OU3-B2-SB6-1012			brown	S-6 sandy SILT, tr. gravel, f/m sand, tr. coarse gravel, tr. clay	SM	More silt than sand Saturated, loose	0	12.4
12	2	24	0925 S-6								
	3	24	OU3-B2-SB6-1214			brown	S-7A (0-12 in) sandy SILT, some gravel & f/m sand	SM	More gravel than in S-6 Saturated	0	6.4
14	5	24	0935 S-7			Gray-brown	S-7B (12-24 in) gravelly SAND, tr. silt, f/c sand & coarse gravel	SW	Fighting running sand. Sand up to 20 in. in flights		
										0	7.8
							EOB @ 14' W/SPOON @ 12' W/AUGER				

TYPE OF DRILLING RIG:	CME-850 TRACK-MOUNTED ATV RIG.		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA 8" OD		
METHOD OF SOIL SAMPLING:	3 IN. BARREL 300 LB HAMMER (HYDRAULIC) DROP 18 IN		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:	NO WASTE OBSERVED. WATER 2.70 FT BGS W/INDICATOR IN AUGER		
OTHER OBSERVATIONS:	BACKFILL W/ BENTONITE SLURRY	BORING NO.: B2-SB06	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SB07
PROJECT NO.:	N7491-0320			START DATE:	7/30/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	7/30/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS (ATL)			MON. WELL NO.:	
GRD. SURFACE	6.0 ft.	ELEVATION FROM:	Est. from topo. map	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID	PID]
	1	14	OU3-B2-SB07-0002			Brown	SAND – poorly graded f/m, trace silt, trace coarse gravel, grass roots, 1 piece wood	SP	Dry – top soil, loose	0	
	1										
2	1	24	0800 S-1								
	2										
	1	17	OU3-B2-SB07-0204	2'		Gray-Brown	SAND, some silt, trace coarse gravel (F/M sand, tr. coarse sand, trace roots)	SP-SM	Dry, tighter than above	0	
	1										
4	1	24	0810 S-2								
	1										
	1	24	OU3-B2-SB07-0406			Brown	S-3A (0-7in) SAND f/m poorly graded sand , loose roots	SP	Damp, oxidized (red stain), damp	0	
	1										
6	1	24	0820 S-3			Black	S-3B (7-14") org SILT ,fine gray sand w/ (1/4" thick) laminations low plasticity	OL		0	
	1	24	OU3-B2-SB07-0608			Brown black	S-4A (0-5in) org SILT w/ fine med. sand, roots	OL	Sand is red-brown	0	
	▼										
8	1	24	0830 S-4				S-4B (5-24in) PEAT - organic material, fibrous root Structure comminuted vegetative tissue	PT	Dense root system, wet	46.5	2.8
	1	15	OU3-B2-SB07-0810			Gray-Brown	S-5 (0-15in) SAND, some silt, tr. gravel (coarse), fine sand, tr. Organics (roots)	SP-SM	Damp - lot of seashells	2.7	0.3
	1										
10	3	24	0840 S-5								
	1	24	OU3-B2-SB07-1012			Gray-Black	S-6A (0-6") Organic SILT	SM/ OL	No shells observed, no gravel, damp higher plasticity @ top than at base	1.8	0.7
	▼										
12	1	24	0850 S-6				S-6B (6-24) org. SILT at top, soft to very soft silty some fine sand, organics (roots)				
	▼										
	1	23	OU3-B2-SB07-1214			Black	S-7A organic SILT, some sand, root matter, soft, very soft	OL (?) SM	similar to above, damp	0	12.7
	6										
14	2	24	0900 S-7			Black	S-7B SAND (fine), some silt, dense material	SM			
	2										
	1	16	OU3-B2-SB07-1416			Black	S-8A (0-9") similar to S-7B	SM	9-14" - coarse sand interval, wet	0	0.3
	2					Black	S-8B (9-14")SAND & GRAVEL, coarse,subround gravel, f/c	SW-GW			
16	1	24	0910 S-8			black	Sand S-8C (14-24) similar to S-8A	SM			
	4						EOB 16' augers to 14'				

TYPE OF DRILLING RIG:	CME 850 ATV TRACK-MOUNTED		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25' I D HSA 8 IN OD		
METHOD OF SOIL SAMPLING:	3" SPOON, 18" DROP, 300 LB HAMMER (HYDRAULIC)		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	8.3' WATER LEVEL THROUGH AUGERS @ 0920		
OTHER OBSERVATIONS:	BACKFILLED W/ BENTONITE SLURRY	BORING NO.: B2-SB07	PAGE: 1 OF 1

BORING LOG FOR: RAYMARK - OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: TRACY DORGAN
DRILLED BY (Company/Driller): ATL / MARK CHILDS
GRD. SURFACE 5.5 FT.

TRANSCRIBED BY: FMD
ELEVATION FROM: Est. from topo. map

BORING NO.: B2-SB08
START DATE: 8/12/97
COMPLETION DATE: 8/12/97
MON. WELL NO.:
CHECKED BY: TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
0	2 2	6"	OU3-B2-SB08-0002		Very Loose	Mottled Red +	Thick phragmites @ surface, phrag. roots below surface w/ some sandy silt matrix, trace glass fragments	SM	1st attempt – 1" recovery, phrag. roots blocked nose	
	1 1	24"	1720 S-1			Dark. Gray	from 0-4 "		re-try @ EOB. glass 0-4"	0.0
2	2 2	16"	OU3-B2-SB08-0204			Gray-Brown	SILT, trace fine sand, phragmites roots as well as finer plant roots noted.	ML	H2S odor very strong, Soft, basket fingers	0.0
	2 1	24"	1550 S-2	4ft. 2 in.					squeezing sample.	
4	1 1	24"	OU3-B2-SB08-0406	Peat			S-3A = 2" similar to above, S-3B = 22" PEAT, mostly phragmites roots + stalk fragments	PT	Wet - saturated	326
	1 1	24"	1605 S-3				in silt matrix			
6	1 1	11"	OU3-B2-SB08-0608	Silt			SILT tr. fine sand, few-little plant fibers and roots, also shell fragments and glass fragments (clear)	ML	Glass fragments - saturated	7.5
	1 1	24"	1620 S-4							
8	W.O.H. W.O.H.	17"	OU3-B2-SB08-0810				S-5A = 8" - similar to S-4 above. S-5B = 9" - silt. trace fine sand, no plant or shell frag.		Saturated	5.9
	1 1	24"	1628 S-5				High mica content		1 lg. Phrag. Root in S-5A	
10	W.O.H. W.O.H.	18"	OU3-B2-SB08-1012							220
	1 1	24"	1640 S-6				Tr. Shells and plant fibers		marine deposits	20
12	W.O.H. W.O.H.	24"	OU3-B2-SB08-1214				marine sed. deposits			
	1 1	24"	1650 S-7				tr. Plant debris – very fine, not whole			
14	W.O.H. 1	18"	OU3-B2-SB08-1416				(comminuted)			28
16	1 1	24"	1710 S-8							

EOB @ 16'

TYPE OF DRILLING RIG: CME-45 SKID RIG
METHOD OF ADVANCING BORING: 4.25' I D HSA
METHOD OF SOIL SAMPLING: 3" OD SPLIT BARREL DRIVEN WITH 300 LB HAMMER W/18" FALL
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS: NOT MEASURED
OTHER OBSERVATIONS:

BORING NO.: B2-SB08

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	B2-SB09
PROJECT NO.:	N7491-0320			START DATE:	7/30/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	FMD	COMPLETION DATE:	7/30/97
DRILLED BY (Company/Driller):	ATL / MIKE HAWKINS			MON. WELL NO.:	
GRD. SURFACE	3.0 Ft.	ELEVATION FROM:	Est. from topo. map	CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID	PID]
	1/12 in.	21	OU3-B2-SB9-0002			brown	S-1A (0-6 in) SAND, fine, dry, loose, grass, roots, trace organic material	SP	top soil, grasses, dry	2.7	0
2	1/12 in.	24	1100 S-1			black	S-1B (6-24in) silty SAND w/ organic plant tissue, roots, phragmite stems, fine sand	SM	org. silt?, damp bottom	0	0
		23	OU3-B2-SB9-0204			black	S-2A (0-12in) org. SILT/PEAT-fibrous tissue, phragmite stems f/m sand fine.	OL (?)	dry @ top, damp at bottom	0	0
4	1/12 in.	24	1110 S-2			black	S-2B (13-24) SAND, some silt, f/m sand poorly graded. w/organics	SP	saturated at ~1', (interval only)	0	0
	1/12 in.	21	OU3-B2-SB09-0406			black	S-3A (0-12) SAND, some silt, f/m sand, poorly graded. w/organics	SP	wet	14.3	8.2
6		24	1120 S-3			brown black	S-3B (12-24) PEAT - organic material, fibrous	PT	can squeeze water out wet	0	0
	WOH WOH	24	OU3-B2-SB09-0608			black	S-4A (0-10in) org SILT, some fine, sand, organic roots	OL	saturated, very soft	0	0
8	1 1	24	1130 S-4			black	S-4B (10-24) PEAT, organic fibers some silt, trace fine sand	PT	seashells	75.2	23.8
	WOH WOH	23	OU3-B2-SB09-0810			black	S-5A (0-10in) similar to S-4A organic roots	OL		0	3.0
10	1 1	24	1140 S-5			black	S-5B (10-23in) silty fine SAND, some sand fine, tr. org.	SM OL (?)	dry, dense, crumbles, tr. seashells	1.0	2.9
	WOH WOH	23	OU3-B2-SB09-1012			black	S-6 (0-23in) similar to S-5B tr. org.	SM OL (?)	no seashells	0	1.2
12	WOH 1	24	1146 S-6			↓					
	WOH WOH	24	OU3-B2-SB09-1214			black	S-7 (0-24in) similar to S-6, few organic, fine sand, silty, fine SAND	SM (?) OL (?)	very soft @ top, dense at bottom	14.9	10.9
14	WOH 1	24	1200 S-7								
	WOH WOH	24	OU3-B2-SB09-1416			black	S-8 (0-24in) similar to S-7 w/ tr. organics, tr. twigs	SM OL (?)	wet	45.3	8.9
16	WOH WOH	24	1210 S-8								

EOB @ 16'

TYPE OF DRILLING RIG:	CME 850 ATV TRACK MOUNTED		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	4.25 IN ID HSA 8 IN OD AUGERS TO 14' SB TO 16'		
METHOD OF SOIL SAMPLING:	3" SPLIT BARREL W/ 300 LB HAMMER (HYDRAULIC) 18 IN DROP		
METHOD OF ROCK CORING:			
GROUNDWATER LEVELS:	1155 HRS WATER NO IN HOLE YET, CHECKED AGAIN - NO WATER ENTERED HOLE @ 1230		
OTHER OBSERVATIONS:	BACKFILL W/ BENT. SLURRY	BORING NO.: B2-SB09	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SD01
PROJECT NO.:	N7491-0320			START DATE:	8-6-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	8-6-97
DRILLED BY (Company/Driller):	Aqua Survey/J. Nickel			MON. WELL NO.:	
GRD. SURFACE	Below water in Ferry Creek	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID]
	N.A.		OU3-B2-SD01-0002 1455 S-1		Very Soft	Jet BLK	S-1 organic SILT, leaves, twigs, fibrous, organic matter (Potential asbetos)	OL	Saturated petroleum-like odor w/petroleum-like sheen on water on top of sample	0
2										
			OU3-B2-SD01-0204 1500 S-2		Soft		S-2 Man-made fibers observed			0
4										
			OU3-B2-SD01-0406 1502 S-3				S-3 No fibrous mat noted			0
6										
7			OU3-B2-SD01-0607 1503 S-4				S-4			6.4
							Note: Jet black coloration may be due to a potential petroleum impact to the sediment. One portion of the core had a gray brown coloration			

TYPE OF DRILLING RIG:	VIBRACORE SETUP	PENETRATED 7'		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:		RECOVERED 6.4'		
METHOD OF SOIL SAMPLING:		0.9' CORE = 1 FT LOG		
METHOD OF ROCK CORING:		CORE PULLED OUT: 1340		
GROUNDWATER LEVELS:		SAMPLES FOR ANALYTICAL 0 – 2-4'		
OTHER OBSERVATIONS:	SATURATED	NO VOC'S FOR ANALYSIS	BORING NO.: B2-SD01	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	B2-SD02
PROJECT NO.:	N7491-0320			START DATE:	8/6/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	8/6/97
DRILLED BY (Company/Driller):	Aqua Survey/Jim Nickel			MON. WELL NO.:	
GRD. SURFACE	Below water level in Ferry Creek	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID	FI D]
0			OU3-B2-SD02-0002		Very Soft	Jet-Blk	Org SILT, few stems, roots. tr. twigs, tr. leaves, petroleum stain visible	OL	Petroleum-like odor, organic decay odor no visible asbestos fiber	10.4	1100
2			1550 S-1								
			OU3-B2-SD02-0204		Very Soft		Org SILT w/potential soil waste material and potential or suspect asbestos fibers	OL/FILL	Petroleum-like odor with olefactory; org. odor pot. Asbestos fiber	21.2	1310
4			1555 S-2					WASTE			
					Very Soft		Resembles soil manufact. sludge like waste with silt (organic) w/pot. asbestos fibers - similar to above	OI/ WASTE or WASTE	Pot. Asbestos fibers (don't appear to be org.) waste does not stick to fibers. Petroleum like odor	10.4	2545
6			1600 S-3								
7					Soft	6.5	SILT, trace fine sand, trace organic fibers	ML	no petroleum -like odor (pot. Natural)	0	140
8			1605 S-4			Dark brown					
9					Soft			ML	no petroleum-like odor (pot. natural)	0	140
			1610 S-5								

TYPE OF DRILLING RIG:	VIBRACORE SET UP	1515 HRS CORE PULLED OUT		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:		PENETRATED -9'		
METHOD OF SOIL SAMPLING:		RECOVERED - 7'		
METHOD OF ROCK CORING:		0.8' - 1 BG		
GROUNDWATER LEVELS:	SATURATED INTERVAL - 0 - 6.5'	POTENTIAL PETROLEUM IMPACT OF SAMPLE POT.		
OTHER OBSERVATIONS:	6.5 - 7' DAMP	ASBESTOS SAMPLE 2-4'	BORING NO.: B2-SD02	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SD04
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	Aqua Survey/J. Nichols			MON. WELL NO.:	
GRD. SURFACE	Below water in Ferry Creek	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID only]
	NA		OU3-B2-SD04-0002		very soft	black	S-1 Org. SILT, suspect pot-asbestos core , tr. organic roots, trace seashells, petroleum-like odor and sheen	OL/ WASTE	Petroleum-like odor and sheen, pot. asbestos fibers pot. soil waste material (sludge-like)	102-486
2			1606 S-1							
			OU3-B2-SD04-0204		very soft	black	S-2 Org. SILT, suspect pot. asbestos fibers some , trace organic fibers, leaves, roots, potential soil waste sludge-	OL/ WASTE	Petroleum-like odor strong and sheen, pot. asbestos pot. soil waste material (sludge-like)	2200-3600
4			1611 S-2				like material, phragmite fibers			
			OU3-B2-SD04-0406		soft	black	S-3 Org. SILT, similar to above w/fewer visible pot. Asbestos fibers and more organic fibers roots, twigs,	OL/ WASTE	Petroleum-like odor & sheen pot. asbestos, pot. Soil waste sludge like material not as soft as above	103-929
6			1617 S-3				Phragmite fibers			
7			OU3-B2-SD04-0607 1624 S-4		soft	black	S-4 - 6-7' Org. SILT. similar to above w/ more org. root twigs, leaves, roots and fewer pot. Asbestos fibers than above	OL/ WASTE	similar to above fewer pot. asbestos fibers visible than above	2700
							Note: Observed that the pot. asbestos fibers appear to repel any soil like material - nothing sticks to them in the silt material or waste.			

TYPE OF DRILLING RIG:		PULLED CORE @ 1425 HRS	*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:		SAMPLE INTERVAL = 2-4'	
METHOD OF SOIL SAMPLING:		PENETRATION = 7"	
METHOD OF ROCK CORING:		RECOVERY = 5.7	
GROUNDWATER LEVELS:		1' LOG = 0.8'	
OTHER OBSERVATIONS:		SATURATED ENTIRE LENGTH	BORING NO.: B2-SD04

BORING LOG FOR:	RAYMARK – OU3- FERRY CREEK			BORING NO.:	B2-SD04D
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	8-7-97
DRILLED BY (Company/Driller):	Aqua Survey/J. Nickels			MON. WELL NO.:	
GRD. SURFACE	Below water in Ferry Creek	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
					Very Soft	BL	Org. SILT, pot. asbestos fibers, some org. fibers (short, thin) pot. soil waste mixture	OL/ WASTE	Strong petroleum like odor and sheen, pot. Asbestos fibers	1.5-1648
2			1636 S-1							
					Very Soft	BL	Org. SILT, pot. soil waste material (sludge-like) some Suspect pot. asbestos fibers, saturated, org. fibers (thin,	OL/ WASTE	Strong petroleum like odor and sheen, pot. Asbestos fibers sludge like waste resemblance	165-3276
4			1643 S-2				Short fibers)			
					Soft	BL	↓ Similar to above w/pot. Asbestos soil waste material, more organic roots, twigs, leaves, stems than above	OL/ WASTE	Stiffer than above similar pot. Asbestos and petroleum like odor and sheen	1142-2500
6			1650 S-3							

TYPE OF DRILLING RIG:	VIBRACORE	**FIELD DUPLICATE LOCATION LOCATED ADJACENT TO SEDIMENT LOCATION B2-SD04**	**(1' LOG = 0.93)**
METHOD OF ADVANCING BORING:			
METHOD OF SOIL SAMPLING:		SAMPLE INTERVAL 2-4'	
METHOD OF ROCK CORING:		PULLED CORE @ 1515	
GROUNDWATER LEVELS:		PENETRATED – 6'	
OTHER OBSERVATIONS:	SATURATED	RECOVERY 5.6'	

Tetra Tech NUS, Inc.

BORING NO.: B2-SD04D

BORING LOG FOR: RAYMARK - OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: KAYLEEN JALKUT
TRANSCRIBED BY: MES
DRILLED BY (Company/Driller): Aqua Survey/J. Nickels
GRD. SURFACE: Below water in Ferry Creek
ELEVATION FROM:

BORING NO.: B2-SD05
START DATE: 8-6-97
COMPLETION DATE: 8-6-97
MON. WELL NO.:
CHECKED BY: TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID	FID]
0											
			OU3-B2-SD05-0002		Very Soft	BL	Org. SILT w/ potential waste material (sludge-like Paste) trace organic fibers, twigs	OL/ WASTE	Suspect asbestos fiber matierial - waste does not cling to them. Strong org. odor	52.2	2842
2			1730 S-1							33.5	> 3460*
			OU3-B2-SD05-0204		Very Soft		Few twigs - similar to above w/pot. Asbestos fiber Waste and other waste (sludge-like)	OL/ WASTE	No petroleum-like odor Obvious		
4			1735 S-2							19.6	> 3460
			OU3-B2-SD05-0406		Very Soft						
6			1740 S-3	7'				OL/ WASTE	Pot. asbestos. fibers	10.9	> 3460
			OU3-B2-SD05-0608		Soft		SILT, trace fine sand, trace seashells, trace organic fibers	ML	No suspect asbestos fibers visible, no petroleum-like odor Strong organic odor		
8			1745 S-4			dark brown					
9			OU3-B2-SD05-0810		Soft						
			1750 S-5				S-5				

TYPE OF DRILLING RIG: VIBRACORE SET-UP
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS: SATURATED
OTHER OBSERVATIONS:

PENETRATION - 9"
RECOVERY - 7.5'
PULLED CORE @ 1620
SAMPLE INTERVAL 0-2'
POT. ASBESTOS 0-7" FT. BGS.
* = DEFAULT MAX. SIGNAL FOR INSTRUMENT

BORING NO.: B2-SD05

Tetra Tech NUS, Inc.

BORING LOG FOR:	RAYMARK-OU3-FERRY CREEK			BORING NO.:	B2-SD06
PROJECT NO.:	N7491-0320			START DATE:	8-7-97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION: DATE:	8-7-97
DRILLED BY (Company/Driller):	Aqua Survey / J. Nickels			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	Below water in Ferry Creek & Housatonic River	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
0										
			OU3-B2-SD06-0002		Very Soft	Black	S-1 – Organic SILT, trace roots, trace leaves, some pot. Or suspect asbestos fibers, petroleum-like odor	OL/ WASTE	Sweet odor, pot. Soil waste material (sludge like) petroleum-like sheen on water in sample. Sheen too.	865.2
2			1420 S-1							
			OU3-B2-SD06-0204		Very Soft	Brown	S-2 (2-4) Org. SILT , similar to above, suspect asbestos Fibers (some) trace org. fibers, petroleum like odor	OL/ WASTE	No suspect fibers in S-3B viewed sheen too.	1051
4			1428 S-2	3.5'		Brown	S-3A (4-4.3) SILT, trace fine sand, trace seashells, trace Twigs and roots	ML		937
			OU3-B2-SD06-0406		Very soft	Black	S-3B (4.3-6) org. SILT, trace fine sand, some roots, twigs Leaf matter and pot. Asbestos fibers. Coal pieces & cunker	OL/ WASTE	Suspect fibers in S-3B petroleum-like odor/ sheen. Heavy or strong petroleum odor	312
6			1435 S-3	5.5			S-4A (6-6.5) org. SILT w/suspect asbestos fibers – similar To above no charcoal, some leaves, twigs, roots	OL/ WASTE		
			OU3-B2-SD06-0608		Very Soft	Black	S-4B (6.5-7') silty SAND some fine/med. Sand, some silt, Trace seashells	SM	No visible suspect asbestos fibers, no petroleum like odor	52.7
8			1440 S-4	7.1						
9			OU3-B2-SD06-0809 1445 S-5		Medium dense	Brown	S-5 (8-9') silty SAND – similar to above no suspect fibers Visible.	SM		

TYPE OF DRILLING RIG:	VIBRACORE SET UP	PENETRATION – 9'	SATURATED 0-3'	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:		RECOVERY – 7.1'	DAMP – 3'-7'	
METHOD OF SOIL SAMPLING:		PULLED CORE @ 1320		
METHOD OF ROCK CORING:		SAMPLE INTERVAL 0-2'		
GROUNDWATER LEVELS:		1 log = 0.8'		
OTHER OBSERVATIONS:			BORING NO.: B2-SD06	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	B2-SD07
PROJECT NO.:	N7491-0320			START DATE:	8-8-97
LOGGED BY:	KAYLEEN JULKUT	TRANSCRIBED BY:	MES	COMPLETION DATE:	8-8-97
DRILLED BY (Company/Driller):	AQUA SURVEY/ J. NICKLES			MON. WELL NO.:	
GRD. SURFACE	Below water in Ferry Creek & Housatonic River	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID]
			OU3-B2-SD08-0002		Very Soft	Black	MUCK, mostly fines., tr. suspect, pot. asbestos fibers, trace roots and twigs	OL/ MUCK	saturated; org. odor, petroleum sheen (tr.), visible trace suspect fibers	1100
2			1220 S-1							
			OU3-B2-SD08-0204	3'			S-2A (2-3') similar to above tr. pot. asbestos	OL/ MUCK		70-1400
4			1225 S-2	4'	Soft	black	S-2B (3-4') SILT, trace f/m sand, tr. root matter, tr. suspect asbestos fibers	ML	stiffer than S-2A trace,pot asbestos	
			OU3-B2-SD08-0406			brown	S-3 (4-6') SAND - mostly fine, tr. med sand, tr. org. fibers, most matter stems, brok. seashells, wood	SP	light petroleum-like odor sheen visible, saturated	0-15 bottom of
6			1230 S-3	6'					no visual suspect fibers	
			OU3-B2-SD08-0608	6.5' 7'		brown	S-4A (6-6.5') SAND, tr. silt, f/m sand, poorly graded	SP	no petroleum like odor, No visual suspect fibers	0
8			1235 S-4			Light brown	S-4B (6.5-7') sandy, GRAVEL f/m sand, some coarse sand, coarse rounded + sr gravel up to 3 in., tr. silt	GW	Saturated gravel, no Suspect fibers visible	
8.5			Not present in core barrel brought back			Yellow-brown	S-4C (7-8') sandy, GRAVEL - similar to above w/ more gravel (rounded + subrounded), w/more silt than above but still trace	GW	3 very large (~4in) cobbles	Not avail. to screen
							8-8.5' not present			

TYPE OF DRILLING RIG:	VIBRACORE SET-UP	PENETRATION - 8.5	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:		RECOVERY - 6.7'	
METHOD OF SOIL SAMPLING:		PULLED CORE @ 1015	
METHOD OF ROCK CORING:		SAMPLE INTERVAL 0-2', 4-6'	
GROUNDWATER LEVELS:		1' log = 0.8' core	
OTHER OBSERVATIONS:		BORING NO.: B2-SD07	PAGE: 1 OF 1

BORING LOG FOR:	RAYMARK - OU3- FERRY CREEK			BORING NO.:	B2-SD08
PROJECT NO.:	N7491-0320			START DATE:	8/11/97
LOGGED BY:	KAYLEEN JALKUT	TRANSCRIBED BY:	MES	COMPLETION: DATE:	8/11/97
DRILLED BY (Company/Driller):	AQUA SURVEY / J.NICKELS			MON. WELL NO.:	
GRD. SURFACE ELEVATION:	Below water in Ferry Creek & Housatonic River	ELEVATION FROM:		CHECKED BY:	TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
			OU3-B2-SD08-0002		Very soft	black	S-1 MUCH, tr. Seashells (vivalve), tr. Organic fibers, tr. Visible suspect asbestos fibers	OL MUCK	Saturated, strong pot. Asbestos H_2O odor.	108 ppm
2			1025 S-1							
			OU3-B2-SD08-0204			Black	S-2 similar to above w/tr. Fine sand or tr. Visible suspect Asbestos fibers, tr. Org. fibers	MUCK	One shell-strong H_2S odor, petroleum-like sheen, no petroleum-like odor	670-948
4			1035 S-2	4'						
			OU3-B2-SD08-0406		soft	Brown	S-3 SILT, trace fine sand, tr. Organic fibers, roots, twigs, Stems	ML	No shells, no visible suspect fibers or waste material	206-658
6			1040 S-3	6'						
			OU3-B2-SD08-0608			Black	S-4, silt some fine.med. sand, strong petroleum-like Odor, visible suspect asbestos fibers (some) tr. Org.	ML	Petroleum-like odor, strong & visible suspect fiber, petroleum-like sheen	1900-2700
8			1045 S-4	8'						
9			OU3-B2-SD08-0810 1050 S-5	8.5' sand			S-5A (8-8.5) sandy SILT, tr. To some f/m sand, some silt, Some oyster shells (bed), tr. Visible asbestos fibers	ML	Pot. Asbestos fibers, trace organic fibers - stems, roots strong petroleum odor & no visible suspect fibers, strong petroleum-like odor	1173
						Gray-Brown	S-5B (8.5-9) SAND, tr. Silt, some f/m sand, some oyster Shells (bed)	SP		

TYPE OF DRILLING RIG:	VIBRACORE SET-UP	PENETRATION - 9	Extra samples collected for Atterburg and G.S. 6.5-8.5-9' per K.O.	*Tetra Tech NUS, Inc.*
METHOD OF ADVANCING BORING:		RECOVERY - 7.5		
METHOD OF SOIL SAMPLING:		PULLED CORE @ 0830		
METHOD OF ROCK CORING:		SAMPLE INTERVAL 0-2, 4-6		
GROUNDWATER LEVELS:		1' LOG = 0.83' CORE		
OTHER OBSERVATIONS:	DUPLUCATE FOR DIOX, TOC, GS, ATTERBURG FROM SAME CORE & SAMP. INTERVAL (0-2")(1300 HRS)		BORING NO.: B2-SD08	PAGE: 1 OF 1

BORING LOG FOR: RAYMARK – OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: KAYLEEN JALKUT
DRILLED BY (Company/Driller): AQUA SURVEY/ JIM NICKELS
GRD. SURFACE: Below water in Ferry Creek & Housatonic River

TRANSCRIBED BY: MES
ELEVATION FROM:

BORING NO.: B2-SD09
START DATE: 8/06/97
COMPLETION DATE: 8/06/97
MON. WELL NO.:
CHECKED BY: TD

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID]
			OU3-B2-SD09-0002			Gray-Black	S-1 SAND, mostly fine sand, tr. med sand, tr. silt, some shells	SP	Oyster shells - bed, clam shells - bed	36.6 ppm
2			1255 S-1							
			OU3-B2-SD09-0204			Gray-Black	S-2A (2-3.2') SAND, tr. silt, similar to above tr. twigs	SP	Similar shells w/ razor clams	17.0
4			1305 S-2		Soft	Dark Brown	S-2B (3.2-4') SILT, tr. fine sand, tr. org fibers, no Shells	ML	organic odor (decay) fail ribbon test, non plastic	39.3
			OU3-B2-SD09-0406			Dark brown	S-3 SILT, tr. fine sand and tr. org. fibers, no shells	ML	Organic odor (decay) Can roll out 1/4 in. w/o breaks	56.1
6			1320 S-3		Soft					
			OU3-B2-SD09-0608		Soft	Dark Brown	S-4 SILT, tr. fine sand, tr. org. fibers, similar to above	ML	Can't roll out 4 1/8 rapid Reach on to wet test	15.4
8			1325 S-4						↓	
			OU3-B2-SD09-0810			Dark brown	S-5 SILT, similar to above	ML		17.2
10			1340 S-5							

TYPE OF DRILLING RIG: VIBRACORE RIG
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

SAMPLES FROM 0-2, 4-6
10' CORE W/8' RECOVERY DUE TO COMPACTION/COMPRESSION
PER KO 2' = 1.6 OF BAG
0.8' = 1 FT OF CORE
1150 HRS CORE PULLED OUT

BORING NO.: B2-SD09

Tetra Tech NUS, Inc.

BORING LOG FOR: RAYMARK - OU3- FERRY CREEK
PROJECT NO.: N7491-0320
LOGGED BY: KAYLEEN JALKUT
DRILLED BY (Company/Driller): AQUA SURVEY/J. NICKELS
GRD. SURFACE: Below water in Ferry Creek & Housatonic River

TRANSCRIBED BY: MES
ELEVATION FROM:

BORING NO.: B2-SD10
START DATE: 8/07/97
COMPLETION DATE: 8/07/97
MON. WELL NO.:
CHECKED BY: TD

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID FID]	
0			OU3-B2-SD10-0002		Very Soft	Black	Org. SILT, trace fine sand, oyster shells (some), some roots, twigs	OL	Shell bed on top, no Petroleum-like odor, org. decay odor	5	0
2			1135 S-1								
			OU3-B2-SD10-0204	2.0'		Black	S-2A (2.0-2.2') silty SAND - fine sand, tr. med. sand, oyster shells tr. org. fibers	SM	Org. odor, no petroleum Like odor	23.2	0
4			1140 S-2			brown	S-2B (2.2-5') SILT trace org. fibers, tr. fine sand	ML	Damp, org. decay odor, no petroleum-like odor	14.8	0
5			OU3-B2-SD10-0405								
			1145	EOB							
							Note: no visible pot. or suspect asbestos fibers viewed, no waste material obvious.				

TYPE OF DRILLING RIG: VIBRACORE RIG
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

PENETRATED - 5'
RECOVERY - 4.3'
PULLED CORE @ 1005
SAMPLE INTERVAL 0-2, 2-4 +
SATURATED TOP TO 2.2' DAMP 2.2-END
0.9' CORE = 1' LOG

Tetra Tech NUS, Inc.

BORING NO.: B2-SD10

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: BC-SB8
DATE START: 04/26/1994	DEPTH TO WATER: --	LOGGED BY: JM	GROUND EL.: 7.30
DATE COMPLETED: 04/26/1994	DATE & TIME: --/--/19-- --	CHECKED BY:	TOTAL DEPTH: 10.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	S-1	2 5 10 11 / 6 6 6 6	24	19	Interval= 0002' Fill material.	S-1A (0-10in) SAND and GRAVEL, trace silt, trace plant debris, poorly graded, dry, brown. S-1B (10-15in) SAND and SILT, poorly graded, mod. plasticity, trace gravel, brown, trace lime-green dry. S-1C (15-19in) SILT, mod plasticity, some fibrous hair-like material, ruby red, dry.	
	2.0	S-2	5 5 6 6 / 6 6 6 6	24	23	Interval= 0204' Fill material.	S-2A (0-11in) SILT, mod plasticity, fibrous hairs, mottled colors, trace hay, dry. S-2B (11-23in) SAND, little roots, wood, trace gravel, trace hay, dry, black.	
	4.0	S-3	3 12 8 9 / 6 6 6 6	24	18	Interval= 0406' Possible nat. material.	S-3A (0-7in) silty SAND, poorly graded, low plas. trace gravel, fibrous hairs, wood, brown/black, dry. S-3B (7-18in) SAND, well graded, trace gravel, trace silt, gray. Tent. contact with nat. mat. based on this sample.	SW
	6.0	S-4	2 3 5 5 / 6 6 6 6	24	12	Interval= 0608' No fill viewed.	S-4 (0-12in) SAND, well graded, trace gravel, trace silt, dry, brown.	SW
	8.0	S-5	7 7 7 5 / 6 6 6 6	24	11	Interval= 0810' No fill viewed. Pot. water tab.	S-5 (0-11in) SAND, poorly graded, trace gravel, some silt, trace wood, wet, brown. EOB @ 10 ft bgs.	SP
	10.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring with 4.25in ID HSA,0-8ft. Perform continuous sampling in 2ft increments, 0-10ft. Advanced 3in barrel w/ 140lb hammer. Screen samples for: Pb,Cu,PCB, Asbestos. NR/NM= Not recorded or measured. Tentative contact with natural material at 4-6ft bgs based on recovered sample.

ACAD NAME: RAYMARK\BORINGS_ALTERED\BC-SB8.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: BC-SB8A
DATE START: 05/03/1994	DEPTH TO WATER: --	LOGGED BY: JM	GROUND EL.: 7.30
DATE COMPLETED: 05/03/1994	DATE & TIME: --/--/19-7 --	CHECKED BY:	TOTAL DEPTH: 18.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	0.0	S-X				SEE LOG FOR BC-SB8.		
	2.0	S-Y				SEE LOG FOR BC-SB8.		
	6.0	S-Z				SEE LOG FOR BC-SB8.		
	8.0	S-2	6 6 9 10 / 6 6 6 6	24	21	Interval= 0810' No obvious fill	S-2 (0-21in) SAND, poorly graded, wet, dk brown.	SP
	10.0	S-3	8 8 10 9 / 6 6 6 6	24	24	Interval= 1012' No obvious fill	S-3 (0-24in) SAND, poorly graded, trace gravel, wet, dk brown.	SP
	12.0	S-4	6 8 16 21 / 6 6 6 6	24	20	Interval= 1214' No obvious fill	S-4A (0-6in) SAND, similar to S-3.	SP
							S-4B (6-14in) SAND, well graded, trace gravel, bedding, wet, red/brown.	SW
							S-4C (14-20in) SAND and GRAVEL, wet, red/brown.	SW
	14.0	S-5	10 41 75 50 / 6 6 6 6	24	24	Interval= 1416' No obvious fill	S-5A (8in) SAND, poorly graded, wet, gray/brown, wash?	SP
							S-5B (8in) SAND and GRAVEL, wet, red/brown.	SW
							S-5C (8in) SAND and GRAVEL, similar to S-5B, w/>% fine sand, gravel.	SW

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
⊻ - Natural groundwater table

NOTES:

Advanced boring with 4.25inID HSA,0-16ft. Perform continuous sampling in 2ft increments, 6-18ft. Advanced 3in barrel w/ 140lb hammer. Screen samples for: Pb,Cu,PCB, Asbestos. NR/NM= Not recorded or measured. No obvious fill logged. BC-SB8A @ same location as BC-SB8. See BC-SB8 for soil descriptions 0-6ft bgs.

ACAD NAME: RAYMARK\BORINGS_ALTERED\BC-SB8AA.DWG (8/25/99)

BORING LOG

BROWN & ROOT ENVIRONMENTAL

PROJECT NO: 0890	LOCATION: STRATFORD, CT	DRILLED BY: PENN DRILLING CO.	BORING NO: BC-SB8A
DATE START: 05/03/1994	DEPTH TO WATER: --	LOGGED BY: JM	GROUND EL.: 7.30
DATE COMPLETED: 05/03/1994	DATE & TIME: --/--/19-7 --	CHECKED BY:	TOTAL DEPTH: 18.00

ELEV. IN FEET	DEPTH IN FEET	SAMPLE TYPE-NO.	BLOWS PER 6"	PEN. in.	REC. in.	REMARKS ON ADVANCE OF BORING	SOIL & ROCK DESCRIPTION	U.S.C.S.
	16.0	S-6	21 6 48 6 75 6 48 6	24	14	Interval= 1618' No obvious fill	S-6 (14in) SAND and GRAVEL, well graded, wet, red/brown. Note: Top 10in = probable wash, see S-5A. EOB @ 18ft bgs.	SW
	18.0							

LEGEND:

TYPE-NO. - Type of Sample
C - Rock core sample
S - Split barrel sample
BLOWS PER 6" - 140 lb. hammer falling 30" to drive a split barrel sampler: coring time per foot of rock
PEN - Penetration length of sampler
REC - Length of sample recovered
▽ - Natural groundwater table

NOTES:

Advanced boring with 4.25inID HSA,0-16ft. Perform continuous sampling in 2ft increments, 6-18ft. Advanced 3in barrel w/ 140lb hammer. Screen samples for: Pb,Cu,PCB, Asbestos. NR/NM= Not recorded or measured. No obvious fill logged. BC-SB8A @ same location as BC-SB8. See BC-SB8 for soil descriptions 0-6ft bgs.

ACAD NAME: RAYMARK\BORINGS_ALTERED\BC-SB8AB.DWG (8/25/99)

HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-H1B01 -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 0 TO 0.5 FT feet

Sample Date & Time: 08/17/94 1110 hrs

Samplers: K. O'NEILL, B. CLEAVER, T. DORGAN, D. MACDOUGALL, J. MELLO, D. CHISHOLM, T. TOWNSEND

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- Soil
- ✓ Sediment
- Lagoon/Pond
- ✓ Grab
- Composite
- Trip Blank*
- Rinsate Blank*
- Field Duplicate Collected
- Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
BLACK SILTY SAND

SAMPLE DATA/REMARKS:
~~MICROTIP = 0.0 ppm~~ [illegible] 8/17
MICROTIP = 0.0 ppm

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO.	EPA TAG NOS.
VOC			—	—	
SVOC			—	—	
METALS		—		—	
PEST/PCB		—	—		
DIOXIN		—	—		
TOC		—	—		
GRAIN SIZE		—	—		

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB02-01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR / HAND AUGER / SHOVEL~~ / TROWEL

Depth Sampled: 0 TO 0.5 FT feet

Sample Date & Time: 08/17/94 1135 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN, D. MACDOUGALL, J. MELLO, B. GHISHOLM~~ T. TOWNSEND

Data Recorded By: (Signature) [illegible]

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify): _____

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
BLACK SILTY SAND.

SAMPLE DATA/REMARKS:
MICROTIP = 0.0 ppm

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 817K4	EPA TAG NOS.
VOC			—	—	
SVOC			—	—	
METALS		—		—	
PEST/PCB		—	—		
DIOXIN		—	—		
TOC		—	—		
GRAIN SIZE		—	—		

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB03A -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR / HAND AUGER / SHOVEL / TROWEL~~

Depth Sampled: 0 - 0.5 FT feet

Sample Date & Time: 08/17/94 1155 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN, D. MACDOUGALL, J. MELLO, D. CHISHOLM~~ T. TOWNSEND

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- [ ] Soil
- [x] Sediment
- [ ] Lagoon/Pond
- [x] Grab
- [ ] Composite
- [ ] Trip Blank*
- [ ] Rinsate Blank*
- [ ] Field Duplicate Collected
- [ ] Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
DK. BROWN SILTY SAND

SAMPLE DATA/REMARKS:
HICROTIP = 0.0 PPM

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 817KU	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD- HB04A -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR / HAND AUGER~~ / SHOVEL / ~~TROWEL~~

Depth Sampled: 0 TO 0.5 FT feet

Sample Date & Time: 08/17/94 1215 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN, D. MACDOUGALL, J. MELLO, D. CHISHOLM~~ T. TOWNSEND

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- [ ] Soil
- [x] Sediment
- [ ] Lagoon/Pond
- [x] Grab
- [ ] Composite
- [ ] Trip Blank*
- [ ] Rinsate Blank*
- [ ] Field Duplicate Collected
- [ ] Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) BROWN SILTY SAND. ORGANIC MATTER PRESENT

SAMPLE DATA/REMARKS:

MICROTIP = 0.0 PPM

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. KO 817414	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB05-01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~RONAR / HAND AUGER / SHOVEL~~ / TROWEL

Depth Sampled: 0 - 0.5 ft feet

Sample Date & Time: 08/17/94 1535 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN~~ D. MACDOUGALL, I. TOWNSEND, ~~J. MELLO, D. GRISHOM~~

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- [ ] Soil
- [x] Sediment
- [ ] Lagoon/Pond
- [x] Grab
- [ ] Composite
- [ ] Trip Blank*
- [ ] Rinsate Blank*
- [ ] Field Duplicate Collected
- [ ] Other (Specify): _____

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
DK. BROWN SILTY SAND

SAMPLE DATA/REMARKS:
MICROTIP = 0.0 ppm

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. V0 817K4	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD- H006 -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR / HAND AUGER / SHOVEL~~ / TROWEL

Depth Sampled: 0 TO 0.5 FT feet

Sample Date & Time: 08/17/94 [illegible] 0 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN, D. MCDOUGALL, J. [illegible], D. CHISHOLM~~ T. TOWNSEND

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ✓ Soil
- ✓ Sediment
- ✓ Lagoon/Pond
- ✓ Grab
- ✓ Composite
- ✓ Trip Blank*
- ✓ Rinsate Blank*
- ✓ Field Duplicate Collected
- ✓ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
BROWN SILTY SAND WET

SAMPLE DATA/REMARKS:
MICROTIP = 0.0 ppm

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO.	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB07 -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR / HAND AUGER / SHOVEL~~ / TROWEL

Depth Sampled: 0 TO 0.5 feet

Sample Date & Time: 08/17/94 1710 hrs

Samplers: ~~K. O'NEILL, B. CLEAVER, T. DORGAN, D. MACDOUGALL, J. MELLO, D. CHISHOLM~~ T. TOWNSEND

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- [ ] Soil
- [✓] Sediment
- [ ] Lagoon/Pond
- [✓] Grab
- [ ] Composite
- [ ] Trip Blank*
- [ ] Rinsate Blank*
- [ ] Field Duplicate Collected
- [ ] Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
DK. BROWN SILTY SAND; ORGANIC MATTER

SAMPLE DATA/REMARKS:
MICROTIP = 0.0 ppm

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 8/17/94	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB01-01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 0.1'ft - 0.6'ft feet

Sample Date & Time: 11/10/94 1338 hrs

Samplers: K. O'NEILL, D. HOLDEN, T. DORGAN, T. TOWNSEND, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ✓ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) Black wet fine Sand & Silt trace grass roots

SAMPLE DATA/REMARKS: NDThing detected on PID. ~~Trace grass roots~~

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 817K4	EPA TAG NOS.
VOC	Same Sample				
SVOC	Log Sheet				
METALS	from SD13				
PEST/PCB	sediment				
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-11B02 -01

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 0.0 - 0.5 feet

Sample Date & Time: 11/10/94 1610 hrs

Samplers: K. O'NEILL, T. HOLDEN, T. DORGAN, T. TOWNSEND, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) Fines, little organic debris, black

SAMPLE DATA/REMARKS:

K. O'neil OK'd soil sediment.
Tide coming in

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 8/17/94	EPA TAG NOS.
VOC			—	—	
SVOC			—	—	
METALS		—		—	
PEST/PCB		—	—		
DIOXIN		—	—		
TOC		—	—		
GRAIN SIZE		—	—		

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB3A -02

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 0 - 4" feet

Sample Date & Time: 11/1/94 1540 hrs

Samplers: K. O'NEILL, T. HOLDEN, T. DORGAN, T. TOWNSEND, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) Kevin O'Neill

TYPE OF SAMPLE: (Check all that apply)

- ✓ Soil
- ✓ Sediment
- Lagoon/Pond
- ✓ Grab
- Composite
- Trip Blank*
- Rinsate Blank*
- Field Duplicate Collected
- Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:

Organic silt w/ fine sand
Sample areas are spotty, composited small areas w/in 3' of each other
Resample location 20' N/NE of 3

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. VO 8/17/94	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC. 11/14/94

Sample Number: RM - SD - ~~HB04A~~ 100 -02
HB4A

HNUS Project Job No.: 0890

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 0 - 0.5 feet

Sample Date & Time: 11/14/94 1430 hrs

Samplers: K. O'NEILL, T. HOLDEN, T. DORGAN, T. FOLLON, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- [ ] Soil
- [x] Sediment
- [ ] Lagoon/Pond
- [x] Grab
- [ ] Composite
- [ ] Trip Blank*
- [ ] Rinsate Blank*
- [ ] Field Duplicate Collected
- [ ] Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) FINES AND ORGANICS debris.

SAMPLE DATA/REMARKS:
No H_2O Sample @ ~~HB04A~~ HB4A location

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. NO 8/7/94	EPA TAG NOS.
VOC			—	—	
SVOC			—	—	
METALS		—		—	
PEST/PCB		—	—		
DIOXIN		—	—		
TOC		—	—		
GRAIN SIZE		—	—		

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HBØ9-02

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 00-02 feet

Sample Date & Time: 11/14/94 1545 hrs

Samplers: K. O'NEILL, J. HOLDEN, T. DORGAN, T. TOWNSEND, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) Joseph J. Mello

TYPE OF SAMPLE: (Check all that apply)

- ✓ Soil
- ✓ Sediment
- Lagoon/Pond
- ✓ Grab
- Composite
- Trip Blank*
- Rinsate Blank*
- Field Duplicate Collected
- Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
SAND and SILT, trace shells, moist

SAMPLE DATA/REMARKS:
No Surface H_2O sample taken @ HBØ9 Location

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER DAS NO. V0 817644	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890

Sample Number: RM-SD-HB11 -02

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR / HAND AUGER / SHOVEL / TROWEL

Depth Sampled: 00 - 0.4 feet

Sample Date & Time: 11/16/94 1445 hrs

Samplers: K. O'NEILL, ~~T. HOLDEN~~, D. MacDougall, T. Townsend, J. MELLO, D. CHISHOLM

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ✓ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
OOZE/FINES little organics

SAMPLE DATA/REMARKS:
Tide going out

ANALYSIS:	SEE LOGBOOK BOTTLE LOT NO.	TRAFFIC REPORT NO. ORGANIC	TRAFFIC REPORT NO. INORGANIC	EPA SAS IDENTIFIER ~~DAS~~ NO.	EPA TAG NOS.
VOC					
SVOC					
METALS					
PEST/PCB					
DIOXIN					
TOC					
GRAIN SIZE					

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB16 -03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR/HAND AUGER/SHOVEL/TROWEL

Depth Sampled: 0-6" ~~feet~~

Sample Date & Time: 04/20/95 ~~to~~ 1555 hrs

Samplers: D. CHISOLM, T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. YELLO, D. MACDOUGALL

Data Recorded By: (Signature) Gary Glennon

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

DUPLICATE TIME=

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) moist silt/clay w/organics

SAMPLE DATA/REMARKS:

no surface water at sample location at time of sampling (near low tide)

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	G4285040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB17-03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR/HAND AUGER/SHOVEL/TROWEL

Depth Sampled: 0 - 6" ~~feet~~

Sample Date & Time: 04/20/95 1050 hrs

Samplers: D. CHISOLM, T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. KELLO, D. MACDOUGALL

Data Recorded By: (Signature) Gary D. Glennon

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

DUPLICATE TIME=

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
moist soil

SAMPLE DATA/REMARKS:
<1" surface water at location at time of sample collection (near low tide)

ANALYSIS:	BOTTLE LOT NO.				
VOC	D0298010				
SVOC	G4285040/G9034010				
METALS	↓				
PEST/PCB	↓				
DIOXIN	↓				
TOC	↓				
GRAIN SIZE	0204801F				

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SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB18-03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR/HAND AUGER/SHOVEL/TROWEL

Depth Sampled _____ feet

Sample Date & Time: 04/20/95 1140 hrs

Samplers: D. CHISOLM, T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, D. MACDOUGALL, J. YELLO

Data Recorded By: (Signature) Mary Glennon

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

DUPLICATE TIME=

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) wet silt/clay/organics (OOZE)

SAMPLE DATA/REMARKS:

<1" surface water at sample location at time of sample collection (near low tide)

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	G4285040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB19-03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR/HAND AUGER/SHOVEL/TROWEL

Depth Sampled: 0-6" ~~feet~~

Sample Date & Time: 04/20/95 1135 hrs

Samplers: D. CHISOLM, T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. KELLY, D. MACDOUGALL

Data Recorded By: (Signature) Gary Glennon

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

DUPLICATE TIME=

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) moist silt / some vegetation

SAMPLE DATA/REMARKS:

No surface water at location at time of sample collection (near low tide)

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	5428S040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB20 -03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR/HAND AUGER/SHOVEL~~/TROWEL

Depth Sampled: 0-0.5' feet

Sample Date & Time: 04/19/95 1150 hrs ~~D. MACDOUGALL~~

Samplers: ~~J. CHISOLM~~, T. DORGAN, J. HOLDEN, ~~G. GREENWOOD, K. O'DONNELL, J. HELLO~~

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite

DUPLICATE TIME=

- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
SILTY FINE SAND. GREY TO BLACK - WET

SAMPLE DATA/REMARKS:
- SAMPLED ~5-7' FROM STAKE, IN CHANNEL. - NO PID IN USE.
VERY LITTLE ORGANICS TO BE REMOVED.

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	5428S040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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HALLIBURTON NUS
Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB21 -03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~PONAR/HAND AUGER/SHOVEL/~~ TROWEL

Depth Sampled 0.0-0.5' feet

Sample Date & Time: 04/19/95 1110 hrs

Samplers: ~~J. CHISOLM~~, T. DORGAN, J. HOLDEN, ~~G. GLENNON, K. O'LEARY, J. YEAGER~~, D. MACDOUGALL

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Composite

DUPLICATE TIME=

- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate Collected
- ___ Other (Specify):

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.) WET
SILTY SAND FINING OFFWARD - GREY TO BLACK.

SAMPLE DATA/REMARKS:

- NOT AS MUCH ORGANIC MATERIAL ON TOP, EASILY PICKED OFF.
- SAMPLED @ ~ 5' IN CLOSER TO SHORE FROM STAKE. - NO PID DUE TO RAIN.

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	G4285040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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Environmental Corporation

SEDIMENT

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

HNUS Project Job No.: 0890-0430

Sample Number: RM-SD-HB22 -03

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: PONAR/HAND AUGER/SHOVEL/TROWEL

Depth Sampled: 0.25-0.5' ~~feet~~

Sample Date & Time: 04/19/95 1030 hrs

Samplers: ~~D. MacDougall~~ ~~D. CHISOLM~~, T. DORGAN, J. HOLDEN, ~~G. GLENNON~~, ~~K. O'Hara~~, ~~J. Hello~~

Data Recorded By: (Signature) [signature]

TYPE OF SAMPLE: (Check all that apply)

	Soil		Trip Blank*
✓	Sediment		Rinsate Blank*
	Lagoon/Pond		Field Duplicate Collected
✓	Grab		Other (Specify):
	Composite		

DUPLICATE TIME=

*Include sample source & lot no.

Description: (Sand, Clay, Dry, Moist, Wet, Etc.)
SILTY SAND GREY TO BLACK - WET

SAMPLE DATA/REMARKS:

SKIMMED THE TOP 0.25' FROM LOCATION PRIOR TO SAMPLING, TO REMOVE AREA OF HEAVY ORGANIC MATERIAL (ROOTS, & CLAM SHELLS).
- NO PID IN USE DUE TO HEAVY RAIN.
- SAMPLE TAKEN ON OPPOSITE BANK FROM STAKE, DUE TO RISING TIDE.

ANALYSIS:	BOTTLE LOT NO.
VOC	D0298010
SVOC	G4285040/G9034010
METALS	↓
PEST/PCB	↓
DIOXIN	↓
TOC	↓
GRAIN SIZE	0204801F

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SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.
Sample ID: RM-SD-H301 -04

HNUS Job No./PMS 0890-0430
Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ECKMAN / ~~PONAR / TROWEL / SHOVEL / CORING~~
Depth Sampled: 0-6 feet
Sample Date & Time: 08/9/95 1015 hours Dup _____ hours
Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, D. MACDOUGALL

Data Recorded By: J. Pillion
Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:

NOTE: VOA - SMALL BOTTLES ; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050	23.8	26.5	7.09		8	17
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

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SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.
Sample ID: RM-SD-HB02 -04

HNUS Job No./PMS 0890-0430
Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ECKMAN / PONAR / ~~TROWEL~~ / ~~SHOVEL~~ / ~~CORING~~
Depth Sampled: _____ feet
Sample Date & Time: 08 / / 95 1110 hours Dup _____ hours
Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, D. MACDOUGALL

Data Recorded By: J. Pillion
Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:

NOTE: VOA - SMALL BOTTLES ; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050	24.9	27.7	7.10		5	18
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

Halliburton NUS CORPORATION

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.
Sample ID: RM-SD-HB06 -04

HNUS Job No./PMS 0890-0430
Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~ECKMAN/ PONAR~~/ TROWEL/~~SHOVEL/CORING~~
Depth Sampled: _____ feet
Sample Date & Time: 08/8/95 14:10 hours Dup ____ hours
Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, D. MACDOUGALL

Data Recorded By: J. Pillion
Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:

NOTE: VOA - SMALL BOTTLES ; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050	26.9	280@X100	6.09			19
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

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SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.
Sample ID: RM-SD-HB8A -04

HNUS Job No./PMS 0890-0430
Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~ECKMAN/ PONAR/ TROWEL/SHOVEL/~~ CORING
Depth Sampled: _____ feet
Sample Date & Time: 08/9/95 1730 hours Dup ~~hours~~
Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, D. MACDOUGALL, S. Svirsky

Data Recorded By: Gary O Glennon
Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:
New location - staked ~ 36' west of stake for HB08 (due to veg. mat at HB08) No. SW collected.
NOTE: VOA - SMALL BOTTLES; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050						
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

Halliburton NUS CORPORATION

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.

Sample ID: RM-SD-HB09 -04

HNUS Job No./PMS 0890-0430

Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~ECKMAN~~/ PONAR/ TROWEL/ ~~SHOVEL~~/ ~~CORING~~

Depth Sampled: 0-0.5 feet

Sample Date & Time: 08/9/95 1645 hours Dup ___ hours

Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, D. MACDOUGALL, S. Swingley

Data Recorded By: [signature] Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:

Found stake. No SW collected

NOTE: VOA - SMALL BOTTLES ; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050						
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

Halliburton NUS CORPORATION

SAMPLE LOG SHEET - SOLID PHASE

Site Name: RAYMARK INDUSTRIES, INC.
Sample ID: RM-SD-HB11 -04

HNUS Job No./PMS 0890-0430
Replicate/Duplicate No.: _____ (if applicable)

Sample Method: ~~ECKMAN~~ / ~~PONAR~~ / TROWEL / ~~SHOVEL~~ / ~~CORING~~
Depth Sampled: 0-0.5 feet
Sample Date & Time: 08/19/95 1530 hours Dup ____ hours
Sampler(s): T. DORGAN, J. HOLDEN, G. GLENNON, K. O'NEILL, J. PILLION, ~~D. MACDOUGALL~~ S. SWINSKY

Data Recorded By: Gary Glennon
Signature

TYPE OF SAMPLE: (Check all that apply)

- ___ Soil
- ✓ Sediment
- ___ Lagoon/Pond
- ✓ Grab
- ___ Trip Blank*
- ___ Rinsate Blank*
- ___ Field Duplicate collected
- ___ Other (Specify): _____

(Include sample source & lot no.)

Description: (Sand, Clay, Muck, Peat, Dry, Moist, Wet, Etc.)

SAMPLE DATA/REMARKS:
Near low tide. ~1 inch of water in channel. No SW readings taken. No SW sample collected. Stake is in reflagged w/orange

NOTE: VOA - SMALL BOTTLES ; AVS/SEM - TALL BOTTLES

ANALYSIS	BOTTLE LOT NO.	TEMP (oC)	SPECIFIC CONDUCTIVITY (mmhos/cm	pH STANDARD UNITS	TURBIDITY NTU	DISSOLVED OXYGEN (mg/L)	SALINITY
VOA	G4074050						
SVOC							
PEST/PCB							
METALS							
DIOXIN							
TOC							
GRAIN SIZE	0204801F						
AVS/SEM	D0298010						

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/8/96 TIME: 0730
CORE LOCATION: SP08
LOGGED BY: K. JALKUT
TOTAL CORE RECOVERY: 10.96'

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 17.4 (includes SW)
DEPTH OF WATER: 1.5 FT at 1423 on 11/07/96
TOTAL SEDIMENT DEPTH CORED: 15.9 FT
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 0.4	Highly organic sapric peat (muck), very loose, less than 20% fibrous matter approximately, dark brown to black, saturated and soupy	RM-SD-SP08-S01 0 - 0.4 FT	Collected extra volume with Eckman sampler for analyses
1.9	Hemic peat more fibrous texture (approximately 50 - 60% fibrous texture), brown, presence of few (<10%) twigs, more firm than S01, saturated	RM-SD-SP08-S02 0.4 to 1.9 FT	Strong hydrogen sulfide odor when core was opened
3.4 4.9	Similar to above, hemic peat, highly organic soil approximately 70% fibrous matter, orange-brown, saturated, presence of few (~15%) twigs up to 3 inches length 1/4 in diam., leaf matter	RM-SD-SP08-S03 1.9 to 3.4 FT RM-SD-SP08-S04 3.4 to 4.9 FT	
10.96	Sapric peat, very soupy, no texture, dark orange-brown to black, loose 20% fiber	RM-SD-SP08-S05 8.5 to 10 FT	~1 inch at bottom not sampled Not enough volume for dioxin, TOC filled contained by order of priority
		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

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Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/08/96 TIME: 1000
CORE LOCATION: SP09
LOGGED BY: K. JALKUT
TOTAL CORE RECOVERY: 13.95'

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 16.95 (includes SW)
DEPTH OF WATER: 2.0 FT at 08:30 on 11-8-96
TOTAL SEDIMENT DEPTH CORED: 14.95 FT
PHOTO TAKEN? YES NO #4 and #5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 – 0.2	Highly organic sapric soil, muck, loose, saturated, little fibrous material, dark black, soupy	RM-SD-SP09-S01 0 - 0.2 FT	Strong hydrogen sulfide odor when core was opened
0.2 – 1.7	Hemic peat - more fibrous texture than S01 (less than 50% fibers) dark brown, red-brown, saturated, twigs > 1/8 inch diameter plus 3 inches length silt visible	RM-SD-SP09-S02 0.2 to 1.7 FT	TAL metals - no TCLP metals no asbestos
1.7 – 3.2	Hemic peat - approximately 50% or more fibrous texture, little to some silt, saturated, dark red/orange brown, few twigs or wood pieces up to 1/2 inch length, loose but not soupy	RM-SD-SP09-S03 1.7 to 3.2 FT	
3.2 – 4.7	Hemic peat - saturated, dark brown to red-brown, leaves, twigs, wood fragments, some silt, approximately fibers 60%, loose but not soupy. Wood fragments up to 2-3 inches length.	RM-SD-SP09-S04 3.2 to 4.7 FT	
4.7 – 6.5	Hemic peat, fibous texture, some silt, saturated very dark red/brown, large (3 inches x 3/4 inch width) twig/branch, >50% fibrous material, loose but not soupy, twigs	5 - 6.5 FT	Not sampled

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/08/96 TIME: 1000
CORE LOCATION: SP09
LOGGED BY: K. JALKUT
TOTAL CORE RECOVERY: 13.95'

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 16.95 (includes SW)
DEPTH OF WATER: 2.0 FT at 08:30 on 11-8-96
TOTAL SEDIMENT DEPTH CORED: 14.95 FT
PHOTO TAKEN? YES NO #4 and #5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
6.5 – 8.0	Hemic peat, similar to above with more evidence of wood pieces, up to 4 or 5 inch length, some silt, red brown to black, loose, but not soupy, >50% fibrous material by vol., twigs	6.5 - 8 FT	Not sampled
8.0 – 8.5	Hemic peat similar to above with less large pieces of wood, small pieces of wood up to 1.5 inches, fibrous material ~50%, some silt, loose, not soupy, twigs, leaf matter	8 - 8.5 FT	Not sampled
8.5 – 10.0	Hemic peat, saturated, dark brown to red brown, >50% fibrous material (organic), loose not soupy, presence of twigs up to 1/4"/1/2" diam., 2-3 in length leaf matter, plant roots	RM-SD-SP09-S05 8.5 - 10 FT	
10.0 – 13.95	Highly org soil, hemic peat, similar to above	EOR	Not sampled

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/08/96 TIME: 1410
CORE LOCATION: SP10
LOGGED BY: K. JALKUT
TOTAL CORE RECOVERY: 10.5'

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 19.07 FT (includes SW)
DEPTH OF WATER: 2.07 FT at 11:26 on 11-8-96
TOTAL SEDIMENT DEPTH CORED: 17.0
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 – 0.5	Highly organic sapric soil - muck, very soupy fibrous <20%, saturated twigs (few), mostly silt	RM-SD-SP10-S01 0 - 0.5 FT	Duplicate #1, all analyses, used Eckman for extra volume No PID
0.5 – 2.0	Hemic peat - fibrous >50%, little silt (15%) brown/red to brown, twigs 2-3 in long/1/4" diam, fibers interwoven and thready (mat-like), saturated, soft but not soupy.	RM-SD-SP10-S02 0.5 - 2 FT	Strong hydrogen sulfide odor when core was opened
2.0 – 3.5	Hemic peat similar to above less thready interwoven fibers >50% little silt (15%) twigs, red-brown to dark brown satuated soft but not soupy	RM-SD-SP10-S03 2 - 3.5 FT	
3.5 – 5.0	Hemic peat - more wood fragments than S02, less fibers, more twigs, dark red brown, saturated, soft but not soupy	RM-SD-SP10-S04 3.5 - 5 FT	
5.0 – 6.5	Fibric peat - fibrous, interwoven, little to few silt (10-15%), twigs up to 3 inches x 1/4 in diam, dark red/brown, saturated, softer than above fibers are occassionally mat-like		Not sampled
6.5 – 8.5	Hemic peat - fibrous, silt up to 25%, saturated, very soft with wood fragments, dark brown		Not sampled

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/08/96 TIME:
CORE LOCATION: SP10
LOGGED BY: K. JALKUT
TOTAL CORE RECOVERY: 10.5'

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 19.07 FT (includes SW)
DEPTH OF WATER: 2.07 FT at 11:26 on 11-8-96
TOTAL SEDIMENT DEPTH CORED: 17.0
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
8.5	Sapric peat - some fibrous material up to 8.8' very soupy, dark brown, black, muck below 8.8' red-brown, saturated waterery, org odor	RM-SD-SP10-SP05 8.5 - 10 FT	Priority analyses only, not enough volume Asbestos TAL metals SVOC PCB/Pest only
10.1	Long fibrous roots, dark brown, woody roots, 1/4 to 1/2 inch diameter, apparent historic shrub layer	10.1 - 10.5'	No recovery beyond root wad, not sampled
10.5		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 0800
TOTAL CORE DEPTH: 18.1 FT (includes SW)
CORE LOCATION: SP11
DEPTH OF WATER: 3.2 FT at 14:35 on 11-10-96
LOGGED BY: K. O'NEILL
TOTAL SEDIMENT DEPTH CORED: 14.90
TOTAL CORE RECOVERY: ~11', loose bottom
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 – 0.4	Organic sapric soil - muck, dark black/brown, little plant fiber	RM-SD-SP11-S01 0 - 0.4 FT	Grain size, duplicate, MS/MSD with exception of asbestos, grain size
0.4 – 1.9	Hemic peat - dark brown/black H_2S odor throughout core, saturated, some small tree/shrub branch material throughout core	RM-SD-SP11-S02 0.4 - 1.9 FT	TAL metals, not TCLP No asbestos
1.9 – 3.4	Fibric peat brown/orange brown	RM-SD-SP11-S03 1.9 - 3.4 FT	Strong hydrogen sulfide odor when core was opened
3.4 – 4.9	Hemic peat to 6.4' gradual shift in fiber content to looser sapric peat, dark brown	RM-SD-SP11-S04 3.4 - 4.9 FT	TAL metals, not TCLP No asbestos
4.9 – 6.4			
6.4 – 8.7	Sapric peat, dark brown	RM-SD-SP11-S05 7.5 - 9 FT	
8.7 – 9.0	~4" of root/stem material mixed with material resembling *Spartina patens*		Not sampled
9.0 – 15.6	Very liquid sapric peat/muck to bottom @ 15.6' very little material for sampling		Not sampled
15.6		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

HNUS FORM 0074

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/12/96 TIME: 0950
CORE LOCATION: SP12
LOGGED BY: K. O'NEILL/T. DORGAN
TOTAL CORE RECOVERY: 12.0 FEET

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 17.0 FT (includes SW)
DEPTH OF WATER: 2.6 FT at 16:10 on 11-10-96
TOTAL SEDIMENT DEPTH CORED: 14.4 FT
PHOTO TAKEN? (YES) NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0.15	Organic muck to 0.15'	RM-SD-SP12-S01 0 - 0.2 FT	Strong hydrogen sulfide odor when core was opened
0.8	Hemic peat, dark brown to 0.8'	RM-SD-SP12-S02 0.2 - 1.7 FT	
3.4	Dark brown sapric peat	RM-SD-SP12-S03 1.7 - 3.2 FT	
5.0	Reddish-brown sapric peat @ 3.4 - 3.8 FT	RM-SD-SP12-S04 3.2 - 5.0 FT	
8.4	Dark brown sapric peat	RM-SD-SP12-S05 6.9 - 8.4 FT	Becomes more decomposed with depth
11.7	Very poor recovery? Some very loose organic muck/water mix, most lost during core retrieval and cutting		Not sampled
12.0	Woody root mass, mixed with dark brown fibric peat, up to 1/4" diam. roots, caught in core basket, apparent historic shrub layer		Not sampled
		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

HNUS FORM 0074

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 1300
TOTAL CORE DEPTH: 18 FT (includes SW)
CORE LOCATION: SP13
DEPTH OF WATER: 1.6 FT at 09:29 on 11-11-96
LOGGED BY: K. O'NEILL
TOTAL SEDIMENT DEPTH CORED: 16.4 FT
TOTAL CORE RECOVERY: 11.9
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Fibrous living roots with brown org. matter, leaf matter	RM-SD-SP13-S01 0 - 0.5 FT	Duplicate #2 for all but grain size Strong hydrogen sulfide odor when core was opened
0.5	Subangular gravel 1" and 2" diam., fill material		
2.0	Hemic peat - brown, more decomposed material than above	RM-SD-SP13-S02 0.5 - 2 FT	
2.5	Sapric peat, dark brown, more fines than above	RM-SD-SP13-S03 2 - 3.5 FT	
3.0	Occassional wood fragments		
3.5		RM-SD-SP13-S04 3.5 - 5'	
5.0	Large wood (root?) section 1" x 3"		
5.3			
	Sapric Peat to 11.9'		
	Woody branch like fragments @ 7.2'		
	4 inches plant fibers @ 9.8'		
	4 inches plant fibers @ 10.8'	RM-SD-SP13-S05 8.5 - 10 FT	
11.9			
		EOR	LEGEND: EOR = End of Recovery SD = sediment SP = Selby Pond fp = fibric peat hp = hemic peat sp = sapric peat

HNUS FORM 0074

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 0850
TOTAL CORE DEPTH: 17.2 FT (includes SW)
CORE LOCATION: SP14
DEPTH OF WATER: 1.6 FT at 12:30 on 11-11-96
LOGGED BY: K. O'NEILL/T. DORGAN
TOTAL SEDIMENT DEPTH CORED: 15.6 FT
TOTAL CORE RECOVERY: 13.9 FEET
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0.6	Silty gravelly SAND, mostly poorly graded med. sand, black sand, few silt some gravel, shell frags, fill material, glass	RM-SD-SP14-S01 0 - 0.5 FT	Duplicate = 2002 (extra vol. with Eckman & Bowl.). Brick glass frags, slag
1.1	Black sandy SILT, mostly silt, little fine sand poorly graded, trace shell fragments	RM-SD-SP14-S02 0.5 - 2.0 FT	Strong hydrogen sulfide odor when core was opened
3.3	SILT, mostly poorly graded trace fine sand, trace clay shell frags, olive green	RM-SD-SP14-S03 2.0 - 3.5 FT	some org matter, plant fibers, leaf matter
3.5	SAND, mostly fine med poorly graded sand, trace silt	RM-SD-SP14-S03 3.5 - 5.0 FT	quartz sand
3.9	Similar to SILT above		
4.0	Similar to SAND above		
8.7	Hemic/sapric peat, dark brown, trace fine sand mixed to 4.4'		At 5.4' to 5.8' noted large plant fiber fragments. At 7.5', wood fragments
9.7	Reddish-brown hemic peat		
13.9	Dark-brown sapric peat, some wood fragments Same material to 13.9'	RM-SD-SP14-S05 8.5 - 10.0 FT	Wood fragments throughout
		EOR	LEGEND: EOR = End of Recovery SD = sediment SP = Selby Pond fp = fibric peat hp = hemic peat sp = sapric peat

HNUS FORM 0074

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/12/96 TIME: 0800
TOTAL CORE DEPTH: 27.6 FT (includes SW)
CORE LOCATION: SP15
DEPTH OF WATER: 4.4 FT at 12:20 on 11-16-96
LOGGED BY: K. O'NEILL/T. DORGAN
TOTAL SEDIMENT DEPTH CORED: 23.2 FT
TOTAL CORE RECOVERY: 14.4 FEET
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Organic muck/sapric peat Dark brown/black	RM-SD-SP15-S01 & RM-SD-2004 (D#4) - 0 - 0.5 FT RM-SD-SP15-S02 0.5 - 2.0 FT RM-SD-SP15-S03 3 - 3.5 FT	Extra vol. w/Eckman clamshell Strong hydrogen sulfide odor when core was opened Shagbark hickory (*Carya glabra*) husk fragment at 2'
3.5	Hemic peat, reddish-brown Wood fragments at 5'	RM-SD-SP15-S04 3.5 - 5 FT	
6.8	Sapric peat, reddish-brown	RM-SD-SP15-S05 8.5 - 10 FT	
10.0	Sapric/hemic peat, reddish-brown	RM-SD-SP15-S06 12.5 - 14 FT	
14.0	Woody root matter up to 3/8" diam. x 6" long, with hemic peat, reddish-brown, apparent historic shrub layer		
14.4		EOR	LEGEND: EOR = End of Recovery SD = sediment SP = Selby Pond fp = fibric peat hp = hemic peat

HNUS FORM 0074

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
DATE: 11/13/96 TIME: 1328
CORE LOCATION: SP16
LOGGED BY: K. O'NEILL
TOTAL CORE RECOVERY: 13.1 FEET

JOB NO.: 0890-0810
TOTAL CORE DEPTH: 28.04 FT (includes SW)
DEPTH OF WATER: 5.94 FT at 09:30 on 11-13-96
TOTAL SEDIMENT DEPTH CORED: 22.1 FT
PHOTO TAKEN? (YES) NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0.5	Very loose organic muck Dark brown/black	RM-SD-SP16-S01 Dup 2005 #6, MS/MSD$_2$ - 0 - 0.5 FT	Extra vol. w/Eckman clamshell
	Dark grey/brown sapric peat, (org. muck) very few plant fibers, wet/loose	RM-SD-SP16-S02 0.5 - 2.0 FT	Strong hydrogen sulfide odor when core was opened
		RM-SD-SP16-S03 2 - 3.5 FT	
		RM-SD-SP16-04 3.5 - 5 FT	
	Becoming dryer, more solidified with depth	RM-SD-SP16-05 6.5 - 8.4 FT	
8.4			
	Hemic peat dark brown, some wood material 1/4 - 3/8" diam. x 1", fine fibrous roots	RM-SD-SP16-S06 8.5 - 10 FT	
10.4	Sapric peat, some fine fibrous (roots?)		
		RM-SD-SP16-S07 11 - 12.5 FT	
11.6	Fibric peat, sphagnum like, light tan/brown		
12.5	Woody material, root mass with hemic peat from 12.5 to 13.1, apparent historic shrub layer		Woody section ~1" diam. x 3" soft, decayed, wood roots some 1/4 - 3/8 diam. (Photo)
13.1		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

HNUS FORM 0074

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VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/13/96
TIME: 0825
TOTAL CORE DEPTH: 25.45 FT (includes SW)
CORE LOCATION: SP17
DEPTH OF WATER: 0.8 FT at 13:45 on 11-12-96
LOGGED BY: K. O'NEILL/T. DORGAN
TOTAL SEDIMENT DEPTH CORED: 24.65 FT
TOTAL CORE RECOVERY: 18.1 FEET
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 0.4	Concrete fragments up to 1"x2"x.5" with some fine sand and muck. Black	RM-SD-SP17-S01 0 - 0.5 FT	Core completed near residential backyard that has obvious fill material in wetlands
0.7	Sapric peat, dark brown		
1.8	Hemic peat, reddish-dark brown	RM-SD-SP17-S02 0.5 - 2.0 FT	Strong hydrogen sulfide odor when core was opened
	Sapric peat, dark brown	RM-SD-SP17-S03 2 - 3.5 FT	
	Wood branch 3/4" diam x 3" long	RM-SD-SP16-04 3.5 - 5.0 FT	
5.1	hemic peat @ 5.1 - 5.5, red/brown		
	Sapric peat, dark brown		
	Very loose, sapric peat		
9.7		RM-SD-SP17-S05 8 - 9.7 FT	
17.7	Some watery, loose, muck, poss. void or lost material, reddish-brown, possible material below 9.7 feet probably slipped down core barrel during core excavation from sediments		Most of the watery material lost during core opening Not enough material/recovery for sample collection
18.1	Sapric peat, dark brown, very loose	RM-SD-SP16-S06 17.7 - 18.1 FT	Metals only. This material may have slipped down core barrel from 9.7 FT
		EOR	
			LEGEND: EOR = End of Recovery SD = sediment SP = Selby Pond

HNUS FORM 0074

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/15/96
TIME: 1012
TOTAL CORE DEPTH: 16.4 FT (includes SW)
CORE LOCATION: SP18
DEPTH OF WATER: Shore Location ~0.3 FT
LOGGED BY: K. O'NEILL
TOTAL SEDIMENT DEPTH CORED: 16.4 FT
TOTAL CORE RECOVERY: 8.75 FEET
PHOTO TAKEN? (YES) NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0.7	Mostly living root fibers with some fibric peat	RM-SD-SP18-S01 0 - 0.5 FT	Living roots material removed from sample. Strong hydrogen sulfide odor when core was opened
2.5	Hemic peat, dark brown	RM-SD-SP18-S02 0.5 - 2.0 FT	
4.4	Hemic/fibric peat, dark brown, large fibers, light tan	RM-SD-SP18-S03 2 - 3.5 FT	
6.0	Sapric peat, dark brown, loose, wet	RM-SD-SP18-04 3.5 - 5.0 FT	
	Some woody fragments		Wood fragments
		RM-SD-SP17-S05 7.25 - 8.75 FT	Wood fragments in CLP sample
8.75	Wood fragments 3/4" x 2" with sapric peat		
		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

HNUS FORM 0074

Halliburton NUS CORPORATION

VIBRACORE CORE LOG REPORT

SITE NAME: Raymark Industries, Inc. Selby Pond
JOB NO.: 0890-0810
DATE: 11/15/96 TIME: 1025
TOTAL CORE DEPTH: 16.85 FT (includes SW)
CORE LOCATION: SP19
DEPTH OF WATER: 25 FT
LOGGED BY: K. O'NEILL
TOTAL SEDIMENT DEPTH CORED: 16.6 FT
TOTAL CORE RECOVERY: 10.85 FEET
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 0.5	Fibric peat, with living root material, fibrous	RM-SD-SP19-S01 0 - 0.5 FT	Living root material removed from sample. Strong hydrogen sulfide odor when core was opened
	Hemic peat, dark brown, with wood fragments	RM-SD-SP19-S02 0.5 - 2.0 FT	Wood fragments throughout
		RM-SD-SP19-S03 2 - 3.5 FT	
4.1		RM-SD-SP19-04 3.5 - 5.0 FT	Wood fragments 1" diam x 3" @ 4'
	Sapric peat, dark brown, somewhat firmer		Wood fragments 3/4" x 3" @ 5'
7.0 10.8	Sapric peat becoming looser with depth	RM-SD-SP19-S05 8.8 - 10.8 FT	Sapric peat, very loose, very few fibers (muck like)
		EOR	

LEGEND:
EOR = End of Recovery
SD = sediment
SP = Selby Pond
fp = fibric peat
hp = hemic peat
sp = sapric peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/7/96 TIME: 0730 LOGGED BY: K. JALKUT 11/8/96
CORE LOCATION: SP08 TOTAL CORE DEPTH: 17.4 ft (includes SW)
DEPTH OF WATER: 1.5 FT AT 1423 ON 11/07/96 TOTAL SEDIMENT DEPTH CORED: 15.9 FT.
TOTAL CORE RECOVERY: 10.96' PHOTO TAKEN? YES NO #2 + #5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0 (S-1) 0.4	Highly organic, sediment, amorphous texture, less than 20% fibrous matter approximately, dark brown to black, organic odor, saturated (muck)	RM-SD-SP08-S01 0815 hrs	S01 = 0 - 0.4 FT BGS (ICK EXTRA VOLUME w/ ECKMAN SAMPLER FOR ANALYSES
1	Similar to above, hemic peat, slightly organic, more fibrous texture (approx 50-60% fibrous texture), mostly brown organic odor, presence of few (<10%) twigs, leaves noted, more firm than S01, saturated material	RM-SD-SP08-S02 0840 hrs	S02 = 0.4 - 1.9 FT BGS (PID not functioning well - too much humidity - not in use today)
1.5 2.0 2.5 3.0	Similar to above, hemic peat, highly organic soil. Approx 70% fibrous matter (more than S02), orange-brown coloration, saturated presence of few (~15%) twigs up to 3 inches length 1/4 in diam, leaves (trace) organic odor, as firm as S02	RM-SD-SP08-S03 0855 hrs	S03 = 1.9 to 3.4 FT BGS
3.5 4.0 5	Similar to above, highly organic soil. Similar orange-brown coloration, consistency, saturation, fibrous material, twig size, organic odor to S03 above.	RM-SD-SP08-S04 0910 hrs	S04 = 3.4 to 4.9 FT BGS

SP = SELBY POND

LEGEND:
SD = sediment ~~surface water~~
fp = fibric ~~fibrist~~ peat
hp = hemic ~~hemist~~ peat
sp = sapric ~~sabrist~~ peat

plant ~~fibers~~ change
> 3/4 fibers
3/4 - 1/6 fibers
< 1/6 fibers

HNUS FORM 0074

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/7/96
TIME: 0730
LOGGED BY: Jackut 11/8/96
CORE LOCATION: SP08
TOTAL CORE DEPTH: 17.40 (includes SW)
DEPTH OF WATER:
TOTAL SEDIMENT DEPTH CORED: ~~11.95~~ 17.0
TOTAL CORE RECOVERY: 10.96
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
5	Highly organic soil - hemic (>50% fibers) Generally fibrous vegetative texture w/ one 4-inch interval w/ less than 20% fibers (hemic peat) Orange-brown coloration once got open - black coloration on surface. organic odor, saturated, twigs noted up to 2 inches length. Soft but not completely loose		No sample - interval skipped for analysis per plan
5.5			
6			
6.5	~~Highly organic soil~~ Hemic Peat - Similar in all respects to 5 description above		No sample interval skipped for analysis per RO
7.0			
7.5			
8	~~Highly organic soil~~ Sapric peat RO very soupy - no texture. Dark-black, brown to black, org odor, less than 30% fibers		No sample - same as above
8.5	~~Highly organic soil~~ Sapric peat RO - similar to above - dark-brown to black, org odor, soupy of roots, saturated, fibrous matter less than 30%	RM-SD-SP08-S05-~~B~~ Not enough volume for Dioxin, TOC. Filled container by order of priority ~~9:30~~ 0930 hrs	S05 = 8.5-10' BGS w/ at bottom not sampled.
9			
9.5			LEGEND: SW = surface water; fp = fibrist peat; hp = hemist peat; sp = saprist peat
10			

HNUS FORM-0874

10-11' - Similar to S05 but a little thinner + more fibrous matter.

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SEBAY POND JOB NO.: 0890-0810
DATE: 11/8/96 TIME: 1000 LOGGED BY: JMKUT
CORE LOCATION: SP09 TOTAL CORE DEPTH: 16.95 (includes SW)
DEPTH OF WATER: 2.0 FT AT 08:30 on 11-8-96 TOTAL SEDIMENT DEPTH CORED: 14.95 FT
TOTAL CORE RECOVERY: 13.95' PHOTO TAKEN? (YES) NO #4+#5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Highly organic soil ~~saprist~~ Sapric Muck, loose, saturated, organic odor, trace to few (<5%) fibrous material amorphous texture, dark black sooty	RM-SD-SP09-S01 11:00	S01 = 0-0.2' BGS NO PID
0.5	~~Highly organic soil~~ Hemic peat More fibrous texture than S01 (stem less than S01's fibers) Dark brown, red-brown, org odor saturated, trace % to up 1/8" diam + 3 inches length	RM-SD-SP09-S02 11:15 TAL metals - no TCL metals - no volatiles	S02 = 0.2-1.7' BGS rain + rail cut w/fingers ~~but~~ silt material. cuttings - not spongy
1			
1.5			
2	~~Highly org. soil~~ Hemic peat Approx 50% or more fibrous texture, slight silt saturated, org. odor, dark red/orange brown, few tangles wood pieces up to 1/2 in length, loose but not spongy	RM-SD-SP09-S03 11:30	S03 = 1.7-3.2'
2.5			
3			
3.5	~~Highly org. soil~~ Hemic Peat Saturated, org odor, dark brown to red-brown, brown, tangles, chunk of wood, some silt, fibers (approx) 60%, loose but not spongy wood chunk, up to 2-3 inches length	RM-SD-SP09-S04 11:45	S04 = 3.2 to 4.7'
4			
4.7			LEGEND: SW = surface water; fp = fibrist peat; hp = hemist peat; sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/8/96 TIME: 1000 LOGGED BY: Jackut
CORE LOCATION: SP09 TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: 13.45' PHOTO TAKEN? (YES) NO #4+#5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
5 5.5 6	~~Highly organic soil~~ Hemic Peat, fibrous texture, some silt, saturated very dark red/brown w/black (clearer in outside of core sample, large (3 inches x 3/4 in width) ~~piece of~~ twig/branch >50% fibrous material by vol loose but not sloppy org. odor. twigs too		NO SAMPLE 5-6.5'
6.5 7 7.5	~~Highly org soil~~ Hemic Peat - similar to above w/more evidence of wood pieces - up to 4025 in length - decayed/altered some silt, red brown to brown to black org odor loose, not sloppy, >50% fibrous material by vol. ~~twigs too~~		NO SAMPLE 6.5-8'
8 8.5 9 9.5	~~Highly org soil~~ Hemic Peat - similar to above w/less evidence of large pieces of wood evidence of smaller pieces of wood up to 1.5 inches - altered fibrous material >50% by vol some silt loose, not sloppy, org odor, twigs, leaf material.		NO SAMPLE 8-9.5'

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/8/96 TIME: 1000 LOGGED BY: [illegible]
CORE LOCATION: SP09 TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: 13.95' PHOTO TAKEN? YES NO #4 + #5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
8.5 9 9.5	~~Highly organic~~ Hemic Peat soil - saturated, dark brown to red brown, >50% fibrous material (organic) org odor, loose not soupy, presence of twigs up to 1/4" diam, 2-3 in length altered leaves, plant roots	12:15 RM-SD-SP09-S05	S05 - 7.5 - 10' BGS NO PID
10 10.5 11 11.5	~~Hemic Peat~~ ~~Fibrous organic soil~~ - saturated dk brown to red brown >50% fibrous material (organic) org odor, twigs up to 3 in length 1/4-1/2 in diam - (few) altered leaves, plant roots, looser than S05 but not yet soupy		NO SAMPLE
12 12.5	Similar to above - as loose as S05, getting more soupy, same type of coloration fibrous material twigs, leaves, org odor as above		NO SAMPLE
13			LEGEND: SW = surface water fp = fibrist peat hp = hemist peat sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810

DATE: 11/8/96 TIME: 1000 LOGGED BY: [illegible]

CORE LOCATION: SPOC TOTAL CORE DEPTH: _____ (includes SW)

DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____

TOTAL CORE RECOVERY: 13.95 PHOTO TAKEN? (YES) NO → 4+#5

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
13	Highly oxy soil similar to above mottling		NO SAMPLE
13.5			
14	End of core at 13.95	100	

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/5/96
TIME: 1410
LOGGED BY: jakent
CORE LOCATION: SP10
TOTAL CORE DEPTH: 19.07 FT. (includes SW)
DEPTH OF WATER: 2.07 FT. AT 11:26 ON 11-5-96
TOTAL SEDIMENT DEPTH CORED: 17.0
TOTAL CORE RECOVERY: 105
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Highly org soil - MUCK sorg Fibrous < 30% Odor saturated twigs (few) mostly silt amorphous texture	RM-SD-SP10-S01 1430	Duplicate #1 - all analyses Eckman to get extra volume (0-0.5' FT) NO PID
.5 1.0	~~Highly org~~ Hemic Peat soil - Fibrous > 50% Little silt (15%) Org odor Brown/red brown, twigs 2-3 in long / 1/4" diam no leaves per se, fibers interwoven and threaded (mat-like), saturated, soft but not soggy.	RM-SD-SP10-S01 1445	0.5 - 2 FT ~~BGS~~ 160
1.5 2	~~Highly org~~ Hemic Peat soil - similar to above less threaded or interwoven Fibers >50% little silt (15%) twigs red-brown to dk brown saturated odor, soft but not soggy.	RM-SD-SP10-S01 1500	2-3.5' ~~BGS~~ 160
2.5 3 3.5	NEXT PAGE		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SEBAY POND
JOB NO.: 0890-0810
DATE: 11/8/96
TIME: 1410
LOGGED BY: [illegible]
CORE LOCATION: SP10
TOTAL CORE DEPTH: 1' (includes SW)
DEPTH OF WATER:
TOTAL SEDIMENT DEPTH CORED: 170
TOTAL CORE RECOVERY: 10.5
PHOTO TAKEN? (YES) NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
3.5	Hemic Peat ~~Highly org soil~~ - wooden than SO2, less ~~red~~ fibers, more twigs not interwoven/thread like org odor. dk red brown, saturated soft but not soupy little (15-20% max)	RM-SO-SP10-SO4 1510	3.5 - 5' ~~BGSO~~
4			
4.5			
5	Fibric ~~Hemic~~ Peat ~~Highly org soil~~ - fibrous interwoven thread like. little to few silt (10-15%) twigs up to 3 inches 1/4 in diam dk red brown org odor saturated softer than above threads are not like in portions		NO SAMPLE
5.5			
6			
6.5			
	~~Highly organic soil~~ Hemic Peat fibrous - not mat-like threads not terribly interwoven, silt up to 25%. org. odor, saturated very soft dk brown		NO SAMPLE
7			
7.5			
8			LEGEND: SW = surface water fp = fibrist peat hp = hemist peat sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/8/96 TIME: 1410 LOGGED BY:
CORE LOCATION: SP10 TOTAL CORE DEPTH: (includes SW)
DEPTH OF WATER: TOTAL SEDIMENT DEPTH CORED: 17.0
TOTAL CORE RECOVERY: 10.5 PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
8	Similar to above Fibers + twigs - organic		NO SAMPLE
8.5	Sapric Peat ~~Highly organic soil~~ - ~~fibrous~~ FO 8.5' 1 after 8.8' up to Very soupy! Dark brown, black Muck below 8.8' red brown, saturated watery, very odor ~~Bottom 4" - very woody~~ ~~long fibrous roots, dk brown~~ ko 10.1-10.5' ~~FO 10.5' ko~~ ~~woody fibrous roots~~ long fibrous roots, dk brown	RM-SD-SP10-SP05 1520	8.5-10' Primary analysis only not enough volume asbestos TAL metals SVOC PCB/Pest only
9			
9.5			
10			

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

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SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/10/96
TIME: 0852
LOGGED BY: K. O'NEILL
CORE LOCATION: SP11
TOTAL CORE DEPTH: 18.8 (includes SW)
DEPTH OF WATER: 3.2 FT. AT 14:35 ON 11-10-96
TOTAL SEDIMENT DEPTH CORED: 14.90 FT.
TOTAL CORE RECOVERY: ~11' little bit more
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Organic (sapric) soil dark blk/br mostly fines, ~~some~~ little root fiber to 0.4'	RM-SD-SP11-S01	Grain size Duplicate C920 hrs 0-0.4', MS/MSD w/ exception of asbestos, grain size
0.4	HEMIC peat dark br/blk	RM-SD-SP11-S02	C945 hrs 0.4-1.9'
1	H_2S odor throughout core Saturated Some small tree/shrub branch material ~~to~~ KO in core		TAL metals, not TCLP No asbestos
1.9	to 2.9'	RM-SD-SP11-S03	1010 hrs 1.9-3.4'
3	FIBRIC Fibric peat brown/orange/brown (sphagnum?) like) to 3.4		
3.4	Hemic peat to 4.4' gradual slight color ~~material~~ ~~silt~~ ~~KO~~ content to looser sapric peat, dark brown	RM-SD-SP11-S04	1025 3.4-4.9' TAL metals, not TCLP No asbestos
4			
5			
	See next page		LEGEND: SW = surface water; fp = fibrist peat; hp = hemist peat; sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/16/96
TIME: 0800
LOGGED BY: K. McNeill / Wilke
CORE LOCATION: SP11
TOTAL CORE DEPTH: 18.1' (includes SW)
DEPTH OF WATER: 3.2'
TOTAL SEDIMENT DEPTH CORED: 14.9
TOTAL CORE RECOVERY: 21.1'
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
5.3			
5.5			
	See previous page		
	Saprric peat, dk brown		
7		RM-SD-SP11-S05	1035 7-5-9'
	~4" of root/semi material with ~~mostly herbaceous plant~~ ~~roots~~ ~~and~~ distinct Spartina patens plant material		
	Very liquid saprric peat/muck to bottom (@ 15.1') [illegible] material for sample		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810

DATE: 11/11/96 TIME: ~~0800~~ 0950 LOGGED BY: K. O'NEILL / T. DERLAK

CORE LOCATION: SP12 KO 11/11/96 TOTAL CORE DEPTH: 17.0 ft (includes SW)

DEPTH OF WATER: 2.6 FT. AT 16:10 on 11-10-96 TOTAL SEDIMENT DEPTH CORED: 14.40 FT

TOTAL CORE RECOVERY: 12.0' PHOTO TAKEN? (YES) NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	.15 ORGANIC MUCK to 0.15'		
	.56 HEMIC PEAT, DARK BROWN to 0.56'		
1	DARK BROWN SAPRIC PEAT		
2			
3			
3.4	to 3.4'		
3.8	REDDISH-BROWN SAPRIC PEAT 3.4-3.8'		
4	DARK BROWN SAPRIC PEAT		
5			MORE SAPPIC (DECAYED) WITH DEPTH.
6			
7			
8			
8.4			
9	Very poor recovery? Some very loose organic muck/water mix, most lost during core retrieval + cutting.		
10			
11			
11.7			
12	11.7-12.0 woody FIBRIC PEAT MATS, MIXED WITH DARK BROWN FIBRIC PEAT UP TO 1/4" DIAM ROOTS, caught in core basket		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 1300 LOGGED BY: K. O'Neill
CORE LOCATION: SP13 TOTAL CORE DEPTH: 18 (includes SW)
DEPTH OF WATER: 1.6ft AT 09:29 on 11-11-96 TOTAL SEDIMENT DEPTH CORED: ~~17.5~~ 16.4
TOTAL CORE RECOVERY: 11.9 PHOTO TAKEN? YES NO (Stan travel)

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Fibrous peat w/ org matter, leaf matter Sub Ang gravel 1"+2" diam., fill material	RM-SD-SP13-S01	0-0.5' = S01 1315 hrs Duplicate #2 focus w/ grain size
1.0	~~Brown~~ Humic silt, brown, ~~more~~ decomposed material ~~than~~ above Ko	RM-SD-SP13-S02	S02 = 0.5-2' 1345 hrs
2.0			
	Sapric peat, dark brown more fines than above occassional ~~sporadic~~ wood fragments	RM-SD-SP13-S03	S03 = 2'-3.5' 1355 hrs
3.5	Similar material to 5.1'		
4.5			LEGEND: SW = surface water fp = fibrist peat hp = hemist peat sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 1300 LOGGED BY: KMPell
CORE LOCATION: SP13 TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: _____ PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
4.4	Very Sapric few fibers dark brown	RM-SD-SP13-SC-4	-04 = 3.5-5' 1407 hrs
5.0	Large wood root?) section 1'3"		
	SAPRIC Peat to 11.9'		
6.0			
7	woody branch like fragments @ 7.2'		
8			
8.5			

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/11/96
TIME: 1300
LOGGED BY: K Tillell
CORE LOCATION: SP13
TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____
TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: _____
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
7		[illegible]	[illegible] 10' [illegible]
10	Approx 4" plant fibers, brown		
11	Approx 4" plant fibers, brown Sapric peat - very loose and ~~decomposed~~ decomposed		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 0850 LOGGED BY: K. O'Neill / T Dorgan
CORE LOCATION: SP14 TOTAL CORE DEPTH: 17.2' (includes SW)
DEPTH OF WATER: 1.6 FT AT 12:30 ON 11-11-96 TOTAL SEDIMENT DEPTH CORED: 15.6 FT
TOTAL CORE RECOVERY: 13.9 FEET PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Silty gravelly sand poorly graded med SAND BLK 0-0.6	0-0.5' = RM-SD-SP14-S01 0855 hrs. (extra vol. for remain + bone.) DUP = 2002.	brick glass frags slag
MOTH 0.5	SAND little silt some vfgl f. gravel shell frags fill material		
1.0	Black sandy SILT mostly silt little fine sand poorly graded trace shell frag	0.5-2.0 = RM-SD-SP14-S02 @ 0920.	
2	SILT mostly poorly graded trace fine sand, trace clay shell frag Olive green 3.3'		some ~~little~~ org matter plant fibers, leaf matter
3	SAND mostly fine med poorly graded trace silt similar to silt above 3.5'	3.9	quartz sand
4	HEMIC/SAPRIC PEAT. DARK BROWN TRACE FINE SAND MIXED ~~with 2-4 inches~~ KO to 4.4'		AT 5.4 TO 5.8' NOTED LARGE PLANT FIBER FRAGMENTS. AT 7.5' WOOD FRAGMENTS.
5			
6			
7			
8			
8.7	REDDISH-BROWN HEMIC PEAT.		
9.2	DARK BROWN SAPRIC PEAT SOME WOOD FRAGMENTS.		WOOD FRAGMENTS, TWIGLET
10			
	Same material to 13.9'		LEGEND: SW = surface water; fp = fibrist peat; hp = hemist peat; sp = saprist peat
13.9	EOC		

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/11/96 TIME: 0850 LOGGED BY: K. O'NEILL / T. DORGAN
CORE LOCATION: SP 14 (CONT.) TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: 13.9 FT PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
10.5	CONT. FROM P 1.		
	DARK BROWN SAPRIC PEAT.		WOOD FRAGMENTS THROUGHOUT.
11	SOME WOOD FRAGMENTS		
12			
13			
13.9	FT = EOC		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/12/96
TIME: 0800
LOGGED BY: K. O'NEILL / T. DORLAN
CORE LOCATION: SP15
TOTAL CORE DEPTH: 27.6' (includes SW)
DEPTH OF WATER: 4.4 FT. AT 12:20 ON 11-16-96
TOTAL SEDIMENT DEPTH CORED: ~~27.6~~ 23.2 FT
TOTAL CORE RECOVERY: 14.4 FEET
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	ORGANIC MUCK/SAPRIC PEAT DARK BROWN/BLK	RM-SD-SP15-S01 + RM-SD-Z004 (D#4) 0900 hrs Extra vol w/ Eckman Clamshell 0-0.5' BGS = S01	HICKORY NUT SHELL FRAGMENT AT 2.0 FT.
1			
2		0.5-2' 0930 hrs RM-SD-SP15-S02 = S02	
3			
3.5	HEMIC PEAT. REDDISH-BROWN		
4		2-3.5' = S03 RM-SD SP15-S03 0940 hrs	
5	WOOD FRAGMENT @ 5'		-5.0' = WOOD FRAGMENT
6		3.5-5' = S04 RM-SD-SP15-S04 0950 hrs	
6.8			
7	SAPRIC PEAT. REDDISH-BROWN	8.5-10' = S05 RM-SD-SP15-S05 1005 hrs FILL SUIT	
8			
9			
10	SAPRIC/HEMIC PEAT. REDDISH-BROWN		
10.5	CONT. ON P.2		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = sapnist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/12/96
TIME:
LOGGED BY: K. O'NEILL / T. DORGAN
CORE LOCATION: SP15
TOTAL CORE DEPTH: (includes SW)
DEPTH OF WATER:
TOTAL SEDIMENT DEPTH CORED:
TOTAL CORE RECOVERY: 14.4 FT.
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
10.5	SAPRIC/HEMIC PEAT. REDDISH-BROWN	SO6 = 12.5-14'	SO6 = 12.5-14'
11		RM-SD-SP15-SO6 1015 hrs	
12		~~NO TCL METALS~~ ~~NO TOC~~ ~~NO DIOXIN~~	
13		~~ONLY TOC TOL METALS~~, SVOC, ~~PESTICIDE~~ ~~ASBESTOS~~	
14	woody ROOT MATTER WITH HEMIC PEAT UP TO 3/8" DIAM., 6" LONG. REDDISH-BROWN.	(~~SAMPLE BELOW 10'~~) SO6 below 10' - start w/ full suite & parameters.	
	EOC @ 14.4		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/13/96 TIME: 1328 LOGGED BY: K O'Neill
CORE LOCATION: SP16 TOTAL CORE DEPTH: 28.04 (includes SW)
DEPTH OF WATER: 5.94 FT. AT 09:30 ON 11-13-96 TOTAL SEDIMENT DEPTH CORED: 22.1 FT
TOTAL CORE RECOVERY: 13.1' PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Very loose organic muck dark brown/blk 0-0.5'	RM-SD-SP16-S01 0-0.5' 1415 hrs Dup #6, MS/MSD 2 jars	S01 = 0-0.5'
1	Dark grey/brown Sapristic (org. muck) peat, very few plant fibers wet/loose		
2			
3		RM-SD-SP16-S02 1400 hrs 0.5-2'	S02 = 0.5-2'
4			
5	Becoming drier more solidified	RM-SD-SP16-S03 1418 hrs 2-3.5'	
6		RM-SD-SP16-S04 1445 hrs 3.5-5'	
7			
8	to 8.4'	RM-SD-SP16-S05 1500 hrs 6.5-8.4'	
9	Hemic peat dark brown, some wood material 1/4 - 3/8" diam x 1" fine fibrous roots to 10.4'	RM-SD-SP16-S06 1535 hrs 8.5-10'	
10		RM-SD-SP16-S07 1550 hrs 11-12.5'	

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = sapnst peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810
DATE: 11/12/96 TIME: 1325 LOGGED BY: K. O'Neill
CORE LOCATION: SP16 TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____ TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: 13.1' PHOTO TAKEN? YES 3 NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
11	10.4' Sapric peat, some fine fibrous (roots?) to 11.6'	~~RM2~~ (13) 11/13/96 Rm-SD -SP16-S07 1550 hrs	S07 = 11.-12.5'
12	Fibric peat, sphagnum like light tan/br to 12.5'		
13	Woody material, root mass w/ hemic peat End 13.1 of core		woody root sections ~1" diam x 3" soft, decayed, fibrous roots, 1/4 - 3/8" diam. some (photo)
14			

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND JOB NO.: 0890-0810

DATE: 11/13/96 TIME: 0825 LOGGED BY: K. O'NEILL / T. DORGAN

CORE LOCATION: SP17 TOTAL CORE DEPTH: 25.45 (includes SW)

DEPTH OF WATER: ~~3 HRS. TD. 0.0 FT SHORE LOCATION~~ 0.8 FT. AT 1245 ON 11-12-96 TD. TOTAL SEDIMENT DEPTH CORED: 24.65 FT

TOTAL CORE RECOVERY: ~~9.7'~~ TD 18.1 PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0.4	~~CONCRETE~~ ~~BRICK~~ FRAGMENTS UP TO 1'x2'x.5" WITH SOME FINE SAND & MUCK. BLACK	RM-SD-SP17-S01 0-0.5' 0905	Core completed near residential back-yard that has obvious fill material to waters edge
.7	SAPRIC PEAT. DARK BROWN.		
1	HEMIC PEAT. REDDISH-DARK BROWN	RM-SD-SP17-S02 0.5-2.0' 1253	
1.8			
2	SAPRIC PEAT. DARK BROWN	RM-SD-SP17-S03 2-3.5'	
3			
4		RM-SD-SP17-S04 3.5-5.0'	4.8' = WOOD BRANCH - 3/4" DIAM. BY 3 IN. LONG.
5			5.1-5.5 HEMIC PEAT. REDDISH-TAN.
6			
7			6.7-9.7 - VERY LOOSE, SAPRIC PEAT.
8			
9		RM-SD-SP17-S05 8 to 9.7'	
9.7			
10	~~FOSS~~ TO SOME INTERBED, LOOSE MUCK PESS. VOID. REDDISH - BROWN		
10.5			

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/13/96
TIME: 0825
LOGGED BY: K. O'NEILL / T. DONAHUE
CORE LOCATION: SP17
TOTAL CORE DEPTH: _____ (includes SW)
DEPTH OF WATER: _____
TOTAL SEDIMENT DEPTH CORED: _____
TOTAL CORE RECOVERY: 18.1
PHOTO TAKEN? YES? NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
10.5	CONT.		Not enough material/recovery for sample collection
11	SOME WATERY, LOOSE MUCK. REDDISH-BROWN. POSSIBLE VOID or lost material?		
12	~~Most of the~~ watery material		
13			Most of the watery material lost during core upper
14			
15			
16		RM-SD-SP17-S06 17.7-18.1'	Metals only
17			
17.7	SANDY PEAT. DARK BROWN, WOOSY.		This material may have slipped down core tube
18	EOC @ 18.1		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/15/96
TIME: 1012
LOGGED BY: K. Tilell
CORE LOCATION: SP18
TOTAL CORE DEPTH: 16.4' (includes SW)
DEPTH OF WATER: SHORE LOCATION ~0.3'
TOTAL SEDIMENT DEPTH CORED: 16.4 FT
TOTAL CORE RECOVERY: ~~8.7~~ 8.75
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Mostly root fibrous w/fibric peat to 0.7	RM-SD-SP18-S01 0-0.5'	
1	hemic peat dark brown	RM-SD-SP18-S02 0.5 to 2.0'	
2		RM-SD-SP18-S03 2 to 3.5'	
3	Hemic fibric peat 2.7-4.4 dark brown; large fibers, tan to light		
4		RM-SD-SP18-S04 3.5 to 5'	
5	Sapric Peat dark brown loose, wet		5.8' wood frag
6	Some woody fragments		
7		RM-SD-SP18-S05 7.25 to 8.75' wood frags ~~not in~~ included sample	
8	WOOD FRAGMENTS 3/4" x 2" END		
9	w/sapric peat		
10			

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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VIBRACORE CORE LOG REPORT

SITE NAME: RAYMARK INDUSTRIES, INC. SELBY POND
JOB NO.: 0890-0810
DATE: 11/15/96
TIME: 1025
LOGGED BY: KO'Neill
CORE LOCATION: SP19
TOTAL CORE DEPTH: 16.85 (includes SW)
DEPTH OF WATER: .25 FT.
TOTAL SEDIMENT DEPTH CORED: 16.6 FT.
TOTAL CORE RECOVERY: 10.85
PHOTO TAKEN? YES NO

DEPTH IN FEET	CORE DESCRIPTION	SAMPLE ID	NOTES:
0	Fibric peat, w/ living root material fibrous 0-0.5	RM-SD-SP19-SØ1 Ø to Ø.5'	
1	Hemic peat, dk brown w/ wood fragments	Rm-SD-SP19-SØ2 0.5 to 2.0'	wood frags throughout
2		Rm-SD-SP19-S03 2 to 3.5'	
3		Rm-SD-SP19-S04 3.5 to 5'	4'- wood frag 1" diam x 3"
4	Sapric Peat, dark brown somewhat firm		
5			5' wood frag 3/4" x 3"
6			
7	Sapric peat becoming looser w/ depth		7' Sapric peat v. loose very few fibers (muck like)
8		RM-SD-SP19-S05 8.8 to 10.8'	
9			
10			
10.85	End 10.85' of core		

LEGEND:
SW = surface water
fp = fibrist peat
hp = hemist peat
sp = saprist peat

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Appendix B: Analytical Data,
Appendix C: Hydrologic & Hydraulic Analysis &
Appendix D: Foodchain Exposure Parameters (TtNUS) &
Ecological Risk Assessment (NOAA) [sections 1.0 to 5.0]
(pages 113-221)
are available
in a separate file (size: 4.8 MB).

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Appendix D (Continued):
Ecological Risk Assessment (NOAA)
[sections 6.0 to 11.0, Appendices A, B & C, & Memorandum]
(pages 222-360)
is available
in a separate file (size: 4.8 MB).

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Appendix D (Continued):
Evaluation of Raymark Superfund Data for PRG Development &
Ecological Risk to Avian and Mammalian Receptors
in the Vicinity of Upper and Middle Ferry Creek
(pages 361-496)
is available
in a separate file (size: 4.8 MB).

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