

Revised
9-29-08

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: G. Pillappa						
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-55 LC (RAL)				DRILLER: R. Banks/ J. Rosser				GROUND WATER (ft)				
BORING NO.: B-615				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA				
GROUND ELEV.: -1.5 ft (NAVD88)				NORTHING: 397,167 US ft (NAD83/90)				EASTING: 876,762 US ft (NAD83/90)				24 HR. NA				
TOTAL DEPTH: 150.6 ft		BORING DIAMETER: 4" to 23.6', 3" to 150.6'				CASING DEPTH: 4" to 23.6', 3" to 117.3'				HAMMER (ID):140 lb. Auto (MEC-02)						
DATE STARTED: 3/24/08		COMPLETED: 3/26/08				CORE SIZE: HQ3				BITS USED: 2 7/8" & 3 7/8" 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						
-1.5					Ground Surface											
-1.5	0.0	WOH	WOH	WOH	0									-1.5	0.0	MUCK, dark brown (7.5Y3/2). very soft, wet, strong HCl reaction
-4.3	2.8	WOH	WOH	WOH												
-6.0	4.5	1	4	5	9									-6.0	4.5	LIMESTONE, boundstone, white (10YR8/1). very soft, wet, strong HCl reaction, oolitic (Miami Formation)
-8.5	7.0	50/0.5														7.0ft: hard
-10.5	9.0	2	8	8	16											9.0ft: very soft
-13.0	11.5	6	27	14	41											11.5ft: medium hard, trace shells
-14.7	13.2	7	8	6	14											13.2ft: very soft
-19.8	18.3	11	5	9	14											
-24.5	23.0	5	11	50/0.5										-25.5	24.0	23.0ft: hard Field notes do not indicate that sample 615-9 was split into two jars
-26.0	24.5															
-26.8	25.3															LIMESTONE, boundstone, white (10YR8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation)
																24.5ft: Switch sampling method to coring
-31.8	30.3															24.5ft: white, 10YR8/1, hard, indurated, coralline, strong HCl reaction, recrystallized calcite
																25.3ft: white (10YR8/1), to light yellowish brown (10YR6/4)
-36.8	35.3															30.3ft: white (10YR8/1), fossiliferous
																35.3ft: few vugs
-41.8	40.3															40.3ft: white (2.5Y8/1)
-46.8	45.3															45.3ft: white (2.5Y8/1) to 45.7ft, then gray (10YR6/1) to 48.0ft
														-49.5	48.0	LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, fossiliferous, trace shells, few vugs, strong HCl reaction (Lower Fort Thompson Formation)
-51.8	50.3															
-56.8	55.3															
-61.8	60.3															
-66.8	65.3															
-71.8	70.3															70.3ft: white (5Y8/1), trace fine sand

TURKEY POINT COL BORE TURKEY POINT COL GDT 9/29/08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-55 LC (RAL)				DRILLER: R. Banks/ J. Rosser				GROUND WATER (ft)	
BORING NO.: B-615				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA	
GROUND ELEV.: -1.5 ft (NAVD88)				NORTHING: 397,167 US ft (NAD83/90)				EASTING: 876,762 US ft (NAD83/90)				24 HR. NA	
TOTAL DEPTH: 150.6 ft		BORING DIAMETER: 4" to 23.6', 3" to 150.6'				CASING DEPTH: 4" to 23.6', 3" to 117.3'				HAMMER (ID): 140 lb. Auto (MEC-02)			
DATE STARTED: 3/24/08		COMPLETED: 3/26/08		CORE SIZE: HQ3		BITS USED: 2 7/8" & 3 7/8" 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			
-76.3					Continued from previous page								
-76.8	75.3												LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, fossiliferous, trace shells, few vugs, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-81.8	80.3												Silty SAND (SM), white (5Y8/1), wet, trace shell fragments, strong HCl reaction
-84.8	83.3												LIMESTONE, boundstone, white (5Y8/1), hard, indurated, trace fine sand, fossiliferous, strong HCl reaction, few vugs
-88.8	87.3												87.3ft: few shell molds and casts
-93.8	92.3												
-98.8	97.3												97.3ft: coralline, little shell molds and casts
-103.8	102.3												
-108.8	107.3												107.3ft: few to little shell molds and casts
-113.8	112.3												
-118.8	117.3												Silty SAND (SM), pale yellow (5Y8/2), very dense, moist, fine grained sand, limestone fragments, strong HCl reaction (Tamiami Formation)
		27	22	31									117.3ft: Switch sampling method to SPT
-128.5	127.0												
		4	8	8									127ft: dark greenish gray (10Y4/1), medium dense, weak HCl reaction
-140.6	139.1												
		27	24	16									139.1ft: dense, trace shell fragments
-150.6	149.1												

TURKEY POINT COL BORE TURKEY POINT GP1 TURKEY POINT COL GDT 9/29/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-55 LC (RAL)			DRILLER: R. Banks/ J. Rosser			GROUND WATER (ft)			
BORING NO.: B-615			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA			
GROUND ELEV.: -1.5 ft (NAVD88)			NORTHING: 397,167 US ft (NAD83/90)			EASTING: 876,762 US ft (NAD83/90)			24 HR. NA			
TOTAL DEPTH: 150.6 ft			BORING DIAMETER: 4" to 23.6', 3" to 150.6'			CASING DEPTH: 4" to 23.6', 3" to 117.3'			HAMMER (ID): 140 lb. Auto (MEC-02)			
DATE STARTED: 3/24/08			COMPLETED: 3/26/08			CORE SIZE: HQ3			BITS USED: 2 7/8" & 3 7/8" 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	
-151.1					Continued from previous page							
	6	10	12		22					615-13		-152.1 149.1ft: medium dense Boring Terminated at Elevation -152.1 ft 150.6

TURKEY POINT COL BORE TURKEY POINT GPI TURKEY POINT COL GDT 9/29/08



SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: G. Pillappa
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-55 LC (RAL)	DRILLER: R. Banks/ J. Rosser	GROUND WATER (ft)
BORING NO.: B-615	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,167 US ft (NAD83/90)	EASTING: 876,762 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.6 ft	CASING DEPTH: 4" to 23.6', 3" to 117.3'	HAMMER (ID): 140 lb. Auto (MEC-02)	
DATE STARTED: 3/24/08	COMPLETED: 3/26/08	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		L O G	DESCRIPTION AND REMARKS
				REC. (ft) %	RQD (ft) %		REC. (ft) %	RQD (ft) %		
										Begin Coring @ 24.5 ft
-26.0	24.5	0.8	0:30/0.8	(0.7)	(0.5)	RUN-1	(17.2)	(12.5)		LIMESTONE, boundstone, white (10YR8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation)
-26.8	25.3	5.0	0:42 0:19 0:34 0:26	88% (3.3) (2.5) 66%	63% (2.5) (2.5) 50%	RUN-2	73%	53%		24.5ft: Switch sampling method to coring (<i>continued</i>) 24.5ft: white, 10YR8/1, hard, indurated, coralline, strong HCl reaction, recrystallized calcite
-31.8	30.3		0:21							25.3ft: white (10YR8/1), to light yellowish brown (10YR6/4)
		5.0	0:32 0:46 0:35 0:33 0:23	(4.6) 92%	(3.6) 72%	RUN-3				30.3ft: white (10YR8/1), fossiliferous
-36.8	35.3									
		5.0	0:41 0:22 0:23 0:23 0:31	(2.3) 46%	(0.5) 10%	RUN-4				35.3ft: few vugs
-41.8	40.3									
		5.0	0:25 0:15 0:26 0:39 0:40	(3.7) 74%	(2.9) 58%	RUN-5				40.3ft: white (2.5Y8/1)
-46.8	45.3									
		5.0	0:34 0:33 0:25 0:17 0:34	(4.9) 98%	(4.8) 96%	RUN-6				45.3ft: white (2.5Y8/1) to 45.7ft, then gray (10YR6/1) to 48.0ft
-51.8	50.3						(22.0) 70%	(13.2) 42%		48.0
		5.0	1:01 0:28 0:25 0:19 0:24	(5.0) 100%	(4.2) 84%	RUN-7				LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, fossiliferous, trace shells, few vugs, strong HCl reaction (Lower Fort Thompson Formation)
-56.8	55.3									
		5.0	0:22 0:21 0:25 0:23 0:21	(4.9) 98%	(3.1) 62%	RUN-8				
-61.8	60.3									
		5.0	0:23 0:23 0:22 0:17 0:21	(2.0) 40%	(0.0) 0%	RUN-9				
-66.8	65.3									
		5.0	0:40 0:17 0:21 0:16 0:17	(3.1) 62%	(1.7) 34%	RUN-10				
-71.8	70.3									
		5.0	0:10 0:15 0:20 0:36 0:21	(0.8) 16%	(0.4) 8%	RUN-11				70.3ft: white (5Y8/1), trace fine sand
-76.8	75.3									
		5.0	0:32 0:25 0:29 0:35 0:40	(3.9) 78%	(1.5) 30%	RUN-12				
-81.8	80.3						(2.0) 67%	(NA)		-80.8
		3.0	0:34 0:31 0:17	(3.0) 100%	(0.5) 17%	RUN-13				Silty SAND (SM), white (5Y8/1), wet, trace shell fragments, strong HCl reaction
-84.8	83.3						(22.4) 73%	(11.0) 36%		-83.8
		4.0	0:44 0:32 0:21 0:42	(3.3) 83%	(2.9) 73%	RUN-14				LIMESTONE, boundstone, white (5Y8/1), hard, indurated, trace fine sand, fossiliferous, strong HCl reaction, few vugs
-88.8	87.3									
		5.0	0:22 0:28 0:22 0:26 0:24	(4.6) 92%	(2.3) 46%	RUN-15				87.3ft: few shell molds and casts
-93.8	92.3									
		5.0	0:34 0:25 0:22 0:29 0:49	(1.3) 26%	(0.0) 0%	RUN-16				
-98.8	97.3									
		5.0	0:25 0:16	(2.8) 56%	(0.0) 0%	RUN-17				97.3ft: coralline, little shell molds and casts

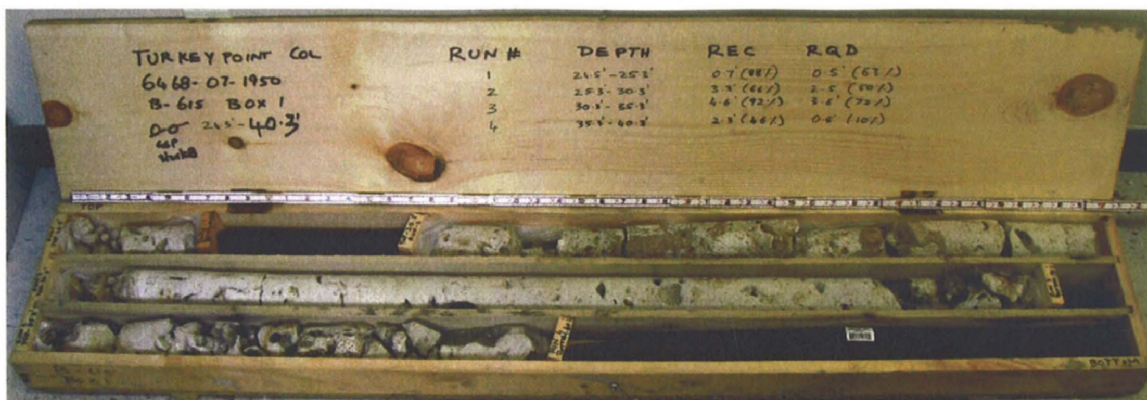
TURKEY POINT COL CORE TURKEY POINT GP TURKEY POINT COL GOT 5/30/08



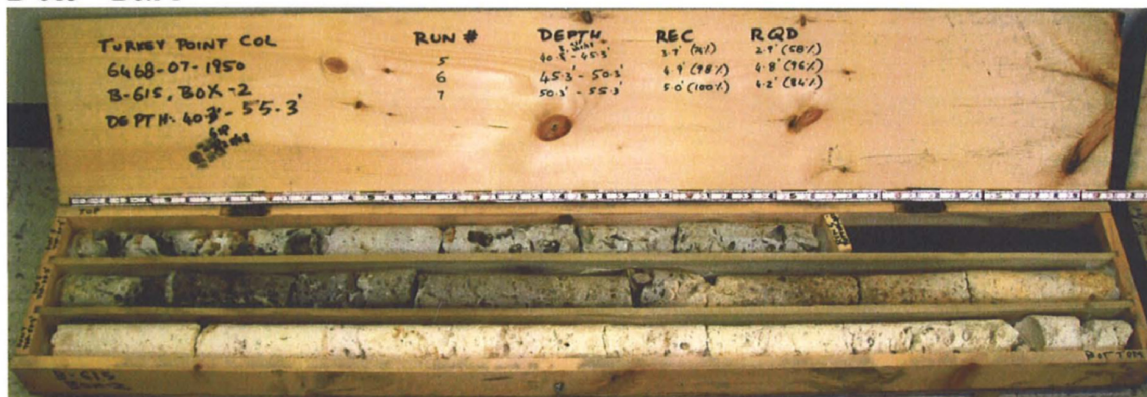
SHEET 2 OF 2

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-55 LC (RAL)				DRILLER: R. Banks/ J. Rosser				GROUND WATER (ft)	
BORING NO.: B-615				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA	
GROUND ELEV.: -1.5 ft (NAVD88)				NORTHING: 397,167 US ft (NAD83/90)				EASTING: 876,762 US ft (NAD83/90)				24 HR. NA	
TOTAL DEPTH: 150.6 ft				CASING DEPTH: 4" to 23.6', 3" to 117.3'						HAMMER (ID): 140 lb. Auto (MEC-02)			
DATE STARTED: 3/24/08		COMPLETED: 3/26/08		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	
												Continued from previous page	
-103.8	102.3		0:12 0:15 0:27									LIMESTONE, boundstone, white (5Y8/1), hard, indurated, trace fine sand, fossiliferous, strong HCl reaction, few vugs (continued)	
		5.0	0:29 0:25 0:19 0:23 0:29	(4.9) 98%	(3.6) 72%	RUN-18							
-108.8	107.3												
		5.0	0:28 0:12 0:14 0:17 0:14	(4.0) 80%	(1.7) 34%	RUN-19						107.3ft: few to little shell molds and casts	
-113.8	112.3												
		5.0	0:31 0:24 0:18 0:50 0:24	(0.5) 10%	(0.0) 0%	RUN-20	(0.0) 0%	(NA)				-114.5	113.0 Silty SAND (SM), pale yellow (5Y8/2), very dense, moist, fine grained sand, limestone fragments, strong HCl reaction (Tamiami Formation)
-118.8	117.3											-118.8	117.3
Coring Terminated at Elevation -118.8													

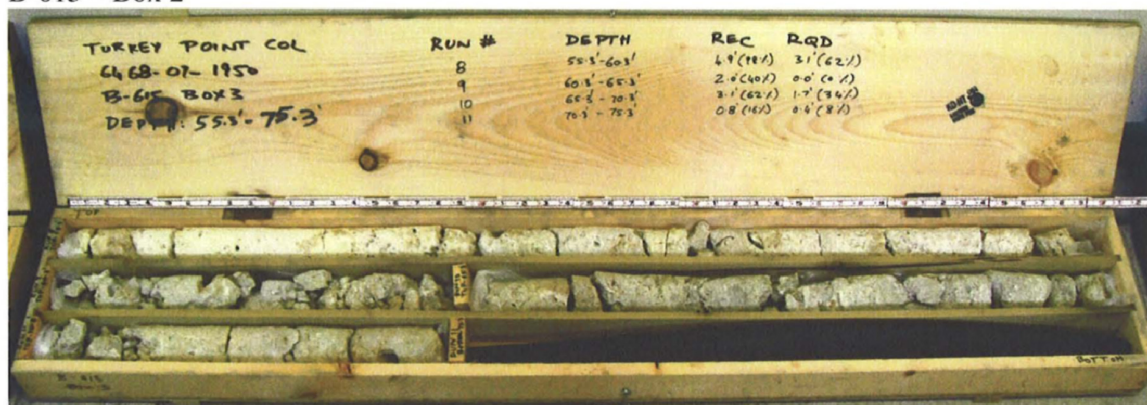
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



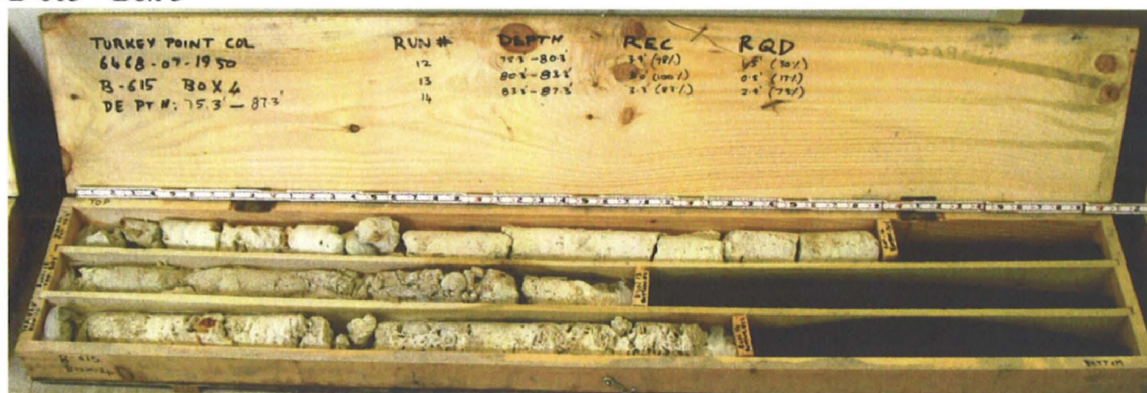
B-615 - Box 1



B-615 - Box 2



B-615 - Box 3



B-615 - Box 4



B-615 - Box 5



B-615 - Box 6



GEOTECHNICAL BORING LOG

Prepared By PPZ Date 5-30-08Checked By JM Date 5-20-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: H. Lyatuu				
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros				GROUND WATER (ft)		
BORING NO.: B-616				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA		
GROUND ELEV.: -1.2 ft (NAVD88)				NORTHING: 397,208 US ft (NAD83/90)				EASTING: 876,724 US ft (NAD83/90)				24 HR. NA		
TOTAL DEPTH: 125.0 ft		BORING DIAMETER: 4" to 35.0', 3" to 125.0'				CASING DEPTH: 4" to 35.0', 3" to 123.0'				HAMMER (ID):140 lb. Auto (MEC-03)				
DATE STARTED: 3/19/08		COMPLETED: 3/21/08		CORE SIZE: HQ3				BITS USED: 4" & 3" 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				
-1.2					Ground Surface								-1.2	0.0
-1.2	0.0	WOR	WOR	WOR	0							616-1		MUCK, very dark gray (7.5YR3/1), very soft, wet, mostly organics, weak HCl reaction
-3.7	2.5	WOH	WOH	WOH	0							616-2		2.5ft: trace shell fragments, weak HCl reaction
-6.2	5.0	WOH	WOH	WOH	0							616-3		
-8.7	7.5	WOH	WOH	WOH	0							616-4		Silty SAND with limestone fragments (SM), greenish gray (10Y6/1), very loose, wet, fine grained sand
-11.2	10.0	11	1	1	2							616-5		
-13.7	12.5	2	3	25	28							616-6		MUCK with limestone fragments, brown (7.5YR4/3), firm, wet, mostly organics
-16.2	15.0	4	9	5	14							616-7		LIMESTONE, white (10YR8/1), soft, wet, fossiliferous, strong HCl reaction (Miami Formation)
		2	3	4	7							616-8		12.5ft: boundstone, very soft, oolitic
-20.7	19.5	2	2	3	5							616-9		POORLY GRADED SAND with limestone fragments (SP), light reddish brown (2.5YR6/3), loose, wet, fine to coarse grained sand, strong HCl reaction
-25.7	24.5	3	28	39	67							616-10		LIMESTONE, boundstone, white (10YR8/1), very soft, wet, fossiliferous, strong HCl reaction, trace fine grained sand, oolitic
-30.7	29.5	4	5	7	12							616-11		23.0ft: loss of circulation
-35.7	34.5											RUN-1		LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, fossiliferous, strong HCl reaction (Upper Fort Thompson Formation)
-37.2	36.0	9	19	50/0.3								616-CS-01		29.5ft: mottled, light brownish gray (2.5Y6/2), very soft, trace fine grained sand, strong HCl reaction
-39.2	38.0											RUN-2		34.5ft: hard, mottled light gray (7.5Y7/1)
												RUN-3		36.0ft: Switch sampling method to coring
-44.2	43.0											RUN-4		36.0ft: white (10YR8/1), hard, indurated, coralline, trace sand, fossiliferous, strong HCl reaction, trace shell casts, few vugs
-49.2	48.0											RUN-5		
-54.2	53.0											RUN-6		43.0ft: white (10YR8/1), to 46.1ft then gray (10YR6/1) to 48.0ft
-59.2	58.0											RUN-7		
-64.2	63.0											616-CS-04		LIMESTONE, boundstone, white (10YR8/1), hard, indurated, few vugs, porous, fossiliferous, trace shell casts, trace recrystallized calcite, strong HCl reaction (Lower Fort Thompson Formation)
-69.2	68.0											RUN-8		53.0ft: moderately hard, moderately indurated
-74.2	73.0											RUN-9		
														68.0ft: sandy

TURKEY POINT COL BORE TURKEY POINT GPJ 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: H. Lyatuu					
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550 (ATL)			DRILLER: L. Carter/ J. Landeros			GROUND WATER (ft)					
BORING NO.: B-616			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA					
GROUND ELEV.: -1.2 ft (NAVD88)			NORTHING: 397,208 US ft (NAD83/90)			EASTING: 876,724 US ft (NAD83/90)			24 HR. NA					
TOTAL DEPTH: 125.0 ft			BORING DIAMETER: 4" to 35.0', 3" to 125.0'			CASING DEPTH: 4" to 35.0', 3" to 123.0'			HAMMER (ID): 140 lb. Auto (MEC-03)					
DATE STARTED: 3/19/08			COMPLETED: 3/21/08			CORE SIZE: HQ3			BITS USED: 4" & 3" Tricones					
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				
-76.0					Continued from previous page									
-79.2	78.0										RUN-10		LIMESTONE, boundstone, white (10YR8/1), hard, indurated, few vugs, porous, fossiliferous, trace shell casts, trace recrystallized calcite, strong HCl reaction (Lower Fort Thompson Formation) (continued)	
-84.2	83.0										RUN-11			
-89.2	88.0										RUN-12		88.0ft: hard, indurated, trace shell casts	
-94.2	93.0										RUN-13		93.0ft: hard to moderately hard, indurated to moderately indurated	
-99.2	98.0										RUN-14		98.0ft: hard, indurated, some shell casts	
-104.2	103.0										RUN-15		103.0ft: mostly shell casts	
-109.2	108.0										RUN-16		108.0ft: mottled brownish yellow (10YR6/8)	
-114.2	113.0										RUN-17		113.0ft: moderately hard, moderately indurated, sandy	
-119.2	118.0										RUN-18		Silty SAND (SM), light brownish gray (10YR6/2), medium dense, wet, fine to medium grained sand, weak HCl reaction on sand, and lenses of fine to coarse LIMESTONE gravel, boundstone, moderately hard, moderately indurated, sandy, fossiliferous (Tamiami Formation)	
-124.2	123.0	10	7	8	15						610-12		123.0ft: Switch sampling method to SPT	
													125.0	
													-126.2	
														Boring Terminated at Elevation -126.2 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: H. Lyatuu
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-616	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.2 ft (NAVD88)	NORTHING: 397,208 US ft (NAD83/90)	EASTING: 876,724 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.0 ft	CASING DEPTH: 4" to 35.0', 3" to 123.0'	HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 3/19/08	COMPLETED: 3/21/08	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	REC (ft) %	RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 36.0 ft
-37.2	36.0	2.0	1:23	(2.0)	(2.0)	RUN-1	(11.9)	(9.5)		LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, fossiliferous, strong HCl reaction (Upper Fort Thompson Formation) <i>(continued)</i>
-39.2	38.0	5.0	1:21	100%	100%	616-CS-01	99%	79%		36.0ft: white (10YR8/1), hard, indurated, coralline, trace sand, fossiliferous, strong HCl reaction, trace shell casts, few vugs
			2:05	(5.0)	(4.3)	RUN-2				
			2:29	100%	86%					
-44.2	43.0		2:03							
			2:37							
			2:18							
		5.0	1:10	(4.9)	(3.2)	RUN-3				43.0ft: white (10YR8/1), to 46.1ft then gray (10YR6/1) to 48.0ft
			1:50	98%	64%					
			1:00							
-49.2	48.0		3:00							
			3:11							
		5.0	1:15	(5.0)	(4.7)	RUN-4	(47.3)	(26.8)	-49.2	LIMESTONE, boundstone, white (10YR8/1), hard, indurated, few vugs, porous, fossiliferous, trace shell casts, trace recrystallized calcite, strong HCl reaction (Lower Fort Thompson Formation)
			1:01	100%	94%		71%	40%		
-54.2	53.0		1:47							
			1:35							
			1:10							
		5.0	0:24	(5.0)	(4.7)	RUN-5				53.0ft: moderately hard, moderately indurated
			0:59	100%	94%					
			0:36							
-59.2	58.0		0:45							
			0:42							
		5.0	1:06	(4.0)	(1.7)	RUN-6				
			1:00	80%	34%					
			0:53							
-64.2	63.0		0:59			616-CS-04				
			1:20							
		5.0	1:21	(3.8)	(1.8)	RUN-7				
			1:04	76%	36%					
			0:58							
-69.2	68.0		0:36							
			0:23							
		5.0	0:16	(1.8)	(0.4)	RUN-8				68.0ft: sandy
			0:30	36%	8%					
			0:08							
-74.2	73.0		0:15							
			0:31							
		5.0	0:16	(3.2)	(1.6)	RUN-9				
			0:58	64%	32%					
-79.2	78.0		1:57							
			1:47							
			1:36							
		5.0	1:28	(2.0)	(0.4)	RUN-10				
			1:19	40%	8%					
			0:08							
-84.2	83.0		0:20							
			0:28							
		5.0	0:33	(2.3)	(0.0)	RUN-11				
			0:25	46%	0%					
			0:10							
-89.2	88.0		0:31							
			1:26							
		5.0	1:35	(4.8)	(3.0)	RUN-12				88.0ft: hard, indurated, trace shell casts
			1:08	96%	60%					
			0:55							
-94.2	93.0		0:51							
			0:54							
		5.0	0:58	(3.0)	(2.2)	RUN-13				93.0ft: hard to moderately hard, indurated to moderately indurated
			0:24	60%	44%					
			0:15							
-99.2	98.0		0:18							
			0:31							
		5.0	0:20	(3.8)	(2.7)	RUN-14				98.0ft: hard, indurated, some shell casts
			0:28	76%	54%					
			0:47							
-104.2	103.0		0:37							
			0:50							
		5.0	0:52	(4.2)	(1.6)	RUN-15				103.0ft: mostly shell casts
			0:48	84%	32%					
			0:53							
-109.2	108.0		0:56							
			0:47							
		5.0	1:00	(3.4)	(2.0)	RUN-16				108.0ft: mottled brownish yellow (10YR6/8)
			0:42	68%	40%					
			1:04							

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

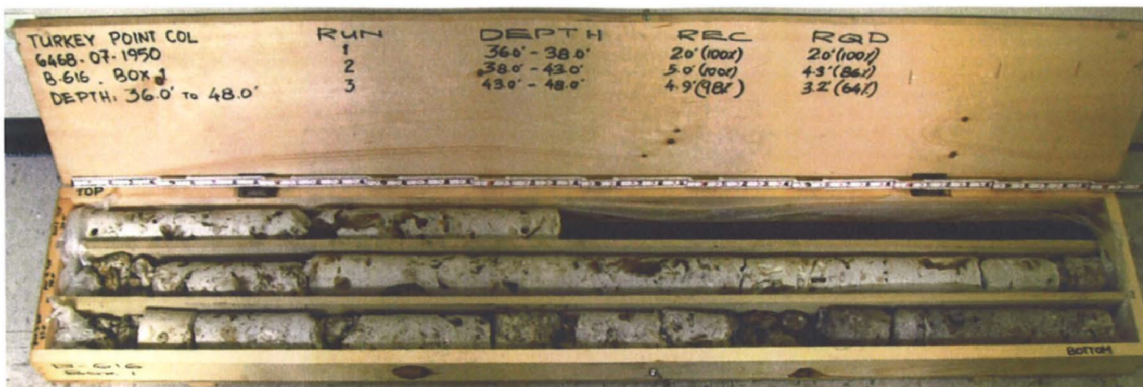


SHEET 2 OF 2

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-616	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.2 ft (NAVD88)	NORTHING: 397,208 US ft (NAD83/90)	EASTING: 876,724 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.0 ft	CASING DEPTH: 4" to 35.0', 3" to 123.0'	HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 3/19/08	COMPLETED: 3/21/08	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
-114.2	113.0	5.0	0:28 0:43	(1.0) 20%	(0.0) 0%	RUN-17	(0.4) 5%	(NA)		LIMESTONE, boundstone, white (10YR8/1), hard, indurated, few vugs, porous, fossiliferous, trace shell casts, trace recrystallized calcite, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-119.2	118.0	5.0	0:12 0:12 0:39	(0.4) 8%	(0.0) 0%	RUN-18				113.0ft: moderately hard, moderately indurated, sandy
-124.2	123.0		0:35 0:28 0:46 0:08 0:09							Silty SAND (SM), light brownish gray (10YR6/2), medium dense, wet, fine to medium grained sand, weak HCl reaction on sand, and lenses of fine to coarse LIMESTONE gravel, boundstone, moderately hard, moderately indurated, sandy, fossiliferous (Tamiami Formation)
										-124.2 123.0
										Coring Terminated at Elevation -124.2

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDI 5:30.08



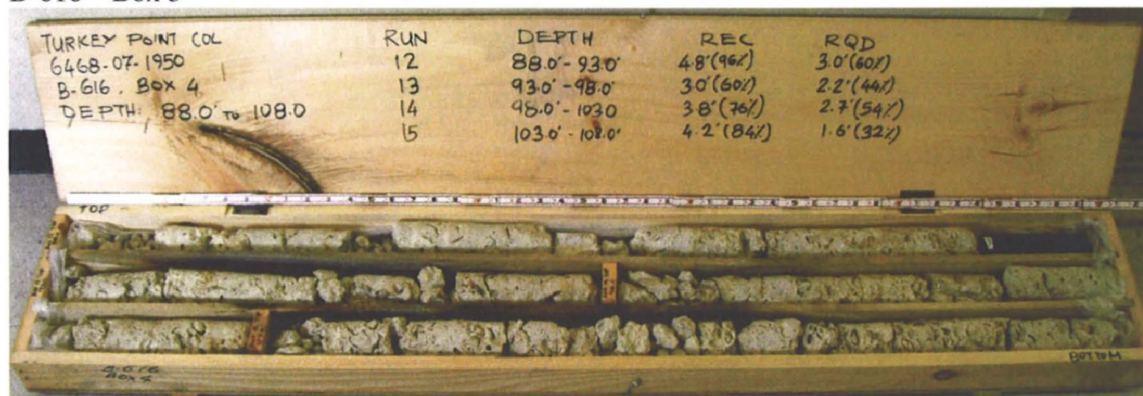
B-616 - Box 1



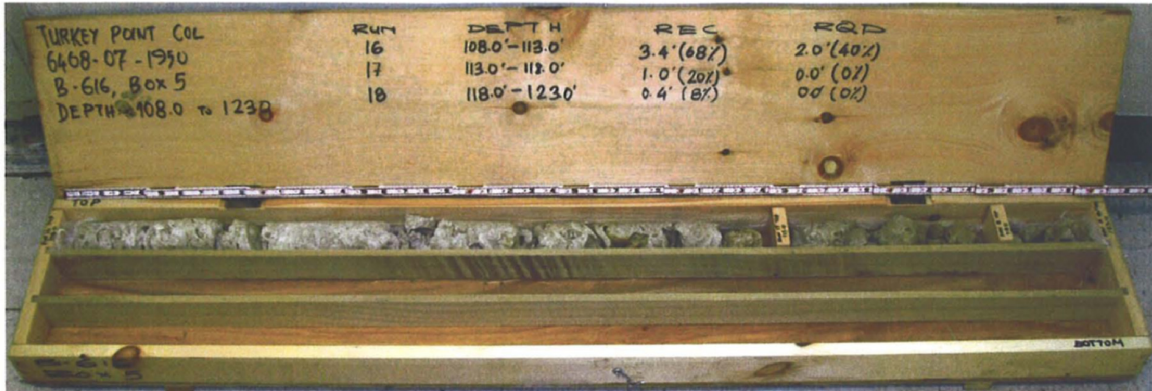
B-616 - Box 2



B-616 - Box 3



B-616 - Box 4



B-616 - Box 5



GEOTECHNICAL BORING LOG

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

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409					MACTEC PROJECT NO.: 6468-07-1950					COUNTY: Miami-Dade			GEOLOGIST: H. Lyatuu					
SITE DESCRIPTION: Turkey Point COL					DRILL MACHINE: CME-550 (ATL)					DRILLER: L. Carter/ J. Landeros					GROUND WATER (ft)			
BORING NO.: B-617					DRILL METHOD: Mud Rotary/ Core					SAMPLE METHODS: SPT/Core					0 HR. NA			
GROUND ELEV.: -1.4 ft (NAVD88)					NORTHING: 397,288 US ft (NAD83/90)					EASTING: 876,722 US ft (NAD83/90)					24 HR. NA			
TOTAL DEPTH: 126.1 ft			BORING DIAMETER: 4" to 31.0', 3" to 126.1'					CASING DEPTH: 4" to 31.0', 3" to 120.0'					HAMMER (ID):140 lb. Auto (MEC-03)					
DATE STARTED: 3/13/08			COMPLETED: 3/19/08			CORE SIZE: HQ3			BITS USED: 4" & 3" 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								
-1.4					Ground Surface												-1.4	0.0
-1.4	0.0	WOR	WOR	WOR	0													0.0
-3.9	2.5																	2.0
-6.4	5.0	WOH	4	6	10													
-8.9	7.5		8	6	12													
-11.4	10.0		13	6	12													
-13.9	12.5		5	5	24													
-16.4	15.0		3	7	12													
-20.9	19.5		18	13	30													
-25.9	24.5		5	5	5													
-30.9	29.5		1	5	7													
-31.8	30.4	20	50/0.4		12													
-34.7	33.3																	
-39.7	38.3																	
-44.7	43.3																	
-49.7	48.3																	
-54.7	53.3																	
-59.7	58.3																	
-64.7	63.3																	
-69.7	68.3																	
-74.7	73.3																	

TURKEY POINT COL BORE TURKEY POINT GPJ 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: H. Lyatuu						
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)						
BORING NO.: B-617		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA						
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 397,288 US ft (NAD83/90)		EASTING: 876,722 US ft (NAD83/90)		24 HR. NA						
TOTAL DEPTH: 126.1 ft		BORING DIAMETER: 4" to 31.0', 3" to 126.1'		CASING DEPTH: 4" to 31.0', 3" to 120.0'		HAMMER (ID): 140 lb. Auto (MEC-03)						
DATE STARTED: 3/13/08		COMPLETED: 3/19/08		CORE SIZE: HQ3		BITS USED: 4" & 3" 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			
-76.2					Continued from previous page							
-79.7	78.3									RUN-11		LIMESTONE, boundstone, white (10YR8/1) and (2.5Y8/1), hard, indurated, trace to few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) <i>(continued)</i>
-81.7	80.3									RUN-12		
-84.7	83.3									RUN-13		
-89.7	88.3									RUN-14		
-94.7	93.3									RUN-15		
-99.7	98.3									RUN-16		
-104.7	103.3									RUN-17		
-109.7	108.3									RUN-18		
-114.7	113.3									RUN-19		
-120.2	118.8	4	17	11						617-11		
-126.0	124.6	4	4	3						617-12		
												113.3ft: hard, indurated Silty SAND (SM), light gray (7.5YR7/1), medium dense, wet, fine grained sand, strong HCl reaction (Tamiami Formation)
												118.8ft: Switch sampling method to SPT
												124.6ft: very pale brown (10YR7/6), loose, weak HCl reaction Boring Terminated at Elevation -127.5 ft

TURKEY POINT COL BORE 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: H. Lyatuu		
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros			GROUND WATER (ft) 0 HR. NA 24 HR. NA	
BORING NO.: B-617				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 397,288 US ft (NAD83/90)				EASTING: 876,722 US ft (NAD83/90)				
TOTAL DEPTH: 126.1 ft				CASING DEPTH: 4" to 31.0', 3" to 120.0'						HAMMER (ID): 140 lb. Auto (MEC-03)		
DATE STARTED: 3/13/08		COMPLETED: 3/19/08		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 @ 30.4 ft		
-31.8	30.4	2.9	1:37 1:52 0:49/0.9	(2.9) 100%	(2.7) 93%	RUN-1	(16.5) 95%	(15.2) 88%		LIMESTONE, boundstone, white (10YR8/1), mottled very pale brown (10YR7/4), and gray (10YR3/1), very soft, wet, trace recrystallized calcite, strong HCl reaction (Upper Fort Thompson Formation) 25.0ft. loss of circulation (continued) 30.4ft: white (10YR8/1), hard, indurated, coralline, fossiliferous, strong HCl reaction, few vugs		
		5.0	1:24 1:18 1:23 1:36 1:09	(4.4) 88%	(4.2) 84%	RUN-2						
		5.0	1:44 1:51 2:03 1:40 1:56	(5.0) 100%	(5.0) 100%	RUN-3						
		5.0	1:49 3:23 2:19 2:37 2:15	(4.7) 94%	(3.8) 76%	RUN-4						
-49.7	48.3						(52.0) 78%	(33.0) 50%	-49.1	47.7		
		5.0	1:11 1:10 1:18 1:17 1:15	(4.6) 92%	(4.3) 86%	RUN-5				LIMESTONE, boundstone, white (10YR8/1) and (2.5Y8/1), hard, indurated, trace to few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)		
		5.0	0:36 2:05 0:58 1:10 1:10	(3.8) 76%	(3.0) 60%	RUN-6				53.3ft: moderately hard to hard, moderately indurated to indurated		
		5.0	1:01 0:58 1:20 1:18 1:07	(4.7) 94%	(4.2) 84%	RUN-7						
		5.0	0:48 0:52 1:08 0:38 0:25	(3.5) 70%	(1.7) 34%	RUN-8				63.3ft: moderately hard, moderately indurated		
		5.0	0:37 0:55 1:00 1:49 2:11	(3.5) 70%	(1.8) 36%	RUN-9				68.3ft: moderately hard to hard, moderately indurated to indurated		
		5.0	0:36 0:24 0:33 1:06 1:15	(1.5) 30%	(0.0) 0%	RUN-10				73.3ft: hard, indurated		
		2.0	1:35 2:01	(2.0) 100%	(0.8) 40%	RUN-11						
		3.0	0:36 1:15 1:40	(2.8) 93%	(2.0) 67%	RUN-12						
		5.0	0:10 0:14 0:20 0:28 1:35	(3.5) 70%	(0.8) 16%	RUN-13						
		5.0	1:03 1:13 1:11 1:18 0:52	(4.3) 86%	(2.6) 52%	RUN-14						
		5.0	0:38 0:10 0:10 0:40 1:01	(3.5) 70%	(2.1) 42%	RUN-15						
		5.0	0:45 0:57 0:47 1:00 1:02	(5.0) 100%	(3.6) 72%	RUN-16				98.3ft: little shell molds and casts		
		5.0	0:53 0:55	(5.0) (4.1)	RUN-17							

TURKEY POINT COL CORE: TURKEY POINT GPJ TURKEY POINT COL.GDT 53008



SHEET 2 OF 2

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade		GEOLOGIST: H. Lyatuu			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550 (ATL)				DRILLER: L. Carter/ J. Landeros				GROUND WATER (ft)	
BORING NO.: B-617				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA	
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 397,288 US ft (NAD83/90)				EASTING: 876,722 US ft (NAD83/90)				24 HR. NA	
TOTAL DEPTH: 126.1 ft				CASING DEPTH: 4" to 31.0', 3" to 120.0'						HAMMER (ID): 140 lb. Auto (MEC-03)			
DATE STARTED: 3/13/08		COMPLETED: 3/19/08		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	
												Continued from previous page	
-109.7	108.3		0.38 0.42 0.58	100%	82%							LIMESTONE, boundstone, white (10YR8/1) and (2.5Y8/1), hard, indurated, trace to few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued)	
		5.0	0.23 0.35 0.52 0.53 0.32	(3.4) 68%	(1.5) 30%	RUN-18						108.3ft: hard to moderately hard, indurated to moderately indurated, trace shell molds and casts	
-114.7	113.3												
		5.0	0.11 0.23 0.08 0.06 0.08	(0.4) 8%	(0.0) 0%	RUN-19	(0.0) 0%	(NA)				-115.4	113.3ft: hard, indurated
-119.7	118.3											-119.7	114.0 Silty SAND (SM), light gray (7.5YR7/1), medium dense, wet, fine grained sand, strong HCl reaction (Tamiami Formation)
Coring Terminated at Elevation -119.7													

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