MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu/G. Pillappa
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (CLT)	DRILLER: Warren/Banks/Sloan/Rosser	GROUND WATER (ft)
BORING NO.: B-611	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,087 US ft (NAD83/90)	EASTING: 876,735 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 151.5 ft	CASING DEPTH: 4" to 25.0', 3" to 120.1'		HAMMER (ID): 140 lb. Auto (MEC-04)
DATE STARTED: 2/26/08	COMPLETED: 3/24/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 25.9 ft
-27.4	25.9	5.0	1:37 2:11 1:48 2:10 4:14	(4.7) 94%	(4.0) 80%	RUN-1 611-CS-01	(20.6) 94%	(18.5) 84%		LIMESTONE, boundstone, white (7.5YR8/1), hard, wet, strong HCl reaction, trace shells (Upper Fort Thompson Formation) *(continued)* 25.9ft: white (10YR8/1), hard, indurated, fossiliferous, coralline, strong HCl reaction, little vugs
-32.4	30.9	5.0	1:31 1:11 1:10 1:40 1:25	(5.0) 100%	(5.0) 100%	RUN-2				
-37.4	35.9	3.7	1:34 1:11 1:34 2:14/0.7	(3.7) 100%	(3.7) 100%	RUN-3 611-CS-02				35.9ft: few vugs
-41.1	39.6	1.3	5:16/1.3	(1.3) 100%	(0.7) 54%	RUN-4				
-42.4	40.9	3.6	0:32 0:49 0:39 0:21/0.6	(3.3) 92%	(3.0) 83%	RUN-5 611-CS-03				40.9 to 41.5ft: Drilled out/washed out due to rig change and tool change
-43.0	41.5	5.0	0:49 0:41 0:40 0:30 0:41	(4.8) 96%	(4.3) 86%	RUN-6				45.1ft: gray (5Y6/1) to 47.9ft -49.4 47.9
-46.6	45.1	5.0	0:52 0:46 0:28 0:27 0:18	(4.9) 98%	(3.0) 60%	RUN-7	(37.5) 74%	(21.1) 42%		LIMESTONE, boundstone, white (10YR8/1), to white (5YR8/1), hard, indurated, strong HCl reaction, trace shells, few vugs (Lower Fort Thompson Formation) 50.1ft: white (5YR8/1)
-51.6	50.1	5.0	0:26 0:17 0:24 0:23 0:30	(4.6) 92%	(4.0) 80%	RUN-8				
-56.6	55.1	5.0	0:37 0:28 0:26 0:32 0:34	(2.1) 42%	(0.6) 12%	RUN-9				
-61.6	60.1	5.0	0:33 0:40 0:28 0:36 0:27	(4.6) 92%	(2.2) 44%	RUN-10 611-CS-05				
-66.6	65.1	5.0	0:16 0:27 0:30 0:19 0:41	(2.6) 52%	(1.4) 28%	RUN-11				70.1ft: trace fine sand
-71.6	70.1	5.0	0:18 0:28 0:22 0:28 0:50	(1.2) 24%	(0.0) 0%	RUN-12				
-76.6	75.1	5.0	0:42 0:19 0:33 0:18 0:21	(2.0) 40%	(0.5) 10%	RUN-13				
-81.6	80.1	5.0	0:28 0:30 0:28 0:48 0:37	(4.4) 88%	(2.0) 40%	RUN-14				
-86.6	85.1	5.0	0:14 0:23 0:23 0:18 0:21	(4.9) 98%	(3.8) 76%	RUN-15 611-CS-06				
-91.6	90.1	5.0	0:13 0:12 0:15 0:16 0:15	(3.6) 72%	(1.4) 28%	RUN-16				-100.2 98.7
-96.6	95.1						(1.8) 30%	(NA)		Silty SAND (SM), white (5Y8/1), wet, some shell fragments, strong HCl reaction, grades to limestone
-101.6	100.1									

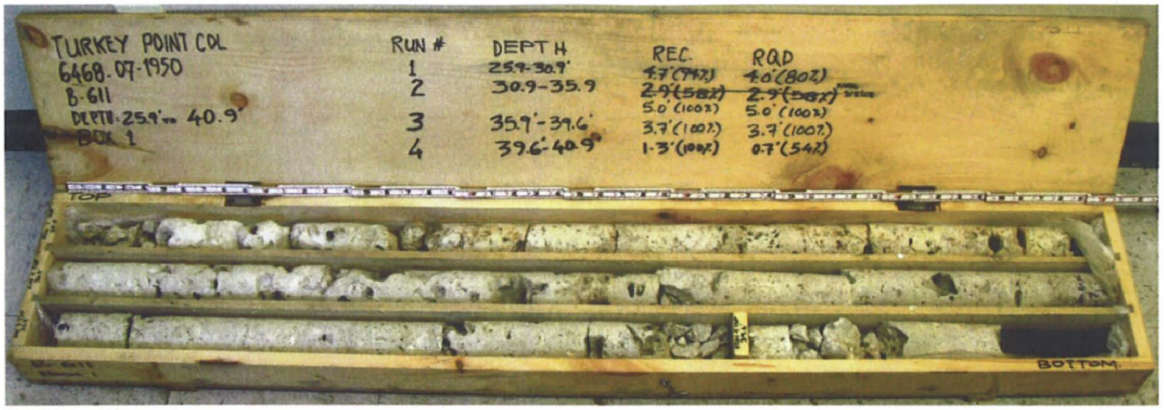
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL.GDT 5/30/08

MACTEC

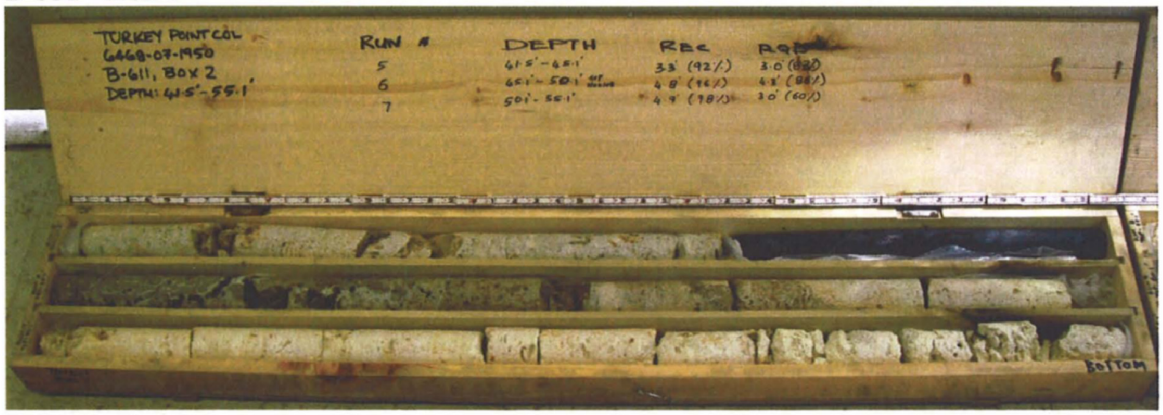
BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu/G. Pillappa
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (CLT)	DRILLER: Warren/Banks/Sloan/Rosser	GROUND WATER (ft)
BORING NO.: B-611	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,087 US ft (NAD83/90)	EASTING: 876,735 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 151.5 ft	CASING DEPTH: 4" to 25.0', 3" to 120.1'		HAMMER (ID): 140 lb. Auto (MEC-04)
DATE STARTED: 2/26/08	COMPLETED: 3/24/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
-106.6	105.1	5.0	0:40 0:32 0:39 0:37 0:40	(2.2) 44%	(0.0) 0%	RUN-17				Silty SAND (SM), white (5Y8/1), wet, some shell fragments, strong HCl reaction, grades to limestone *(continued)* -106.2 / 104.7
-111.6	110.1	5.0	0:24 0:25 0:26 0:21 0:27	(4.8) 96%	(4.3) 86%	RUN-18 *611-CS-07*	(7.6) 92%	(4.8) 58%		LIMESTONE, boundstone, white (5Y8/1), hard, indurated, sandy, fossiliferous, strong HCl reaction, few vugs, little shell molds and casts
-116.6	115.1	5.0	0:18 0:20 0:23 0:16 0:17	(2.4) 48%	(0.5) 10%	RUN-19	(0.0) 0%	(NA)		-114.5 / 113.0 Silty SAND with gravel (SM), light brownish gray (10YR6/2), medium dense, wet, fine to coarse grained sand, fine to coarse gravel, weak HCl reaction (Tamiami Formation)
-121.6	120.1	5.0	0:12 0:14 0:10 0:14 0:17	(0.0) 0%	(0.0) 0%	RUN-20				-121.6 / 120.1
										Coring Terminated at Elevation -121.6

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

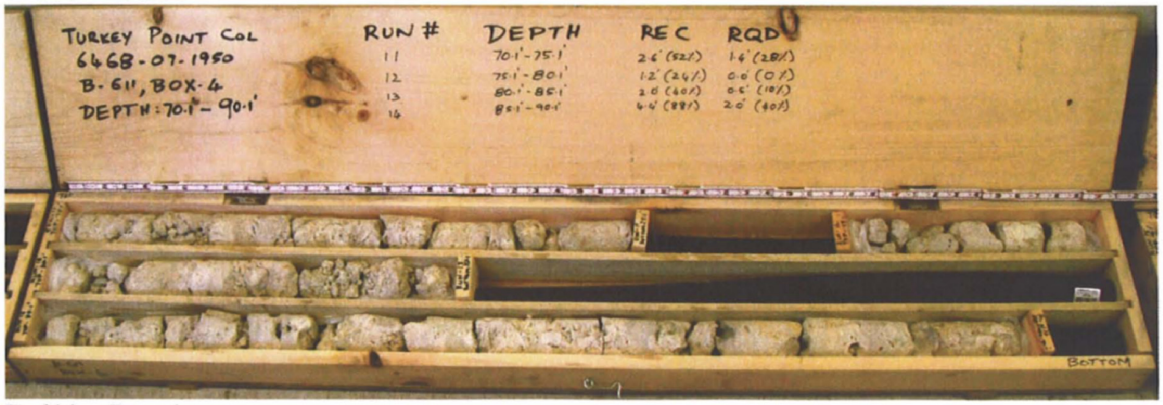


B-611 – Box 1

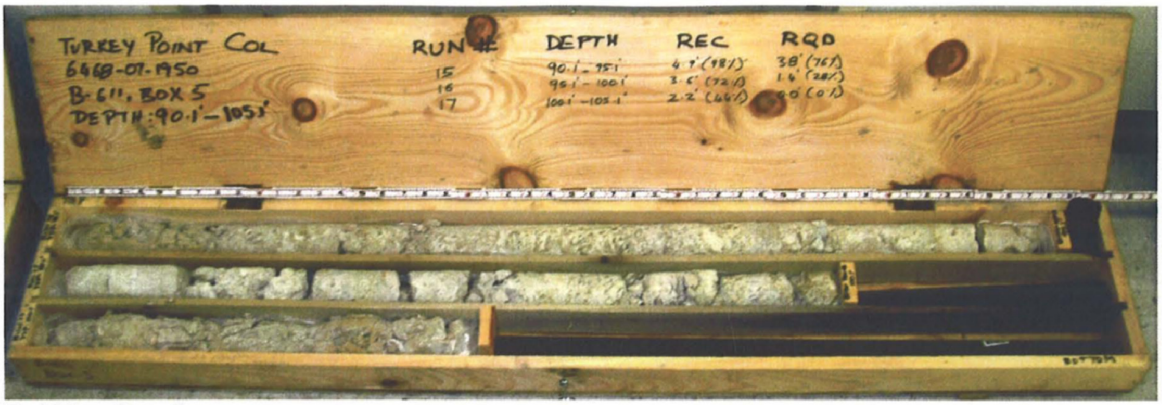


B-611 – Box 2

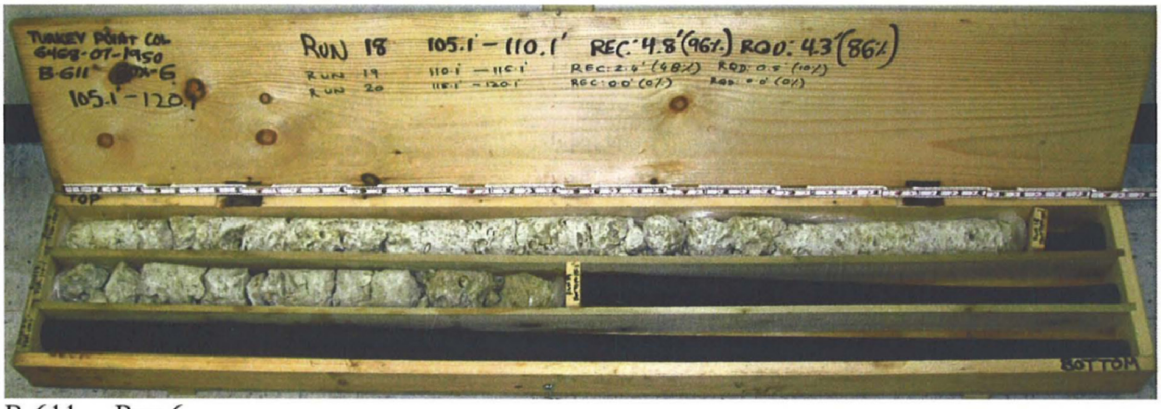
B-611 – Box 3



B-611 – Box 4



B-611 – Box 5



B-611 – Box 6

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDZ Date 8-14-08

Checked By SOC Date 8/17/08

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-612	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,086 US ft (NAD83/90)	EASTING: 876,869 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.1 ft	BORING DIAMETER: 4" to 16.0', 3" to 125.1'	CASING DEPTH: 4" to 16.0', 3" to 118.6'	HAMMER (ID):140 lb. Auto (MEC-03)
DATE STARTED: 3/25/08	COMPLETED: 3/26/08	CORE SIZE: HQ3	BITS USED: 4" & 3" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-1.5					Ground Surface				-1.5 / 0.0
-1.5 / -4.0	0.0 / 2.5	WOR	WOR	WOR	WOR 0	612-1			MUCK, grayish brown (2.5Y5/2), very soft, wet, no HCl reaction
-6.5	5.0	4	5	8	13	612-2A&B			-4.5 / 3.0 LIMESTONE, boundstone, pale yellow (2.5Y8/3), very soft, wet, sandy, strong HCl reaction, oolitic (Miami Formation) 5.0ft: soft
-9.0	7.5	7	11	10	21 (SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA)	612-3			
-11.5	10.0	5	6	7	13	612-4			7.5ft: white (2.5Y8/1), to light gray (2.5Y7/1), very soft
-14.0	12.5	4	4	6	10	612-5			10.0ft: white (2.5Y8/1)
-16.5	15.0	4	8	8	16	612-6			12.5ft: white (2.5Y8/1), to gray (2.5Y6/1), fossiliferous
-17.9	16.4	12	15	50/0.4	65/0.9	612-7			15.0ft: white (2.5Y8/1), hard
-19.6	18.1					RUN-1			16.4ft: Switch sampling method to coring
-24.6	23.1					RUN-2			16.4ft: white (10YR8/1), mottled light brownish gray (10YR6/1), hard, indurated, strong HCl reaction, oolitic, vertical solution cavities 18.1ft: fossiliferous, few vugs
-29.6	28.1					RUN-3			-25.5 / 24.0 LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, trace sand, trace recrystallized calcite, strong HCl reaction, few vugs (Upper Fort Thompson Formation)
-34.6	33.1					RUN-4			
-39.6	38.1					RUN-5			27.0ft: loss of circulation 28.1ft: white (10YR8/1), to gray (10YR5/1), to olive yellow (10YR6/8) 33.1ft: white (10YR8/1), moderately hard to hard
-44.6	43.1					RUN-6			
-49.6	48.1					RUN-7			43.1ft: white (10YR8/1), to gray (10YR5/1) at 45.5ft to 47.5ft, hard, little vugs
-54.6	53.1					RUN-8			-49.0 / 47.5 LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) 52.1 to 53.1ft: soft
-59.6	58.1					RUN-9			53.1ft: white (10YR8/1), soft to hard, moderately indurated to indurated, sandy
-64.6	63.1					RUN-10			58.1ft: white (10YR8/1), to light gray (10YR7/1), hard, indurated
-69.6	68.1					RUN-11			
-74.6	73.1					RUN-12			
						RUN-13			

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/14/08

MACTEC

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-612	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,086 US ft (NAD83/90)	EASTING: 876,869 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.1 ft	BORING DIAMETER: 4" to 16.0', 3" to 125.1'	CASING DEPTH: 4" to 16.0', 3" to 118.6'	HAMMER (ID):140 lb. Auto (MEC-03)
DATE STARTED: 3/25/08	COMPLETED: 3/26/08	CORE SIZE: HQ3	BITS USED: 4" & 3" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-76.3					Continued from previous page				
-79.6	78.1					RUN-14			LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*
-83.6	82.1								
-84.6	83.1					RUN-15			82.1ft: moderately hard, some vugs
						RUN-16			83.1ft: hard, few vugs
-89.6	88.1					RUN-17			88.1ft: moderately hard
-94.6	93.1					RUN-18			93.1ft: hard, interbedded sand lenses
-99.6	98.1					RUN-19			98.1ft: few shell molds and casts
-104.6	103.1					RUN-20			
-109.6	108.1					RUN-21			108.1ft: white (10YR8/1), to light gray (10YR7/2), to greenish gray (10Y5/1), hard to moderately hard
-114.6	113.1					RUN-22			113.1ft: greenish gray (10Y5/1), hard
									-116.5 — 115.0
-120.1	118.6								Silty SAND (SM), gray (2.5Y6/1), loose, wet, fine grained sand, strong HCl reaction (Tamiami Formation)
		3	3	2	5	612-8			118.6ft: Switch sampling method to SPT
-125.1	123.6								
		6	25	12	37	612-9A&B			-126.2 — 124.7
									123.6ft: light gray (10YR7/1), hard, medium to coarse grained sand, some shell fragments
									-126.6 — 125.1
									SiLT (ML), light olive gray (5Y6/2), very stiff, wet, strong HCl reaction
									Boring Terminated at Elevation -126.6 ft

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/14/08

MACTEC

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-612	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,086 US ft (NAD83/90)	EASTING: 876,869 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.1 ft	CASING DEPTH: 4" to 16.0', 3" to 118.6'		HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 3/25/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 16.4 ft
-17.9	16.4	1.7	1:42 1:06/0.7	(1.7) 100%	(1.0) 59%	RUN-1	(2.5) 33%	(1.0) 13%		LIMESTONE, boundstone, pale yellow (2.5Y8/3), very soft, wet, sandy, strong HCl reaction, oolitic (Miami Formation) *(continued)*
-19.6	18.1	5.0	0:48 0:27 0:35 0:40 0:44	(0.5) 10%	(0.0) 0%	RUN-2				16.4ft: white (10YR8/1), mottled light brownish gray (10YR6/1), hard, indurated, strong HCl reaction, oolitic, vertical solution cavities 18.1ft: fossiliferous, few vugs
-24.6	23.1	5.0	0:46 1:53 0:45 0:28 0:31	(4.4) 88%	(2.8) 56%	RUN-3	(20.0) 85%	(14.8) 63%		-25.5 — 24.0 LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, trace sand, trace recrystallized calcite, strong HCl reaction, few vugs (Upper Fort Thompson Formation)
-29.6	28.1	5.0	0:09 0:03 0:22 0:05 0:51	(1.5) 30%	(0.0) 0%	RUN-4				27.0ft: loss of circulation 28.1ft: white (10YR8/1), to gray (10YR5/1), to olive yellow (10YR6/8)
-34.6	33.1	5.0	1:46 0:55 0:58 0:58 1:20	(5.0) 100%	(3.5) 70%	RUN-5				33.1ft: white (10YR8/1), moderately hard to hard
-39.6	38.1	5.0	1:47 1:22 1:27 1:04 1:10	(5.0) 100%	(4.5) 90%	RUN-6				
-44.6	43.1	5.0	1:23 1:24 0:57 1:31 1:21	(5.0) 100%	(4.6) 92%	RUN-7				43.1ft: white (10YR8/1), to gray (10YR5/1) at 45.5ft to 47.5ft, hard, little vugs
-49.6	48.1	5.0	1:04 1:38 1:15 0:49 0:35	(5.0) 100%	(4.9) 98%	RUN-8	(55.4) 82%	(35.8) 53%		-49.0 — 47.5 LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) 52.1 to 53.1ft: soft
-54.6	53.1	5.0	0:24 0:37 0:33 0:54 0:46	(5.0) 100%	(4.0) 80%	RUN-9				53.1ft: white (10YR8/1), soft to hard, moderately indurated to indurated, sandy
-59.6	58.1	5.0	1:08 1:48 1:52 0:45 1:46	(4.7) 94%	(4.1) 82%	RUN-10				58.1ft: white (10YR8/1), to light gray (10YR7/1), hard, indurated
-64.6	63.1	5.0	1:02 0:37 0:52 0:52 0:26	(3.5) 70%	(1.9) 38%	RUN-11				
-69.6	68.1	5.0	0:33 0:27 1:01 1:38 0:20	(3.2) 64%	(0.6) 12%	RUN-12				
-74.6	73.1	5.0	0:55 0:37 0:08 0:19 1:10	(2.4) 48%	(0.9) 18%	RUN-13				
-79.6	78.1	4.0	1:01 1:02 1:06 1:15	(4.0) 100%	(3.3) 83%	RUN-14				
-83.6	82.1	1.0	0:29	(0.8) 80%	(0.4) 40%	RUN-15				82.1ft: moderately hard, some vugs
-84.6	83.1	5.0	0:35 0:09 0:48 0:32 0:49	(4.1) 82%	(1.0) 20%	RUN-16				83.1ft: hard, few vugs
-89.6	88.1	5.0	1:04 0:46 0:30	(3.2) 64%	(0.4) 8%	RUN-17				88.1ft: moderately hard

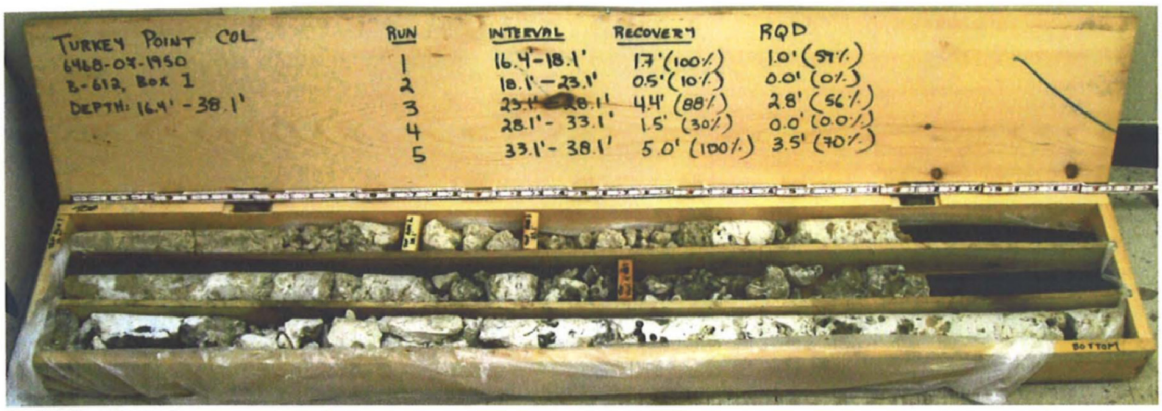
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/14/08

MACTEC

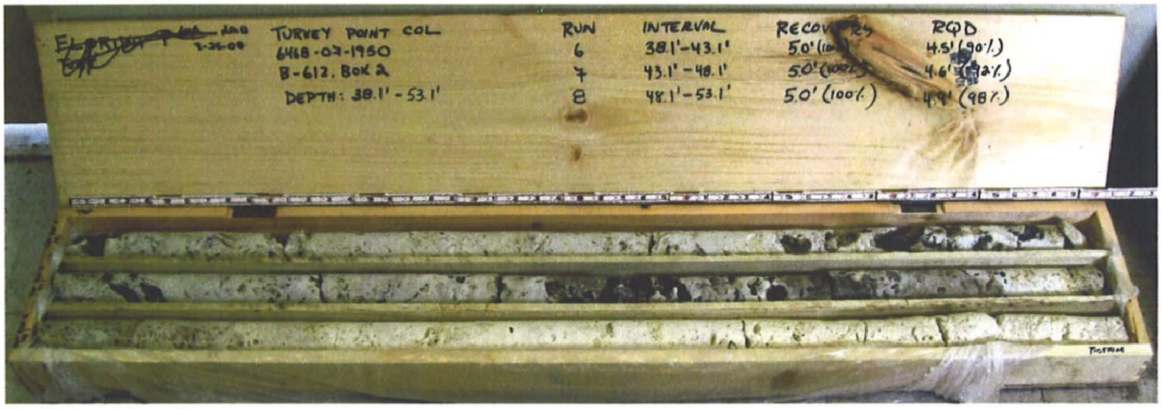
BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-612	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,086 US ft (NAD83/90)	EASTING: 876,869 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 125.1 ft	CASING DEPTH: 4" to 16.0', 3" to 118.6'		HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 3/25/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
-94.6	93.1		0:30 0:26							LIMESTONE, boundstone, white (10YR8/1), to light gray (10YR7/1), hard, indurated, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*
-99.6	98.1	5.0	0:26 1:18 0:42 0:44 0:40	(2.6) 52%	(0.9) 18%	RUN-18				93.1ft: hard, interbedded sand lenses
-104.6	103.1	5.0	0:36 0:50 0:32 0:27 1:03	(5.0) 100%	(4.2) 84%	RUN-19				98.1ft: few shell molds and casts
-109.6	108.1	5.0	0:43 0:53 0:48 1:03 0:45	(5.0) 100%	(5.0) 100%	RUN-20				
-114.6	113.1	5.0	0:31 0:19 0:35 0:24 0:39	(5.0) 100%	(3.6) 72%	RUN-21				108.1ft: white (10YR8/1), to light gray (10YR7/2), to greenish gray (10Y5/1), hard to moderately hard 113.1ft: greenish gray (10Y5/1), hard
-119.6	118.1	5.0	0:37 0:22 0:24 0:41 0:18	(1.3) 26%	(0.0) 0%	RUN-22	(0.0) 0%	(NA)		-116.5 — 115.0 Silty SAND (SM), gray (2.5Y6/1), loose, wet, fine grained sand, strong HCl reaction (Tamiami Formation) -119.6 — 118.1
										Coring Terminated at Elevation -119.6

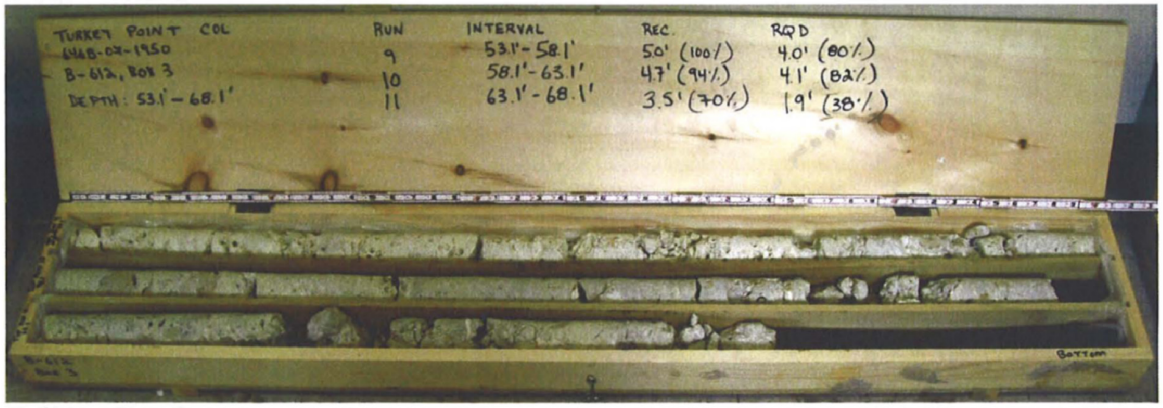
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL.GDT 8/14/08



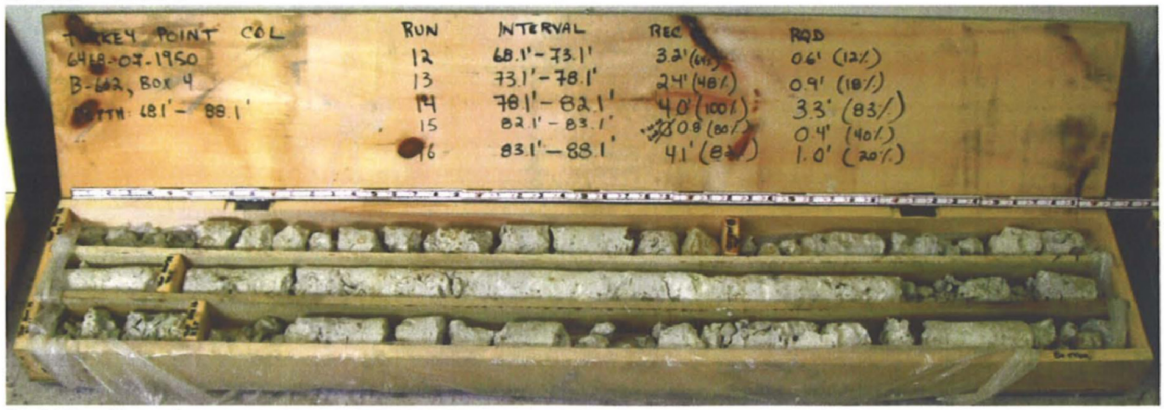
B-612 – Box 1



B-612 – Box 2

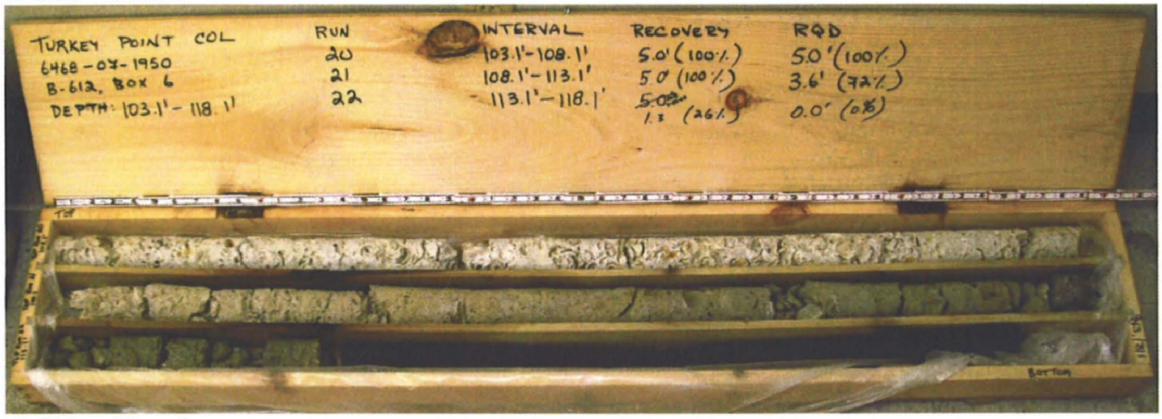


B-612 – Box 3



B-612 – Box 4

B-612 – Box 5



B-612 – Box 6

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [signature] Date 8-19-08
Checked By [signature] Date 8/19/08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-613	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,162 US ft (NAD83/90)	EASTING: 876,809 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.2 ft	BORING DIAMETER: 3" to 150.2'	CASING DEPTH: 3" to 115.0'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/25/08	COMPLETED: 3/26/08	CORE SIZE: HQ3	BITS USED: 2 7/8" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-1.4					Ground Surface				-1.4 / 0.0
-1.4	0.0	WOH	WOH	WOH	0 WOH	613-1			MUCK, black (2.5Y2.5/1), very soft, wet, strong HCl reaction, mostly organics
-4.2	2.8								-4.8 / 3.4
		2	3	4	7	613-2A&B			LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, little fine grained sand, strong HCl reaction, oolitic (Miami Formation)
-6.5	5.1				SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA				
		8	10	7	17	613-3			
-8.9	7.5								
		15	42	11	53	613-4			7.5ft: moderately hard
-11.1	9.7								
		3	5	10	15	613-5			9.7ft: very soft
-13.1	11.7								
		2	11	21	32	613-6			11.7ft: medium hard
-16.4	15.0								
		5	10	13	23	613-7			15.0ft: soft
-21.4	20.0								
		3	3	8	11	613-8			20.0ft: very soft
-27.7	26.3								-26.4 / 25.0
		2	2	14	16	613-9			LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, trace clayey sand, strong HCl reaction (Upper Fort Thompson Formation)
-32.9	31.5								
-33.3	31.9	50/0.4			50/0.4	613-10			31.5ft: hard
						RUN-1			31.9ft: Switch sampling method to coring
-36.3	34.9					RUN-2			31.9ft: white (2.5Y8/1), moderately hard, moderately indurated, coralline, few vugs 34.9ft: fossiliferous, little vugs
-41.3	39.9					RUN-3			39.9ft: few vugs
-46.3	44.9					RUN-4			44.9ft: light gray (2.5Y7/2), moderately hard to hard, moderately indurated to indurated
									-48.5 / 47.1
-51.3	49.9					RUN-5			LIMESTONE, boundstone, white (2.5Y8/1), moderately hard to hard, moderately indurated to indurated, trace vugs, strong HCl reaction, fossiliferous, few gastropod shell molds and casts (Lower Fort Thompson Formation)
-56.3	54.9					RUN-6			
-61.3	59.9					RUN-7			59.9ft: medium hard to moderately hard, friable to moderately indurated, sandy
-66.3	64.9					RUN-8			64.9ft: no recovery, very fast/soft drilling
-71.3	69.9					RUN-9			69.9ft: moderately hard, moderately indurated, very fast/soft drilling
-76.3	74.9								

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-613	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,162 US ft (NAD83/90)	EASTING: 876,809 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.2 ft	BORING DIAMETER: 3" to 150.2'	CASING DEPTH: 3" to 115.0'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/25/08	COMPLETED: 3/26/08	CORE SIZE: HQ3	BITS USED: 2 7/8" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-76.2					Continued from previous page				
						RUN-10			LIMESTONE, boundstone, white (2.5Y8/1), moderately hard to hard, moderately indurated to indurated, trace vugs, strong HCl reaction, fossiliferous, few gastropod shell molds and casts (Lower Fort Thompson Formation) *(continued)*
-81.3	79.9					RUN-11			74.9ft: medium hard to moderately hard, friable to moderately indurated
-86.3	84.9					RUN-12			84.9ft: trace fine to medium grained sand, few vugs
-91.3	89.9					RUN-13			89.9ft: moderately hard, moderately indurated
-96.3	94.9					RUN-14			
-101.3	99.9					RUN-15			99.9ft: some vugs, little shell molds and casts
-106.3	104.9					RUN-16			
-111.3	109.9					RUN-17			-114.4 113.0
-116.3	114.9					RUN-18			POORLY GRADED SAND (SP), light gray (2.5Y7/1), wet, fine grained sand, strong HCl reaction, trace limestone fragments and shells (Tamiami Formation)
-118.3	116.9	9	10	1	11	613-11			116.9ft: Switch sampling method to SPT 116.9ft: medium dense, shell fragments
-127.5	126.1	4	7	11	18	613-12			126.1ft: greenish gray (10Y6/1)
-137.6	136.2	3	2	2	4	613-13			136.2ft: no recovery, very loose
-140.1	138.7	2	3	5	8	613-14			138.7ft: loose
-150.1	148.7	4	6	7		613-15			

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-613	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,162 US ft (NAD83/90)	EASTING: 876,809 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.2 ft	BORING DIAMETER: 3" to 150.2'	CASING DEPTH: 3" to 115.0'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/25/08	COMPLETED: 3/26/08	CORE SIZE: HQ3	BITS USED: 2 7/8" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-151.0					Continued from previous page				
					13				-151.6 148.7ft: medium dense 150.2
									Boring Terminated at Elevation -151.6 ft

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-613	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,162 US ft (NAD83/90)	EASTING: 876,809 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.2 ft	CASING DEPTH: 3" to 115.0'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/25/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 31.9 ft
-33.3 -36.3	31.9 34.9	3.0	1:01 1:02 1:10	(3.0) 100%	(1.0) 33%	RUN-1	(14.1) 93%	(8.4) 55%		LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, trace clayey sand, strong HCl reaction (Upper Fort Thompson Formation) *(continued)* 31.9ft: white (2.5Y8/1), moderately hard, moderately indurated, coralline, few vugs 34.9ft: fossiliferous, little vugs
-41.3	39.9	5.0	1:05 0:54 1:08 1:09 0:18	(4.1) 82%	(2.3) 46%	RUN-2				
-46.3	44.9	5.0	0:44 0:53 0:57 2:02 1:52	(4.8) 96%	(3.6) 72%	RUN-3				39.9ft: few vugs
-51.3	49.9	5.0	1:08 1:49 2:03 2:10 1:00	(4.9) 98%	(3.5) 70%	RUN-4				44.9ft: light gray (2.5Y7/2), moderately hard to hard, moderately indurated to indurated -48.5 47.1
							(33.8) 51%	(12.9) 20%		LIMESTONE, boundstone, white (2.5Y8/1), moderately hard to hard, moderately indurated to indurated, trace vugs, strong HCl reaction, fossiliferous, few gastropod shell molds and casts (Lower Fort Thompson Formation)
-56.3	54.9	5.0	0:58 0:38 0:50 0:47 0:42	(5.0) 100%	(3.6) 72%	RUN-5				
-61.3	59.9	5.0	0:25 0:10 0:37 0:38 0:39	(3.1) 62%	(1.6) 32%	RUN-6				
-66.3	64.9	5.0	0:48 1:06 0:26 0:19 0:38	(1.8) 36%	(0.7) 14%	RUN-7				59.9ft: medium hard to moderately hard, friable to moderately indurated, sandy
-71.3	69.9	5.0	0:11 0:06 0:05 0:06 0:11	(0.0) 0%	(0.0) 0%	RUN-8				64.9ft: no recovery, very fast/soft drilling
-76.3	74.9	5.0	0:09 0:08 0:17 0:14 0:14	(1.1) 22%	(0.0) 0%	RUN-9				69.9ft. moderately hard, moderately indurated, very fast/soft drilling
-81.3	79.9	5.0	0:06 1:28 0:37 3:01 2:26	(3.2) 64%	(0.0) 0%	RUN-10				74.9ft: medium hard to moderately hard, friable to moderately indurated
-86.3	84.9	5.0	1:07 1:10 1:21 1:11 0:30	(2.9) 58%	(1.0) 20%	RUN-11				
-91.3	89.9	5.0	0:30 1:08 0:53 1:15 0:56	(2.9) 58%	(1.3) 26%	RUN-12				84.9ft: trace fine to medium grained sand, few vugs
-96.3	94.9	5.0	0:35 0:33 0:54 0:48 0:25	(0.2) 4%	(0.0) 0%	RUN-13				89.9ft: moderately hard, moderately indurated
-101.3	99.9	5.0	0:44 0:23 0:28 0:19 0:48	(1.4) 28%	(0.0) 0%	RUN-14				
-106.3	104.9	5.0	0:52 0:40 0:46 0:46 0:45	(4.6) 92%	(2.6) 52%	RUN-15				99.9ft: some vugs, little shell molds and casts
		5.0	0:46 0:37	(3.2)	(0.0)	RUN-16				

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/18/08

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-613	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,162 US ft (NAD83/90)	EASTING: 876,809 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.2 ft	CASING DEPTH: 3" to 115.0'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/25/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
			0:36	64%	0%					LIMESTONE, boundstone, white (2.5Y8/1), moderately hard to hard, moderately
			0:35							indurated to indurated, trace vugs, strong HCl reaction, fossiliferous, few
-111.3	109.9		0:25							gastropod shell molds and casts (Lower Fort Thompson Formation) *(continued)*
		5.0	0:34	(1.6)	(0.0)	RUN-17				
			0:32	32%	0%					
			0:26							-114.4 113.0
			0:25				(0.4)	(NA)		POORLY GRADED SAND (SP), light gray (2.5Y7/1), wet, fine grained sand,
-116.3	114.9		0:55				10%			strong HCl reaction, trace limestone fragments and shells (Tamiami Formation)
		2.0	0:08	(0.4)	(0.4)	RUN-18				
-118.3	116.9		0:36	20%	20%					-118.3 116.9ft: Switch sampling method to SPT 116.9
										Coring Terminated at Elevation -118.3

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/18/08