



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: S. Woodham				
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550X (ATL)			DRILLER: R. Landeros/P. Pitts			GROUND WATER (ft)				
BORING NO.: B-709			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA				
GROUND ELEV.: -1.3 ft (NAVD88)			NORTHING: 396,761 US ft (NAD83/90)			EASTING: 875,841 US ft (NAD83/90)			24 HR. NA				
TOTAL DEPTH: 150.0 ft			BORING DIAMETER: 4" to 28.5', 3" to 150.0'			CASING DEPTH: 4" to 28.5', 3" to 120.0'			HAMMER (ID): 140 lb. Auto (MEC-05)				
DATE STARTED: 2/26/08			COMPLETED: 3/4/08			CORE SIZE: HQ3			BITS USED: 2 15/16 & 4 7/8" Roller Cone				
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI		
-76.1		Continued from previous page											
-80.3	79.0												74.0ft: hard, indurate 74.0 to 79.0ft: possible interbedded sand LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued) 79.0ft: no recovery, inner barrel sand-locked 80.3ft: Switch sampling method to SPT 80.3ft: LIMESTONE, boundstone, white (2.5Y8/1), soft, wet, strong HCl reaction, some coarse grained sand 81.8ft: Switch sampling method to coring 81.8ft: LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, strong HCl reaction, few coarse grained sand, trace shell molds 84.0ft: extremely indurated, few vugs 89.0ft: indurated 99.0ft: moderately hard, some vugs, little to some shell molds and casts 104.0ft: hard 114.0ft: light gray (5Y7/1) Silty SAND (SM), greenish gray (10Y6/1), medium dense, wet, little fines, HCl reaction (Tamiami Formation) 120.5ft: Switch sampling method to SPT 123.5ft: moist, friable cemented zones 125.0ft: half of circulation returned 133.5ft: very loose 138.5ft: medium dense, trace shell fragments
-81.6	80.3												
-83.1	81.8	6	12	17									
-85.3	84.0												
-90.3	89.0												
-95.3	94.0												
-100.3	99.0												
-105.3	104.0												
-110.3	109.0												
-115.3	114.0												
-121.8	120.5	6	7	9									
-124.8	123.5	18	18	7									
-129.8	128.5	6	8	11									
-134.8	133.5	WOH	WOH	2									
-139.8	138.5	7	9	11									
-144.8	143.5	6	6	12									
-149.8	148.5	5	6	10									

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDT 5/20/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: S. Woodham				
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550X (ATL)			DRILLER: R. Landeros/P. Pitts			GROUND WATER (ft)				
BORING NO.: B-709			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA				
GROUND ELEV.: -1.3 ft (NAVD88)			NORTHING: 396,761 US ft (NAD83/90)			EASTING: 875,841 US ft (NAD83/90)			24 HR. NA				
TOTAL DEPTH: 150.0 ft			BORING DIAMETER: 4" to 28.5', 3" to 150.0'			CASING DEPTH: 4" to 28.5', 3" to 120.0'			HAMMER (ID): 140 lb. Auto (MEC-05)				
DATE STARTED: 2/26/08			COMPLETED: 3/4/08			CORE SIZE: HQ3			BITS USED: 2 15/16 & 4 7/8" Roller Cone				
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-150.9					Continued from previous page								
													Boring Terminated at Elevation -151.3 ft

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL GDT 5/30/08



SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: S. Woodham			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550X (ATL)				DRILLER: R. Landeros/P. Pitts				GROUND WATER (ft)	
BORING NO.: B-709				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA	
GROUND ELEV.: -1.3 ft (NAVD88)				NORTHING: 396,761 US ft (NAD83/90)				EASTING: 875,841		US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 150.0 ft				CASING DEPTH: 4" to 28.5', 3" to 120.0'						HAMMER (ID): 140 lb. Auto (MEC-05)			
DATE STARTED: 2/26/08		COMPLETED: 3/4/08		CORE SIZE: HQ3		CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)							
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC (ft) %		RQD (ft) %	SAMP. NO.	STRATA REC (ft) %		RQD (ft) %	L O G	DESCRIPTION AND REMARKS	
												Begin Coring @ 29.2 ft	
-30.5	29.2	4.8	1:42 1:20 1:30 1:10 2:00/0.8	(4.2) 88%	(2.5) 52%	RUN-1	(16.7) 87%	(12.7) 66%				LIMESTONE, boundstone, white, (10YR8/1), hard, wet, strong HCl reaction, trace shell fragments (Upper Fort Thompson Formation) (continued) 29.2ft: white (2.5Y8/1), hard, indurated, coralline, fossiliferous, recrystallized calcite, strong HCl reaction, some vugs	
-35.3	34.0	5.0	0:33 1:09 1:15 1:12 1:30	(3.9) 78%	(2.9) 58%	RUN-2						30.0ft: loss of circulation 34.0ft: few vugs	
-40.3	39.0	5.0	1:10 1:12 1:13 0:51 1:06	(5.0) 100%	(4.5) 90%	RUN-3							
-45.3	44.0	5.0	0:44 1:20 1:12 1:04 1:58	(4.2) 84%	(3.4) 68%	RUN-4						44.0ft: white (2.5Y8/1) to 45.6 then gray (2.5Y6/1) to 48.4ft, some vugs	
-50.3	49.0	5.0	0:57 0:43 1:06 1:11 1:12	(4.9) 98%	(4.0) 80%	RUN-5	(43.8) 66%	(26.6) 40%			-49.7	LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) 49.0ft: moderately hard, moderately indurated, few vugs	
-55.3	54.0	5.0	0:52 0:55 0:20 0:45 0:30	(3.9) 78%	(2.6) 52%	RUN-6						54.0ft: hard, indurated	
-60.3	59.0	5.0	0:37 0:35 1:12 1:02 0:42	(4.6) 92%	(4.6) 92%	RUN-7							
-65.3	64.0	5.0	0:36 0:39 0:56 0:36 0:10	(3.3) 66%	(1.5) 30%	RUN-8							
-70.3	69.0	5.0	0:15 0:10 0:36 0:57 1:23	(3.0) 60%	(0.4) 8%	RUN-9						69.0ft: moderately hard to hard, moderately indurated to indurated, sandy, some vugs	
-75.3	74.0	5.0	0:30 0:27 0:25 0:20 0:47	(1.6) 32%	(0.0) 0%	RUN-10						74.0ft: hard, indurate 74.0 to 79.0ft: possible interbedded sand	
-80.3	79.0	1.3	0:15 0:07/0.3 N=29	(0.0) 0%	(0.0) 0%	RUN-11						79.0ft: no recovery, inner barrel sand-locked	
-81.6	80.3	2.2	1:15 1:45 0:36/0.2	(1.8) 82%	(0.9) 41%	RUN-12						80.3ft: Switch sampling method to SPT 80.3ft: LIMESTONE, boundstone, white (2.5Y8/1), soft, wet, strong HCl reaction, some coarse grained sand	
-83.1	81.8	5.0	1:36 1:15 5:37 3:41 2:28	(3.5) 70%	(1.3) 26%	RUN-13						81.8ft: Switch sampling method to coring 81.8ft: LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, strong HCl reaction, few coarse grained sand, trace shell molds 84.0ft: extremely indurated, few vugs	
-90.3	89.0	5.0	3:32 1:09 0:54 1:25 0:26	(0.5) 10%	(0.4) 8%	RUN-14						89.0ft: indurated	
-95.3	94.0	5.0	1:25 1:05 0:26 0:31 0:21	(2.3) 46%	(1.2) 24%	RUN-15							
-100.3	99.0	5.0	0:51 0:55 0:27 0:40 0:46	(4.9) 98%	(3.3) 66%	RUN-16						99.0ft: moderately hard, some vugs, little to some shell molds and casts	
-105.3	104.0												

TURKEY POINT COL CORE TURKEY POINT GP TURKEY POINT COL GDI 5/30/08



SHEET 2 OF 2

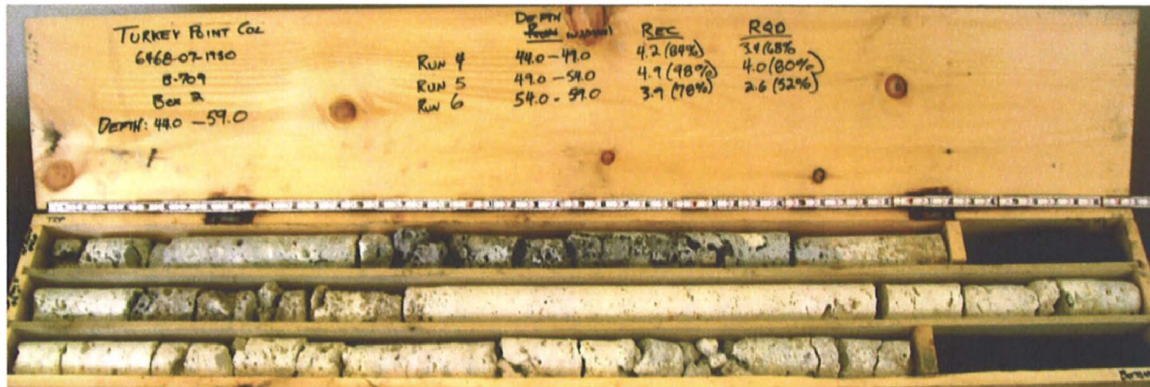
BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: S. Woodham		
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550X (ATL)			DRILLER: R. Landeros/P. Pitts			GROUND WATER (ft)		
BORING NO.: B-709			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA		
GROUND ELEV.: -1.3 ft (NAVD88)			NORTHING: 396,761 US ft (NAD83/90)			EASTING: 875,841 US ft (NAD83/90)			24 HR. NA		
TOTAL DEPTH: 150.0 ft			CASING DEPTH: 4" to 28.5', 3" to 120.0'						HAMMER (ID): 140 lb. Auto (MEC-05)		
DATE STARTED: 2/26/08			COMPLETED: 3/4/08			CORE SIZE: HQ3			CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)		

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS
				REC (ft) %	RQD (ft) %		REC (ft) %	RQD (ft) %		
										Continued from previous page
-110.3	109.0	5.0	1:10 0:53 0:46 1:00 0:40	(5.0) 100%	(4.0) 80%	RUN-17				104.0ft: hard LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-115.3	114.0	5.0	0:30 1:50 1:29 0:43 0:31	(3.4) 68%	(1.8) 36%	RUN-18				
-120.3	119.0	5.0	0:38 0:37 0:24 0:19 0:25	(0.5) 10%	(0.0) 0%	RUN-19	(0.0) 0%	(NA)		-116.3 114.0ft: light gray (5Y7/1) Silty SAND (SM), greenish gray (10Y6/1), medium dense, wet, little fines, HCl reaction (Tamiami Formation) -120.3 119.0
Coring Terminated at Elevation -120.3										

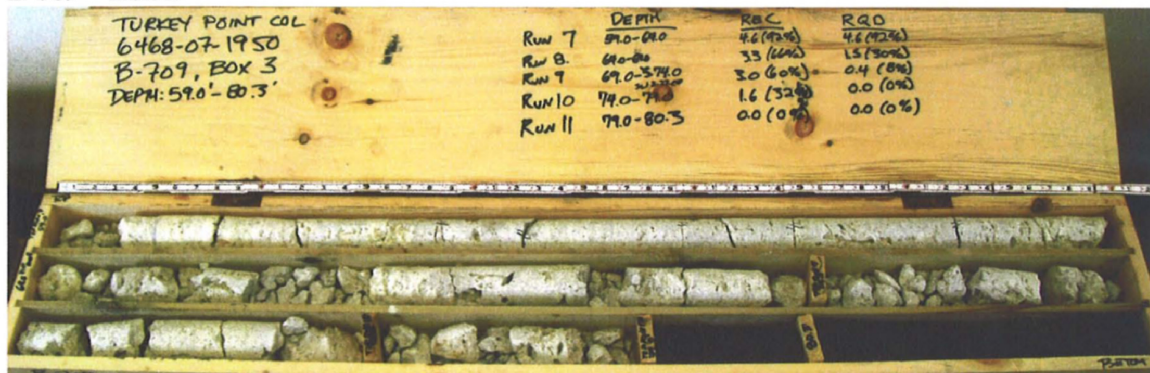
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL GDI 5/30/08



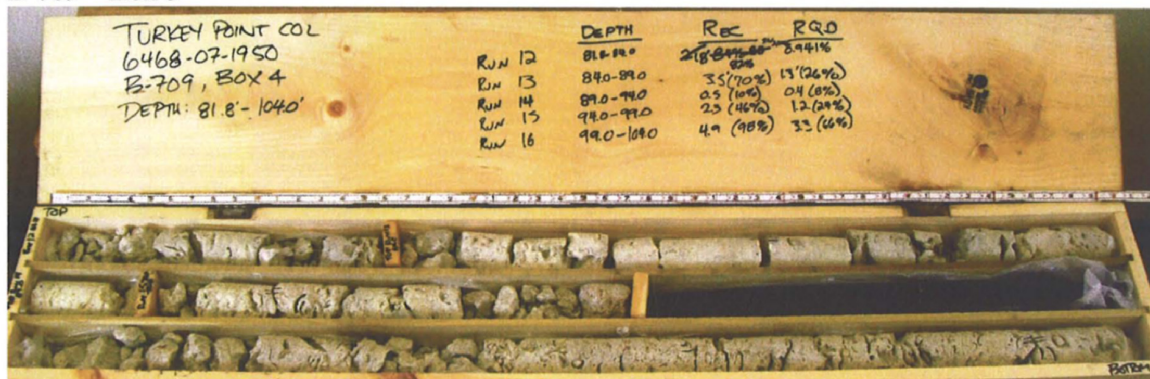
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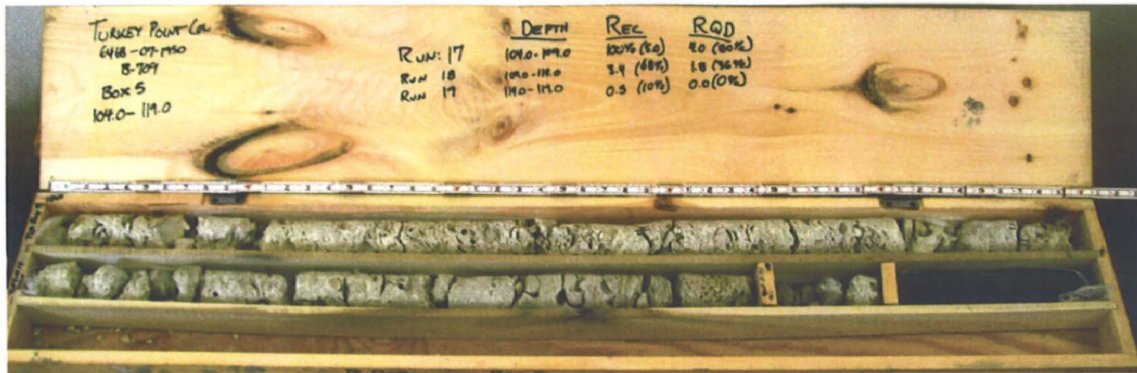
B-709 - Box 2



B-709 - Box 3



B-709 - Box 4



B-709 - Box 5

GEOTECHNICAL BORING LOG

Prepared By JR Date 8-19-08
Checked By JR Date 8/19/08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade				GEOLOGIST: O. Rodriguez			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-75 (CLT)				DRILLER: J. Warren/ C. Sloan/ M. Harvey				GROUND WATER (ft)			
BORING NO.: B-710(DH)				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA			
GROUND ELEV.: -1.3 ft (NAVD88)				NORTHING: 397,087 US ft (NAD83/90)				EASTING: 875,793 US ft (NAD83/90)				24 HR. NA			
TOTAL DEPTH: 250.9 ft				BORING DIAMETER: 4" to 18.5', 3" to 250.9'				CASING DEPTH: 4" to 18.5', 3" to 123.0'				HAMMER (ID): 140 lb. Auto (MEC-09)			
DATE STARTED: 4/2/08				COMPLETED: 4/9/08				CORE SIZE: HQ3				BITS USED: 2 15/16" & 4.5" Tricones			
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	L O G	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100					
-1.3					Ground Surface										
-1.3	0.0	WOH	WOH	WOH	0						710(DH)-1		-1.3	0.0	
-3.8	2.5				WOH						710(DH)-2		-3.3	2.0	
-6.1	4.8	7	8	10		18					710(DH)-3				
-8.8	7.5	8	8	7		15					710(DH)-4				
-11.1	9.8	11	4	4		8					710(DH)-5				
-14.1	12.8	3	4	5		9					710(DH)-6				
-16.3	15.0	4	6	5		11					710(DH)-7				
-18.1	16.8	8	50/0.4						58/0.9		RUN-1				
-22.8	21.5										RUN-2				
-27.6	26.3										RUN-3		-25.3	24.0	
-32.6	31.3										RUN-4				
-37.6	36.3										RUN-5				
-42.6	41.3										RUN-6				
-47.6	46.3										RUN-7				
-52.6	51.3										RUN-8		-49.8	48.5	
-57.6	56.3										RUN-9				
-62.6	61.3										RUN-10				
-67.6	66.3										RUN-11				
-72.6	71.3										RUN-12				
-73.5	72.2										RUN-13				



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25409					MACTEC PROJECT NO.: 6468-07-1950					COUNTY: Miami-Dade		GEOLOGIST: O. Rodriguez		
SITE DESCRIPTION: Turkey Point COL					DRILL MACHINE: CME-75 (CLT)					DRILLER: J. Warren/ C. Sloan/ M. Harvey			GROUND WATER (ft)	
BORING NO.: B-710(DH)					DRILL METHOD: Mud Rotary/ Core					SAMPLE METHODS: SPT/Core			0 HR.	NA
GROUND ELEV.: -1.3 ft (NAVD88)					NORTHING: 397,087 US ft (NAD83/90)					EASTING: 875,793 US ft (NAD83/90)			24 HR.	NA
TOTAL DEPTH: 250.9 ft			BORING DIAMETER: 4" to 18.5', 3" to 250.9'					CASING DEPTH: 4" to 18.5', 3" to 123.0'			HAMMER (ID):140 lb. Auto (MEC-09)			
DATE STARTED: 4/2/08			COMPLETED: 4/9/08			CORE SIZE: HQ3			BITS USED: 2 15/16" & 4.5" Tricones					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				
-76.1					Continued from previous page									
-77.6	76.3										RUN-14			LIMESTONE, boundstone, white (2.5Y8/1), moderately hard, moderately indurated, fossiliferous, few vugs (Lower Fort Thompson Formation) (continued)
-82.6	81.3										RUN-15			76.3ft: moderately hard, moderately indurated
														81.3ft: little vugs, few shell molds and casts
-87.6	86.3										RUN-16			86.3ft: few shell molds and casts
-92.6	91.3										RUN-17			91.3ft: sandy
-97.6	96.3										RUN-18			
-102.6	101.3										RUN-19			101.3ft: medium hard, little shell molds and casts
-107.6	106.3										RUN-20			106.3ft: moderately hard to friable, few shell molds and casts
-112.6	111.3										RUN-21			
-117.6	116.3										RUN-22			POORLY GRADED SAND (SP), pale yellow (2.5Y8/3), medium dense, strong HCl reaction, trace fine to coarse gravel-sized cemented sand fragments (Tamiami Formation)
														116.3ft: limestone fragments
-122.6	121.3	7	6	7							710(DH)-8			121.3ft: Switch sampling method to SPT
-129.7	128.4	10	15	17							710(DH)-9			Silty SAND (SM), pale yellow (2.5Y8/3), dense, strong HCl reaction, trace fine to coarse gravel-sized cemented sand fragments
-139.7	138.4	8	11	20							710(DH)-10			138.4ft: greenish gray (10Y6/1)
-149.7	148.4	23	35	44							710(DH)-11			148.4ft: very dense, trace shell fragments

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDT S/18/08



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: O. Rodriguez	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-75 (CLT)		DRILLER: J. Warren/ C. Sloan/ M. Harvey		GROUND WATER (ft)	
BORING NO.: B-710(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.3 ft (NAVD88)		NORTHING: 397,087 US ft (NAD83/90)		EASTING: 875,793 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 250.9 ft		BORING DIAMETER: 4" to 18.5', 3" to 250.9'		CASING DEPTH: 4" to 18.5', 3" to 123.0'		HAMMER (ID): 140 lb. Auto (MEC-09)	
DATE STARTED: 4/2/08		COMPLETED: 4/9/08		CORE SIZE: HQ3		BITS USED: 2 15/16" & 4.5" Tricones	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-150.9					Continued from previous page								
-159.7	158.4	7	10	23							710(DH)-12		Silty SAND (SM), pale yellow (2.5Y8/3), dense, strong HCl reaction, trace fine to coarse gravel-sized cemented sand fragments (continued)
-169.7	168.4	18	45	50/0.3							710(DH)-13		158.6ft: dense
-179.7	178.4	8	5	10							710(DH)-14		168.4ft: very dense
-190.3	189.0	6	15	19							710(DH)-15		178.4ft: medium dense
-199.7	198.4	17	22	30							710(DH)-16		189.0ft: dense
-209.7	208.4	10	11	18							710(DH)-17		199.3ft: Sandy SILT (ML), greenish gray (10Y6/1), hard, wet, strong HCl reaction, cemented silt fragments
-219.7	218.4	14	16	30							710(DH)-18		208.4ft: very stiff
													218.4ft: hard
													223.3ft
													222.0ft

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDT 8/18/08



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: O. Rodriguez				
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-75 (CLT)			DRILLER: J. Warren/ C. Sloan/ M. Harvey			GROUND WATER (ft)				
BORING NO.: B-710(DH)			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA				
GROUND ELEV.: -1.3 ft (NAVD88)			NORTHING: 397,087 US ft (NAD83/90)			EASTING: 875,793 US ft (NAD83/90)			24 HR. NA				
TOTAL DEPTH: 250.9 ft			BORING DIAMETER: 4" to 18.5', 3" to 250.9'			CASING DEPTH: 4" to 18.5', 3" to 123.0'			HAMMER (ID): 140 lb. Auto (MEC-09)				
DATE STARTED: 4/2/08			COMPLETED: 4/9/08			CORE SIZE: HQ3			BITS USED: 2 15/16" & 4.5" Tricones				
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI		
-225.7		Continued from previous page											
-229.7	228.4	15	16	25						710(DH)-19			Silty SAND (SM), greenish gray (10Y6/1), dense wet strong HCl reaction, trace shell fragments (Hawthorn Group) (continued)
-239.7	238.4	12	14	20						710(DH)-20			POORLY GRADED SAND (SP), light greenish gray (10Y7/1), dense wet strong HCl reaction
-250.6	249.3	9	13	22						710(DH)-21			Silty SAND (SM), greenish gray (10Y6/1), dense, wet, strong HCl reaction
													Note: Standard penetration tests performed for this boring from 0.0 to 15.0ft not valid due to nonconforming hammer drop distance. Boring redrilled from 0.0 to 15.0ft at offset location as B-710(DH)R. Boring Terminated at Elevation -252.2 ft

TURKEY POINT COL BORE, TURKEY POINT GPJ, TURKEY POINT COL GDT 8/18/08