Appendix B

Monitoring Well Logs



CLIENT: KEYSPAN

PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

PAGE 1 of 1

OU2MW-01D

BORING LOG

GROUND SURFACE ELEVATION (FT): 13.4 NORTHING:

180369.95 **EASTING:** 2206747.91 DRILLED BY: Fenely & Nicol / Charles Guzzardo

TOTAL DEPTH (FT): 72.40 DATUM VERT. / HORZ.:

LOCATION: OU2

DATE START / END: 5/16/2005 - 5/16/2005

Jeff Parillo DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY:

		SAI	MPLE	INFO	۷				_
	PTH T.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WEL CONSTRU DETAI	JCTI
-	0					0 - 72 - Total Wel	Il Depth		X
	5					Interval	Construction Material		
	J					0 - 65'	2 inch, PVC riser, schedule 40, FJT		
_	10					65 - 70'	10 slot, PVC well screen, schedule 40, FJT		
						70 - 72'	2 inch, PVC sump, schedule 40, FJT		
_	15					72 - 63'	#0 Silica sand		
_	20					63 - 61'	Bentonite pellet seal		
	20					61 - 0'	Grout - cement/bentonite mixture		
_	25								
-	30								X
_	35								
	33								
-	40								
-	45								K
_	50								
	50								
_	55								
_	60								
_	65								
	00								
_	70								#
						Bottom of borehole	e at 72.4 feet.	[1:0:1]	1
<u></u>	TES:								

NOTES:

ENVIRONMENTAL

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

PAGE 1 of 1

OU2MW-01I

BORING LOG

GROUND SURFACE ELEVATION (FT): 13.52 LOCATION: OU2 NORTHING: 180373.24 **EASTING:** 2206745.69 TOTAL DEPTH (FT): 42.40

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.:

LOGGED BY: **Jeff Parillo**

DATE START / END: 5/16/2005 - 5/16/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

VELL TRUCTI TAILS
IV
\(\rangle\)
<u>.</u> :

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PID = PHOTOIOIZATION DETECTOR READING (JAR)
PT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



CITY/STATE:

Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

PAGE 1 of 1

OU2MW-01I2

BORING LOG

GROUND SURFACE ELEVATION (FT): 13.33 LOCATION: OU2

NORTHING: 180366.7 **EASTING:** 2206744.69 TOTAL DEPTH (FT): 57.20 DRILLED BY: Fenely & Nicol / Charles Guzzardo

DATUM VERT. / HORZ.: DATE START / END: 5/13/2005 - 5/13/2005

Jeff Parillo DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY:

***	~ I LIV			110 (1	• /-			
		SAI	MPLE	INFO	4			
	EPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
	0					0 - 57 - Total Well Depth		
	5					Interval	Construction Material	
E	J					0 - 50'	2 inch, PVC riser, schedule 40, FJT	
	10					50 - 55'	10 slot, PVC well screen, schedule 40, FJT	
						55 - 57'	2 inch, PVC sump, schedule 40, FJT	
	15					57 - 48'	#0 Silica sand	
	20					48 - 46'	Bentonite pellet seal	
	20					46 - 0'	Grout - cement/bentonite mixture	
	25							
	30							
E	35							
E	00							
	40							
E	45							
E	50							
E	•							
E	55							

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

Bottom of borehole at 57.2 feet.

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR

MLO = MUSTY LIKE ODOR

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06



GEI PROJECT NUMBER:

CITY/STATE:

PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

061140-10-1902

PAGE 1 of 1

OU2MW-01S

BORING LOG

GROUND SURFACE ELEVATION (FT): 13.45 NORTHING:

180370.37 **EASTING:** 2206742.36 DRILLED BY: Fenely & Nicol / Charles Guzzardo

TOTAL DEPTH (FT): 27.00 DATUM VERT. / HORZ.:

LOCATION: OU2

DATE START / END: 5/12/2005 - 5/12/2005

DRILLING DETAILS: Hollow Stem Auger WATER LEVEL DEPTHS (FT): ▼ 9.83

LOGGED BY: Jeff Parillo

	SAI	MPLE	INFO	٨			
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRAT		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0 					0 - 27 - Total Well Depth		
_ _ 5					Interval	Construction Material	
					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
10					20 - 25'	10 slot, PVC well screen, schedule 40, FJT	
- - -					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
— 15 -					27 - 18'	#0 Silica sand	
_ _ 20					18 - 16'	Bentonite pellet seal	
_ 20 _ _					16 - 0'	Grout - cement/bentonite mixture	

Bottom of borehole at 27.0 feet.

NOTES:

8/10/06

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT

CLIENT: KEYSPAN

PROJECT NAME: Brightwaters Former MGP

LOCATION: OU2

CITY/STATE: Bay Shore, NY **GEI PROJECT NUMBER:**

061140-10-1902

PAGE OU2MW-02D 1 of 1

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.57 NORTHING:

180292.2 **EASTING:** 2206648.34 TOTAL DEPTH (FT): 68.40

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.:

DATE START / END: 5/17/2005 - 5/17/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY: Jeff Parillo

		SAI	/IPLE	INFO	4				
DEP FT		TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	CONSTRU DETA	JCTI
-	0					0 - 68 - Total Well	l Depth		
_	5					Interval	Construction Material		
						0 - 61'	2 inch, PVC riser, schedule 40, FJT		
- '	10					61 - 66'	10 slot, PVC well screen, schedule 40, FJT		
						66 - 68'	2 inch, PVC sump, schedule 40, FJT		
- '	15					68 - 59'	#0 Silica sand		
	20					59 - 57'	Bentonite pellet seal		
•	20					57 - 0'	Grout - cement/bentonite mixture		
- :	25								
- ;	30								
_ :	35								
•	55								
	40								
	45								
	50								
,	30								
- :	55								
								V///X	\ //
- (60								
	65								
- 1	00								= :::

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-02I

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.63 LOCATION: OU2

NORTHING: 180295.36 EASTING: 2206645.95 TOTAL DEPTH (FT): 42.40 DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.:

LOGGED BY: Jeff Parillo DATE START / END: 5/18/2005 - 5/18/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

		SAI	MPLE	INFO	4			
DEPT FT.		TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
_	0				Ħ	0 - 42 - Total We	ell Depth	
	5					Interval	Construction Material	
	•					0 - 35'	2 inch, PVC riser, schedule 40, FJT	
- 1	0					35 - 40'	10 slot, PVC well screen, schedule 40, FJT	
						40 - 42'	2 inch, PVC sump, schedule 40, FJT	
- 1	5					42 - 33'	#0 Silica sand	
•	20					33 - 31'	Bentonite pellet seal	
- 2	20					31 - 0'	Grout - cement/bentonite mixture	
- 2	25							
- 3	80							
- 3	35							
- 4	10							
	l				Ш	Bottom of boreho	ole at 42.4 feet.	
NOTE	<u>S:</u>							

NOTES:

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



PROJECT NAME: Brightwaters Former MGP

CITY/STATE: Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-02I2

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.77 2206645.3

NORTHING: 180290.24 EASTING:

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

TOTAL DEPTH (FT): 57.40

LOCATION: OU2

DATUM VERT. / HORZ.: DATE START / END: 5/17/2005 - 5/17/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SA	MPLE	INFO	4			WELL	
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA	SOIL / BEDROCK DESCRIPTION		CONSTRUCTIO DETAILS	
- 0					0 - 57 - Total Well	l Depth	XXX X	
- 5					Interval	Construction Material		
					0 - 50'	2 inch, PVC riser, schedule 40, FJT		
- 10					50 - 55'	10 slot, PVC well screen, schedule 40, FJT		
					55 - 57'	2 inch, PVC sump, schedule 40, FJT		
- 15					57 - 48'	#0 Silica sand		
- 20					48 - 46'	Bentonite pellet seal		
20					46 - 0'	Grout - cement/bentonite mixture		
- 25								
- 30								
- 35								
_ 35								
- 40								
- 45								
- 50								
- 50								
- 5 5								
				Ш	Bottom of borehole	e at 57.4 feet		

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



PROJECT NAME: Brightwaters Former MGP

CITY/STATE: Bay Shore, NY **GEI PROJECT NUMBER:**

PAGE 1 of 1 061140-10-1902

OU2MW-02S

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.61 LOCATION: OU2 NORTHING: 180293.08 EASTING: 2206643.03

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

TOTAL DEPTH (FT): 27.40 DATUM VERT. / HORZ.:

DATE START / END: 5/13/2005 - 5/13/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO	_			
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
_ 0					0 - 27 - Total Well Depth		
_ _ _ 5					Interval	Construction Material	
_ 3 _ _					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
10					20 - 25'	10 slot, PVC well screen, schedule 40, FJT	
<u>-</u>					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
— 15 - -					27 - 18'	#0 Silica sand	
_ _ 20					18 - 16'	Bentonite pellet seal	
_ _					16 - 0'	Grout - cement/bentonite mixture	
					Bottom of borehole at 27.4 fe	eet.	10

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PID = PHOTOIOIZATION DETECTOR READING (JAR)
PT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06

CLIENT: KEYSPAN

PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-03D

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.95 NORTHING:

180198.58 **EASTING:** 2206548.34 DRILLED BY: Fenely & Nicol / Charles Guzzardo

TOTAL DEPTH (FT): 72.40

DATUM VERT. / HORZ.:

LOCATION: OU2

Jeff Parillo DATE START / END: 5/18/2005 - 5/18/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY:

		SAI	MPLE	INFO	۷				
	PTH T.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	CONSTRU DETA	JCTI
-	0					0 - 72 - Total Wel	I Depth		
	5					Interval	Construction Material		
	J					0 - 65'	2 inch, PVC riser, schedule 40, FJT		
_	10					65 - 70'	10 slot, PVC well screen, schedule 40, FJT		
						70 - 72"	2 inch, PVC sump, schedule 40, FJT		
-	15					72 - 63'	#0 Silica sand		
_	20					63 - 61'	Bentonite pellet seal		
	20					61 - 0'	Grout - cement/bentonite mixture		
_	25								
-	30								X
_	35								
	33								
-	40								
-	45								K
_	50								
	50								
_	55								
_	60								
_	65								
	00								
_	70								=
						Bottom of borehole	e at 72.4 feet.		
	TES:								

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



CITY/STATE:

PROJECT NAME: Brightwaters Former MGP

Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-03I

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.27 NORTHING:

180197.18 EASTING: 2206545.28 DRILLED BY: Fenely & Nicol / Charles Guzzardo

TOTAL DEPTH (FT): 42.40

DATUM VERT. / HORZ.:

LOCATION: OU2

DATE START / END: 5/17/2005 - 5/17/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY: Jeff Parillo

DEPTH TYPE and NO. PEN FT. - 0 - 5 - 10	otal Well Depth	SOIL / BEDROCK DESCRIPTION Construction Material 2 inch, PVC riser, schedule 40, FJT	WELL CONSTRUCTI DETAILS
- 5	otal Well Depth	2 inch, PVC riser, schedule 40, FJT	
		2 inch, PVC riser, schedule 40, FJT	
- 10			
		10 slot, PVC well screen, schedule 40, FJT	
		2 inch, PVC sump, schedule 40, FJT	
15		#0 Silica sand	
20		Bentonite pellet seal	
20		Grout - cement/bentonite mixture	
25			
30			
35			
33			
- 40			
	borehole at 42.4 fee	t.	
40	borehole at 42.4 fee	t.	

NOTES:

ENVIRONMENTAL

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



CITY/STATE:

PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-03I2

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.3 LOCATION: OU2 180096.97 NORTHING: **EASTING:** 2206974.86 TOTAL DEPTH (FT): 57.40

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.:

LOGGED BY: Jeff Parillo DATE START / END: 5/18/2005 - 5/18/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

DE	PTH		MPLE	INFO	ΨĮ		SOIL / BEDDOCK	WELL
	т.	and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	CONSTRUCTI DETAILS
-	0					0 - 57 - Total Well	Depth	
_	5					Interval	Construction Material	
	3					0 - 50'	2 inch, PVC riser, schedule 40, FJT	
-	10					50 - 55'	10 slot, PVC well screen, schedule 40, FJT	
						55 - 57"	2 inch, PVC sump, schedule 40, FJT	
-	15					57 - 48'	#0 Silica sand	
_	20					48 - 46'	Bentonite pellet seal	
	20					46 - 0'	Grout - cement/bentonite mixture	
_	25							
-	30							
	25							
	35							
_	40							
-	45							
	50							
_	50							
_	55							
						Bottom of borehole	e at 57.4 feet.	
	TES:							

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



CITY/STATE:

GEI PROJECT NUMBER:

Bay Shore, NY

061140-10-1902

PAGE 1 of 1

OU2MW-03S

BORING LOG

GROUND SURFACE ELEVATION (FT): 12.39 NORTHING:

180194.31 EASTING: 2206542.16

TOTAL DEPTH (FT): 27.20 DATUM VERT. / HORZ.:

LOCATION: OU2

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

DATE START / END: 5/12/2005 - 5/12/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO	_			
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
— O					0 - 27 - Total Well Depth		XXX XXX
- - - 5					Interval	Construction Material	
- - -					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
10					20 - 25'	10 slot, PVC well screen, schedule 40, FJT	
- - -					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
— 15 - -					27 - 18'	#0 Silica sand	Y//>X
- - - 20					18 - 16'	Bentonite pellet seal	
- 					16 - 0'	Grout - cement/bentonite mixture	
25							
-			I		Bottom of borehole at 27.2 f	eet.	<u> </u>

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIC. = FEET
RIC.

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CLIENT: KEYSPAN

PROJECT NAME: Brightwaters Former MGP

CITY/STATE: Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

PAGE 1 of 1

OU2MW-04D

BORING LOG

GROUND SURFACE ELEVATION (FT): 11.21 LOCATION: OU2 NORTHING: TOTAL DEPTH (FT): 68.40

180006.18 EASTING: 2206903.79 DRILLED BY: Fenely & Nicol / Charles Guzzardo

DATUM VERT. / HORZ.:

DATE START / END: 5/19/2005 - 5/19/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY: Jeff Parillo

	SAI	MPLE	INFO	4				
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WEL CONSTRU DETA	JCTIC
- 0					0 - 68 - Total Wel	l Depth		*
- 5					Interval	Construction Material		
•					0 - 61'	2 inch, PVC riser, schedule 40, FJT		
- 10					61 - 66'	10 slot, PVC well screen, schedule 40, FJT		
					66 - 68'	2 inch, PVC sump, schedule 40, FJT		
- 15					68 - 59'	#0 Silica sand		
- 20					59 - 57'	Bentonite pellet seal		
20					57 - 0'	Grout - cement/bentonite mixture		
- 25								
- 30								
- 35								
33								
- 40								
45								
- 50								
- 30								
- 55								
							\ /// \	\ //
- 60								=
G.E.								
- 65								= ::

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG



PROJECT NAME: Brightwaters Former MGP

CITY/STATE: Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

PAGE 1 of 1

OU2MW-04I

BORING LOG

GROUND SURFACE ELEVATION (FT): 11.23 LOCATION: OU2 NORTHING: 180008.8 **EASTING:** 2206901.22 TOTAL DEPTH (FT): 42.40

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.:

LOGGED BY: Jeff Parillo DATE START / END: 5/17/2005 - 5/17/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

DEPTH TYPE and NO. PEN FT. - 0 - 5 - 10 - 15 - 20 - 25 - 30 - 35 - 40	N REC FT.	0 - 42 - Total Well Interval 0 - 35' 35 - 40' 40 - 42' 42 - 33' 33 - 31' 31 - 0'	SOIL / BEDROCK DESCRIPTION I Depth Construction Material 2 inch, PVC riser, schedule 40, FJT 10 slot, PVC well screen, schedule 40, FJT 2 inch, PVC sump, schedule 40, FJT #0 Silica sand Bentonite pellet seal Grout - cement/bentonite mixture	WELL CONSTRUCTI DETAILS
- 5 - 10 - 15 - 20 - 25 - 30 - 35		Interval 0 - 35' 35 - 40' 40 - 42' 42 - 33' 33 - 31'	Construction Material 2 inch, PVC riser, schedule 40, FJT 10 slot, PVC well screen, schedule 40, FJT 2 inch, PVC sump, schedule 40, FJT #0 Silica sand Bentonite pellet seal	
10 15 20 25 30 35		0 - 35' 35 - 40' 40 - 42' 42 - 33' 33 - 31'	2 inch, PVC riser, schedule 40, FJT 10 slot, PVC well screen, schedule 40, FJT 2 inch, PVC sump, schedule 40, FJT #0 Silica sand Bentonite pellet seal	
10 15 20 25 30 35		35 - 40' 40 - 42' 42 - 33' 33 - 31'	10 slot, PVC well screen, schedule 40, FJT 2 inch, PVC sump, schedule 40, FJT #0 Silica sand Bentonite pellet seal	
15 20 25 30 35		40 - 42' 42 - 33' 33 - 31'	2 inch, PVC sump, schedule 40, FJT #0 Silica sand Bentonite pellet seal	
20 25 30 35		42 - 33' 33 - 31'	#0 Silica sand Bentonite pellet seal	
20 25 30 35		33 - 31'	Bentonite pellet seal	
25 30 35				
25 30 35		31 - 0'	Grout - cement/bentonite mixture	
30 35				
35				
35				
40				
		Bottom of borehole	e at 42.4 feet.	
		Bottom of borehole	e at 42.4 feet.	<u> </u>

NOTES:

ENVIRONMENTAL

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



CITY/STATE:

Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-04I2

BORING LOG

GROUND SURFACE ELEVATION (FT): 11.19 NORTHING:

180003.46 **EASTING:** 2206901.79 DRILLED BY: Fenely & Nicol / Charles Guzzardo

TOTAL DEPTH (FT): 57.40 DATUM VERT. / HORZ.:

LOCATION: OU2

DATE START / END: 5/18/2005 - 5/18/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY: Jeff Parillo

	SAI	MPLE	INFO	4			
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
_ O				Ħ	0 - 57 - Total Well	Depth	
- 5					Interval	Construction Material	
J					0 - 50'	2 inch, PVC riser, schedule 40, FJT	
- 10					50 - 55'	10 slot, PVC well screen, schedule 40, FJT	
					55 - 57'	2 inch, PVC sump, schedule 40, FJT	
– 15					57 - 48'	#0 Silica sand	
- 20					48 - 46'	Bentonite pellet seal	
20					46 - 0'	Grout - cement/bentonite mixture	
- 25							
- 30							
- 35							
- 40							
- 45							
- 50							
- 55							
				Ш	Bottom of borehole	at 57.4 feet.	

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIC. = FEET
RIC.

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



CITY/STATE:

Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-04S

BORING LOG

GROUND SURFACE ELEVATION (FT): 11.3 NORTHING: 2206898.94

180006.16 EASTING: TOTAL DEPTH (FT): 27.80 DATUM VERT. / HORZ.:

LOCATION: OU2

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

DATE START / END: 5/11/2005 - 5/11/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAN	/IPLE	INFO	4			
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	٩T		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
- 0					0 - 27 - Total Well Depth		
- - 5					Interval	Construction Material	
- 3					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
10					20 - 25'	10 slot, PVC well screen, schedule 40, FJT	
					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
– 15					27 - 18'	#0 Silica sand	
- 20					18 - 16'	Bentonite pellet seal	
. 20					16 - 0'	Grout - cement/bentonite mixture	
- - 25							

Bottom of borehole at 27.8 feet.

NOTES:

ENVIRONMENTAL

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06

HEADSPACE)

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



GEI PROJECT NUMBER:

CITY/STATE:

PROJECT NAME: Brightwaters Former MGP

Bay Shore, NY 061140-10-1902 **PAGE** 1 of 1

OU2MW-05

BORING LOG

GROUND SURFACE ELEVATION (FT): 8.26 LOCATION: OU2 NORTHING: 179855.25 EASTING: 2207085.62 TOTAL DEPTH (FT): 37.00

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.: LOGGED BY: Jeff Parillo DATE START / END: 5/24/2005 - 5/24/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO	4			WELL	
EPTH FT.	TYPE and NO. PEN FT. REC FT.		STRATA		SOIL / BEDROCK DESCRIPTION			
0					0 - 37 - Total Well D	Depth		
5					Interval	Construction Material		
5					0 - 25'	2 inch, PVC riser, schedule 40, FJT		
10					25 - 35'	10 slot, PVC well screen, schedule 40, FJT		
					35 - 37'	2 inch, PVC sump, schedule 40, FJT		
15					37 - 22.5'	#0 Silica sand		
20					22.5 - 20'	Bentonite pellet seal		
20					20 - 0'	Grout - cement/bentonite mixture	Name and American	
25								
30								
35								

NOTES:

ENVIRONMENTAL

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIC. = FEET
RIC.

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



PROJECT NAME: Brightwaters Former MGP

Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-06

BORING LOG

GROUND SURFACE ELEVATION (FT): 6.4 LOCATION: OU2 NORTHING: 179280.56 EASTING: 2207193.69 TOTAL DEPTH (FT): 37.00

DRILLED BY: Fenely & Nicol / Charles Guzzardo

LOGGED BY: Jeff Parillo

DATUM VERT. / HORZ.: DATE START / END: 5/23/2005 - 5/23/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

		SAI	MPLE	INFO	4			
DEPT FT.	Н	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
- (0					0 - 37 - Total Wel	II Depth	
_	5					Interval	Construction Material	
	٠					0 - 25'	2 inch, PVC riser, schedule 40, FJT	
1	0					25 - 35'	10 slot, PVC well screen, schedule 40, FJT	
						35 - 37'	2 inch, PVC sump, schedule 40, FJT	
- 1	5					37 - 22.5'	#0 Silica sand	
2	,					22.5 - 20'	Bentonite pellet seal	
2	•					20 - 0'	Grout - cement/bentonite mixture	
2	5							
3	0							
3	_							
	.				Ш	Bottom of borehole	e at 37.0 feet	
IOTE	S:							

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
IN. = INCHES
PID = PHOTOIOIZATION DETECTOR READING (JAR)
PT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-07

BORING LOG

GROUND SURFACE ELEVATION (FT): 6.5 2207074.05

NORTHING: 179268.9 EASTING:

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

TOTAL DEPTH (FT): 27.00

LOCATION: OU2

DATUM VERT. / HORZ.: DATE START / END: 5/23/2005 - 5/23/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO	۷			
DEPTH FT.	TYPE and NO. PEN FT.		REC FT.	STRAT/		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
- 0					0 - 27 - Total Well Depth		
- 5					Interval	Construction Material	
_ 5					0 - 15'	2 inch, PVC riser, schedule 40, FJT	
10					15 - 25'	10 slot, PVC well screen, schedule 40, FJT	
					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
– 15					27 - 13'	#0 Silica sand	
- 20					13 - 11'	Bentonite pellet seal	
. 20					11 - 0'	Grout - cement/bentonite mixture	
_ 25							

Bottom of borehole at 27.0 feet.

NOTES:

ENVIRONMENTAL

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06

CLIENT: KEYSPAN

PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

061140-10-1902

CITY/STATE: **GEI PROJECT NUMBER:** **PAGE** 1 of 1

OU2MW-08D

BORING LOG

GROUND SURFACE ELEVATION (FT): 16 LOCATION: OU2

NORTHING: 180450.99 EASTING: 2206678.34 TOTAL DEPTH (FT): 70.00

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.: LOGGED BY: Jeff Parillo DATE START / END: 8/30/2005 - 8/30/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO	_				
DEPTH FT.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WEL CONSTRU DETA	JCTIOI
- 0					0 - 70 - Total Well	Depth		T
- 5					Interval	Construction Material		
·					0 - 63'	2 inch, PVC riser, schedule 40, FJT		
10					63 - 68'	10 slot, PVC well screen, schedule 40, FJT		
					68-70'	2 inch, PVC sump, schedule 40, FJT		
15					70 - 61'	#0 Silica sand		
20					61 - 59'	Bentonite pellet seal		
20					59 - 0'	Grout - cement/bentonite mixture		
25								
30								
35								
33								
40								
45								
50								
55								
60								
65								
70					Bottom of borehole			7:::

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR

BORING LOG



GEI PROJECT NUMBER:

CITY/STATE:

Bay Shore, NY

061140-10-1902

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OU2MW-08I

BORING LOG

GROUND SURFACE ELEVATION (FT): 15.8 NORTHING: 180455.76

EASTING: 2206684

TOTAL DEPTH (FT): 47.00

LOCATION: OU2

DRILLED BY: Fenely & Nicol / Charles Guzzardo LOGGED BY: Jeff Parillo

DATUM VERT. / HORZ.: DATE START / END: 8/31/2005 - 8/31/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

		SAI	MPLE	INFO	4			
	PTH T.	TYPE and NO.	PEN FT.	REC FT.	STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
	0					0 - 47 - Total We	ell Depth	
_	5					Interval	Construction Material	
	J					0 - 40'	2 inch, PVC riser, schedule 40, FJT	
-	10					40 - 45'	10 slot, PVC well screen, schedule 40, FJT	
						45 - 47'	2 inch, PVC sump, schedule 40, FJT	
-	15					47 - 38'	#0 Silica sand	
_	20					38 - 36'	Bentonite pellet seal	
	20					36 - 0'	Grout - cement/bentonite mixture	
-	25							
-	30							
_	35							
-	40							
-	45					Bottom of borehol	llo at 47.0 foot	
						Bottom of borenor	ic at 47.0 leet.	
NO.	TES:							

NOTES:

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIC. = FEET
RIC.

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



PROJECT NAME: Brightwaters Former MGP

CITY/STATE: **GEI PROJECT NUMBER:**

Bay Shore, NY 061140-10-1902

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BORING LOG

GROUND SURFACE ELEVATION (FT): 15.9 LOCATION: OU2

NORTHING: 180454.45 EASTING: 2206682.67 TOTAL DEPTH (FT): 57.00

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.: LOGGED BY: Jeff Parillo DATE START / END: 9/1/2005 - 9/1/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

PEN FT.	REC FT.	STRATA	0 - 57 - Total Well I Interval 0 - 50'	Construction Material	WELL CONSTRUCT DETAILS
			Interval	Construction Material	
			0 - 50'		
			5 50	2 inch, PVC riser, schedule 40, FJT	
			50 - 55'	10 slot, PVC well screen, schedule 40, FJT	
			55 - 57'	2 inch, PVC sump, schedule 40, FJT	
			57 - 48'	#0 Silica sand	
			48 - 46'	Bentonite pellet seal	
			46 - 0'	Grout - cement/bentonite mixture	
	L L		Bottom of borehole	at 57.0 feet.	
				46 - 0'	

NOTES:

BORING LOG

ENVIRONMENTAL

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR

REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

IN. = INCHES FT. = FEET

PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR



PROJECT NAME: Brightwaters Former MGP

CITY/STATE: Bay Shore, NY 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-08S

BORING LOG

GROUND SURFACE ELEVATION (FT): 15.9 NORTHING: 2206685.46

180456.47 EASTING: DRILLED BY: Fenely & Nicol / Charles Guzzardo TOTAL DEPTH (FT): 27.00 DATUM VERT. / HORZ.:

LOCATION: OU2

DATE START / END: 9/2/2005 - 9/2/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

LOGGED BY: Jeff Parillo

Г		SAI	MPLE	INFO	4			
D	DEPTH FT.	TYPE and NO.	PEN FT.	PEN REC			SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
Ē	- 0					0 - 27 - Total Well Depth		
E	- 5					Interval	Construction Material	
E	3					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
E	- 10					20 - 25'	10 slot, PVC well screen, schedule 40, FJT	
E	ļ					25 - 27'	2 inch, PVC sump, schedule 40, FJT	
F	- 15					27 - 18'	#0 Silica sand	
E	- 20					18 - 16'	Bentonite pellet seal	
,E						16 - 0'	Grout - cement/bentonite mixture	
<u></u>	- 25							

Bottom of borehole at 27.0 feet.

NOTES:

8/10/06

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT

HEADSPACE)

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
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RIN. = INCHES
RIN. = FEET
RIN. = FEET
RIC. = FEET
RIC.

CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR



PROJECT NAME: Brightwaters Former MGP Bay Shore, NY

CITY/STATE: 061140-10-1902 **GEI PROJECT NUMBER:**

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OU2MW-09S

BORING LOG

GROUND SURFACE ELEVATION (FT): 13.1 LOCATION: OU2 NORTHING: 180191.87 **EASTING:** 2206539.54 TOTAL DEPTH (FT): 30.40

DRILLED BY: Fenely & Nicol / Charles Guzzardo DATUM VERT. / HORZ.: LOGGED BY: Jeff Parillo DATE START / END: 5/13/2005 - 5/13/2005

DRILLING DETAILS: Hollow Stem Auger

WATER LEVEL DEPTHS (FT):

	SAI	MPLE	INFO				
DEPTH FT.				STRATA		SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
O					0 - 30 - Total Well Depth		
- - - 5					Interval	Construction Material	
_ 5 - -					0 - 20'	2 inch, PVC riser, schedule 40, FJT	
_ 10					20 - 30'	10 slot, PVC well screen, schedule 40, FJT	
15					30 - 18'	#0 Silica sand	
					18 - 16'	Bentonite pellet seal	
20					16 - 0'	Grout - cement/bentonite mixture	
- - - 25							
- - - 30					Bottom of borehole at 30.4 fo	eet.	

NOTES:

BORING LOG BAY SHORE BRIGHTWATERS FORMER MGP OU-2 7-20-06.GPJ GEI CONSULTANTS.GDT 8/10/06

ALO = ASPHALT LIKE ODOR