



GEOTECHNICAL BORING LOG

Prepared By Tom Date 7-10-08Checked By Tom Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade				GEOLOGIST: L. Bisson			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros				GROUND WATER (ft)			
BORING NO.: B-603				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR.		NA	
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 397,018 US ft (NAD83/90)				EASTING: 876,697 US ft (NAD83/90)				24 HR.		NA	
TOTAL DEPTH: 151.2 ft				BORING DIAMETER: 4" to 15.0', 3" to 151.2'				CASING DEPTH: 4" to 15.0', 3" to 124.0'				HAMMER (ID): 140 lb. Auto (MEC-03)			
DATE STARTED: 2/14/08				COMPLETED: 2/21/08				CORE SIZE: HQ3				BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller Cone			
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT						SAMP.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	NO.				
-1.4					Ground Surface										
-1.4	0.0	WOH	WOH	WOH							603-1			MUCK, light gray (2.5Y7/2), to black (2.5Y2.5/1), very soft, wet, mostly organics, trace roots, trace shell fragments	
-3.9	2.5	WOH	3	10							603-2A&B				
-6.4	5.0	10	8	8							603-3			LIMESTONE, boundstone, white (2.5Y8.1), very soft, wet, moderately indurated, trace shell fragments (Miami Formation)	
-8.9	7.5	10	7	6							603-4			5.0ft: oolitic	
-11.4	10.0	5	9	10							603-5			7.5ft: mottled very dark gray (2.5Y3/1)	
-13.9	12.5	5	11	16							603-6			10.0ft: pale yellow (2.5Y8/2), to light brownish gray (2.5Y6/2), mottled light olive brown (2.5Y5/4), trace calcareous concretions	
-16.4	15.0										603-7			12.5ft: pale yellow (2.5Y8/2), to light gray (2.5Y7/2), soft	
-17.4	16.0	7	50/0.5								RUN-1			15.0ft: white (2.5Y8/1), mottled light gray (2.5Y7/1), hard, indurated	
-19.8	18.4										RUN-2			16.0ft: Switch sampling method to coring	
														16.0ft: light gray (2.5Y7/2), moderately hard, indurated, trace sand, shells, vugs, fossiliferous, locally interconnected vugs	
-24.8	23.4													18.4ft: trace recrystallized calcite	
											RUN-3				
-29.8	28.4													LIMESTONE, boundstone, white (2.5Y8/1), to light brownish gray (2.5Y6/2), moderately hard to hard, indurated, little recrystallized calcite, trace shell fragments, trace to few vugs (Upper Fort Thompson Formation)	
											RUN-4				
														25.9ft: loss of circulation	
-34.8	33.4													28.4ft: coralline	
											RUN-5				
														33.4ft: white (2.5Y8/1), hard	
-39.8	38.4														
											RUN-6				
-44.8	43.4														
											RUN-7			43.4ft: white (2.5Y8/1) to gray (2.5Y5/1), trace coralline	
-49.8	48.4														
											RUN-8			LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation)	
-54.8	53.4														
											RUN-9			53.4ft: medium hard, moderately indurated to friable	
-59.8	58.4														
											RUN-10			58.4ft: moderately hard, indurated, trace sand	
-64.8	63.4														
											RUN-11			63.4ft: soft to medium hard, friable to moderately indurated	
-69.8	68.4														
											RUN-12			68.4ft: moderately hard, indurated	
-74.8	73.4														
											RUN-13			73.4ft: soft to medium hard, friable to moderately indurated, trace coralline	

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDI 7/10/08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: L. Bisson				
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros			GROUND WATER (ft)			
BORING NO.: B-603				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core			0 HR.	NA		
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 397,018 US ft (NAD83/90)				EASTING: 876,697 US ft (NAD83/90)			24 HR.	NA		
TOTAL DEPTH: 151.2 ft		BORING DIAMETER: 4" to 15.0', 3" to 151.2'				CASING DEPTH: 4" to 15.0', 3" to 124.0'				HAMMER (ID):140 lb. Auto (MEC-03)				
DATE STARTED: 2/14/08		COMPLETED: 2/21/08				CORE SIZE: HQ3			BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller Cone					
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				
-76.2					Continued from previous page									
-79.8	78.4										RUN-14			LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation) (continued)
-84.8	83.4										RUN-15			83.4ft: moderately hard, indurated
-89.8	88.4										RUN-16			88.4ft: medium hard
-94.8	93.4										RUN-17			93.4ft: moderately indurated
-99.8	98.4										RUN-18			98.4ft: moderately hard, indurated, few shells and shell molds
-104.8	103.4										RUN-19			103.4ft: hard, indurated
-109.8	108.4										RUN-20			108.4ft: moderately hard, moderately indurated
-114.8	113.4										RUN-21			
-121.9	120.5	6	12	10							603-8			-116.4 Silty SAND (SM), light gray (5Y7/2), medium dense, moist, fine grained sand, little fines (Tamiami Formation) 115.0
-126.1	124.7	6	12	10							603-9			-121.9 120.5ft: Switch sampling method to SPT Sandy SILT (ML), light gray (5Y7/2), very stiff, moist, fine to coarse sand, fine gravel 120.5
-133.1	131.7	4	5	6							603-10			124.7ft: greenish gray (10Y6/1), trace shells 126.2ft: loss of circulation
-137.8	136.4	5	2	5							603-11			-133.1 Silty SAND (SM), greenish gray (5GY6/1), medium dense, moist, fine to medium grained sand, fine gravel, trace shells 131.7
-140.9	139.5	12	10	8							603-12			136.4ft: loose, fine to coarse sand
-146.1	144.7	7	9	10							603-13			139.5ft: medium dense
-151.1	149.7													

TURKEY POINT COL BORE TURKEY POINT COL GDT 7/10/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: L. Bisson							
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550 (ATL)			DRILLER: L. Carter/ J. Landeros			GROUND WATER (ft)							
BORING NO.: B-603			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA							
GROUND ELEV.: -1.4 ft (NAVD88)			NORTHING: 397,018 US ft (NAD83/90)			EASTING: 876,697 US ft (NAD83/90)			24 HR. NA							
TOTAL DEPTH: 151.2 ft			BORING DIAMETER: 4" to 15.0', 3" to 151.2'			CASING DEPTH: 4" to 15.0', 3" to 124.0'			HAMMER (ID): 140 lb. Auto (MEC-03)							
DATE STARTED: 2/14/08			COMPLETED: 2/21/08			CORE SIZE: HQ3			BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller Cone							
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						
-151.0					Continued from previous page											
		5	7	8	● 15						60-14			-152.6	149.7ft: fine grained sand Boring Terminated at Elevation -152.6 ft	151.2

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL.GDT 7/10/08



SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-603	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,018 US ft (NAD83/90)	EASTING: 876,697 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 151.2 ft	CASING DEPTH: 4" to 15.0', 3" to 124.0'	HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 2/14/08	COMPLETED: 2/21/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	REC (ft) %	RQD (ft) %	SAMP. NO.	STRATA REC (ft) %	RQD (ft) %	L O G	DESCRIPTION AND REMARKS
										Begin Coring @ 16.0 ft
-17.4	16.0	2.4	0.27	(1.6)	(0.5)	RUN-1	(4.4)	(1.9)		LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, moderately indurated, trace shell fragments (Miami Formation) <i>(continued)</i>
-19.8	18.4		0.45	67%	21%		59%	26%		16.0ft: light gray (2.5Y7/2), moderately hard, indurated, trace sand, shells, vugs, fossiliferous, locally interconnected vugs
		5.0	0.17/0.4	(2.8)	(1.4)	RUN-2				18.4ft: trace recrystallized calcite
			0.06	(2.8)	(1.4)					
			0.52	56%	28%					
			0.22							
			0.13							
-24.8	23.4		0.13							-24.8
		5.0	0.11	(4.2)	(1.1)	RUN-3	(21.6)	(14.9)		LIMESTONE, boundstone, white (2.5Y8/1), to light brownish gray (2.5Y6/2), moderately hard to hard, indurated, little recrystallized calcite, trace shell fragments, trace to few vugs (Upper Fort Thompson Formation)
			0.16	84%	22%		86%	60%		
			0.41							
			0.49							
			0.36							
-29.8	28.4		0.11	(3.3)	(0.5)	RUN-4				25.9ft: loss of circulation
		5.0	0.16	66%	10%					28.4ft: coralline
			0.16							
			0.11							
			0.26							
-34.8	33.4		0.36	(5.0)	(4.7)	RUN-5				33.4ft: white (2.5Y8/1), hard
		5.0	0.34	100%	94%					
			0.38							
			0.35							
			0.38							
-39.8	38.4		0.40	(5.0)	(5.0)	RUN-6				
		5.0	0.48	100%	100%					
			0.45							
			0.59							
			1.04							
-44.8	43.4		0.10	(4.1)	(3.6)	RUN-7				43.4ft: white (2.5Y8/1) to gray (2.5Y5/1), trace coralline
		5.0	1.02	82%	72%					
			1.16							
			1.08							
			1.47							
-49.8	48.4		1.37	(5.0)	(4.0)	RUN-8	(55.7)	(34.5)		-49.8
		5.0	1.20	100%	80%		84%	52%		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation)
			1.19							
			0.53							
			0.25							
-54.8	53.4		0.29	(3.6)	(1.4)	RUN-9				53.4ft: medium hard, moderately indurated to friable
		5.0	0.26	72%	28%					
			0.39							
			0.06							
			0.10							
-59.8	58.4		0.26	(4.2)	(2.2)	RUN-10				58.4ft: moderately hard, indurated, trace sand
		5.0	0.21	84%	44%					
			0.18							
			0.11							
			3.30							
-64.8	63.4		0.47	(4.3)	(2.2)	RUN-11				63.4ft: soft to medium hard, friable to moderately indurated
		5.0	0.24	86%	44%					
			0.38							
			0.49							
			0.14							
-69.8	68.4		0.16	(3.4)	(1.1)	RUN-12				68.4ft: moderately hard, indurated
		5.0	0.53	68%	22%					
			0.48							
			2.01							
			1.18							
-74.8	73.4		0.26	(3.3)	(1.6)	RUN-13				73.4ft: soft to medium hard, friable to moderately indurated, trace coralline
		5.0	1.04	66%	32%					
			0.38							
			1.18							
			1.34							
-79.8	78.4		1.09	(4.0)	(2.7)	RUN-14				
		5.0	0.58	80%	54%					
			0.28							
			0.44							
			0.38							
-84.8	83.4		0.27	(4.3)	(3.0)	RUN-15				83.4ft: moderately hard, indurated
		5.0	0.12	86%	60%					
			0.20							
			0.41							
			0.58							
-89.8	88.4		1.16	(5.0)	(4.2)	RUN-16				88.4ft: medium hard
		5.0	0.58	100%	84%					

TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL GDT 7 10/08



SHEET 2 OF 2

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-603	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,018 US ft (NAD83/90)	EASTING: 876,697 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 151.2 ft	CASING DEPTH: 4" to 15.0', 3" to 124.0'	HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 2/14/08	COMPLETED: 2/21/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

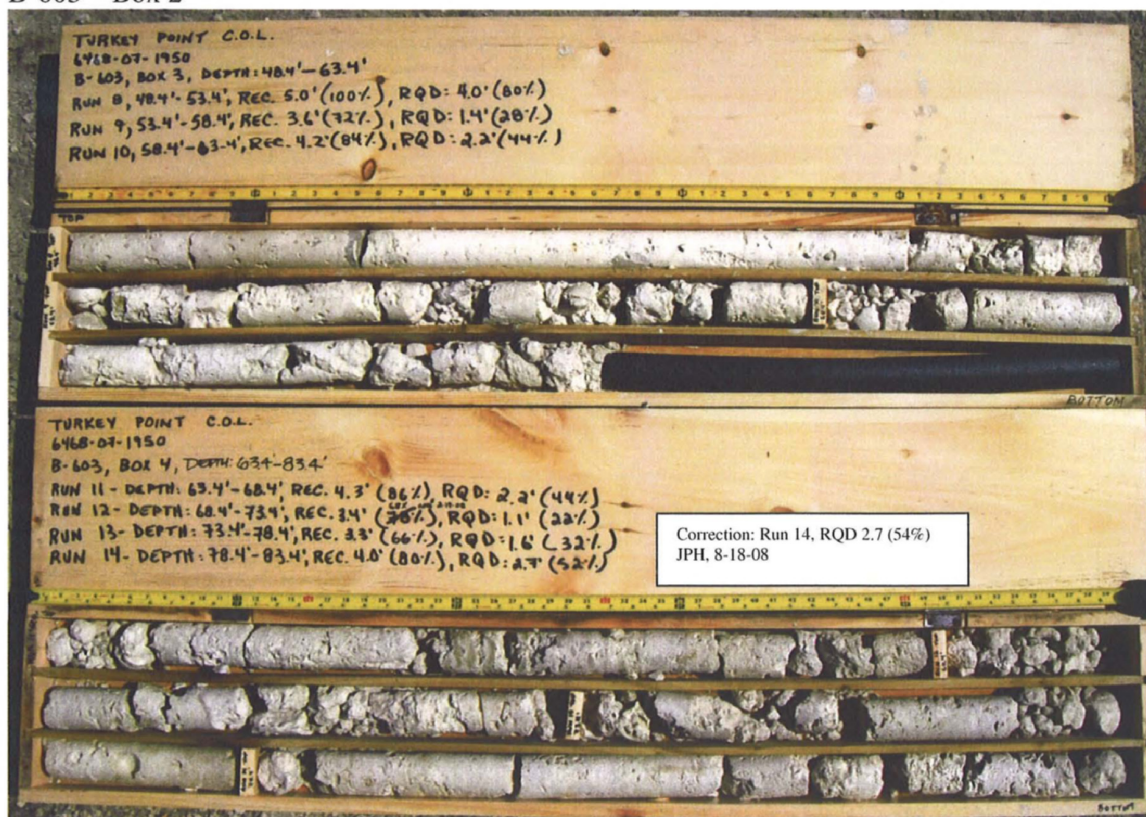
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	REC. (ft) %	ROD (ft) %	SAMP. NO.	REC. (ft) %	ROD (ft) %	STRATA	L O G	DESCRIPTION AND REMARKS
											Continued from previous page
-94.8	93.4		0.52 0.44 0.22								LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation) (continued)
		5.0	0.40 0.28 0.22 0.18 0.26	(4.5) 90%	(3.2) 64%	RUN-17					93.4ft: moderately indurated
-99.8	98.4										
		5.0	0.15 0.19 0.29 0.32 0.35	(4.4) 88%	(3.0) 60%	RUN-18					98.4ft: moderately hard, indurated, few shells and shell molds
-104.8	103.4										
		5.0	0.27 0.35 0.30 0.34 0.37	(5.0) 100%	(4.1) 82%	RUN-19					103.4ft: hard, indurated
-109.8	108.4										
		5.0	0.21 0.18 1:11 0.23 0.06	(4.0) 80%	(1.8) 36%	RUN-20					108.4ft: moderately hard, moderately indurated
-114.8	113.4										
		5.0	0.16 0.07 0.36 0.18 0.07	(1.0) 20%	(0.0) 0%	RUN-21	(0.0) 0%	(NA)			-116.4 Silty SAND (SM), light gray (5Y7/2), medium dense, moist, fine grained sand, little fines (Tamiami Formation) -119.8 115.0 118.4
-119.8	118.4										Coring Terminated at Elevation -152.6

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7/10/08



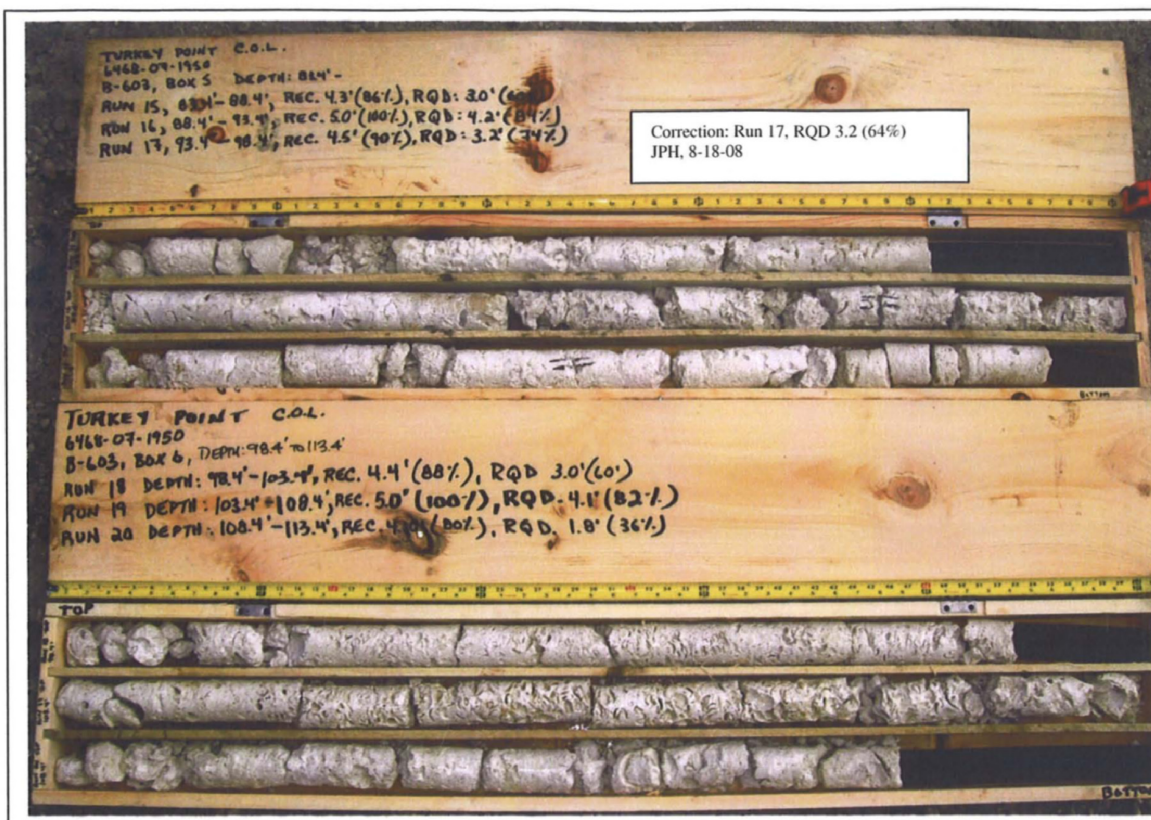
B-603 - Box 1

B-603 - Box 2

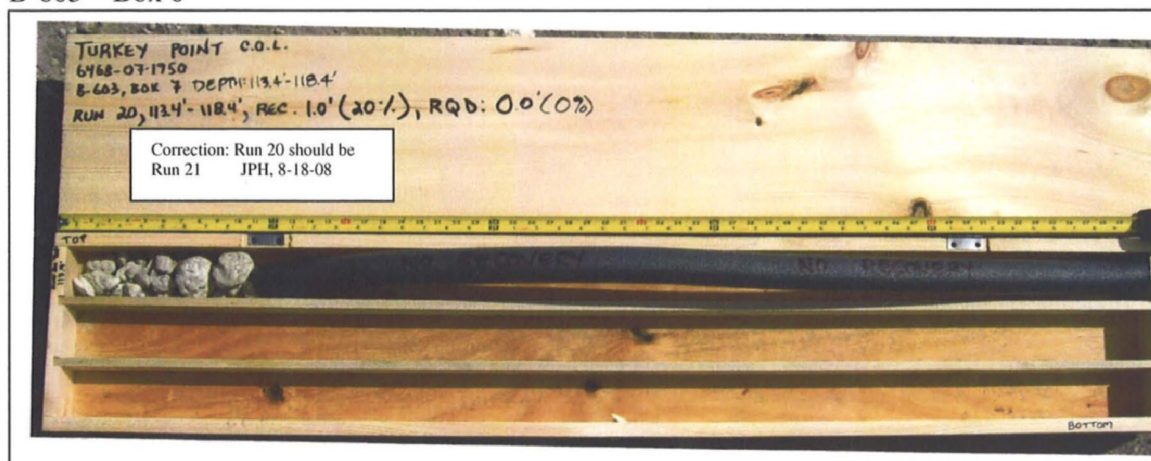


B-603 - Box 3

B-603 - Box 4



B-603 - Box 5
B-603 - Box 6



B-603 - Box 7



GEOTECHNICAL BORING LOG

Prepared By 2274 Date 5-30-08Checked By PM Date 5-30-08

SHEET 1 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: P. Pitts/ R. Landeros					GROUND WATER (ft)		
BORING NO.: B-604(DH)					DRILL METHOD: Mud Rotary/ Core					SAMPLE METHODS: SPT/Core					0 HR. NA		
GROUND ELEV.: -1.5 ft (NAVD88)					NORTHING: 396,916 US ft (NAD83/90)					EASTING: 876,592 US ft (NAD83/90)					24 HR. NA		
TOTAL DEPTH: 165.0 ft			BORING DIAMETER: 5" to 29.0', 4" to 165.0'					CASING DEPTH: 4" to 29.0'					HAMMER (ID): 140 lb. Auto (MEC-05)				
DATE STARTED: 3/19/08			COMPLETED: 3/23/08			CORE SIZE: HQ3			BITS USED: 4 7/8" & 3 7/8" Roller Cones								
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							
-1.5					Ground Surface												
-1.5	0.0	WOH	WOH	WOH	0						604(DH)-1		-1.5		0.0		
-5.0	3.5	5	11	13							604(DH)-2		-4.5	MUCK, dark grayish brown (10YR4/2), very soft, moist, organics	3.0		
-7.5	6.0	12	10	8							604(DH)-3			LIMESTONE, boundstone, pale yellow (2.5Y8/3), soft, moist, some coarse grained sand, strong HCl reaction, oolitic (Miami Formation)			
-10.0	8.5	8	14	19							604(DH)-4			6.0ft: very soft			
-12.0	10.5	8	19	50/0.2							604(DH)-5			8.5ft: medium hard, wet			
-15.0	13.5	11	28	25							604(DH)-6			10.5ft: white (10YR8/1), hard, trace coarse grained sand			
-20.0	18.5	5	5	6							604(DH)-7			13.5ft: moderately hard			
-25.0	23.5	7	9	12							604(DH)-8			18.5ft: very soft			
-30.0	28.5	5	1	2							604(DH)-9		-26.5	23.5ft: soft, few coarse grained sand, few shell fragments	25.0		
-35.0	33.5													LIMESTONE, boundstone, pale yellow (2.5Y8/2), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation)			
-35.4	33.9	50/0.4									604(DH)-10			25.0ft: loss of circulation			
											RUN-1			33.5ft: white (10YR8/1), very dense			
-40.3	38.8										RUN-2			33.9ft: Switch sampling method to coring			
											RUN-3			33.9ft: hard, indurated, strong HCl reaction, fossiliferous, little vugs			
-45.3	43.8										RUN-4			38.8ft: moderately indurated			
											RUN-5						
-50.3	48.8										RUN-6		-50.3	LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)	48.8		
											RUN-7			53.8ft: moderately hard to hard			
-55.3	53.8										RUN-8						
											RUN-9						
-60.3	58.8													58.8ft: moderately hard, indurated			
-65.3	63.8													63.8ft: hard, trace coarse grained sand			
-70.3	68.8																
-75.3	73.8																

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



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: P. Pitts/ R. Landeros			GROUND WATER (ft)				
BORING NO.: B-604(DH)			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA				
GROUND ELEV.: -1.5 ft (NAVD88)			NORTHING: 396,916 US ft (NAD83/90)			EASTING: 876,592 US ft (NAD83/90)			24 HR. NA				
TOTAL DEPTH: 165.0 ft			BORING DIAMETER: 5" to 29.0', 4" to 165.0'			CASING DEPTH: 4" to 29.0'			HAMMER (ID): 140 lb. Auto (MEC-05)				
DATE STARTED: 3/19/08			COMPLETED: 3/23/08			CORE SIZE: HQ3			BITS USED: 4 7/8" & 3 7/8" Roller Cones				
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		
-76.3		Continued from previous page											
-80.3	78.8												LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued) 78.8 to 79.6ft: sand zone 83.8 to 86.0ft: sand zone 88.8ft: trace to few vugs 98.8ft: shell molds and casts 118.8ft: Switch sampling method to SPT; no recovery 128.9ft: no recovery 138.5ft: fine to medium grained sand, fine gravel
-85.3	83.8												
-90.3	88.8												
-95.3	93.8												
-100.3	98.8												
-105.3	103.8												
-110.3	108.8												
-115.3	113.8												
-120.3	118.8	4	6	9									
-130.4	128.9	3	6	7									
-140.0	138.5	7	7	8									
-150.0	148.5	5	7	9									

TURKEY POINT COL BORE TURKEY POINT COL GDT 5.30.08



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: P. Pitts/ R. Landeros			GROUND WATER (ft)			
BORING NO.: B-604(DH)			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA			
GROUND ELEV.: -1.5 ft (NAVD88)			NORTHING: 396,916 US ft (NAD83/90)			EASTING: 876,592 US ft (NAD83/90)			24 HR. NA			
TOTAL DEPTH: 165.0 ft			BORING DIAMETER: 5" to 29.0', 4" to 165.0'			CASING DEPTH: 4" to 29.0'			HAMMER (ID): 140 lb. Auto (MEC-05)			
DATE STARTED: 3/19/08			COMPLETED: 3/23/08			CORE SIZE: HQ3			BITS USED: 4 7/8" & 3 7/8" Roller Cones			
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	
-151.1					Continued from previous page							
-165.0	163.5	4	6	10	● 16					B-604(DH)-15		Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, some fines, fine grained sand, strong HCl reaction (Tamiami Formation) (continued)
												Sandy SILT (ML), greenish gray (10Y6/1), very stiff, moist, fine grained sand, strong HCl reaction Boring Terminated at Elevation -166.5 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: P. Pitts/ R. Landeros			GROUND WATER (ft) 0 HR. NA 24 HR. NA		
BORING NO.: B-604(DH)				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core					
GROUND ELEV.: -1.5 ft (NAVD88)				NORTHING: 396,916 US ft (NAD83/90)				EASTING: 876,592 US ft (NAD83/90)					
TOTAL DEPTH: 165.0 ft				CASING DEPTH: 4" to 29.0'						HAMMER (ID): 140 lb. Auto (MEC-05)			
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		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 @ 33.9 ft	
-35.4	33.9	4.9	0:55 1:02 1:05 1:16 1:00/0.9	(1.5) 31%	(1.3) 27%	RUN-1	(3.6) 24%	(1.8) 12%				LIMESTONE, boundstone, pale yellow (2.5Y8/2), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation)	
-40.3	38.8	5.0	1:02 2:05 1:55 2:12 0:50	(0.4) 8%	(0.0) 0%	RUN-2						25.0ft: loss of circulation (continued) 33.9ft: hard, indurated, strong HCl reaction, fossiliferous, little vugs 38.8ft: moderately indurated	
-45.3	43.8	5.0	ND 2:03 2:53 3:39 2:30	(1.7) 34%	(0.5) 10%	RUN-3							
-50.3	48.8	5.0	0:59 1:29 1:08 0:45 0:30	(4.8) 96%	(4.8) 96%	RUN-4 604(DH)- CS-01 604(DH)- CS-02	(44.9) 68%	(27.2) 41%				LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)	
-55.3	53.8	5.0	0:28 0:29 0:36 0:29 0:28	(4.3) 86%	(2.7) 54%	RUN-5						53.8ft: moderately hard to hard	
-60.3	58.8	5.0	0:31 0:35 0:52 0:37 0:25	(2.3) 46%	(0.3) 6%	RUN-6						58.8ft: moderately hard, indurated	
-65.3	63.8	5.0	0:16 1:00 0:30 0:40 0:45	(3.5) 70%	(1.8) 36%	RUN-7						63.8ft: hard, trace coarse grained sand	
-70.3	68.8	5.0	0:04 0:35 0:45 0:05 0:51	(1.9) 38%	(0.4) 8%	RUN-8							
-75.3	73.8	5.0	0:15 0:07 0:11 0:36 1:35	(1.8) 36%	(0.8) 16%	RUN-9							
-80.3	78.8	5.0	2:14 1:33 0:47 0:45 1:04	(3.6) 72%	(2.0) 40%	RUN-10 604(DH)- CS-03						78.8 to 79.6ft: sand zone	
-85.3	83.8	5.0	0:59 0:37 1:42 1:20 2:30	(2.7) 54%	(0.0) 0%	RUN-11						83.8 to 86.0ft: sand zone	
-90.3	88.8	5.0	0:04 0:21 0:43 0:59 0:22	(1.7) 34%	(0.6) 12%	RUN-12						88.8ft: trace to few vugs	
-95.3	93.8	5.0	0:27 0:40 0:50 0:49 0:56	(4.7) 94%	(3.4) 68%	RUN-13							
-100.3	98.8	5.0	0:52 0:53 0:44 0:58 0:50	(5.0) 100%	(4.0) 80%	RUN-14						98.8ft: shell molds and casts	
-105.3	103.8	5.0	0:52 1:05 0:55 1:03 0:55	(5.0) 100%	(4.4) 88%	RUN-15							
-110.3	108.8												

TURKEY POINT COL CORE TURKEY POINT GFI TURKEY POINT COL GDT 5 30 08



SHEET 2 OF 2

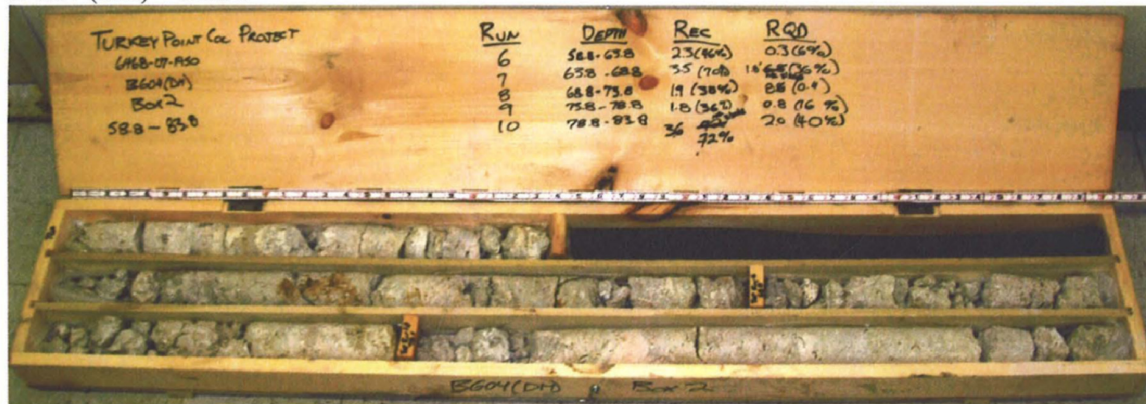
BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: S. Woodham	
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550X (ATL)				DRILLER: P. Pitts/ R. Landeros		GROUND WATER (ft) 0 HR. NA 24 HR. NA	
BORING NO.: B-604(DH)				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core			
GROUND ELEV.: -1.5 ft (NAVD88)				NORTHING: 396,916 US ft (NAD83/90)				EASTING: 876,592 US ft (NAD83/90)			
TOTAL DEPTH: 165.0 ft				CASING DEPTH: 4" to 29.0'						HAMMER (ID): 140 lb. Auto (MEC-05)	
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		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
-115.3	113.8	5.0	1:12 0:58 1:04 1:02 2:00	(3.1) 62%	(1.5) 30%	RUN-16				LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-120.3	118.8	5.0	0:54 0:57 0:49 0:46 0:18	(0.5) 10%	(0.5) 10%	RUN-17	(0.0) 0%	(NA)		Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, some fines, fine grained sand, strong HCl reaction (Tamiami Formation)
										Coring Terminated at Elevation -120.3

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



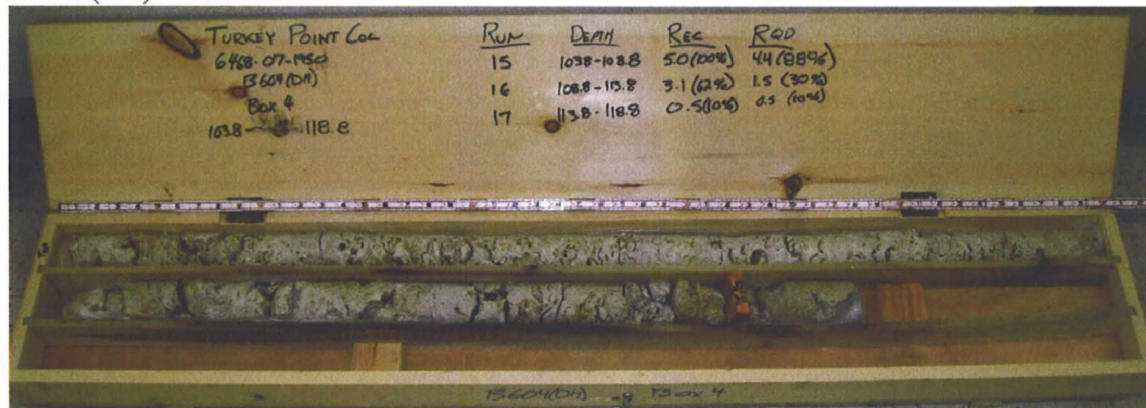
B-604 (DH) - Box 1



B-604 (DH) - Box 2



B-604 (DH) - Box 3



B-604 (DH) - Box 4



GEOTECHNICAL BORING LOG

Prepared By APX Date 8-19-08Checked By SW Date 8/19/08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade				GEOLOGIST: B. Taylor/L. Bisson				
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros				GROUND WATER (ft)				
BORING NO.: B-605				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA				
GROUND ELEV.: -1.7 ft (NAVD88)				NORTHING: 396,917 US ft (NAD83/90)				EASTING: 876,694 US ft (NAD83/90)				24 HR. NA				
TOTAL DEPTH: 201.0 ft				BORING DIAMETER: 4" to 36.0', 3" to 201.0'				CASING DEPTH: 4" to 36.0', 3" to 119.9'				HAMMER (ID): 140 lb. Auto (MEC-03)				
DATE STARTED: 2/23/08				COMPLETED: 2/27/08				CORE SIZE: HQ3				BITS USED: 3 7/8" and 2 15/16" 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						
-1.7					Ground Surface											
-1.7	0.0	WOR	WOR	WOR	●0						605-1			-1.7	0.0	MUCK, very dark gray (10YR3/1), very soft, moist, mostly organics
-4.2	2.5										605-2			-4.2	2.5	LIMESTONE, boundstone, very pale brown (10YR8/2), very soft, moist, friable (Miami Formation)
-6.7	5.0	2	6	8	●14						605-3					5.0ft: white (10YR8/1), medium dense, trace shell fragments, oolitic
-9.2	7.5	7	7	8	●15						605-4					7.5ft: light gray (10YR7/2), medium hard
-11.7	10.0	3	25	9	●34						605-5					10.0ft: white (10YR8/1), very soft
-14.2	12.5	3	10	5	●15						605-6					
-16.7	15.0	3	6	9	●15						605-7					15.0ft: light gray (10YR7/1), soft
		8	13	10	●23											
-21.7	20.0				●16						605-8					20.0ft: very soft, trace calcite crystals
-26.7	25.0	3	8	8										-25.7	24.0	LIMESTONE, boundstone, white (10YR8/1), moderately hard, moist, trace shell fragments (Upper Fort Thompson Formation)
		5	22	28	●50						605-9					
-31.7	30.0	16	13	4	●17						605-10					30.0ft: very pale brown (10YR8/2), very soft, coralline
																33.0ft: loss of circulation
-36.7	35.0										605-11					35.0ft: white (10YR8/1), hard
-37.9	36.2	11	36	50/0.2							RUN-1					36.2ft: Switch sampling method to coring
-39.8	38.1										RUN-2					36.2ft: medium hard, moderately indurated, fossiliferous, few vugs
-44.8	43.1										RUN-3					43.1ft: hard, moderately indurated, recrystallized calcite
-49.8	48.1										RUN-4			-49.8	48.1	LIMESTONE, boundstone, white (10YR8/1), hard, indurated, little vugs, some shells, trace recrystallized calcite in vugs (Lower Fort Thompson Formation)
-54.8	53.1										RUN-5					53.1ft: medium hard, moderately indurated
-59.8	58.1										RUN-6					
-64.8	63.1										RUN-7					63.1ft: few vugs
-69.8	68.1										RUN-8					68.1ft: mottled light gray (10YR7/1), some vugs, interbedded sand
-74.8	73.1										RUN-9					
-75.6	73.9										RUN-10					

TURKEY POINT COL BORE: TURKEY POINT COL GDT 8-18-08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: B. Taylor/L. Bisson		
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550 (ATL)			DRILLER: L. Carter/ J. Landeros			GROUND WATER (ft)		
BORING NO.: B-605			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA		
GROUND ELEV.: -1.7 ft (NAVD88)			NORTHING: 396,917 US ft (NAD83/90)			EASTING: 876,694 US ft (NAD83/90)			24 HR. NA		
TOTAL DEPTH: 201.0 ft			BORING DIAMETER: 4" to 36.0', 3" to 201.0'			CASING DEPTH: 4" to 36.0', 3" to 119.9'			HAMMER (ID): 140 lb. Auto (MEC-03)		
DATE STARTED: 2/23/08			COMPLETED: 2/27/08			CORE SIZE: HQ3			BITS USED: 3 7/8" and 2 15/16" 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				
-76.5					Continued from previous page									
-80.6	78.9													73.9ft: hard, indurated, mostly vugs LIMESTONE, boundstone, white (10YR8/1), hard, indurated, little vugs, some shells, trace recrystallized calcite in vugs (Lower Fort Thompson Formation) (continued)
-85.6	83.9													83.9ft: moderately indurated
-90.6	88.9													88.9ft: moderately hard, indurated, few vugs
-94.6	92.9													92.9ft: trace vugs, trace sand
-95.6	93.9													
-100.6	98.9													
-105.6	103.9													103.9ft: hard, shell molds and casts
-110.6	108.9													108.9ft: moderately hard
-115.6	113.9													
-116.7	113.9													113.9ft: light gray (2.5Y7/2), hard Sandy SILT (ML), light gray (2.5Y7/1), very stiff, wet, fine to medium grained sand, strong HCl reaction (Tamiami Formation)
-121.6	119.9	9	8	11										119.9ft: Switch sampling method to SPT
-126.6	124.9	4	9	12										Silty SAND (SM), greenish gray (10Y5/1), medium dense, fine grained sand, strong HCl reaction
-131.6	129.9													129.9ft: No sample taken
-133.1	131.4	3	5	8										131.4ft: fine to medium grained sand, some loss of circulation
-136.6	134.9	9	15	22										134.9ft: dense, trace shell fragments
-141.6	139.9	8	12	19										
-146.6	144.9	7	10	14										144.9ft: medium dense

TURKEY POINT COL BORE TURKEY POINT COL GDT 8'18.08