

APPENDIX D

MONITORING WELL STRATIGRAPHIC AND INSTRUMENTATION LOGS

APPENDIX D.1	1967 LEGGETTE, BRASHEARS & GRAHAM WELLS
APPENDIX D.2	1983 GROUND/WATER TECHNOLOGY, INC. WELLS
APPENDIX D.3	JUNE 1991, CRA
APPENDIX D.4	JUNE 1995, CRA
APPENDIX D.5	2001 NEW INSTALLATIONS, CRA
APPENDIX D.6	2001 WELL CONVERSIONS, CRA

APPENDIX D.1

1967 LEGGETTE, BRASHEARS & GRAHAM WELLS

**LESGETTE, BRASHEARS & GRAHAM WELLS
(DRILLED IN 1967)**

NEW DESIGNATION

T-1
T-2
T-3

OLD DESIGNATION

OLD #3
OLD #2
OLD #1

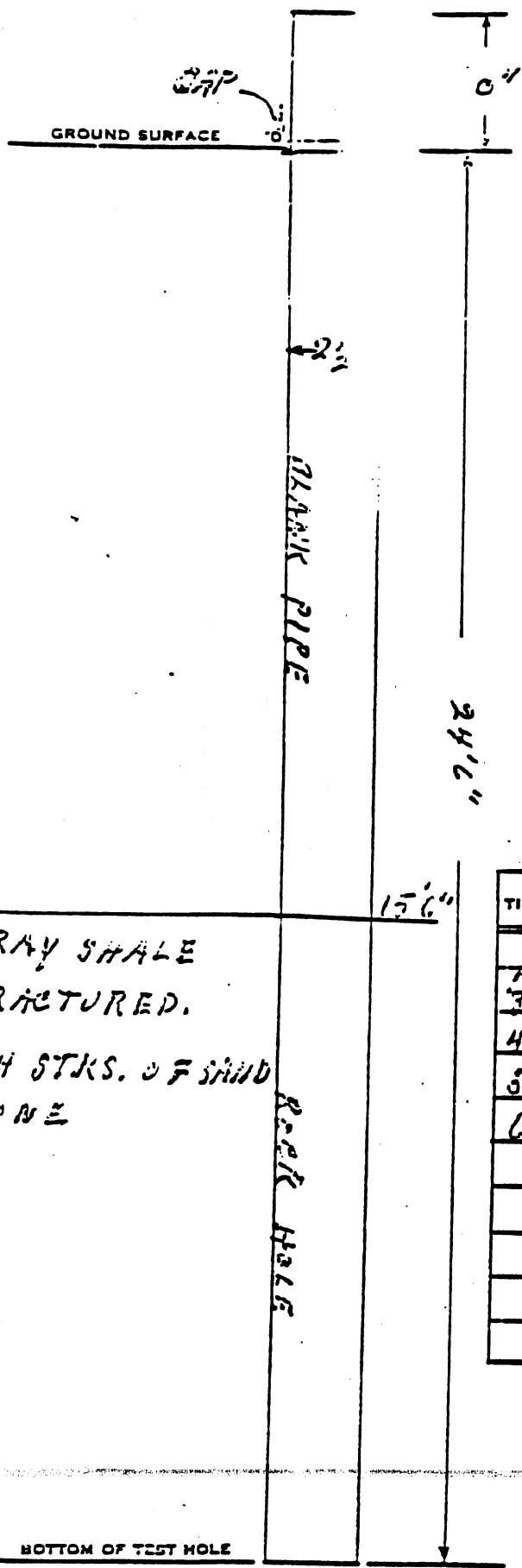
TEST WELL CORD



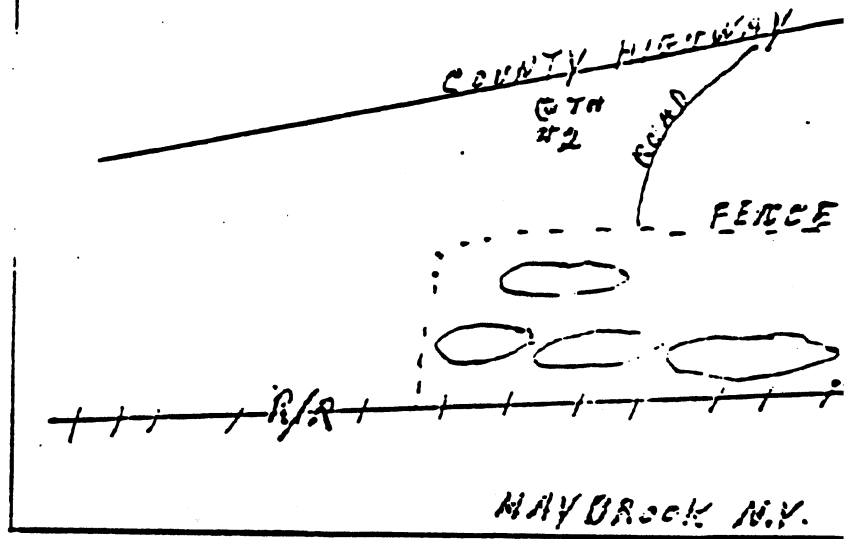
L-225-6

NEW YORK CO., 11

DATE 6/6/47 TEST WELL NO. #3-5
 OPERATOR NEPERA
 COUNTY WATERBURY NY
 PROPERTY OWNER NEPERA
 ADDRESS OF LOCATION _____



GRAY SHALE
 FRACTURED.
 WITH STRKS. OF SAND
 STONE



OBS. WELL: NO. _____ DISTANCE _____ DEPTH _____
 NO. _____ DISTANCE _____ DEPTH _____
 WELL SCREEN: TYPE _____ LENGTH _____ OPENING _____

PUMPING DATA (MEASURED FROM TOP OF PIPE) ELEVATION: _____

TIME	GPM	PUMP. WELL	OBS. WELL	OBS. WELL	TIME	GPM	PUMP. WELL	OBS. WELL
3:30	1.2							
4:30	1.0							
5:30	1.0							
6:30	1.0							

STATIC LEVEL 3' ORIFICE _____ AIR LINE LENGTH _____
 QUALITY: PH _____ HARD. _____ IRON _____ MANGANESE _____
 ODOR _____ TASTE _____ LAB. SAMPLE _____
 PIPE LEFT: IN WELL 15' 6" FT., IN OBS. WELL _____
 SCREEN LEFT: IN WELL NONE FT., IN OBS. WELL _____

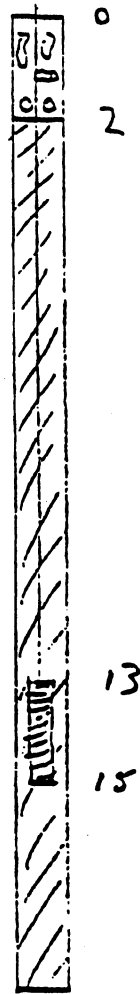
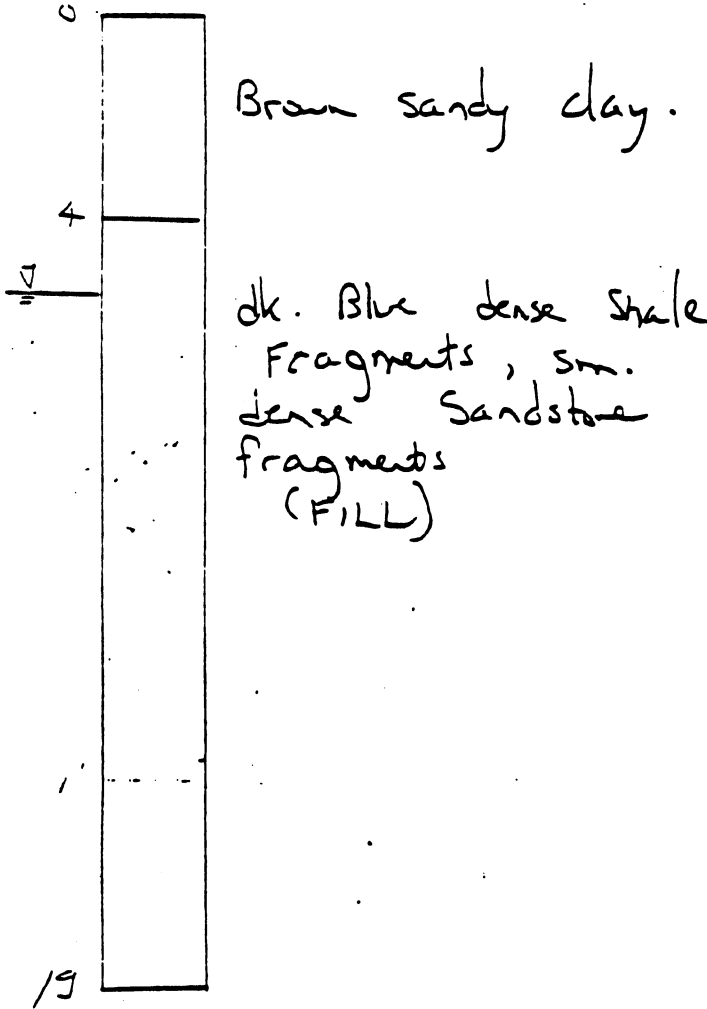
NOTE (1) SKETCH MEASUREMENTS FROM GROUND LEVEL.

APPENDIX D.2

1983 GROUND/WATER TECHNOLOGY, INC. WELLS

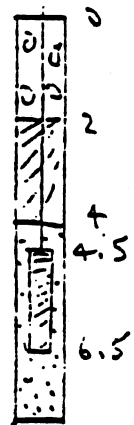
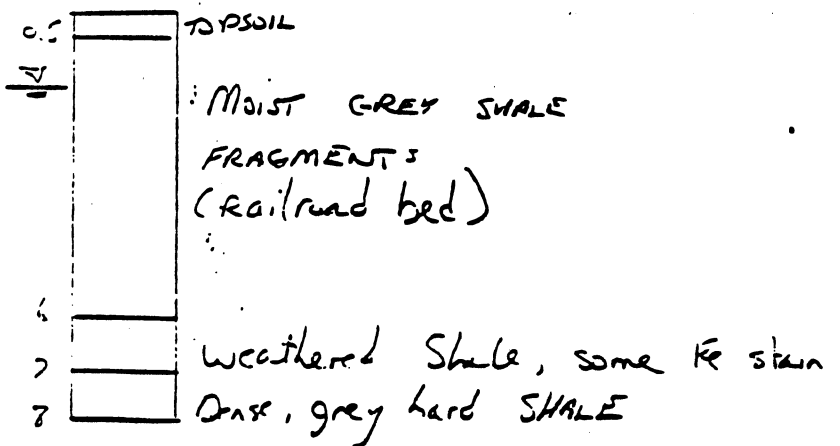
**GROUND/WATER TECHNOLOGY, INC. WELLS
(DRILLED IN 1983)**

MW-5



DATE DRILLED
APRIL 28, 1951

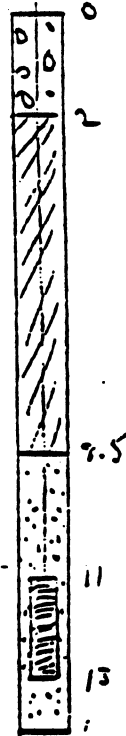
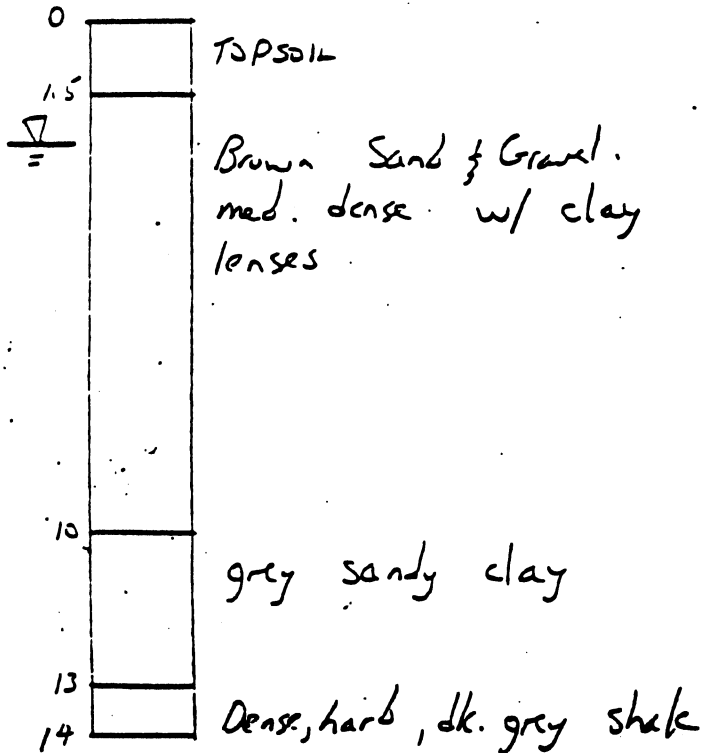
MW-6



DATE DRILLED
April 29, 1951

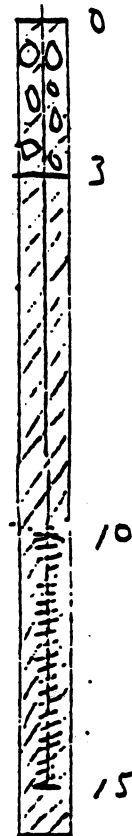
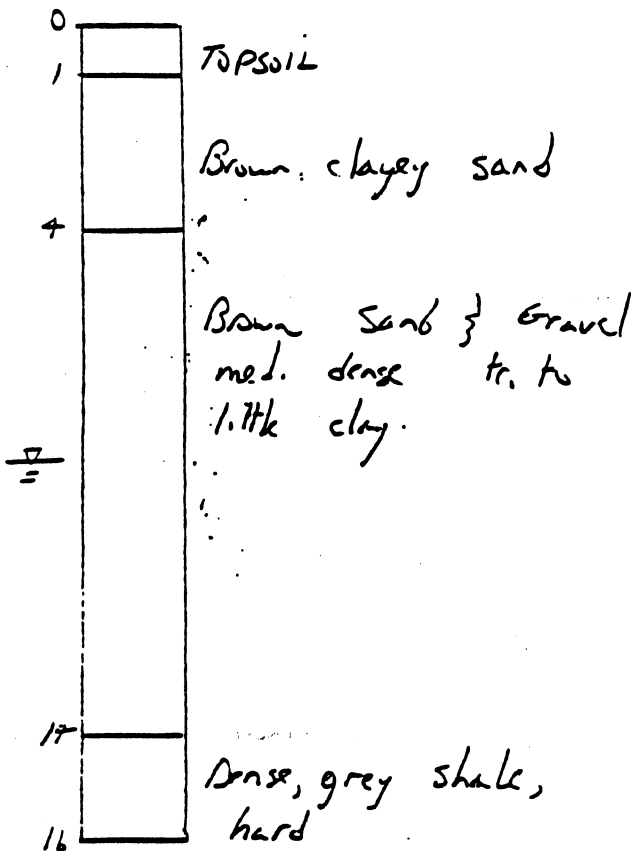
MW-7

DRILLED
APRIL 29, 1983



PZ-1

DRILLED
April 28, 1983



Project _____

Page 5 of 5

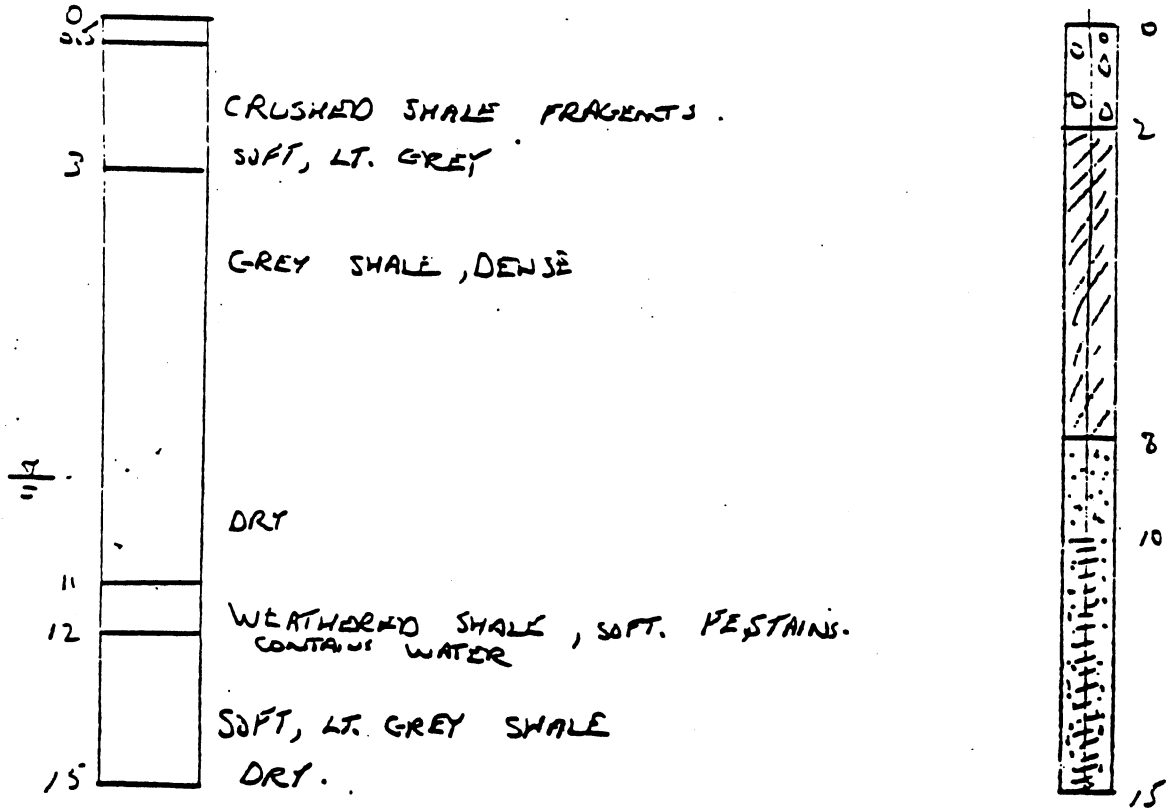
Location _____

By RLB Date 4/21/50

Subject BOREHOLE LOGS

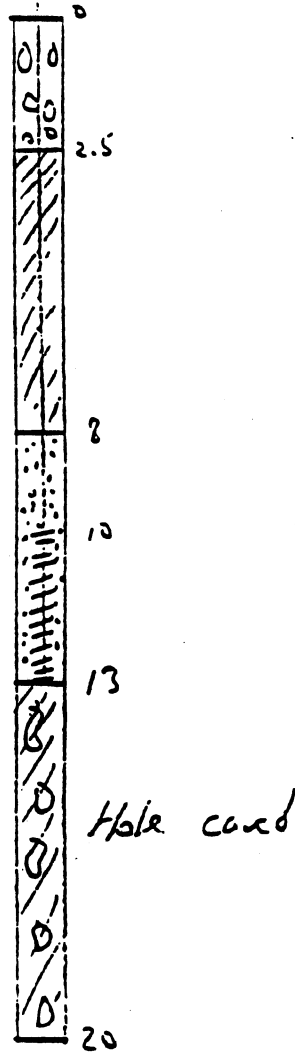
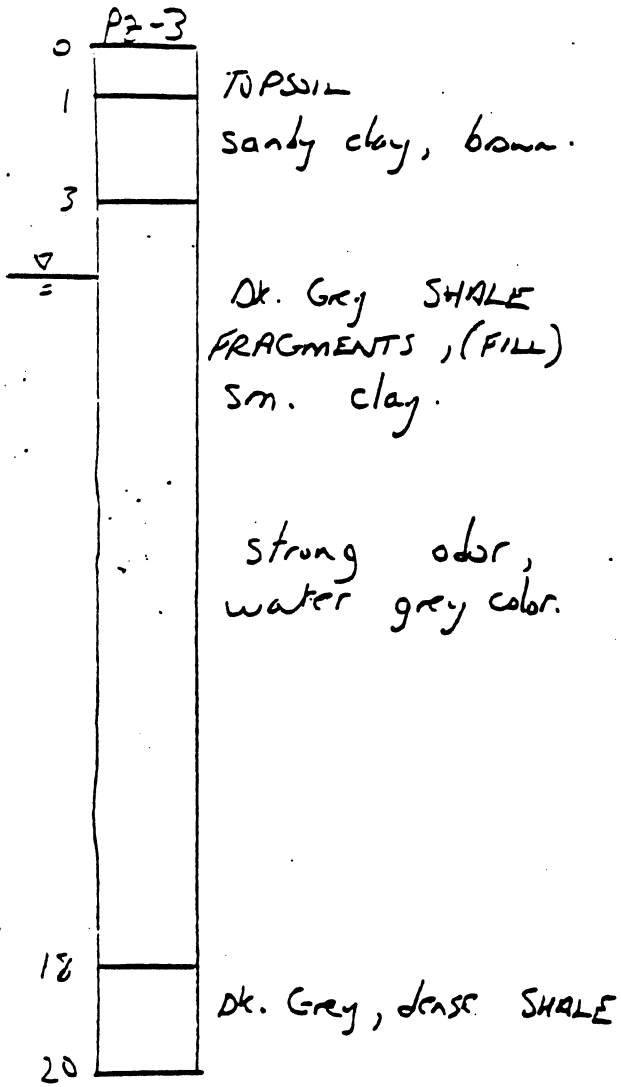
Ck _____ Date _____

PZ-2



DRILLED APRIL 21, 1950

DRILLED
Apr. 28, 1983.



APPENDIX D.3

JUNE 1991, CRA

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(L-06)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-1D-91, BH-2-91
 (Page 1 of 2)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: 4 1/4" ID HSA
 CRA SUPERVISOR: R. FIELD

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	VALUE	UNITS
	REFERENCE POINT (Top of Riser) GROUND SURFACE	380.54 378.0	<p style="font-size: small;"> CONCRETE SEAL 8" BOREHOLE CEMENT/BENTONITE GROUT 4" STEEL CASING BENTONITE PELLET SEAL 5.9" BOREHOLE 3.9" BOREHOLE </p>				
2.5	SM-SAND, little silt, little fine to coarse gravel, medium dense, brown, dry			1SS	X	17	4.5
5.0	Same, with weathered shale fragments			2SS	X	>100	0.5
7.5				3SS	X	>100	29.5
10.0	BEDROCK-SHALE END OF OVERBURDEN HOLE @ 8.0 FT BGS	370.0		4SS	X	>100	1.7
12.5				5SS	X	>100	-
15.0		365.0					
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

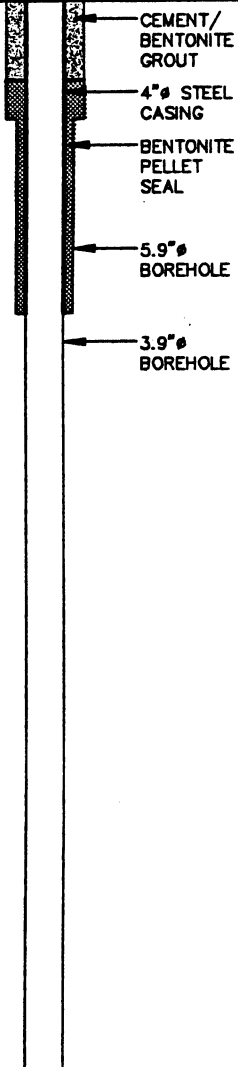

CHEMICAL ANALYSIS ○ WATER FOUND ∇ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-07)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-1D-91, BH-2-91
 (Page 2 of 2)
 DATE COMPLETED: JUNE 25, 1991
 DRILLING METHOD: WR / CORE
 CRA SUPERVISOR: R. FIELD / E. HOLT

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BIENTREORCVKAL	RNUNBER.	CRCECOVERY	ROD	WRATTERRN
ft BGS		ft. AMSL				%	%	%
7.5	Overburden	370.0	 <p style="font-size: small; margin: 0;"> CEMENT/ BENTONITE GROUT 4" STEEL CASING BENTONITE PELLET SEAL 5.9" BOREHOLE 3.9" BOREHOLE </p>					
10.0	SHALE(Normanskill Formation): dark gray, fine grained, near vertical fractures throughout, bedding trends east @ 30°							
12.5	- weathered fracture (13.5 to 14.3 ft BGS)	363.8						
15.0	- iron staining between broken shale pieces (16.0 to 16.5 ft BGS)				1	95	83	
17.5	- near vertical iron stained fracture with presence of chalcopryite (18.3 to 19.0 ft BGS)				2	100	95	
20.0	- trends westerly (20.5 to 22.0 ft BGS)							
22.5	- 45° fractures on quartz filled veins, trending west with bedding to 24.0 ft BGS							
25.0	- bedding disturbed with quartz filling between fractures that myriad column length, trace pyrite between fractures							
27.5	- bedding continues westerly dipping 45° (27.2 to 32 ft BGS)				3	100	82	
30.0								
32.5	END OF HOLE @ 32 FT. BGS	346.0						
35.0								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE.

☒ WATER FOUND

☒ STATIC WATER LEVEL

NM - NOT MEASURED

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(L-08)

PROJECT NAME: NEPERA - LAGOON SITE

HOLE DESIGNATION: MW-2D-91
(Page 1 of 3)

PROJECT NO.: 3698

DATE COMPLETED: JUNE 30, 1991

CLIENT: NEPERA, INC.

DRILLING METHOD: 4 1/4" ID HSA

LOCATION: HAMPTONBURGH, NY

CRA SUPERVISOR: E. HOLT

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	N VALUE	H UN (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	379.53 377.2					
-2.5	SM-SAND, fine to medium grained, some silt, little to some gravel, medium dense to extremely dense, brown to dark gray, moist to wet		<p>CONCRETE SEAL</p> <p>8" BOREHOLE</p>	(1SS)	X	45	-
				2SS	X	50	-
-5.0				(3SS)	X	27	0.8
-7.5				4SS	X	21	0.8
				5SS	X	21	0.3
-10.0	GM-GRAVEL, fine to coarse grained, little to some silt, shale fragments, very dense to extremely dense, light gray to dark gray, saturated	367.2 366.0	<p>CEMENT/BENTONITE GROUT</p> <p>4" STEEL CASING</p> <p>5.9" BOREHOLE</p>	6SS	X	98	-
-12.5		(7SS)		X	73	0.8	
-15.0		8SS		X	>100	0.8	
-17.5		9SS		X	>100	-	
-20.0		END OF OVERBURDEN HOLE @ 19.0 FT. BGS		358.2	<p>BENTONITE PELLET SEAL</p> <p>3.9" COREHOLE</p>		
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



WATER FOUND



STATIC WATER LEVEL



STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-09)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-2D-91
 (Page 2 of 3)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: WR / CORE
 CRA SUPERVISOR: R. FIELD

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BI EN DT RE OR CV KA L	RN UN BER	CR EO CO VE RY	RO D	WR ET TU RN		
ft BGS		ft. AMSL				%	%	%		
17.5	Overburden	358.2								
20.0	SHALE(Normanskill Formation): gray, massive, bedding dips eastward									
22.5	- quartz filled fracture (⊕ 19.1 ft BGS) - vertical fracture (⊕ 19.5 ft BGS) - vertical fracture (⊕ 20.3 ft BGS) - vertical fracture (⊕ 21.5 ft BGS) - highly fractured (22.0 to 22.8 ft BGS) - highly fractured (23.3 to 23.8 ft BGS) - vertical fracture (⊕ 24.4 ft BGS) - vertical fracture (⊕ 25.0 ft BGS) - vertical fracture (⊕ 26.0 ft BGS) - quartz filled fractures (⊕ 26.1 and 26.5 ft BGS) - highly vertically fractured (26.5 to 27.0 ft BGS) - (45°) vertical fracture (27.0 to 28.0 ft BGS) - fracture (⊕ 28.8 ft BGS) - fracture (⊕ 29.9 ft BGS) - fracture (⊕ 30.4 ft BGS) - fracture (⊕ 31.3 ft BGS) - highly fractured and broken (31.8 to 32.0 ft BGS) - highly fractured throughout - quartz filled joints (⊕ 33.0 ft BGS) - weathered iron stained fracture (⊕ 35.0 ft BGS) - weathered iron stained fracture (⊕ 35.8 ft BGS) - fault (⊕ 36.5 ft BGS) - vertical fracture (⊕ 37.3 ft BGS) - vertical fracture (⊕ 37.8 ft BGS) - vertical fracture (⊕ 38.2 ft BGS) - vertical fracture (⊕ 38.9 ft BGS) - vertical fracture (⊕ 39.1 ft BGS) - vertical fracture (⊕ 39.4 ft BGS) - vertical fracture (⊕ 39.9 ft BGS) - vertical fractures and fault zone (40.0 to 40.9 ft BGS) - highly fractured (42.5 to 43.0 ft BGS)									
25.0										
27.5							1	100	71	100
30.0										
32.5										
35.0							2	100	81	100
37.5										
40.0										
42.5							3	96	40	100
45.0										
							4	100	64	100
							5	100	62	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

∇ WATER FOUND

∇ STATIC WATER LEVEL

NM - NOT MEASURED

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-09)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-2D-91
 (Page 3 of 3)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: WR / CORE
 CRA SUPERVISOR: R. FIELD

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BIENTREORCVKAL	RNUNMBER	CRORCOVERERY	RQD	WRATTEURN
ft BGS		ft. AMSL				%	%	%
47.5	- fault zone (⊕ 45.2 ft BGS) - highly fractured, weathered, iron staining (⊕ 47.6 ft BGS)	325.2			5	100	62	
50.0	- highly fractured and weathered (50.0 to 51.0 ft BGS)				6	88	52	
52.5	END OF HOLE ⊕ 52 FT. BGS							
55.0								
57.5								
60.0								
62.5								
65.0								
67.5								
70.0								
72.5								
75.0								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

☒ WATER FOUND
☒ STATIC WATER LEVEL
NM - NOT MEASURED

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(L-10)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 (Page 1 of 3)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: 4 1/4" ID HSA
 CRA SUPERVISOR: R. FIELD

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	VALUE (ppm)	HN
	REFERENCE POINT (Top of Riser) GROUND SURFACE	375.31 372.8					
-2.5	SM-SAND, fine to medium grained, some silt, little gravel, medium dense to dense, tan to dark brown, moist		CONCRETE SEAL	1SS	X	15	-
-5.0				2SS	X	21	-
-7.5				3SS	X	18	-
-10.0				4SS	X	20	-
-12.5	SP-SAND, fine to medium grained, little gravel with broken shale fragments, trace silt, dense to extremely dense, gray brown to dark brown, moist	360.8	8" Ø BOREHOLE	5SS	X	23	-
-15.0				6SS	X	34	-
-17.5	SM-SAND, fine to medium grained, some gravel with shale fragments, some silt, dark brown, moist	356.8	CEMENT/ BENTONITE GROUT	7SS	X	>100	-
-20.0				8SS	X	36	-
-22.5				9SS	X	34	-
-25.0	END OF OVERBURDEN HOLE @ 23.0 FT. BGS	349.8	4" Ø STEEL CASING	10SS	X	>100	-
-27.5				BENTONITE PELLET SEAL	5.9" Ø BOREHOLE		
-30.0			3.9" Ø COREHOLE				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ○
 WATER FOUND ∇
 STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-11)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 (Page 2 of 3)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: NX CORE
 CRA SUPERVISOR: R. FIELD

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BENTONITE RECOVERY	RUN NUMBER	CORE RECOVERY	ROD	WATER RETURN
ft BGS		ft. AMSL				%	%	%
22.5	Overburden							
25.0	SHALE(Normanskill Formation): fine grained, gray, massive	349.8						
25.0	- vertical fracture (⊕ 23.2 ft BGS)	348.7						
25.0	- vertical fracture (⊕ 23.9 ft BGS)							
25.0	- quartz filled fracture (⊕ 24.3 ft BGS)				1	80	100	100
25.0	- vertical fracture (⊕ 24.5 ft BGS)							
25.0	- vertical fracture (⊕ 24.9 ft BGS)							
27.5	- vertical fracture dipping at 40° (⊕ 25.3 ft BGS)							
27.5	- vertical fracture dipping at 40° (⊕ 25.9 ft BGS)							
30.0	- vertical fracture dipping at 40° (⊕ 26.9 ft BGS)							
30.0	- weathered fractures with iron staining (⊕ 28.8, 29.0 and 29.3 ft BGS)				2	100	89	100
32.5	- vertical fracture from faulting (⊕ 30.1 ft BGS)							
32.5	- highly fractured zone (32.2 to 32.3 ft BGS)							
35.0	- weathered fracture (⊕ 32.9 ft BGS)							
35.0	- quartz filled vertical fracture (⊕ 33.8 ft BGS)							
37.5	- vertical fracture (⊕ 34.8 ft BGS)							
37.5	- quartz filled healed fracture (⊕ 35.7 ft BGS)							
40.0	- vertical fracture (⊕ 36.8 ft BGS)							
40.0	- quartz lined fracture (37.4 ft BGS)				3	100	91	
40.0	- weathered fractures (⊕ 38.4, 40.7, 40.9, 41.2 and 41.7 ft BGS)							
42.5	- highly fractured (⊕ 42.0 ft BGS)							
45.0	- vertical fracture (⊕ 44.6 ft BGS)							
47.5	- vertical fracture (⊕ 46.0 ft BGS)							
47.5	- vertical fracture (⊕ 46.9 ft BGS)							
50.0	- weathered fracture zone containing redeposition of clay minerals with iron staining (48.5 to 49.0 inft BGS)							
50.0	- quartz filled veins (⊕ 50.4 ft BGS)				4	100	82	
50.0	- quartz filled veins (⊕ 51.0 ft BGS)							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

∇ WATER FOUND

∇ STATIC WATER LEVEL

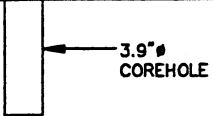
NM - NOT MEASURED

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-11)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 (Page 3 of 3)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: NX CORE
 CRA SUPERVISOR: R. FIELD

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BENTONITE RECORD	RUN NUMBER	CORRECTION	RECOVERY	WATER RETURN
ft BGS		ft. AMSL				%	%	%
52.5	- highly fractured zone with some weathering (51.5 to 52.8 ft BGS)	319.8	 3.9" COREHOLE					
53.0	END OF HOLE ⊕ 53 FT. BGS							
55.0								
57.5								
60.0								
62.5								
65.0								
67.5								
70.0								
72.5								
75.0								
77.5								
80.0								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE.

☒ WATER FOUND

☒ STATIC WATER LEVEL

NM - NOT MEASURED

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(L-12)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-4D-91
 (Page 1 of 2)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: 4 1/4" ID HSA
 CRA SUPERVISOR: R. FIELD

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEVATION ft AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	VALUE	UNITS
	REFERENCE POINT (Top of Riser) GROUND SURFACE	375.21 372.9	<p style="font-size: small;"> CONCRETE SEAL 8" Ø BOREHOLE CEMENT/BENTONITE GROUT 4" Ø STEEL CASING BENTONITE PELLET SEAL 5.9" Ø BOREHOLE 3.9" Ø COREHOLE </p>				
-2.5	SM-SAND, fine to medium grained, little to some silt, trace to little fine gravel, trace clay, medium dense, dry to moist			(1SS)	X	21	-
-5.0				2SS	X	29	-
-7.5	ML-SILT, trace fine to coarse grained gravel and shale fragments, interbedded, trace very fine grained sand, trace clay, medium dense, brown, wet	365.9		(3SS)	X	23	-
-10.0				4SS	X	51	-
-12.5	SM-SAND, fine grained, some silt interbedded with fractured shale and fine grained gravel brown, wet to saturated - fractured shale	362.4		(5SS)	X	20	-
-15.0	END OF OVERBURDEN HOLE ● 15.0 FT BGS	357.9		6SS	X	12	-
-17.5				7SS	X	100	-
-20.0				8SS	X	100	-
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ○ WATER FOUND ∇ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(L-13)

PROJECT NAME: NEPERA - LAGOON SITE
 PROJECT NO.: 3698
 CLIENT: NEPERA, INC.
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-4D-91
 (Page 2 of 2)
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: NX CORE
 CRA SUPERVISOR: R. FIELD

DEPTH	DESCRIPTION OF STRATA	ELEVATION	MONITOR INSTALLATION	BENTONITE OR CV KAL	RUN NUMBER	CORRECTION	ROD	WATER RETURN	
ft BGS		ft. AMSL				%	%	%	
15.0	Overburden	357.7	<p style="font-size: small;">8" BOREHOLE CEMENT/BENTONITE GROUT BENTONITE PELLET SEAL 5.9" BOREHOLE 4" STEEL CASING 3.9" COREHOLE</p>						
17.5	SHALE(Normanskill Formation): dark gray, fine grained, U shaped bedding - vertical fracture (⊕ 16.5 ft BGS) - vertical fractures (17.2 to 18.2 ft BGS) - highly fractured vertically (18.2 to 19.0 ft BGS) - iron stained vertical fractures (⊕ 19.6, 19.8 and 19.9 ft BGS) - 1mm quartz layer with displacement of bedding (⊕ 20.5 ft BGS) - weathered fractures along bedding planes 50° angle dip, iron staining and quartz filling in fractures, joints 45° to fractures, various fracture planes vertical and against bedding orientation, weathered fractures from 21.0 to 23.0 ft BGS, shale contains more chlorite exhibiting a pale green appearance	357.4			1	100	62		
20.0					2	100	67		
22.5						3	80	50	
25.0									
27.5		END OF HOLE ⊕ 26 FT. BGS		346.9					
30.0									
32.5									
35.0									
37.5									
40.0									
42.5									

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

☒ WATER FOUND

☒ STATIC WATER LEVEL

NM - NOT MEASURED

APPENDIX D.4

JUNE 1995, CRA

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-6D-95
 DATE COMPLETED: MAY 23, 1995
 DRILLING METHOD: HSA/HQ CORING/ROTARY
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	351.73 348.5	<p style="font-size: small;">10" Ø BOREHOLE 6" CASING CEMENT/BENTONITE GROUT 5 7/8" Ø BOREHOLE 4" Ø STAINLESS STEEL CASING</p>				
-2.5	OL-ORGANIC SILT SM-SAND, some silt	348.0					
-5.0	ML-SILT, some clay, some shale fragments, wet	345.5					
-7.5	END OF OVERBURDEN HOLE @ 7.0ft BGS	341.5					
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: NEPERA - MAYBROOK
PROJECT NUMBER: 3698
CLIENT: NEPERA INC.
LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-6D-95
DATE COMPLETED: MAY 23, 1995
DRILLING METHOD: HSA/HQ CORING/ROTARY
CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %
	Overburden							
-7.5	SHALE (Normanskill Formation); blue gray, fine to very fine grained, U-shaped bedding, extensive iron stained fractures dipping @ 50'	341.5	<p>10" Ø BOREHOLE 6" CASING TO 12ft BGS</p>		1	98		
-10.0								
-12.5	- fine light/dark gray bedding planes dipping @ 50' (@ 13ft BGS)				2	100	44	
-15.0	- 3 to 5" void (@ 15.9ft BGS)				3	75	94	
-17.5	- white gypsum filled fractures (16.3 to 17ft BGS)				4		87	
-20.0	- 3 to 5" void (@ 18ft BGS)				5		72	
-22.5	- gypsum filled fractures (18.5 to 19.3ft BGS)				6	100	87	
-25.0	- more competent, less weathered and fractured				7	100	97	
-27.5	- fracture with white mineral filling							
-30.0	- rubble from fracture (24.7 to 25ft BGS)							
-32.5	- competent, unfractured, homogeneous (25 to 29ft BGS)							
-35.0	- rubble from fracture (30 to 30.6ft BGS)							
-37.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-16)
Page 2 of 2

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-6D-95
 DATE COMPLETED: MAY 23, 1995
 DRILLING METHOD: HSA/HQ CORING/ROTARY
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
-42.5	- dark gray, bedding dipping 50° , alternately dark to light gray, thinly bedded (@ 40.3ft BGS)				7	100	97	
-45.0	- infilled fractures, oriented opposite to bedding planes (45 to 49.3ft BGS)			8	100	85		
-47.5				9	100	100		
-50.0				10	100	100		
-52.5	- white fracture infilling, extremely resistant to breakage			11	100	100		
-55.0				12	66	50		
-57.5				13	100	100		
-60.0								
-62.5								
-65.0								
-67.5								
-70.0	- rubble zone (67 to 68ft BGS)							
-72.5	END OF HOLE @ 72.0ft BGS	276.5						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-18)
Page 1 of 1

PROJECT NAME: NEPERA - MAYBROOK
PROJECT NUMBER: 3698
CLIENT: NEPERA INC.
LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-1-95
DATE COMPLETED: MAY 23, 1995
DRILLING METHOD:
CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	"N" VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	370.04 367.4	<p style="margin-left: 100px;">10" Ø STEEL CASING</p> <p style="margin-left: 100px;">CEMENT/ BENTONITE GROUT</p> <p style="margin-left: 100px;">2" Ø STAINLESS STEEL PIPE</p>					
-2.5	SM/ML-SAND, SILT and GRAVEL (TILL), trace clay							
-5.0								
-7.5								
-10.0	ML-SILTY CLAY, some sand and gravel	357.9						
-12.5								
-15.0			▽					
-17.5	END OF OVERBURDEN HOLE @ 18ft BGS	349.4						
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-20)
Page 1 of 1

PROJECT NAME: NEPERA - MAYBROOK
PROJECT NUMBER: 3698
CLIENT: NEPERA INC.
LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-7U-95
DATE COMPLETED: MAY 4, 1995
DRILLING METHOD: 4 1/2" ID HSA
CRA SUPERVISOR: E. FINCK

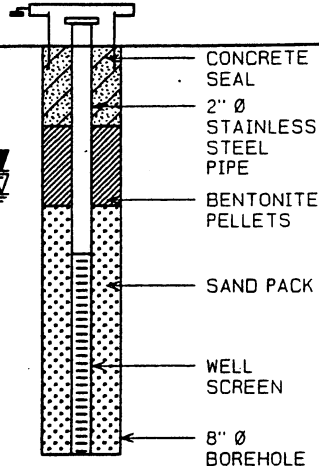
DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	366.76 364.2	<p style="margin-top: 10px;">SCREEN DETAILS Screened interval: 8.6 to 13.6ft BGS Length: 5ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 7.6 to 13.6ft BGS Material: No.4 Sand</p>				
-2.5	ML-SILT, some clay, some shale fragments, moist			1SS	X	6	0
-5.0	SM-SAND, some silt, trace gravel, fine to medium grained, moist	359.2		2SS	X	12	0
-7.5							
-10.0	- wet			3SS	X	16	0
-12.5							
-15.0	- auger refusal on shale bedrock END OF HOLE @ 13.9ft BGS	350.3		4SS	X	>50	-
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ∇ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-8U-95
 DATE COMPLETED: MAY 24, 1995
 DRILLING METHOD: 4 1/2" ID HSA
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	361.04 357.3	 <p style="font-size: small;">CONCRETE SEAL 2" Ø STAINLESS STEEL PIPE BENTONITE PELLETS SAND PACK WELL SCREEN 8" Ø BOREHOLE</p> <p>SCREEN DETAILS Screened interval: 5.2 to 10.2ft BGS Length: 5ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 4 to 10.2ft BGS Material: No.4 Sand</p>				
-2.5	SM-SAND (TOPSOIL), some gravel and silt, mottled brown with yellow, red/brown, moist, plant matter, brick fragments			1SS	X	12	0
-5.0	ML-SILT (TILL), little sand, trace fine gravel, yellow brown, wet - well graded	353.3		2SS	X	10	
-10.0	SP/GP-SAND and fine GRAVEL, gray, wet, chemical odor - refusal at presumed bedrock	347.3 347.1		3SS	X	>50	
-12.5	END OF HOLE @ 10.2ft BGS						
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-18)
Page 2 of 5

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-1-95
 DATE COMPLETED: MAY 23, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %
-53.5 -56.0 -58.5 -61.0 -63.5 -66.0 -68.5 -71.0 -73.5 -76.0 -78.5 -81.0 -83.5			<p style="margin-left: 100px;">10" Ø STEEL CASING</p> <p style="margin-left: 100px;">CEMENT/ BENTONITE GROUT</p> <p style="margin-left: 100px;">6" Ø BOREHOLE</p> <p style="margin-left: 100px;">2" Ø STAINLESS STEEL PIPE</p>					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-18)
Page 3 of 5

PROJECT NAME: NEPERA - MAYBROOK
PROJECT NUMBER: 3698
CLIENT: NEPERA INC.
LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-1-95
DATE COMPLETED: MAY 23, 1995
DRILLING METHOD:
CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %
-88.5 -91.0 -93.5 -96.0 -98.5 -101.0 -103.5 -106.0 -108.5 -111.0 -113.5 -116.0 -118.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-18)
Page 4 of 5

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-1-95
 DATE COMPLETED: MAY 23, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %
-123.5 -126.0 -128.5 -131.0 -133.5 -136.0 -138.5 -141.0 -143.5 -146.0 -148.5 -151.0 -153.5								
	END OF HOLE @ 155.0ft BGS	212.4						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-19)
Page 2 of 6

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-2-95
 DATE COMPLETED: MAY 18, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
-44.5 -47.0 -49.5 -52.0 -54.5 -57.0 -59.5 -62.0 -64.5 -67.0 -69.5 -72.0 -74.5			<p style="margin-left: 100px;">10" Ø STEEL CASING</p> <p style="margin-left: 100px;">2" Ø STAINLESS STEEL PIPE</p> <p style="margin-left: 100px;">CEMENT/ BENTONITE GROUT</p> <p style="margin-left: 100px;">6" Ø BOREHOLE</p>					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-2-95
 DATE COMPLETED: MAY 18, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %
-79.5 -82.0 -84.5 -87.0 -89.5 -92.0 -94.5 -97.0 -99.5 -102.0 -104.5 -107.0 -109.5			<p style="font-size: small;">6" Ø BOREHOLE</p> <p style="font-size: small;">CEMENT/ BENTONITE GROUT</p> <p style="font-size: small;">2" Ø STAINLESS STEEL PIPE</p> <p style="font-size: small;">BENTONITE SEAL</p> <p style="font-size: small;">SAND PACK</p> <p style="font-size: small;">WELL SCREEN</p> <p style="font-size: small;">CEMENT/ BENTONITE GROUT</p>					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-19)
Page 4 of 6

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-2-95
 DATE COMPLETED: MAY 18, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %
-114.5 -117.0 -119.5 -122.0 -124.5 -127.0 -129.5 -132.0 -134.5 -137.0 -139.5 -142.0 -144.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇ (JULY 24, 1995)

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: NEPERA - MAYBROOK
 PROJECT NUMBER: 3698
 CLIENT: NEPERA INC.
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: DW-2-95
 DATE COMPLETED: MAY 18, 1995
 DRILLING METHOD:
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	BEDROCK INTERVAL	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
-149.5 -152.0 -154.5 -157.0 -159.5 -162.0 -164.5 -167.0 -169.5 -172.0 -174.5 -177.0 -179.5	END OF HOLE @ 178.0ft BGS	188.1						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼ (JULY 24, 1995)

APPENDIX D.5

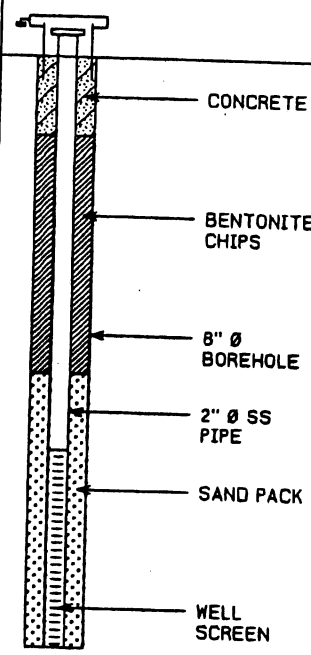
2001 NEW INSTALLATIONS, CRA

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-22)
Page 1 of 1

PROJECT NAME: MAYBROOK LAGOON SITE
PROJECT NUMBER: 3698
CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-9U-01
DATE COMPLETED: JUNE 14, 2001
DRILLING METHOD: 4 1/2" HSA
CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.700 357.10	 <p style="font-size: small;">CONCRETE</p> <p style="font-size: small;">BENTONITE CHIPS</p> <p style="font-size: small;">8" Ø BOREHOLE</p> <p style="font-size: small;">2" Ø SS PIPE</p> <p style="font-size: small;">SAND PACK</p> <p style="font-size: small;">WELL SCREEN</p> <p>SCREEN DETAILS Screened Interval: 10.0 to 15.0ft BGS Length: 5.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 8.0 to 15.0ft BGS Material: Silica Sand</p>					
	SM-SAND, with silt, trace gravel, loose, fine grained, poorly graded, brown with orange, damp							
-2.5	SP-SAND, trace silt, trace large gravel, loose, fine grained, poorly graded, dark brown, damp, trace rock fragments	355.10						
-5.0	- gravel	353.10						
	SM/GW-SILTY SAND and GRAVEL, loose, fine to coarse grained, well graded, brown with orange, damp	351.10						
-7.5	SM/GW-SAND and GRAVEL, with silt, loose, fine to coarse, well graded, light brown, damp	350.10						
	SM-SAND, with silt, loose, fine to medium grained, well graded, orange, wet	349.10						
-10.0	SM/GW-SAND and GRAVEL, with silt, loose, fine to coarse grained, well graded, dark brown, wet	348.80						
-12.5	- saturated	345.10						
	- with rock fragments, orange brown	344.43						
-15.0	ML-SILT (TILL), with sand, trace clay, trace gravel, compact, well graded, gray, damp	342.77						
	GW-GRAVEL, trace medium sand, dense, medium to coarse grained, well graded, brown, wet	342.10						
-17.5	ML-SILT (TILL), trace to little fine sand, trace clay, trace gravel, dense, brown, very moist to wet, oxidized							
-20.0	BEDROCK (SHALE), weathered, fine grained, gray/black - auger refusal END OF HOLE @ 15.0ft BGS							
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-24)
Page 1 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10U-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 4 1/2" HSA
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.600 357.50					
1.0	SM-SAND, with silt, trace gravel, loose, fine grained, poorly graded, light brown, damp, trace grassy vegetation						
2.0	- and silt, trace clay, very moist						
3.0	- with to trace silt, trace gravel, loose, fine grained, well graded, brown, damp						
4.0	ML-SILT (TILL), little fine sand, trace gravel, loose, fine grained, well graded, light orangey brown, damp	353.50					
5.0							
6.0							
7.0	- occasional oxidized soil						
8.0	SM-SILTY SAND, loose, fine grained, well graded, brown, saturated	349.50					
9.0							
10.0	ML-SILT (TILL), with sand, trace gravel, firm, fine grained, well graded, mottled gray and brown, occasional oxidation, damp	348.00 347.50					
11.0	SM-SILTY SAND, trace clay, loose, fine grained, poorly graded, brown, saturated	346.17					
12.0	- with silt, trace small gravel, fine to coarse grained, well graded, dark brown	345.42					
13.0	ML/SM-SILT and SAND, compact, fine grained, poorly graded, orange brown, wet	345.17					
14.0	SM-SAND, with silt, trace gravel, loose, fine to coarse grained, well graded, orange brown, saturated	343.75 343.50					
15.0	ML/SM-SILT and SAND, trace clay, fine grained, poorly graded, mottled gray with brown, wet						
16.0	SM-SAND, with silt, trace gravel, loose, fine to medium grained, well graded, dark brown, saturated						
17.0	SW/GW-SAND and GRAVEL, with weathered shale fragments, loose, medium to coarse grained, well graded, dark brown, saturated	340.33					
18.0	- increase in weathered shale, trace gravel, dark brown to black	339.83					
19.0	ML/SM-SILT and SAND, with clay, loose to compact, fine grained, orange brown, saturated						

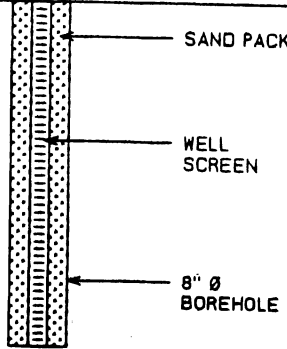
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-24)
Page 2 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10U-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 4 1/2" HSA
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
-21.0	SM-SAND, with silt, with gravel, loose, fine to coarse grained, well graded, dark brown, saturated		 <p style="margin-left: 100px;">SAND PACK</p> <p style="margin-left: 100px;">WELL SCREEN</p> <p style="margin-left: 100px;">8" Ø BOREHOLE</p>				
-22.0	GW-GRAVEL, trace silt, trace medium to coarse sand, loose, well graded, dark brown, saturated, oxidized	338.60					
-23.0	SW-SAND, with gravel, with silt, loose, fine to coarse grained, well graded, dark brown, saturated	337.60					
-24.0	- trace silt, loose, fine grained, poorly graded, light brown, saturated	334.50					
-25.0	ML/SM-SILT and SAND, trace gravel, loose, fine grained, poorly graded, light brown, saturated	333.58					
-26.0	ML-SILT (TILL), with clay, with sand, with gravel compact, well graded, gray, moist	332.50					
-27.0	- fractured shale bedrock, highly weatered, dark gray - auger refusal						
-28.0	END OF HOLE @ 25.0ft BGS						
-29.0							
-30.0							
-31.0							
-32.0							
-33.0							
-34.0							
-35.0							
-36.0							
-37.0							
-38.0							
-39.0							

SCREEN DETAILS
 Screened Interval:
 20.0 to 25.0ft BGS
 Length: 5.0ft
 Diameter: 2"
 Slot Size: #10
 Material: Stainless Steel
 Sand Pack:
 18.0 to 25.0ft BGS
 Material: Silica Sand

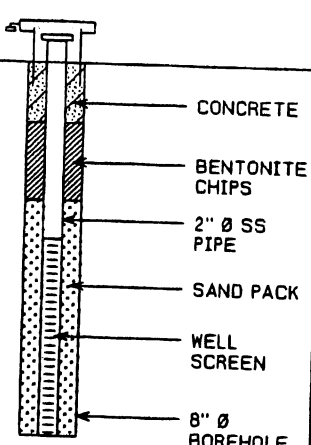
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-26)
Page 1 of 1

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-11U-01
 DATE COMPLETED: JUNE 25, 2001
 DRILLING METHOD: 4" HSA
 CRA SUPERVISOR: M. JIMENEZ

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	348.590 346.20	 <p style="margin-top: 10px;">SCREEN DETAILS Screened Interval: 4.5 to 9.5ft BGS Length: 5.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 3.5 to 9.5ft BGS Material: Silica Sand</p>				
	TOPSOIL	345.70					
-2.5	SM-SAND, some silt, little gravel, medium dense, fine grained, poorly graded, beige, moist	344.20					
-5.0	CL-CLAY, some silt, trace gravel, trace fine sand, stiff, low plasticity, gray, moist						
-7.5	SW/GW-SAND and GRAVEL, little silt, very dense, fine to medium grained, well graded, gray, wet	340.70					
-10.0	BEDROCK (SHALE), weathered, fine grained, gray, wet - refusal	338.70					
-10.0	END OF HOLE @ 9.5ft BGS	336.70					
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-21)
Page 1 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-9D-01
 DATE COMPLETED: JUNE 14, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.480 357.30					
-2.5	SM-SAND, with silt, trace gravel, loose, fine grained, poorly graded, brown with orange, damp	355.30		1SS	X	8	0
	SP-SAND, trace silt, trace large gravel, loose, fine grained, poorly graded, dark brown, damp, trace rock fragments	353.30		2SS	X	29	0
-5.0	- gravel	353.30		3SS	X	26	0
	SM/GW-SILTY SAND and GRAVEL, loose, fine to coarse grained, well graded, brown with orange, damp	351.30		4SS	X	34	0
-7.5	SM/GW-SAND and GRAVEL, with silt, loose, fine to coarse, well graded, light brown, damp	349.30		5SS	X	26	0
	SM-SAND, with silt, loose, fine to medium grained, well graded, orange, wet	346.80		6SS	X	24	0
-10.0	SM/GW-SAND and GRAVEL, with silt, loose, fine to coarse grained, well graded, dark brown, wet	345.30		7SS	X	39	0
-12.5	- saturated	344.63		8SS	X	<50	0
	- with rock fragments, orange brown	342.97					
-15.0	ML-SILT (TILL), with sand, trace clay, trace gravel, compact, well graded, gray, damp	342.30					
	GW-GRAVEL, trace medium sand, dense, medium to coarse grained, well graded, brown, wet						
-17.5	ML-SILT (TILL), trace to little fine sand, trace clay, trace gravel, dense, brown, very moist to wet, oxidized						
-20.0	BEDROCK (SHALE), weathered, fine grained, gray/black						
	- auger refusal						
	END OF OVERBURDEN HOLE @ 15.0ft BGS						
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-21)
Page 2 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW9D-01
 DATE COMPLETED: JUNE 14, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.480 357.30						
-17.5	BEDROCK (Shale): black, fine grained, smooth, thinly bedded - highly fracture and weathered - vertical fracture, oxidized staining - horizontal fracture, oxidized staining, possible water bearing zone, rock fragments - highly fractured (horizontal/vertical oxidized rock fragments) - vertical fracture - rock fragments - horizontal fracture, silt parting, wet (1/2" seam) - vertical fracture (3'-2"), wet - horizontal and vertical fracturing, wet zone - vertical fractures, wet - vertical fractures, wet	342.30	CEMENT/ BENTONITE GROUT	1	100	80		
-20.0			7 7/8" Ø BOREHOLE					
-22.5			6" Ø STEEL CASING		2	100	52	
-25.0			BENTONITE					
-27.5			2" Ø STAINLESS STEEL PIPE		3	100	94	
-30.0			SAND PACK		4	100	75	
-32.5			WELL SCREEN	5	100	83		
-35.0			4" Ø COREHOLE	6	100	50		
-40.0	END OF HOLE @ 41.5ft BGS	315.80						
-42.5								
-45.0								
-47.5								

SCREEN DETAILS
 Screened Interval:
 31.5 to 41.5ft BGS
 Length: 10.0ft
 Diameter: 2"
 Slot Size: #10
 Material: Stainless Steel
 Sand Pack:
 29.5 to 41.5ft BGS
 Material: Silica Sand


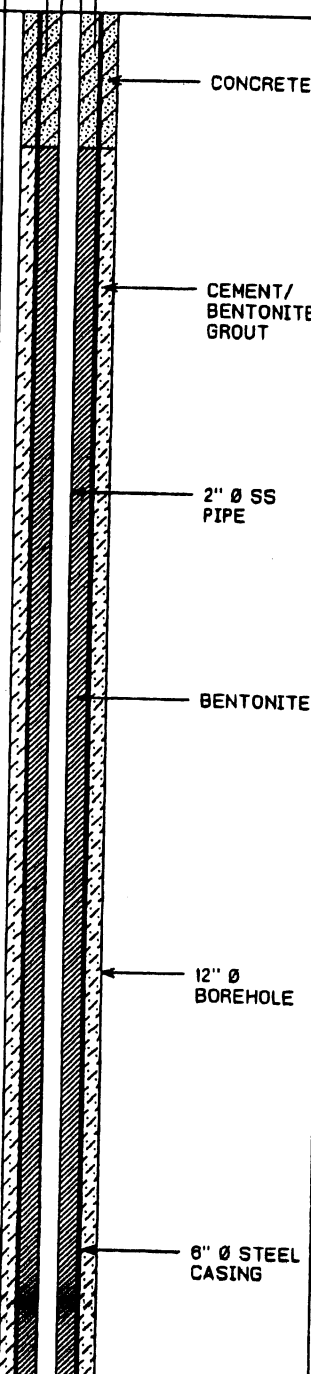
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-23)
Page 1 of 4

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10D-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.710 357.60						
1.0	SM-SAND, with silt, trace gravel, loose, fine grained, poorly graded, light brown, damp, trace grassy vegetation			1SS	X	5	0	
2.0	- and silt, trace clay, very moist							
3.0	- with to trace silt, trace gravel, loose, fine grained, well graded, brown, damp				2SS	X	7	0
4.0	ML-SILT (TILL), little fine sand, trace gravel, loose, fine grained, well graded, light orangey brown, damp	353.60						
5.0					3SS	X	17	0
6.0								
7.0	- occasional oxidized soil				4SS	X	27	0
8.0	SM-SILTY SAND, loose, fine grained, well graded, brown, saturated	349.60						
9.0					5SS	X	12	0
10.0	ML-SILT (TILL), with sand, trace gravel, firm, fine grained, well graded, mottled gray and brown, occasional oxidation, damp	348.10 347.60						
11.0	SM-SILTY SAND, trace clay, loose, fine grained, poorly graded, brown, saturated			6SS	X	16	0	
12.0	- with silt, trace small gravel, fine to coarse grained, well graded, dark brown	346.27						
13.0	ML/SM-SILT and SAND, compact, fine grained, poorly graded, orange brown, wet	345.52 345.27						
14.0	SM-SAND, with silt, trace gravel, loose, fine to coarse grained, well graded, orange brown, saturated	343.85 343.60						
15.0	ML/SM-SILT and SAND, trace clay, fine grained, poorly graded, mottled gray with brown, wet			7SS	X	22	0	
16.0	SM-SAND, with silt, trace gravel, loose, fine to medium grained, well graded, dark brown, saturated			8SS	X	5	0	
17.0	SW/GW-SAND and GRAVEL, with weathered shale fragments, loose, medium to coarse grained, well graded, dark brown, saturated	340.43						
18.0	- increase in weathered shale, trace gravel, dark brown to black	339.93		9SS	X	11	0	
19.0	ML/SM-SILT and SAND, with clay, loose to compact, fine grained, orange brown, saturated			10SS	X	10	0	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-23)
Page 2 of 4

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10D-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 8 1/4" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft.	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
21.0	SM-SAND, with silt, with gravel, loose, fine to coarse grained, well graded, dark brown, saturated			11SS	X	8	0	
22.0	GW-GRAVEL, trace silt, trace medium to coarse sand, loose, well graded, dark brown, saturated, oxidized	338.60				X		
23.0	SW-SAND, with gravel, with silt, loose, fine to coarse grained, well graded, dark brown, saturated	337.60				X		
24.0	- trace silt, loose, fine grained, poorly graded, light brown, saturated	334.60			12SS	X	36	0
25.0	ML/SM-SILT and SAND (TILL), trace gravel, loose, fine grained, poorly graded, light brown, saturated	333.10			13SS	X	-	0
26.0	- with clay, with sand, with gravel, compact, well graded, gray, moist							
27.0	- fractured shale bedrock, highly weatered, dark gray							
28.0	- auger refusal							
29.0	END OF HOLE @ 24.5ft BGS							
30.0								
31.0								
32.0								
33.0								
34.0								
35.0								
36.0								
37.0								
38.0								
39.0								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-23)
Page 3 of 4

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10D-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 8 1/4" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	359.710 357.60					
	Overburden						
-25.0	BEDROCK (Shale): black, fine grained, smooth, thinly bedded, gray	333.10	12" Ø BOREHOLE				
-27.5	- 0.12" horizontal fracture: slightly weathered; no infilling		CEMENT/ BENTONITE GROUT	1	100	97	
-30.0	- 0.08" horizontal fracture: slightly weathered; no infilling - quartz vein, 0.04" thick		7 7/8" Ø BOREHOLE				
-32.5	- some quartz infilling		8" Ø STEEL CASING	2	100	100	
-35.0							
-37.5	- 2" horizontal and vertical fracture, water - horizontal fracture, vertical fractures, water		BENTONITE	3	100	67	
-40.0	- vertical fracture						
-42.5	- vertical fracture						
-45.0							
-47.5	- horizontal fracture - vertical fracture		2" Ø STAINLESS STEEL PIPE	4	100	100	
-50.0							
-52.5			4" Ø COREHOLE				
-55.0	- horizontal fracture - horizontal fracture		BENTONITE CHIPS	5	100	100	

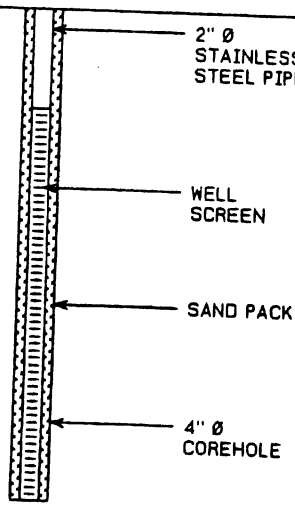
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-23)
Page 4 of 4

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-10D-01
 DATE COMPLETED: JUNE 13, 2001
 DRILLING METHOD: 8 1/4" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %	
-60.0	- vertical fracture (1")			5	100	100		
-62.5	- horizontal fracture, seems water producing							
-65.0	- horizontal and vertical fractures, highly fractured							
-67.5	- calcite seam - vertical fracture (4") - vertical and horizontal fractures, highly weathered				6	100	74	
-70.0	END OF HOLE @ 70.0ft BGS	287.60						
-72.5								
-75.0								
-77.5								
-80.0								
-82.5								
-85.0								
-87.5								
-90.0								

SCREEN DETAILS
 Screened Interval:
 60.0 to 70.0ft BGS
 Length: 10.0ft
 Diameter: 2"
 Slot Size: #10
 Material: Stainless Steel
 Sand Pack:
 57.5 to 70.0ft BGS
 Material: Silica Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-25)
Page 1 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3008
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-11D-01
 DATE COMPLETED: JUNE 25, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	348.680 346.50						
	TOPSOIL	346.00						
-2.5	SM-SAND, some silt, little gravel, medium dense, fine grained, poorly graded, beige, moist	344.50		CONCRETE	1SS	X	14	0
-5.0	CL-CLAY, some silt, trace gravel, trace fine sand, stiff, low plasticity, gray, moist			CEMENT/ BENTONITE GROUT	2SS	X	27	0
-7.5	SW/GW-SAND and GRAVEL, little silt, very dense, fine to medium grained, well graded, gray, wet	341.00			3SS	X	22	0
-10.0	BEDROCK (SHALE), weathered, fine grained, gray, wet - refusal	339.00 338.50		12" Ø BOREHOLE	4SS	X	>50	0
	END OF OVERBURDEN HOLE @ 8.0ft BGS			BENTONITE CHIPS				
				6" Ø STEEL CASING				
				2" Ø SS PIPE				
				7 7/8" Ø BOREHOLE				
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-25)
Page 2 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-11D-01
 DATE COMPLETED: JUNE 25, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K.VANDER MEULEN/M.JIMENEZ

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	348.660 346.50					
	Overburden	338.50					
-10.0	BEDROCK (Shale): weathered, gray, fine grained, wet - highly fractured, calcite seam, iron staining		12" Ø BOREHOLE	1	82	78	
-12.5	- highly fractured (horizontal), silt partings		CEMENT/ BENTONITE GROUT				
-15.0	- highly fractured (vertical and horizontal), silt partings - vertical fractures		7 7/8" Ø BOREHOLE	2	100	90	
-17.5	- vertical fracture, silt partings - thin calcite bedding (horizontal)		8" Ø STEEL CASING				
-20.0	- thin calcite bedding (horizontal)						
-22.5	- highly fractured, vertical, silt partings - fine grained, gray, dry		BENTONITE CHIPS	3	100	74	
-25.0	- thin calcite bedding, vertical - horizontal fracture, silt partings		2" Ø STAINLESS STEEL PIPE	4	89	85	
-27.5	- horizontal fracture, small calcite pieces		SAND PACK				
-30.0	- highly fractured, horizontal, vertical, calcite, wet		WELL SCREEN	5	88	94	
-32.5	- horizontal fracture, silt partings - 6 thin calcite beddings, horizontal - horizontal fracture		4" Ø COREHOLE				
-35.0	- horizontal fracture - highly fractured, both horizontal and vertical	311.50					
	END OF HOLE @ 35.0ft BGS						
-37.5							
-40.0							

SCREEN DETAILS
 Screened Interval:
 25.0 to 35.0ft BGS
 Length: 10.0ft
 Diameter: 2"
 Slot Size: #10
 Material: Stainless Steel
 Sand Pack:
 22.0 to 35.0ft BGS
 Material: Silica Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-27)
Page 1 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-12D-01
 DATE COMPLETED: JUNE 26, 2001
 DRILLING METHOD: 8 1/4" HSA/HQ AIR CORING
 CRA SUPERVISOR: K.VANDER MEULEN/M.JIMENEZ

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	385.040 382.80						
	TOPSOIL	382.30		CONCRETE	1SS	X	4	0
-2.5	SM-SAND, some silt, loose, fine grained, poorly graded, brown, moist	379.80		SAND PACK	2SS	X	7	0
-5.0	SP-SAND, little silt, loose, fine grained, poorly graded, dark brown, moist	377.80 377.30		CEMENT/ BENTONITE GROUT	3SS	X	>50	0
-7.5	SW/GW-SAND and GRAVEL, rock fragments, very dense, fine to medium grained, well graded, gray, moist/dry, pieces of shale			12" Ø BOREHOLE	4SS	X	>50	0
-10.0	BEDROCK (SHALE), fragments, weathered, fine grained, dark gray, dry							
	- auger refusal	373.80						
	END OF OVERBURDEN HOLE @ 9.0ft BGS			BENTONITE CHIPS				
				6" Ø STEEL CASING				
				2" Ø SS PIPE				
			7 7/8" Ø BOREHOLE					
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-27)
Page 2 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-12D-01
 DATE COMPLETED: JUNE 26, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K.VANDER MEULEN/M.JIMENEZ

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	385.040 382.80					
	Overburden						
-10.0	BEDROCK (Shale): weathered, fine grained, fragments, dark gray, dry - highly fractured (vertical), iron staining, fine grained, gray, dry	373.80	12" Ø BOREHOLE				
-12.5			CEMENT/ BENTONITE GROUT				
-15.0	- highly fractured, (vertical)		7 7/8" Ø BOREHOLE	1	9	28	
-17.5	- vertical fracture - vertical fracture		6" Ø STEEL CASING	2	10	100	
-20.0	- horizontal fracture, iron staining - shale, fine grain, gray, dry - horizontal fracture		BENTONITE CHIPS				
-22.5	- horizontal fracture, iron staining - horizontal fracture, silt partings		2" Ø STAINLESS STEEL PIPE	3	97	97	
-25.0	- vertical fracture, silt partings - horizontal fracture - vertical fractures, (highly fractured) wet		SAND PACK	4	100	100	
-27.5	- no fractures, fine grain, skeet - highly fractured, vertical and horizontal		WELL SCREEN	5	94	77	
-30.0	- horizontal fracture, silt partings, wet - horizontal fracture, silt partings		4" Ø COREHOLE	6	100	100	
-32.5	- horizontal fracture - vertical fracture						
-35.0	- fine grain shale, gray, wet - horizontal fracture - horizontal fracture						
-37.5	END OF HOLE @ 36.0ft BGS	346.80					
-40.0							

SCREEN DETAILS
 Screened Interval:
 26.0 to 36.0ft BGS
 Length: 10.0ft
 Diameter: 2"
 Slot Size: #10
 Material: Stainless Steel
 Sand Pack:
 24.0 to 36.0ft BGS
 Material: Silica Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-28)
Page 1 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-13D-01
 DATE COMPLETED: JUNE 07, 2001
 DRILLING METHOD: 8 1/4" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	387.220 385.10						
-2.5	SM-SAND, with silt, with gravel, trace rootlets, loose, fine grained, poorly graded, brown, damp	384.10		CONCRETE	1SS	<input checked="" type="checkbox"/>	12	0
-5.0	SW/GW-SAND and GRAVEL, trace silt with shale rock fragments, loose, fine to coarse grained, well graded, grayish brown, damp - and weathered shale rock fragments, dense, light grayish brown, dry	382.43		12" Ø BOREHOLE	2SS	<input checked="" type="checkbox"/>	>50	0
-7.5	BEDROCK, shale fragments, with little fine sand, very weathered, fine grained, dark gray, dry - auger refusal	380.10		CEMENT/ BENTONITE GROUT	3SS	<input checked="" type="checkbox"/>	>50	0
-10.0	END OF OVERBURDEN HOLE @ 5.0ft BGS		BENTONITE CHIPS					
-12.5			6" Ø STEEL CASING					
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-28)
Page 2 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-13D-01
 DATE COMPLETED: JUNE 07, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	387.220 385.10					
	BEDROCK (Shale): dark gray to black, highly fractured, thinly bedded, smooth, fine grain	380.10					
7.5			7 7/8" Ø BOREHOLE				
10.0			CEMENT/ BENTONITE GROUT	1	95	0	
12.5			BENTONITE CHIPS				
15.0	- highly fractured (vertical and horizontal), oxidized		6" Ø STEEL CASING	2	88	31	
17.5	- vertical fracture, oxidized - vertical and horizontal fractures		2" Ø STAINLESS STEEL PIPE				
20.0	- vertical fracture - highly fractured		BENTONITE CHIPS	3	93	67	
22.5							
25.0	- highly fractured		4" Ø COREHOLE	4	100	42	
27.5							
30.0	- highly fractured (vertical and horizontal), silt partings - horizontal fractures - horizontal fractures - horizontal fractures		SAND PACK	5	100	58	
32.5							
35.0	- highly fractured (vertical and horizontal), little water at end of run		WELL SCREEN	7	100	58	
37.5	- 3 horizontal fractures, water in hole after 1/2 hour						
			BENTONITE CHIPS	8	100	92	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-28)
Page 3 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-13D-01
 DATE COMPLETED: JUNE 07, 2001
 DRILLING METHOD: 8 1/2" HSA/HQ AIR CORING
 CRA SUPERVISOR: K. VANDER MEULEN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RGD %	WATER RETURN %
-42.5 -45.0 -47.5 -50.0 -52.5 -55.0 -57.5 -60.0 -62.5 -65.0 -67.5 -70.0 -72.5	END OF HOLE @ 41.0ft BGS	344.10	<p>SCREEN DETAILS Screened Interval: 27.0 to 37.0ft BGS Length: 10.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 24.0 to 37.5ft BGS Material: Silica Sand</p>	8	100	92	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

APPENDIX D.6

2001 WELL CONVERSIONS, CRA

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-1D-91
 DATE COMPLETED: JUNE 25, 1991
 DRILLING METHOD: 4 1/2" ID HSA
 CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE				
				NUMBER	STATE	'N' VALUE	PID (ppm)	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	380.760 378.00						
-2.5	SM-SAND, little silt, little fine to coarse gravel, medium dense, brown, dry			BENTONITE CHIPS	(ISS)	X	17	4.5
	- with weathered shale fragments			8" Ø BOREHOLE	2SS	X	>100	0.5
-5.0				CEMENT/ BENTONITE GROUT	(3SS)	X	>100	29.5
				4" Ø STEEL CASING	(4SS)	X	>100	1.7
-7.5	BEDROCK (SHALE)	370.00		5.9" Ø BOREHOLE	5SS	X	>100	-
	END OF OVERBURDEN HOLE @ 8.0ft BGS	370.00		2" Ø STAINLESS STEEL PIPE				
-10.0				3.9" Ø COREHOLE				
-12.5								
-15.0								
-17.5								
-20.0								
-22.5								
-25.0								
-27.5								
-30.0								
-32.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼
 CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-29)
Page 2 of 2

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-1D-91
 DATE COMPLETED: JUNE 25, 1991
 DRILLING METHOD: WR / CORE
 CRA SUPERVISOR: R. FIELD / E. HOLT

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	380.760 378.00						
-7.5	Overburden							
-10.0	SHALE (Normanskill Formation): dark gray, fine grained, near vertical fractures throughout, bedding trends east @ 30°	370.00						
-12.5	- weathered fracture (13.5 to 14.3ft BGS)							
-15.0	- iron staining between broken shale pieces (16.0 to 16.5ft BGS)			2" Ø STAINLESS STEEL PIPE	1	95	83	
-17.5	- near vertical iron stained fracture with presence of chalcopyrite (18.3 to 19.0ft BGS)							
-20.0	- trends westerly (20.5 to 22.0ft BGS)			SAND PACK	2	100	95	
-22.5	- 45° fractures on quartz filled veins, trending west with bedding to 24.0ft BGS							
-25.0	- bedding disturbed with quartz filling between fractures that myriad column length, trace pyrite between fractures			WELL SCREEN				
-27.5	- bedding continues westerly dipping 45' (27.2 to 32ft BGS)				3	100	82	
-30.0				3.9" Ø COREHOLE				
-32.5	END OF HOLE @ 32.0ft BGS	346.00						
-35.0	NOTE Open corehole converted on June 21, 2001.		SCREEN DETAILS Screened Interval: 21.5 to 31.5ft BGS Length: 10.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 19.3 to 32.0ft BGS Material: No.1 Silica Sand					
-37.5								

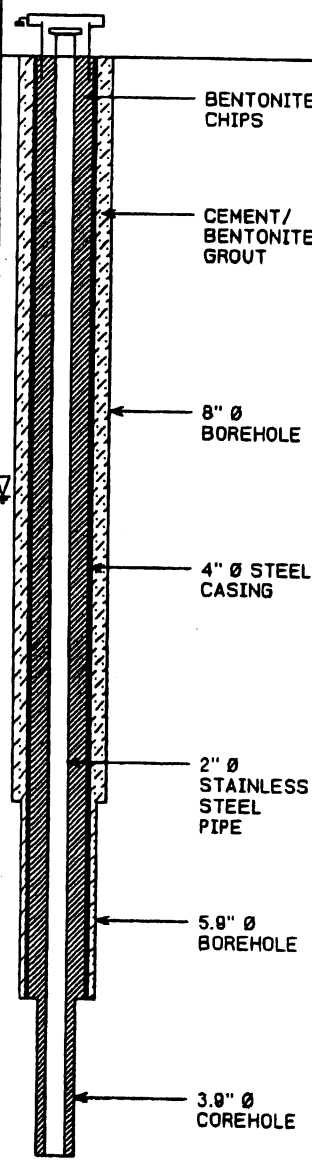
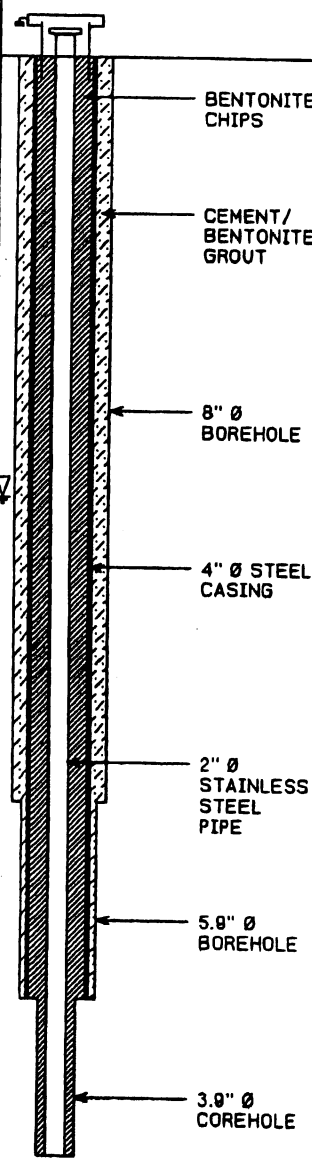
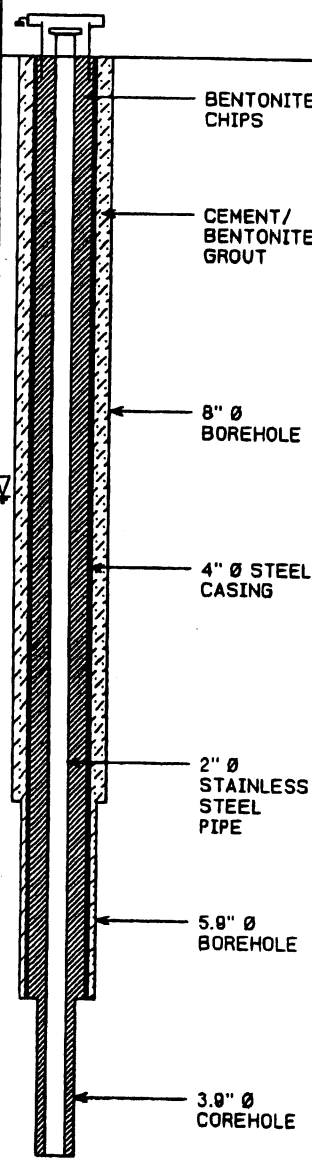
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-30)
Page 1 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-2D-91
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: 4 1/2" ID HSA
 CRA SUPERVISOR: E. HOLT

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	379.900 377.00					
-2.5	SM-SAND, some silt, little to some gravel, medium dense to extremely dense, fine to medium grained, brown to dark gray, moist to wet			1SS	X	45	-
-5.0				2SS	X	50	-
-7.5				3SS	X	27	0.8
-10.0				4SS	X	21	0.8
-12.5				5SS	X	21	0.3
-15.0	GM-GRAVEL, little to some silt, shale fragments, very dense to extremely dense, fine to coarse grained, light gray to dark gray, saturated	367.00		6SS	X	98	-
-17.5				7SS	X	73	0.8
-20.0				8SS	X	>100	0.8
-22.5				9SS	X	>100	-
-25.0	END OF OVERBURDEN HOLE @ 19.0ft BGS	358.00					
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼
 CHEMICAL ANALYSIS ○

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-30)
Page 2 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
PROJECT NUMBER: 3698
CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-2D-91
DATE COMPLETED: JUNE 30, 1991
DRILLING METHOD: WR / CORE
CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %	
	REFERENCE POINT (Top of Riser) GROUND SURFACE	379.900 377.00						
-17.5	Overburden		BENTONITE CHIPS					
-20.0	SHALE (Normanskill Formation): gray, massive, bedding dips eastward - quartz filled fracture (@ 19.1ft BGS) - vertical fracture (@ 19.5ft BGS) - vertical fracture (@ 20.3ft BGS) - vertical fracture (@ 21.5ft BGS) - horizontal fracture (@ 22.0 to 22.8ft BGS) - horizontal fracture (@ 23.3 to 23.8ft BGS) - vertical fracture (@ 24.4ft BGS) - vertical fracture (@ 25.0ft BGS) - vertical fracture (@ 26.0ft BGS) - quartz filled fractures (@ 26.1 and 26.5ft BGS) - highly vertically fractured (26.5 to 27.0ft BGS) - (45°) vertical fracture (27.0 to 28.0ft BGS) - fracture (@ 28.8ft BGS) - fracture (@ 29.9ft BGS) - fracture (@ 30.4ft BGS) - fracture (@ 31.3ft BGS) - highly fractured and broken (31.8 to 32.0ft BGS) - highly fractured throughout - quartz filled joints (@ 33.0ft BGS) - weathered iron stained fracture (@ 35.0ft BGS) - weathered iron stained fracture (@ 35.8ft BGS) - fault (@ 36.5ft BGS) - vertical fracture (@ 37.3ft BGS) - vertical fracture (@ 37.8ft BGS) - vertical fracture (@ 38.2ft BGS) - vertical fracture (@ 38.9ft BGS) - vertical fracture (@ 39.1ft BGS) - vertical fracture (@ 39.4ft BGS) - vertical fracture (@ 39.9ft BGS) - vertical fractures and fault zone (40.0 to 40.9ft BGS) - highly fractured (42.5 to 43.0ft BGS) - fault zone (@ 45.2ft BGS) - highly fractured, weathered, iron staining (@ 47.6ft BGS)	358.00	8" Ø BOREHOLE					
-22.5				CEMENT/ BENTONITE GROUT	1	100	71	100
-25.0				5.9" Ø BOREHOLE				
-27.5				4" Ø STEEL CASING				
-30.0				2" Ø STAINLESS STEEL PIPE	2	100	81	100
-32.5								
-35.0				3.9" Ø COREHOLE	3	96	40	100
-37.5								
-40.0				SAND PACK	4	100	64	100
-42.5								
-45.0			WELL SCREEN	5	100	98		
-47.5				6	88	52		

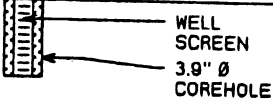
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ∇ STATIC WATER LEVEL ∇

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-30)
Page 3 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-2D-91
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: WR / CORE
 CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %
	- highly fractured and weathered (50.0 to 51.0ft BGS)						
-52.5	END OF HOLE @ 52.0ft BGS	325.00	 <p>WELL SCREEN 3.9" Ø COREHOLE</p>	6	88	52	
-55.0	<p><u>NOTE</u> Open corehole converted on June 21, 2001.</p>		<p><u>SCREEN DETAILS</u> Screened Interval: 42.0 to 52.0ft BGS Length: 10.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 39.0 to 52.0ft BGS Material: No.1 Silica Sand</p>				
-57.5							
-60.0							
-62.5							
-65.0							
-67.5							
-70.0							
-72.5							
-75.0							
-77.5							
-80.0							
-82.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(WL-31)
Page 1 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: 4 1/2" ID HSA
 CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	STATE	'N' VALUE	PID (ppm)
	REFERENCE POINT (Top of Riser) GROUND SURFACE	375.340 372.70	<p style="font-size: small;">BENTONITE CHIPS 8" Ø BOREHOLE CEMENT/BENTONITE GROUT 4" Ø STEEL CASING 2" Ø STAINLESS STEEL PIPE 5.0" Ø BOREHOLE 3.0" Ø COREHOLE</p>				
-2.5	SM-SAND, some silt, little gravel, medium dense to dense, fine to medium grained, tan to dark brown, moist			1SS	X	15	-
-5.0				2SS	X	21	-
-7.5				3SS	X	18	-
-10.0				4SS	X	20	-
-12.5		360.70		5SS	X	23	-
-15.0	SP-SAND, little gravel with broken shale fragments, trace silt, dense to extremely dense, fine to medium grained, gray brown to dark brown, moist			6SS	X	34	-
-17.5		358.70		7SS	X	>100	-
-20.0	SM-SAND, some gravel with shale fragments, some silt, fine to medium grained, dark brown, moist			8SS	X	36	-
-22.5				9SS	X	34	-
-25.0		349.70	10SS	X	>100	-	
-27.5							
-30.0							
-32.5							
	END OF OVERBURDEN HOLE @ 23.0ft BGS						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ∇ STATIC WATER LEVEL ∇
 CHEMICAL ANALYSIS \bigcirc

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-31)
Page 2 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: NX CORE
 CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	375.340 372.70					
-22.5	Overburden		BENTONITE CHIPS				
-25.0	SHALE (Normanskill Formation): fine grained, gray, massive	349.70	8" Ø BOREHOLE				
-27.5	- vertical fracture (@ 23.2ft BGS) - vertical fracture (@ 23.9ft BGS) - quartz filled fracture (@ 24.3ft BGS) - vertical fracture (@ 24.5ft BGS) - vertical fracture (@ 24.9ft BGS)		5.8" Ø BOREHOLE	1	80	100	100
-30.0	- vertical fracture dipping at 40° (@ 25.3ft BGS) - vertical fracture dipping at 40° (@ 25.9ft BGS) - vertical fracture dipping at 40° (@ 26.9ft BGS)		CEMENT/ BENTONITE GROUT				
-32.5	- weathered fractures with iron staining (@ 28.8, 29.0 and 29.3ft BGS) - vertical fracture from faulting (@ 30.1ft BGS)		4" Ø STEEL CASING	2	100	89	100
-35.0	- horizontal fracture zone (32.2 to 32.3ft BGS) - weathered fracture (@ 32.9ft BGS)		2" Ø STAINLESS STEEL PIPE				
-37.5	- quartz filled vertical fracture (@ 33.8ft BGS) - vertical fracture (@ 34.8ft BGS)						
-40.0	- quartz filled healed fracture (@ 35.7ft BGS) - vertical fracture (@ 36.8ft BGS)		3.9" Ø COREHOLE	3	100	91	
-42.5	- quartz lined fracture (@ 37.4ft BGS) - weathered fractures (@ 38.4, 40.7, 40.9, 41.2 and 41.7ft BGS) - highly fractured (@ 42.0ft BGS)						
-45.0	- vertical fracture (@ 44.6ft BGS)		SAND PACK				
-47.5	- vertical fracture (@ 46.0ft BGS) - vertical fracture (@ 46.9ft BGS)						
-50.0	- weathered fracture zone containing redemption of clay minerals with iron staining (48.5 to 49.0ft BGS)		WELL SCREEN	4	100	82	
-52.5	- quartz filled veins (@ 50.4ft BGS) - quartz filled veins (@ 51.0ft BGS) - highly fractured zone with some weathering (51.5 to 52.8ft BGS)						
	END OF HOLE @ 53.0ft BGS	319.70					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-31)
Page 3 of 3

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: HAMPTONBURGH, NY

HOLE DESIGNATION: MW-3D-91
 DATE COMPLETED: JUNE 30, 1991
 DRILLING METHOD: NX CORE
 CRA SUPERVISOR: R. FIELD

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	ROD %	WATER RETURN %
-57.5 -60.0 -62.5 -65.0 -67.5 -70.0 -72.5 -75.0 -77.5 -80.0 -82.5 -85.0 -87.5	<p><u>NOTE</u> Open corehole converted on June 21, 2001.</p>		<p><u>SCREEN DETAILS</u> Screened Interval: 43.0 to 53.0ft BGS Length: 10.0ft Diameter: 2" Slot Size: #10 Material: Stainless Steel Sand Pack: 41.0 to 53.0ft BGS Material: No.1 Silica Sand</p>				

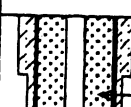
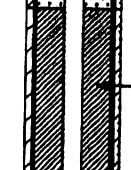
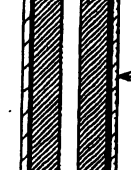
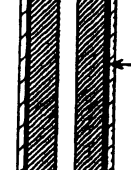
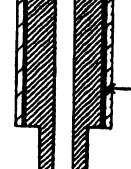
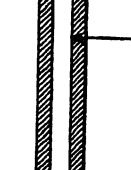
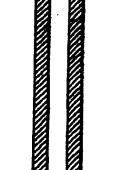
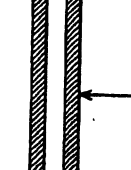

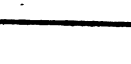
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
 WATER FOUND ▼ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

(WL-32)
Page 2 of 4

PROJECT NAME: MAYBROOK LAGOON SITE
 PROJECT NUMBER: 3698
 CLIENT: MAYBROOK/HARRIMAN ENVIRONMENTAL TRUST
 LOCATION: MAYBROOK, NEW YORK

HOLE DESIGNATION: MW-5D-95
 DATE COMPLETED: JUNE 6, 1995
 DRILLING METHOD: HSA/HQ CORING/ROTARY
 CRA SUPERVISOR: K. WEHN

DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	REFERENCE POINT (Top of Riser) GROUND SURFACE	364.350 360.20					
	Overburden						
-20.0	SHALE (Normanskill Formation): light to dark blue gray, fine to very fine grained, slightly metamorphosed shale, bedding planes dipping at 45-50° angle	341.20					
-22.5							
-25.0				1	100	100	
-27.5							
-30.0				2	92	98	
-32.5							
-35.0							
-37.5				1B	100	100	
-40.0							
-42.5	- weathered fractures (@ 42.7ft BGS)			2B	100	91.6	
-45.0							
-47.5	- calcite veins (@ 48.1ft BGS)			3B	100	90	
-50.0				4B	100	90	

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DEPTH ft. BGS	DESCRIPTION OF STRATA	ELEV. ft. AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	WATER RETURN %
	- metamorphic flow features (@ 52ft BGS)			4B	100	90	
-55.0	- calcite veins cut across bedding (@ 53.3ft BGS)		← BENTONITE CHIPS	5B	100	100	
-57.5							
-60.0	- slightly fractured						
-62.5				6B	84.7	78	
-65.0			← 3.9" Ø COREHOLE				
-67.5							
-70.0				7B	100	76	
-72.5							
-75.0			← 2" Ø STAINLESS STEEL PIPE	8B	100	87	
-77.5							
-80.0	- moderately fractured (81 to 83.3ft BGS)			9B	100	50	
-82.5							
-85.0			← SAND PACK	10B	100	100	

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