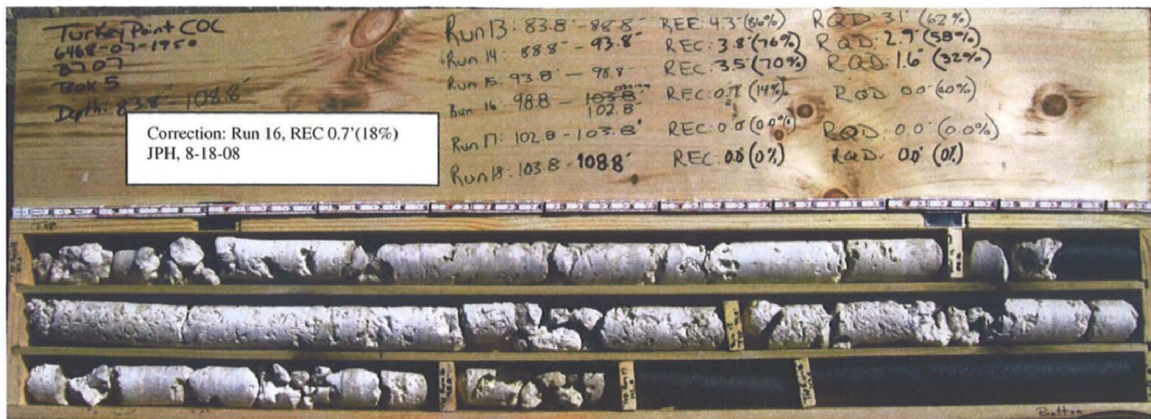




B-707 - Box 5



GEOTECHNICAL BORING LOG

Prepared By 272 Date 5-30-08Checked By 1112 Date 5-30-08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25409				MACTEC PROJECT NO.: 6468-07-1950				COUNTY: Miami-Dade				GEOLOGIST: C. Burroughs				
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-750 (Miller)				DRILLER: G.Bilbrey/P.McKorkle/J.Tucker				GROUND WATER (ft)				
BORING NO.: B-708(DH)				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA				
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 396,830 US ft (NAD83/90)				EASTING: 875,886 US ft (NAD83/90)				24 HR. NA				
TOTAL DEPTH: 266.5 ft				BORING DIAMETER: 4" to 266.5'				CASING DEPTH: 4" to 105.8'				HAMMER (ID):140 lb. Auto (07)				
DATE STARTED: 3/7/08				COMPLETED: 3/13/08				CORE SIZE: HQ3				BITS USED: 3 7/8" 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						
-1.4					Ground Surface											
-1.4	0.0	WOH	WOH	WOH	0									-1.4	0.0	MUCK, dark gray brown (10YR4/2), to black (10YR2/1), moist, mostly organic, strong HCl reaction
-4.0	2.6													-3.9	2.5	
-6.4	5.0	11	22	23												LIMESTONE, boundstone, gray (10YR6/1), to white (10YR8/1), medium hard, wet, strong HCl reaction, oolitic (Miami Formation)
-9.4	8.0	10	10	6												
-11.0	9.6	6	20	13												5.0ft: white (10YR8/1), very soft
-14.4	13.0	3	12	15												
-16.9	15.5	11	50/0.5													8.0ft: light gray (10YR7/1), to white (10YR8/1), medium hard
-21.9	20.5	10	50/0.5													
-27.0	25.6	9	6	7												9.6ft: soft
-27.5	26.1	50/0.5														
-31.8	30.4															13.0ft: hard, fossiliferous
-36.8	35.4															
-41.8	40.4															20.5ft: white (10YR8/1), very soft
-46.8	45.4															
-51.8	50.4															LIMESTONE, boundstone, white (10YR8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation)
-56.8	55.4															
-61.8	60.4															26.1ft: Switched sampling method to coring
-66.8	65.4															
-71.8	70.4															26.1ft: white (10YR8/1), with gray (10YR6/1), medium hard, moderately indurated, fossiliferous, recrystallized calcite, coralline, little to some vugs
-76.3	74.9															
																27.0ft: loss of circulation
																35.4ft: medium hard to hard, moderately indurated to indurated, little vugs
																40.4ft: white (10YR8/1), hard, indurated, few vugs
																45.4 to 47.6ft: gray (10YR6/1), trace vugs
																LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, strong HCl reaction (Lower Fort Thompson Formation)
																53.3ft: moderately hard, moderately indurated, trace to few shell molds and casts
																55.4ft: hard, indurated
																60.4ft: moderately hard to hard, moderately indurated to indurated
																63.0 to 65.4ft: friable, fractured
																65.4ft: indurated, sandy, coralline
																70.4ft: hard

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



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: C. Burroughs							
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)							
BORING NO.: B-708(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA							
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,830 US ft (NAD83/90)		EASTING: 875,886 US ft (NAD83/90)		24 HR. NA							
TOTAL DEPTH: 266.5 ft		BORING DIAMETER: 4" to 266.5'		CASING DEPTH: 4" to 105.8'		HAMMER (ID): 140 lb. Auto (07)							
DATE STARTED: 3/7/08		COMPLETED: 3/13/08		CORE SIZE: HQ3		BITS USED: 3 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		
-76.2					Continued from previous page								
-81.9	80.5												LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-86.9	85.5												80.5ft: moderately hard, moderately indurated, trace to few shell molds and casts
-91.9	90.5												85.5ft: moderately hard to hard, moderately indurated to indurated
-96.9	95.5												
-101.9	100.5												100.5ft: hard, indurated, little shell molds and casts
-106.9	105.5												
-111.9	110.5												
-116.9	115.5	12	10	16									Silty SAND (SM), light gray (5Y7/1), medium dense, wet, fine grained sand, little fines, strong HCl reaction (Tamiami Formation) 115.5ft: Switch sampling method to SPT
-127.4	126.0	8	10	13									126.0ft: greenish gray (10Y6/1), trace shell fragments
-136.9	135.5	8	11	8									135.5ft: trace shell fragments
-144.1	142.7	13	14	15									

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



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: C. Burroughs	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-708(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,830 US ft (NAD83/90)		EASTING: 875,886 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 266.5 ft		BORING DIAMETER: 4" to 266.5'		CASING DEPTH: 4" to 105.8'		HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 3/7/08		COMPLETED: 3/13/08		CORE SIZE: HQ3		BITS USED: 3 7/8" Roller Cone	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	LOG MOI	L O G	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				
-151.0					Continued from previous page									
-154.3	152.9	6	8	12	20						708(DH)-14			Silty SAND (SM), light gray (5Y7/1), medium dense, wet, fine grained sand, little fines, strong HCl reaction (Tamiami Formation) (continued)
-164.4	163.0	6	14	10	24						708(DH)-15			
-174.4	173.0	1	2	6	8						708(DH)-16			173.0ft: loose
-184.4	183.0	2	2	6	8						708(DH)-17			
-194.4	193.0	1	2	4	6						708(DH)-18			193.0ft: weak HCl reaction
-204.4	203.0	3	3	4	7						708(DH)-19			
-214.4	213.0	3	5	8	13						708(DH)-20			213.0ft: medium dense, strong HCl reaction
-224.4	223.0	9	8	5	13						708(DH)-21			Silty SAND (SM), greenish gray (10Y5/1), medium dense, moist, fine grained sand, little fines, strong HCl reaction (Hawthorn Group)

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



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: C. Burroughs				
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-750 (Miller)			DRILLER: G.Bilbrey/P.McKorkle/J.Tucker			GROUND WATER (ft)				
BORING NO.: B-708(DH)			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			0 HR. NA				
GROUND ELEV.: -1.4 ft (NAVD88)			NORTHING: 396,830 US ft (NAD83/90)			EASTING: 875,886 US ft (NAD83/90)			24 HR. NA				
TOTAL DEPTH: 266.5 ft			BORING DIAMETER: 4" to 266.5'			CASING DEPTH: 4" to 105.8'			HAMMER (ID): 140 lb. Auto (07)				
DATE STARTED: 3/7/08			COMPLETED: 3/13/08			CORE SIZE: HQ3			BITS USED: 3 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		
-225.8					Continued from previous page								
-234.4	233.0	7	12	16						708(DH)-22			Silty SAND (SM), greenish gray (10Y5/1), medium dense, moist, fine grained sand, little fines, strong HCl reaction (Hawthorn Group) (continued)
-244.4	243.0	10	15	21						708(DH)-23			243.0ft: dense, no HCl reaction
-254.3	252.9	4	10	19						708(DH)-24			252.9ft: medium dense
-266.4	265.0	5	12	30						708(DH)-25			256.0ft: dense
													Boring Terminated at Elevation -267.9 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: C. Burroughs			
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-750 (Miller)				DRILLER: G.Bilbrey/P.McKorkle/J.Tucker				GROUND WATER (ft)	
BORING NO.: B-708(DH)				DRILL METHOD: Mud Rotary/ Core				SAMPLE METHODS: SPT/Core				0 HR. NA	
GROUND ELEV.: -1.4 ft (NAVD88)				NORTHING: 396,830 US ft (NAD83/90)				EASTING: 875,886 US ft (NAD83/90)				24 HR. NA	
TOTAL DEPTH: 266.5 ft				CASING DEPTH: 4" to 105.8'						HAMMER (ID): 140 lb. Auto (07)			
DATE STARTED: 3/7/08		COMPLETED: 3/13/08		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) %		SAMP. NO.	STRATA REC (ft) %		RQD (ft) %	L O G	DESCRIPTION AND REMARKS		
											Begin Coring @ 26.1 ft		
-27.5	26.1	4.3	1:11/0.3 1:49 3:37 5:56 5:36	(4.2) 98%	(0.4) 9%	RUN-1	(19.7) 92%	(11.7) 54%			LIMESTONE, boundstone, white (10YR8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation) (continued)		
-31.8	30.4	5.0	2:37 2:16 3:02 2:18 3:41	(3.3) 66%	(0.7) 14%	RUN-2					26.1ft: white (10YR8/1), with gray (10YR6/1), medium hard, moderately indurated, fossiliferous, recrystallized calcite, coralline, little to some vugs		
-36.8	35.4	5.0	2:15 3:08 3:31 3:25 6:01	(5.0) 100%	(3.7) 74%	RUN-3 708(DH)- CS-01					35.4ft: medium hard to hard, moderately indurated to indurated, little vugs		
-41.8	40.4	5.0	2:33 2:06 2:58 3:01 3:27	(5.0) 100%	(5.0) 100%	RUN-4					40.4ft: white (10YR8/1), hard, indurated, few vugs		
-46.8	45.4	5.0	1:49 2:35 2:26 1:58 1:34	(5.0) 100%	(4.7) 94%	RUN-5					45.4 to 47.6ft: gray (10YR6/1), trace vugs		
-51.8	50.4	5.0	2:42 2:16 1:36 0:55 0:35	(4.8) 96%	(3.5) 70%	RUN-6 708(DH)- CS-04	(50.1) 75%	(30.8) 46%		-49.0	LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, strong HCl reaction (Lower Fort Thompson Formation)		
-56.8	55.4	5.0	0:58 0:45 1:09 1:48 4:43	(5.0) 100%	(4.2) 84%	RUN-7					53.3ft: moderately hard, moderately indurated, trace to few shell molds and casts		
-61.8	60.4	5.0	2:02 2:08 1:29 0:36 0:29	(3.2) 64%	(2.4) 48%	RUN-8 708(DH)- CS-06					55.4ft: hard, indurated		
-66.8	65.4	5.0	0:15 0:41 0:30 2:00 1:35	(1.9) 38%	(0.6) 12%	RUN-9					60.4ft: moderately hard to hard, moderately indurated to indurated		
-71.8	70.4	4.5	1:56 2:50 3:15 1:33 3:25/0.5	(3.2) 71%	(1.9) 42%	RUN-10					63.0 to 65.4ft: friable, fractured		
-76.3	74.9	5.6	1:21/1.6 1:20 1:26 1:43 1:50	(4.2) 75%	(3.2) 57%	RUN-11					65.4ft: indurated, sandy, coralline		
-81.9	80.5	5.0	0:40 0:48 0:24 1:01 2:37	(3.2) 64%	(0.7) 14%	RUN-12					70.4ft: hard		
-86.9	85.5	5.0	1:35 1:28 6:46 2:46 2:52	(4.7) 94%	(2.9) 58%	RUN-13					80.5ft: moderately hard, moderately indurated, trace to few shell molds and casts		
-91.9	90.5	5.0	1:17 1:49 1:00 1:04 1:44	(4.4) 88%	(2.9) 58%	RUN-14					85.5ft: moderately hard to hard, moderately indurated to indurated		
-96.9	95.5	5.0	0:26 0:40 0:51 1:18 1:50	(2.8) 56%	(0.4) 8%	RUN-15							
-101.9	100.5												

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

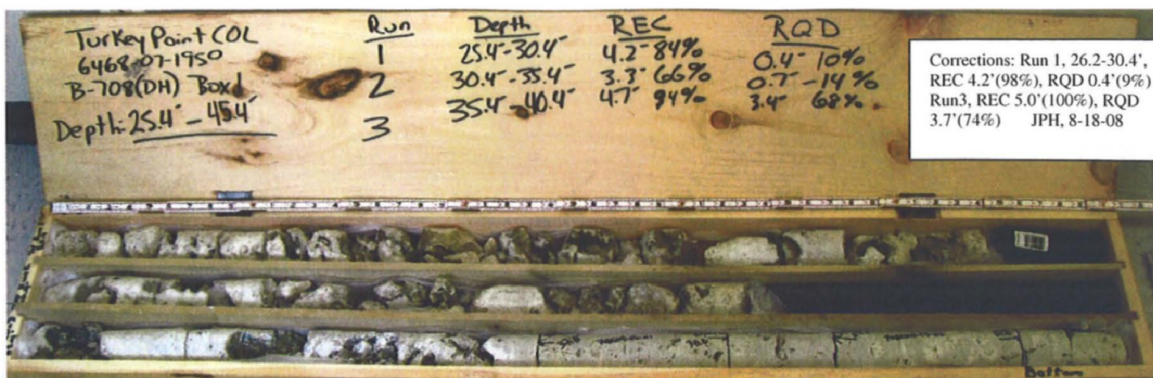


SHEET 2 OF 2

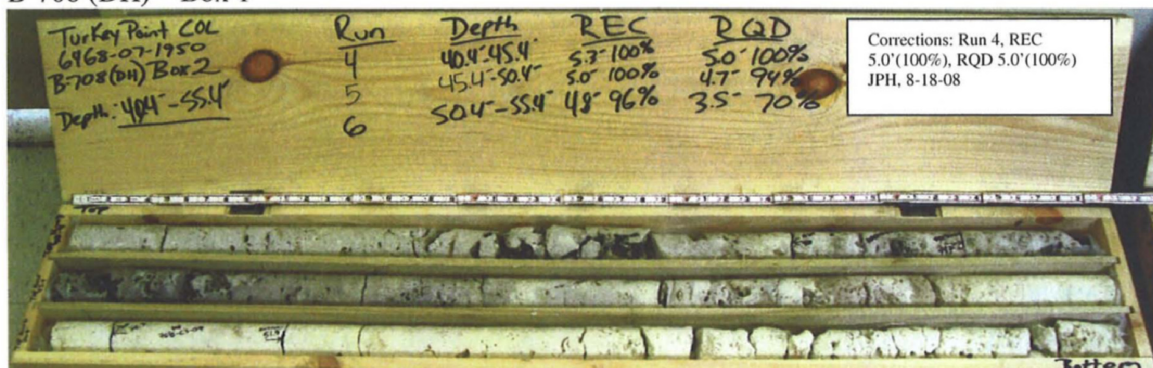
BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: C. Burroughs
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-750 (Miller)	DRILLER: G.Bilbrey/P.McKorkle/J.Tucker	GROUND WATER (ft)
BORING NO.: B-708(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 875,886 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 266.5 ft	CASING DEPTH: 4" to 105.8'	HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 3/7/08	COMPLETED: 3/13/08	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) %		
										Continued from previous page
-106.9	105.5	5.0	0:55 1:50 1:20 0:58 1:23	(4.9) 98%	(4.2) 84%	RUN-16 708(DH)- CS-07				100.5ft: hard, indurated, little shell molds and casts LIMESTONE, boundstone, white (10YR8/1), hard, indurated, trace vugs, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-111.9	110.5	5.0	1:43 1:10 1:33 1:05 1:08	(3.4) 68%	(1.1) 22%	RUN-17				
-116.9	115.5	5.0	0:52 1:04 1:01 1:04 0:30	(1.6) 32%	(0.0) 0%	RUN-18				
							(0.0) 0%	(NA)		-115.4 -116.9 Silty SAND (SM), light gray (5Y7/1), medium dense, wet, fine grained sand, little fines, strong HCl reaction (Tamiami Formation) Coring Terminated at Elevation -116.9

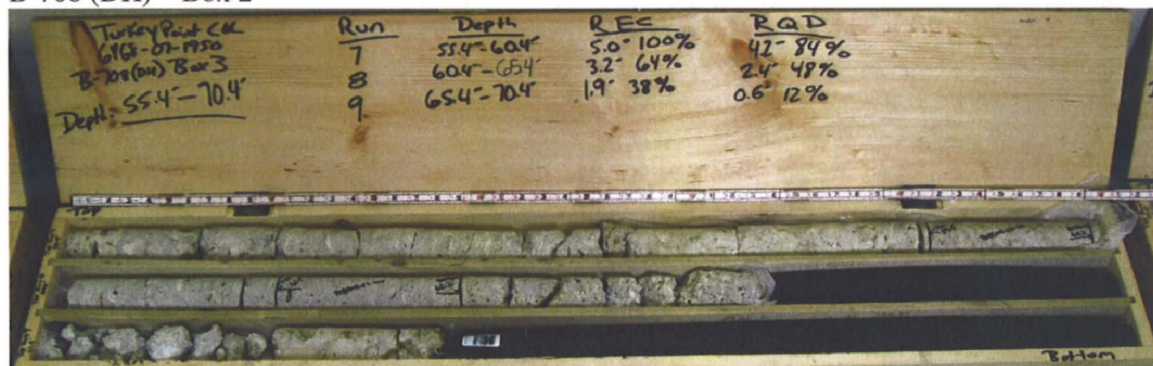
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



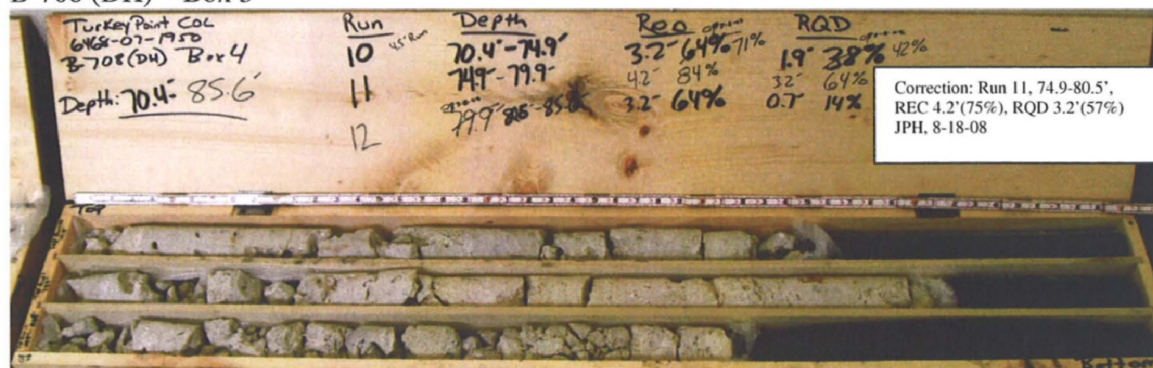
B-708 (DH) - Box 1



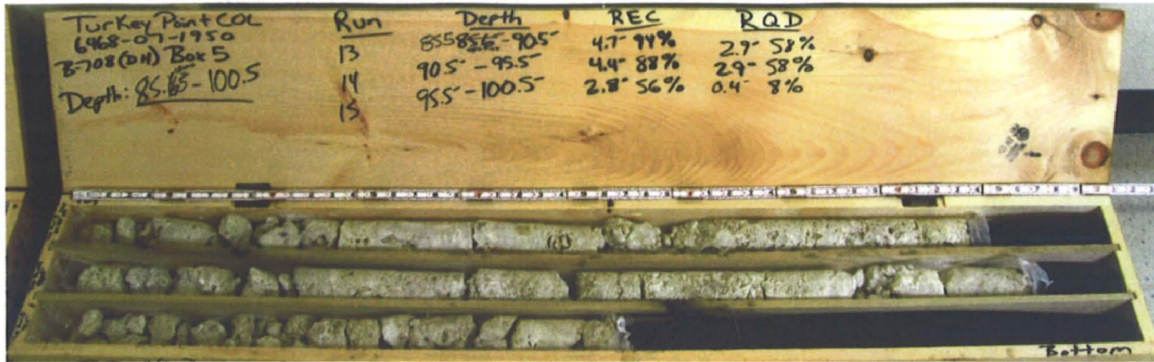
B-708 (DH) - Box 2



B-708 (DH) - Box 3



B-708 (DH) - Box 4



B-708 (DH) - Box 5



B-708 (DH) - Box 6



GEOTECHNICAL BORING LOG

Prepared By SPZ Date 5-30-08Checked By SPZ Date 6-30-08

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: 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.	MOI	LOG	SOIL AND ROCK DESCRIPTION				
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100								
-1.3					Ground Surface												-1.3	0.0
-1.3	0.0	WOH	WOH	WOH	●											MUCK, very dark brown (10YR2/2), very soft, moist, organic		
-3.8	2.5																	
		WOH	5	8														
-6.6	5.3				●											LIMESTONE, boundstone, pale yellow (2.5Y8/2), very soft, wet, strong HCl reaction, fossiliferous, oolitic (Miami Formation)		
-8.8	7.5	8	8	4	●											5.3ft: white (5Y8/1)		
		4	9	4	●											7.5ft: white (10YR8/1)		
-11.3	10.0																	
-13.8	12.5	8	12	9												10.0ft: soft		
-16.3	15.0	11	14	11														
-19.8	18.5	10	18	11														
		6	6	8												18.5ft: very soft		
-24.8	23.5				●													
		3	4	12														
-29.8	28.5																	
-30.5	29.2	40	50/0.2													LIMESTONE, boundstone, white, (10YR8/1), hard, wet, strong HCl reaction, trace shell fragments (Upper Fort Thompson Formation)		
																29.2ft: Switched sampling method to coring		
-35.3	34.0															29.2ft: white (2.5Y8/1), hard, indurated, coralline, fossiliferous, recrystallized calcite, strong HCl reaction, some vugs		
-40.3	39.0															30.0ft: loss of circulation		
																34.0ft: few vugs		
-45.3	44.0																	
-50.3	49.0															44.0ft: white (2.5Y8/1) to 45.6 then gray (2.5Y6/1) to 48.4ft, some vugs		
-55.3	54.0																	
-60.3	59.0																	
-65.3	64.0																	
-70.3	69.0																	
-75.3	74.0															69.0ft: moderately hard to hard, moderately indurated to indurated, sandy, some vugs		

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: 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	1:10 1:12 1:13 0:51 1:06	(5.0) 100%	(4.5) 90%	RUN-3							
-45.3	44.0	5.0	1:10 1:12 1:13 0:51 1:06	(5.0) 100%	(4.5) 90%	RUN-3							
-50.3	49.0	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	0:44 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			
-55.3	54.0	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%		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	0:57 0:43 1:06 1:11 1:12	(4.9) 98%	(4.0) 80%	RUN-5	(43.8) 66%	(26.6) 40%		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			
-60.3	59.0	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	0:52 0:55 0:20 0:45 0:30	(3.9) 78%	(2.6) 52%	RUN-6				54.0ft: hard, indurated			
-65.3	64.0	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	0:37 0:35 1:12 1:02 0:42	(4.6) 92%	(4.6) 92%	RUN-7							
-70.3	69.0	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	0:36 0:39 0:56 0:36 0:10	(3.3) 66%	(1.5) 30%	RUN-8							
-75.3	74.0	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	0:15 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			
-80.3	79.0	5.0	0:30 0:27 0:25 0:20 0:47	(1.6) 32%	(0.0) 0%	RUN-10				74.0ft: hard, indurate74.0 to 79.0ft: possible interbedded sand			
-80.3	79.0	5.0	0:30 0:27 0:25 0:20 0:47	(1.6) 32%	(0.0) 0%	RUN-10				74.0ft: hard, indurate74.0 to 79.0ft: possible interbedded sand			
-81.6	80.3	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	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			
-83.1	81.8	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	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			
-85.3	84.0	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			
-85.3	84.0	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			
-90.3	89.0	5.0	3:32 1:09 0:54 1:25 0:26	(0.5) 10%	(0.4) 8%	RUN-14				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				84.0ft: extremely indurated, few vugs			
-95.3	94.0	5.0	1:25 1:05 0:26 0:31 0:21	(2.3) 46%	(1.2) 24%	RUN-15				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				89.0ft: indurated			
-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			
-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

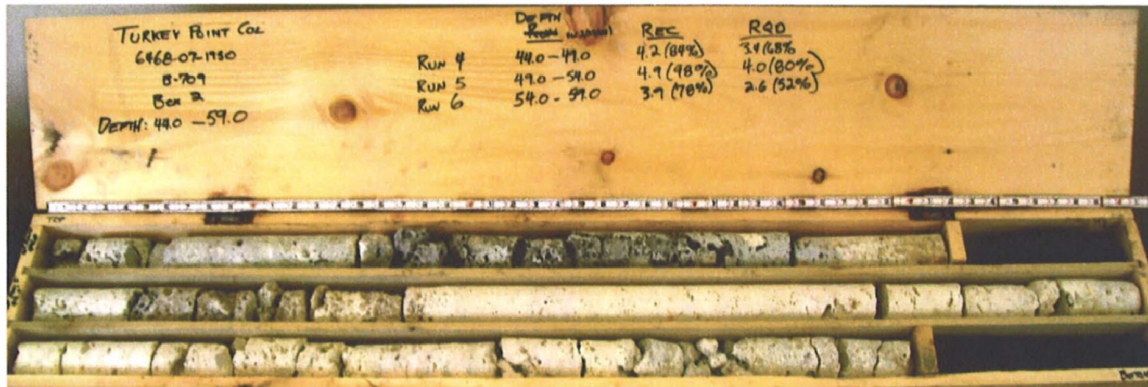
BECHTEL PROJECT NO.: 25409			MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade			GEOLOGIST: S. Woodham		
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550X (ATL)			DRILLER: R. Landeros/P. Pitts			GROUND WATER (ft)		
BORING NO.: B-709			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core			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)		114.0ft: light gray (5Y7/1) Silty SAND (SM), greenish gray (10Y6/1), medium dense, wet, little fines, HCl reaction (Tamiami Formation)
										Coring Terminated at Elevation -120.3

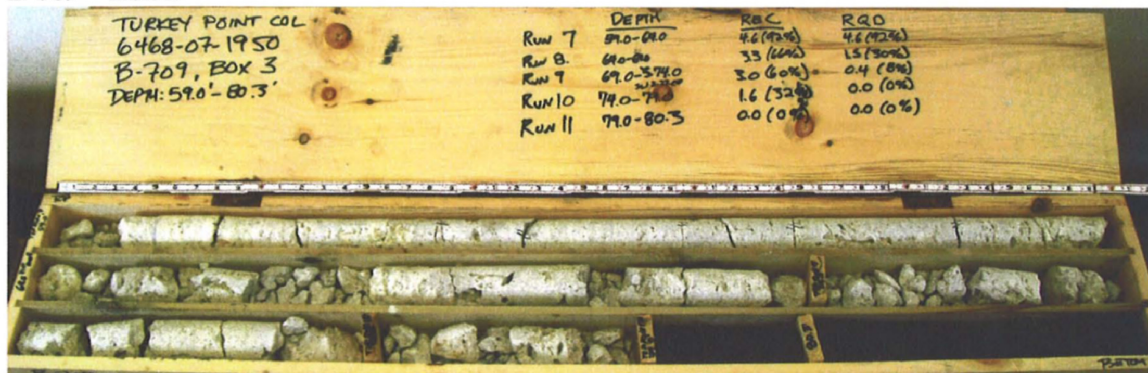
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL GDI 5/30/08



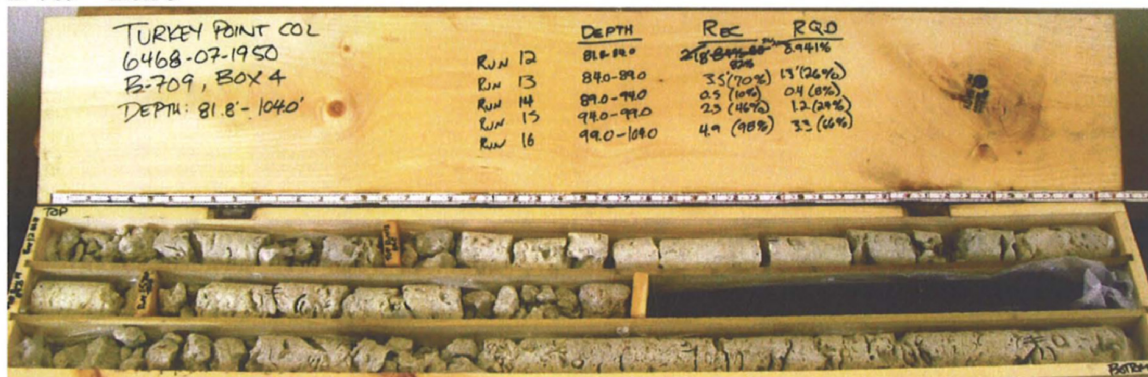
B-709 - Box 1



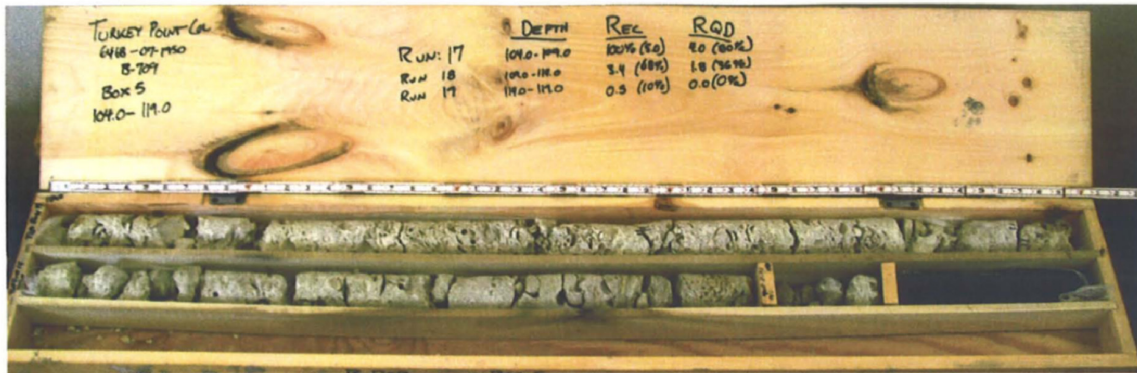
B-709 - Box 2



B-709 - Box 3



B-709 - Box 4



B-709 - Box 5



GEOTECHNICAL BORING LOG

Prepared By JDH Date 8-19-08Checked By STC 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	LOG	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				18						710(DH)-2			-3.3	2.0
-6.1	4.8	7	8	10							710(DH)-3			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. MUCK, no recovery LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, strong HCl reaction, little fine grained sand, oolitic (Miami Formation) 7.5ft: little to few fine grained sand	2.0
-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			12.5ft: trace sand	
-18.1	16.8	8	50/0.4							58/0.9	RUN-1			15.0ft: hard 16.8ft: Switch sampling method to coring 16.8ft: white (2.5Y8/1), medium hard, moderately indurated, fossiliferous, few to little locally interconnected vugs	
-22.8	21.5										RUN-2				
-27.6	26.3										RUN-3			-25.3	24.0
-32.6	31.3										RUN-4			LIMESTONE, boundstone, white (2.5Y8/1), medium hard to moderately hard, moderately indurated, fossiliferous, coralline, few vugs (Upper Fort Thompson Formation) 27.0ft: loss of circulation	
-37.6	36.3										RUN-5			31.3ft: moderately hard	
-42.6	41.3										RUN-6				
-47.6	46.3										RUN-7			46.3ft: white (2.5Y8/1), to 46.6ft then greenish gray (10Y6/1), to 48.5ft	48.5
-52.6	51.3										RUN-8			LIMESTONE, boundstone, white (2.5Y8/1), moderately hard, moderately indurated, fossiliferous, few vugs (Lower Fort Thompson Formation) 51.3ft: trace shell molds and casts	
-57.6	56.3										RUN-9			56.3ft: moderately hard, indurated	
-62.6	61.3										RUN-10				
-67.6	66.3										RUN-11			66.3 to 68.3ft: possible sand layer	
-72.6	71.3										RUN-12			71.3ft: hard	
-73.5	72.2										RUN-13				

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



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.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI	
-76.1		Continued from previous page										
-77.6	76.3	LIMESTONE, boundstone, white (2.5Y8/1), moderately hard, moderately indurated, fossiliferous, few vugs (Lower Fort Thompson Formation) (continued)										
-82.6	81.3	76.3ft: moderately hard, moderately indurated										
-87.6	86.3	81.3ft: little vugs, few shell molds and casts										
-92.6	91.3	86.3ft: few shell molds and casts										
-97.6	96.3	91.3ft: sandy										
-102.6	101.3	101.3ft: medium hard, little shell molds and casts										
-107.6	106.3	106.3ft: moderately hard to friable, few shell molds and casts										
-112.6	111.3											
-117.6	116.3	116.3ft: limestone fragments										
-122.6	121.3	7	6	7	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)					114.0		
-129.7	128.4	10	15	17	121.3ft: Switch sampling method to SPT					125.0		
-139.7	138.4	8	11	20	Silty SAND (SM), pale yellow (2.5Y8/3), dense, strong HCl reaction, trace fine to coarse gravel-sized cemented sand fragments							
-149.7	148.4	23	35	44	138.4ft: greenish gray (10Y6/1)							
					148.4ft: very dense, trace shell fragments							

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

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					
-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			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	
														-223.3	222.0



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			-235.3	234.0	POORLY GRADED SAND (SP), light greenish gray (10Y7/1), dense wet strong HCl reaction
-250.6	249.3	9	13	22						710(DH)-21			-245.3	244.0	Silty SAND (SM), greenish gray (10Y6/1), dense, wet, strong HCl reaction
													-252.2	250.9	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