



GEOTECHNICAL BORING LOG

Prepared By JPJ Date 5-30-08

Checked By PTM Date 5-30-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: L. Bisson									
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)									
BORING NO.: B-639		DRILL METHOD: Mud Rotary/Core		SAMPLE METHODS: SPT/Core		0 HR. NA									
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,964 US ft (NAD83/90)		EASTING: 876,998 US ft (NAD83/90)		24 HR. NA									
TOTAL DEPTH: 102.6 ft		BORING DIAMETER: 4" to 102.6'		CASING DEPTH: 4" to 15.0'		HAMMER (ID): 140 lb. Auto (MEC-03)									
DATE STARTED: 3/22/08		COMPLETED: 3/24/08		CORE SIZE: HQ3		BITS USED: 4" 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		
-1.4					Ground Surface							-1.4	0.0		
-1.4	0.0	WOR	WOR	WOR							639-1		MUCK, black (10YR2/1), very soft, wet, organic, trace shells	-4.4	3.0
-3.9	2.5										639-2A&B				
-6.4	5.0	2	6	20							639-3		LIMESTONE, boundstone, light gray (2.5Y7/2), soft, wet, sandy, fossiliferous, oolitic (Miami Formation)		
-8.9	7.5	7	9	8							639-4		5.0ft: pale yellow (2.5Y8/2), very soft		
-11.4	10.0	6	8	4							639-5		10.0ft: white (10YR8/1)		
-13.9	12.5	4	5	6							639-6				
-16.4	15.0	10	10	8							639-7		15.0ft: white (2.5Y8/1), to light gray (2.5Y7/1), hard		
-17.7	16.3	5	12	50/0.3							RUN-1		16.3ft: Switch sampling method to coring		
-19.0	17.6										RUN-2		17.6ft: moderately hard, moderately indurated		
-24.0	22.6										RUN-3		22.0ft: loss of circulation	-25.4	24.0
-29.0	27.6										RUN-4		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, trace sand, trace recrystallized calcite, fossiliferous, strong HCl reaction, coralline (Upper Fort Thompson Formation)		
-34.0	32.6										RUN-5		32.6ft: trace vugs		
-39.0	37.6										RUN-6				
-44.0	42.6										RUN-7		42.6ft: white (2.5Y8/1) to 45.7ft then gray (10YR6/1), to light gray (10YR7/1), little to trace vugs		
-49.0	47.6										RUN-8		LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, trace vugs, few gastropod shell molds and casts, strong HCl reaction (Lower Fort Thompson Formation)	-49.0	47.6
-54.0	52.6										RUN-9		52.6ft: trace shell molds		
-59.0	57.6										RUN-10		57.6ft: white (2.5Y8/1), to light gray (2.5Y7/1), moderately hard, sandy		
-64.0	62.6										RUN-11		62.6ft: white (2.5Y8/1)		
													52.6 to 74.6ft: possible interbedded sand lenses		
-69.0	67.6										RUN-12				
-70.0	68.6										RUN-13				
-74.0	72.6														
-76.0	74.6										RUN-14				

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



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-639		DRILL METHOD: Mud Rotary/Core			SAMPLE METHODS: SPT/Core			0 HR. NA							
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,964 US ft (NAD83/90)			EASTING: 876,998 US ft (NAD83/90)			24 HR. NA							
TOTAL DEPTH: 102.6 ft		BORING DIAMETER: 4" to 102.6'			CASING DEPTH: 4" to 15.0'		HAMMER (ID): 140 lb. Auto (MEC-03)								
DATE STARTED: 3/22/08		COMPLETED: 3/24/08			CORE SIZE: HQ3		BITS USED: 4" 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		
-76.2					Continued from previous page										
-79.0	77.6										RUN-15	76.4ft: white (2.5Y8/1), to light gray (2.5Y7/1), hard, indurated LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, trace vugs, few gastropod shell molds and casts, strong HCl reaction (Lower Fort Thompson Formation) (continued) 77.6ft: white (2.5Y8/1), few to little shell molds and casts 87.6ft: few vugs, few shell molds and casts 97.6ft: trace vugs			
-84.0	82.6										RUN-16				
-89.0	87.6										RUN-17				
-94.0	92.6										RUN-18				
-99.0	97.6										RUN-19				
											RUN-20				
													-104.0	102.6	Boring Terminated at Elevation -104.0 ft

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5.30/08



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	
BORING NO.: B-639		DRILL METHOD: Mud Rotary/Core		SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,964 US ft (NAD83/90)		EASTING: 876,998 US ft (NAD83/90)	
TOTAL DEPTH: 102.6 ft		CASING DEPTH: 4" to 15.0'		HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 3/22/08		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		SAMP. NO.	STRATA		L O G	DESCRIPTION AND REMARKS
				REC (ft) %	RQD (ft) %		REC (ft) %	RQD (ft) %		
										Begin Coring @ 16.3 ft
-17.7	16.3	1.3	1:32	(1.0)	(0.5)	RUN-1	(4.5)	(1.1)		LIMESTONE, boundstone, light gray (2.5Y7/2), soft, wet, sandy, fossiliferous, oolitic (Miami Formation) (continued) 16.3ft: moderately hard, moderately indurated 17.6ft: soft to medium hard, trace sand
-19.0	17.6	5.0	0:48/0:3	77%	38%	RUN-2	58%	14%		
			0:59	(2.5)	(0.6)					
			1:13	50%	12%					
			1:36							
			0:43							
-24.0	22.6	5.0	0:17	(4.2)	(2.7)	RUN-3				22.0ft: loss of circulation
			0:45	84%	54%					
			0:13				(23.2)	(21.6)		
			1:31				98%	92%		
-29.0	27.6	5.0	1:13	(5.0)	(4.7)	RUN-4				LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, trace sand, trace recrystallized calcite, fossiliferous, strong HCl reaction, coralline (Upper Fort Thompson Formation)
			2:33	100%	94%					
			1:03							
			1:08							
			1:27							
-34.0	32.6	5.0	1:59	(5.0)	(4.8)	RUN-5				32.6ft: trace vugs
			1:37	100%	96%					
			1:11							
			1:07							
			1:09							
-39.0	37.6	5.0	1:05	(5.0)	(4.6)	RUN-6				
			1:26	100%	92%					
			0:36							
			1:29							
			0:45							
-44.0	42.6	5.0	1:22	(5.0)	(4.8)	RUN-7				
			1:23	100%	96%					
			1:01							
			1:32							
			1:35							
			2:08							
-49.0	47.6	5.0	2:07	(5.0)	(5.0)	RUN-8	(44.9)	(27.3)		
			0:59	100%	100%		82%	50%		LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, trace vugs, few gastropod shell molds and casts, strong HCl reaction (Lower Fort Thompson Formation)
			1:32							
			1:06							
-54.0	52.6	5.0	1:13	(5.0)	(4.1)	RUN-9				52.6ft: trace shell molds
			0:36	100%	82%					
			0:53							
			0:42							
			1:20							
-59.0	57.6	5.0	1:05	(3.8)	(1.6)	RUN-10				57.6ft: white (2.5Y8/1), to light gray (2.5Y7/1), moderately hard, sandy
			1:06	76%	32%					
			0:29							
			0:36							
-64.0	62.6	5.0	0:13	(1.8)	(0.0)	RUN-11				
			0:36	36%	0%					
			0:31							
			0:27							
			0:40							
			0:25							
-69.0	67.6	5.0	0:29	(0.9)	(0.0)	RUN-12				62.6ft: white (2.5Y8/1) 52.6 to 74.6ft: possible interbedded sand lenses
			2:00	90%	0%					
-70.0	68.6	1.0				RUN-13				
			0:58	(2.4)	(0.8)					
			0:10	60%	20%					
			0:24							
-74.0	72.6	2.0	2:04	(1.5)	(0.0)	RUN-14				
			0:30	75%	0%					
			3:47							
-76.0	74.6	3.0		(3.0)	(1.9)	RUN-15				76.4ft: white (2.5Y8/1), to light gray (2.5Y7/1), hard, indurated
			3:13	100%	63%					
			1:27							
			1:04							
-79.0	77.6	5.0		(5.0)	(3.7)	RUN-16				77.6ft: white (2.5Y8/1), few to little shell molds and casts
			1:31	100%	74%					
			0:56							
			0:45							
			0:43							
			0:58							
-84.0	82.6	5.0		(4.1)	(2.3)	RUN-17				
			0:49	82%	46%					
			0:14							
			1:07							
			0:53							
-89.0	87.6	5.0	1:06	(4.0)	(2.3)	RUN-18				
			0:59	80%	46%					87.6ft: few vugs, few shell molds and casts
			0:16							
			0:46							

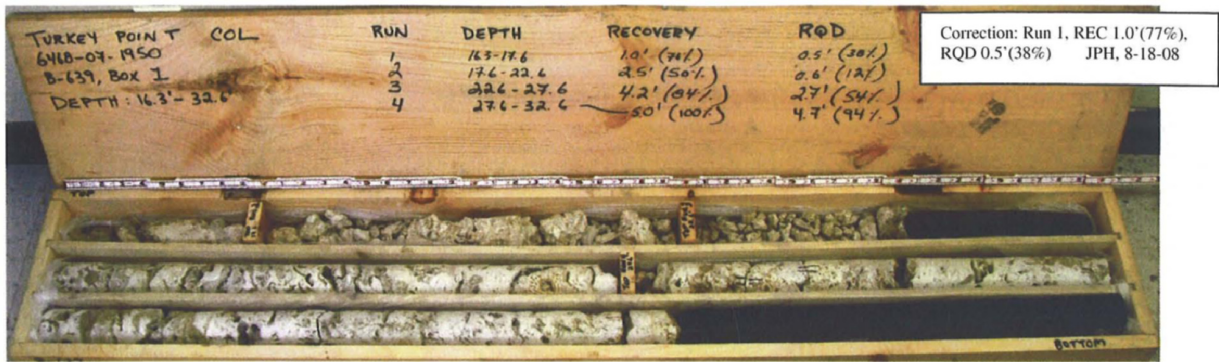
TURKEY POINT COL CORE TURKEY POINT G.P.L. TURKEY POINT COL.GDT 5/30/08



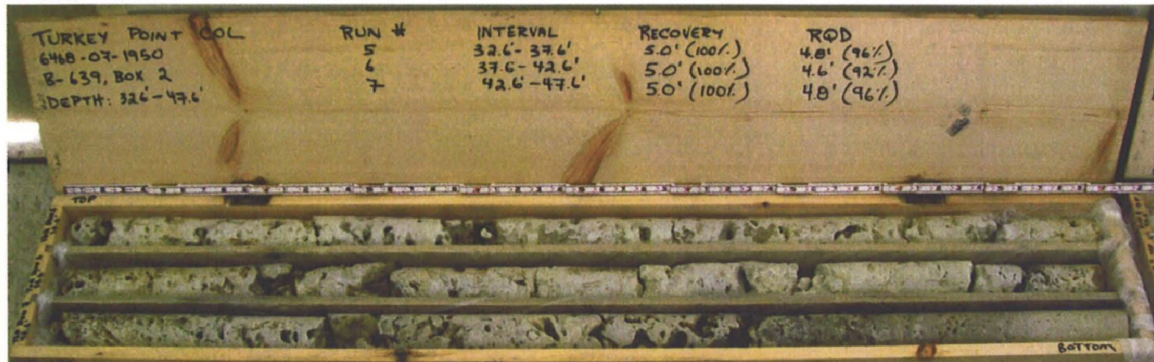
BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: L. Bisson	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)	
BORING NO.: B-639		DRILL METHOD: Mud Rotary/Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 396,964 US ft (NAD83/90)		EASTING: 876,998 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 102.6 ft		CASING DEPTH: 4" to 15.0'				HAMMER (ID): 140 lb. Auto (MEC-03)	
DATE STARTED: 3/22/08		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		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS
				REC (ft) %	ROD (ft) %		REC (ft) %	ROD (ft) %		
			1:16 0:30							Continued from previous page
-94.0	92.6	5.0	0:45 0:36 1:11 0:58 0:32	(4.3) 86%	(2.9) 58%	RUN-19				LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, trace vugs, few gastropod shell molds and casts, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-99.0	97.6	5.0	0:57 1:38 1:05 1:35 1:32	(4.1) 82%	(2.7) 54%	RUN-20				97.6ft: trace vugs
-104.0	102.6									-104.0 102.6 Coring Terminated at Elevation -104.0

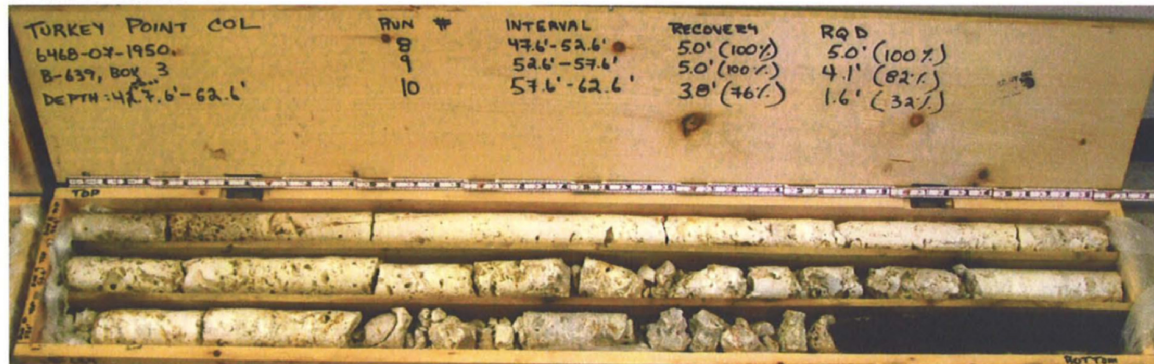
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL GDI 5.30.08



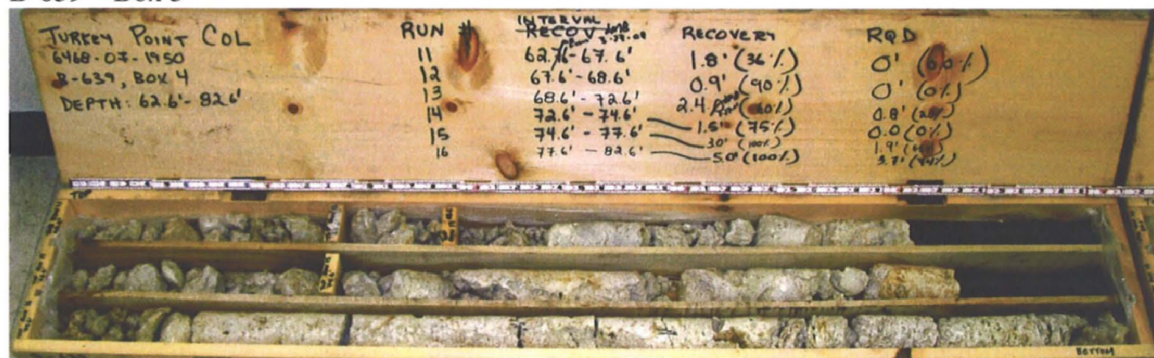
B-639 - Box 1



B-639 - Box 2



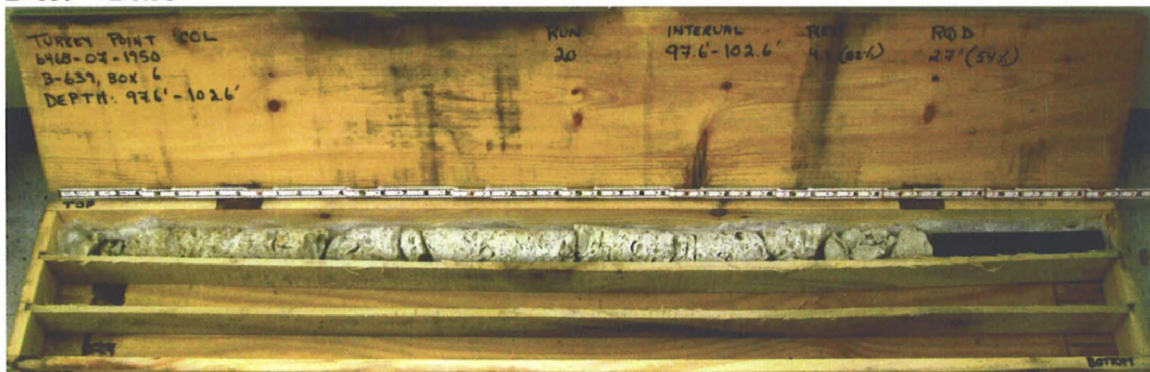
B-639 - Box 3



B-639 - Box 4



B-639 - Box 5



B-639 - Box 6



Revised
9/25/08

GEOTECHNICAL BORING LOG
Prepared By MW Date 9/25/08
Checked By CA Date 9/25/08

SHEET 1 OF 9

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark											
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)											
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA											
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA											
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)											
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit											
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				
-1.1					Ground Surface												
-1.1	0.0	WOH	WOH	1	●												
-3.6	2.5	11	8	15													
-6.2	5.1	17	14	15													
-8.6	7.5	8	7	7													
-11.2	10.1	4	7	9													
-13.6	12.5	10	15	6													
-16.2	15.1																
-17.1	16.0	27	50/0.3														
-21.6	20.5																
-26.6	25.5																
-31.6	30.5																
-36.6	35.5																
-41.6	40.5																
-46.6	45.5																
-51.6	50.5																
-56.6	55.5																
-61.6	60.5																
-66.6	65.5																
-71.6	70.5																

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 9/25/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark							
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)							
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA						
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR.	NA						
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)							
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit							
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
-75.9					Continued from previous page								
-76.6	75.5										701(DH)-CS-06 RUN-13		LIMESTONE, boundstone, white (5Y8/1), to very pale brown (10YR8/3), hard, indurated, fossiliferous, little gastropod shell molds and cast, few vugs, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-81.6	80.5										RUN-14		83.5 to 84.5ft: soft, friable zone
-86.6	85.5										RUN-15		
-91.6	90.5										RUN-16		90.5ft: soft to hard, friable to indurated, sandy
-96.6	95.5										RUN-17		95.5ft: moderately hard, moderately indurated 96.0 to 98.5ft: soft, friable, sandy zone
-101.6	100.5										RUN-18		100.5ft: hard, indurated, few to little vugs
-106.6	105.5										RUN-19		105.5ft: very soft to hard, friable to indurated
-111.6	110.5										RUN-20		110.5ft: hard, indurated, some sand
-116.6	115.5												
-116.6	115.5	2	5	4							701(DH)-8		115.5ft: Switched sampling method to SPT Silty SAND (SM), white (5Y8/1), loose, wet, strong HCl reaction, trace shell fragments, fine to coarse grained sand, few fine gravel-sized cemented sand fragments (Tamiami Formation)
-123.8	122.7	3	4	6							701(DH)-9		122.7ft: mostly fine grained sand
-128.6	127.5	4	5	5							701(DH)-10		127.5ft: light olive gray (5Y6/2), trace gravel-sized cemented sand fragments
-138.6	137.5	8	5	6							701(DH)-11		137.5ft: gray (5Y6/1), medium dense
-148.6	147.5	5	4	10							701(DH)-12		147.5ft: olive gray (5Y5/2)

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL.GDT 9:25:08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR.	NA

TOTAL DEPTH: 615.5 ft	BORING DIAMETER: 6" to 16.0', 4" to 615.5'	CASING DEPTH: 6" to 16.0', 4" to 457.5'	HAMMER (ID): 140 lb. Auto (07)
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DATE STARTED: 4/3/08	COMPLETED: 5/5/08	CORE SIZE: PQ3/HQ3	BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit
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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			
-150.7					Continued from previous page							
-158.6	157.5	3	5	8						701(DH)-13		115.5ft: Switched sampling method to SPT Silty SAND (SM), white (5Y8/1), loose, wet, strong HCl reaction, trace shell fragments, fine to coarse grained sand, few fine gravel-sized cemented sand fragments (Tamiami Formation) (continued) 157.5ft: light olive gray (5Y6/2)
-168.6	167.5	3	6	9						701(DH)-14		167.5ft: no recovery
-173.6	172.5	2	4	8						701(DH)-15		Sandy SILT (ML), olive gray (5Y5/2), stiff, moist, mostly fine grained sand
-178.6	177.5	3	3	6						701(DH)-16		
-188.6	187.5	4	5	8						701(DH)-17		gray (5Y6/1), stiff, wet, strong HCl reaction, fine grained sand, trace gravel-sized cemented sand fragments
-198.7	197.6	3	4	5						701(DH)-18		
-208.7	207.6	4	3	4						701(DH)-19		Silty SAND (SM), gray (5Y6/1), loose, wet, fine to medium grained sand, little fines, strong HCl reaction
-218.6	217.5	10	11	17						701(DH)-20		217.5ft: olive (5Y5/3), medium dense, some fines

TURKEY POINT COL BORE, TURKEY POINT, GPJ, TURKEY POINT COL.GPJ 9/25/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit	

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			
-225.5					Continued from previous page							
-228.6	227.5	15	12	22								Silty SAND (SM), olive gray (5Y5/2), dense, wet, strong HCl reaction, fine grained sand, little silt (Hawthorn Group) (continued)
-238.6	237.5	12	14	21						701(DH)-21		
-248.6	247.5	5	8	17						701(DH)-22		247.5ft: gray (5Y5/1) medium dense
-258.6	257.5	8	11	22						701(DH)-23		257.5ft: greenish gray (10Y6/1), dense
-268.6	267.5	8	13	20						701(DH)-24		
-278.6	277.5	5	10	24						701(DH)-25		277.5ft: dark greenish gray (10Y4/1)
-288.6	287.5	7	9	21						701(DH)-26		287.5ft: medium dense
-298.6	297.5	7	14	26						701(DH)-27		297.5ft: olive gray (5Y5/2), dense, fine to

TURKEY POINT COL BORE TURKEY POINT COL.GDT 9/25/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark						
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)						
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA					
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR.	NA					
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)						
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit						
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			
-300.3					Continued from previous page							
-308.6	307.5	10	12	21						701(DH)-29		medium grained sand Silty SAND (SM), olive gray (5Y5/2), dense, wet, strong HCl reaction, fine grained sand, little silt (Hawthorn Group) (continued)
-318.6	317.5	16	50/0.4							701(DH)-30		307.5ft: olive (5Y5/3)
-328.6	327.5	41	50/0.4							701(DH)-31		317.5ft: light gray (5Y7/2), very dense, weak HCl reaction
-338.7	337.6	42	50/0.4							701(DH)-32		327.5ft: light gray (5Y7/1)
-348.6	347.5	32	48	50/0.4						701(DH)-33		337.6ft: gray (5Y6/1)
-358.6	357.5	31	50	50/0.4						701(DH)-34		347.5ft: POORLY GRADED SAND with silt (SP-SM), gray (5Y6/1), very dense, wet, fine grained sand, few fines, weak HCl reaction
-368.6	367.5	8	38	50/0.3						701(DH)-35		357.5ft: light olive gray (5Y6/2)
												367.5ft: gray (5Y6/1)

TURKEY POINT BORING: TURKEY POINT COL.GDT 9-25-08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR.	NA
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit	

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
-375.1		Continued from previous page											
-378.6	377.5	41	50	0.5							701(DH)-36		POORLY GRADED SAND with silt (SP-SM), gray (5Y6/1), very dense, wet, fine grained sand, few fines, weak HCl reaction (continued)
-388.6	387.5	31	50	0.5							701(DH)-37		
-398.6	397.5	12	49	50	0.5						701(DH)-38		397.5ft: light gray (5Y7/1), fine to medium grained sand
-408.6	407.5	32	42	40							701(DH)-39		407.5ft: gray (5Y6/1)
-421.3	420.2	42	50	0.4							701(DH)-40		
-428.6	427.5	31	41	50	0.4						701(DH)-41		
-438.8	437.7	26	37	50							701(DH)-42		437.7ft: crossbedding/laminations, trace silt/clay lenses
-448.6	447.5	17	12	25							701(DH)-43		447.5ft: greenish gray (10Y6/1), dense

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 9/25/08



BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: R. Clark
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-750 (Miller)	DRILLER: G.Bilbrey/P.McKorkle/J.Tucker	GROUND WATER (ft)
BORING NO.: B-701(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.1 ft (NAVD88)	NORTHING: 396,976 US ft (NAD83/90)	EASTING: 875,792 US ft (NAD83/90)	24 HR. NA

TOTAL DEPTH: 615.5 ft	BORING DIAMETER: 6" to 16.0', 4" to 615.5'	CASING DEPTH: 6" to 16.0', 4" to 457.5'	HAMMER (ID): 140 lb. Auto (07)
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DATE STARTED: 4/3/08	COMPLETED: 5/5/08	CORE SIZE: PQ3/HQ3	BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit
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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			
-449.9												Continued from previous page
-458.6	457.5											POORLY GRADED SAND with silt (SP-SM), gray (5Y6/1), very dense, wet, fine grained sand, few fines, weak HCl reaction (continued)
-458.7	457.6	50/0.1										
-461.6	460.5											DOLOSTONE, grainstone, gray (5Y6/1), hard, indurated, wet, weak HCl reaction (Hawthorn Group)
-464.5	463.4											457.6ft: Switched sampling method to coring light greenish gray (10Y7/1), few gastropod shell molds and casts, sugary texture, slight organic odor
-465.7	464.6											Silty SAND (SM), light greenish gray (10Y7/1), wet, fine grained sand, weak HCl reaction, little shell hash
-466.6	465.5											DOLOSTONE, wackestone, light greenish gray (10Y7/1), soft, friable to moderately indurated, wet, weak HCl reaction
-471.6	470.5											464.6ft: green gray (10Y6/1), hard, indurated, fossiliferous
-476.6	475.5											465.5ft: pale olive (5Y6/3), soft, friable to moderately indurated, 470.5ft: greenish gray (5GY6/1), hard, indurated
-481.6	480.5											Silty SAND (SM), no recovery-cuttings observed in drill fluid return, dark in color
-486.6	485.5											LIMESTONE, packstone, pale yellow (5Y8/2), soft to hard, friable to indurated, wet, strong HCl reaction, fossiliferous, mostly shell molds and casts, few vugs
-491.6	490.5											480.5ft: soft to very soft, friable
-496.6	495.5											485.5ft: hard, indurated
-501.6	500.5											LIMESTONE, wackestone, pale yellow (5Y8/2), soft, friable to moderately indurated, wet, strong HCl reaction, fossiliferous
-506.6	505.5											490.5ft: medium hard to very soft, moderately indurated to friable
-511.6	510.5											495.5ft: soft to hard, friable to moderately indurated
-516.6	515.5											500.5ft: Silty SAND (SM), gray (5Y5/1), wet, strong HCl reaction, trace mica, some limestone fragments (Interpreted as medium dense to dense based on drill rate and recovery)
-521.6	520.5											LIMESTONE, packstone, pale yellow (5Y8/2), wet, soft, friable, fossiliferous, mostly shell molds and casts
												505.5ft: soft to medium hard, friable to moderately indurated, fossil-rich mud zones
												510.5ft: medium hard, moderately indurated, and soft, friable zones
												515.5ft: hard, indurated
												520.5ft: medium hard to moderately hard, moderately indurated to indurated, 524.5 to 525.5ft: soft zone

TURKEY POINT COL BORE: TURKEY POINT COL GDT 9:23 08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	

TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit	

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				
-524.7					Continued from previous page												
-526.6	525.5											-526.6	525.5	LIMESTONE, wackestone, white (5Y8/1), soft to medium hard, friable to moderately indurated, wet, strong HCl reaction, fossiliferous, shell molds and casts			
-531.6	530.5													530.5ft: pale yellow (5Y8/2), soft to moderately hard, friable to indurated			
-536.6	535.5													535.5ft: medium hard to moderately hard, moderately indurated to indurated			
-541.6	540.5													540.5ft: moderately hard, moderately indurated			
-546.6	545.5													545.5ft: trace dark phosphatic material, trace soft friable zone			
-551.6	550.5													-551.6	550.5	LIMESTONE, mudstone, light greenish gray (10Y8/1), moderately hard, moderately indurated, wet, strong HCl reaction, fossiliferous	
-556.6	555.5															555.5ft: medium hard	
-561.6	560.5																
-566.6	565.5																565.5ft: soft to medium hard
-571.6	570.5																570.5ft: medium hard
-576.6	575.5																575.5ft: pale yellow (5Y8/2), very soft to soft, friable to moderately indurated
-581.6	580.5																580.5ft: light greenish gray (10Y7/1), to pale yellow (5Y8/2), very soft to medium hard
-586.6	585.5																585.5ft: light gray (5Y7/2), medium hard, trace fine grained sand-sized dark material (possible phosphate)
-591.6	590.5																590.5ft: pale yellow (5Y7/3)
-594.1	593.0													-593.1	592.0	LIMESTONE, wackestone, white (5Y8/1), hard, indurated, fossiliferous, mostly shell molds and casts	
-597.1	596.0													-597.1	596.0	LIMESTONE, mudstone, white (5Y8/1), soft to medium hard, friable to moderately indurated, moist, strong HCl reaction, fossiliferous	
-598.1	597.0													-598.1	597.0		

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDT 9 25 08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark							
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)							
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA						
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR.	NA						
TOTAL DEPTH: 615.5 ft		BORING DIAMETER: 6" to 16.0', 4" to 615.5'		CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)							
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/HQ3		BITS USED: 6 7/8" & 3 7/8" Tricone, 3 7/8" wingbit							
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				
-599.5					Continued from previous page								
-601.6	600.5										RUN-51		LIMESTONE, wackestone, white (5Y8/1), hard, indurated, moist, fossiliferous, mostly shell fragments, strong HCl reaction LIMESTONE, mudstone, pale yellow (5Y8/2), soft, friable, wet, strong HCl reaction, fossiliferous, trace fine grained sand (continued) 600.5ft: light gray (5Y7/3), medium hard, moderately indurated 605.5ft: pale yellow (5Y8/2)
-606.6	605.5									RUN-52			
-611.6	610.5									RUN-53			
-613.6	612.5									RUN-54			
													-616.6 ----- 615.5 Boring Terminated at Elevation -616.6 ft

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL.GJT 9/25/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'				HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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) %		
										Begin Coring @ 16.0 ft
-17.1	16.0	4.5	2:57 2:48 1:52 1:48 0.48/0.5	(3.6) 80%	(1.5) 33%	RUN-1	(4.3) 72%	(1.5) 25%		LIMESTONE, boundstone, pale yellow (5Y8/2), soft, friable, strong HCl reaction, wet, some sand, oolitic (Miami Formation) <i>(continued)</i> 16.0ft: friable to indurated, trace locally interconnected vugs, recrystallized calcite
-21.6	20.5	5.0	2:58 1:48 1:51 3:04 2:28	(3.6) 72%	(2.7) 54%	RUN-2	(24.5) 95%	(19.1) 74%	-23.1	20.5 to 22.0ft: fragmented zone 22.0
-26.6	25.5	5.0	3:04 3:05 5:12 4:48 4:12	(4.8) 96%	(4.3) 86%	RUN-3 701(DH)- CS-01				LIMESTONE, boundstone, white (5Y8/1), hard, indurated, wet, strong HCl reaction, few vugs, porous, fossiliferous, few shell molds and casts, recrystallized calcite (Upper Fort Thompson Formation) 24.5ft: loss of circulation 25.5ft: few to little vugs, mostly shell molds and casts
-31.6	30.5	5.0	2:59 3:01 3:28 3:22 4:17	(4.9) 98%	(3.5) 70%	RUN-4				30.5ft: soft to hard, friable to indurated, coralline
-36.6	35.5	5.0	3:05 3:01 2:32 1:53 3:01	(4.6) 92%	(3.0) 60%	RUN-5				35.5ft: hard, indurated
-41.6	40.5	5.0	3:17 2:11 3:07 2:29 2:04	(5.0) 100%	(4.6) 92%	RUN-6 701(DH)- CS-02				40.5ft: soft to hard, friable to indurated, few vugs
-46.6	45.5	5.0	0:33 1:43 1:48 1:44 1:59	(4.7) 94%	(3.3) 66%	RUN-7	(58.3) 87%	(43.2) 65%	-48.9	45.5ft: gray (5Y6/1), hard, indurated to 47.8ft 47.8
-51.6	50.5	5.0	2:30 3:23 2:22 2:23 2:33	(4.8) 96%	(4.2) 84%	RUN-8 701(DH)- CS-03				LIMESTONE, boundstone, white (5Y8/1), to very pale brown (10YR8/3), hard, indurated, fossiliferous, little gastropod shell molds and cast, few vugs, strong HCl reaction (Lower Fort Thompson Formation) 50.5ft: white (5Y8/1)
-56.6	55.5	5.0	2:29 2:55 3:01 3:33 3:28	(5.0) 100%	(5.0) 100%	RUN-9				55.5ft: trace to little sand
-61.6	60.5	5.0	2:35 2:30 2:07 1:25 0:35	(4.7) 94%	(4.5) 90%	RUN-10 701(DH)- CS-04 701(DH)- CS-05				
-66.6	65.5	5.0	1:49 4:41 4:34 3:04 5:23	(2.6) 52%	(1.0) 20%	RUN-11				65.5ft: very soft to hard, friable to indurated
-71.6	70.5	5.0	2:15 2:54 3:21 2:54 2:58	(5.0) 100%	(4.9) 98%	RUN-12				70.5ft: hard, indurated
-76.6	75.5	5.0	2:34 2:13 1:45 0:54 0:35	(5.0) 100%	(4.4) 88%	RUN-13				
-81.6	80.5	5.0	1:41 1:33 1:28 1:51 1:35	(4.0) 80%	(1.7) 34%	RUN-14				83.5 to 84.5ft: soft, friable zone
-86.6	85.5	5.0	2:31 2:22 2:51 2:48 2:55	(4.8) 96%	(4.1) 82%	RUN-15				
-91.6	90.5	5.0								

TURKEY POINT COL CORE TURKEY POINT COL GDT 9/25 08



BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: R. Clark
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-750 (Miller)	DRILLER: G.Bilbrey/P.McKorkle/J.Tucker	GROUND WATER (ft) 0 HR. NA 24 HR. NA
BORING NO.: B-701(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.1 ft (NAVD88)	NORTHING: 396,976 US ft (NAD83/90)	EASTING: 875,792 US ft (NAD83/90)	
TOTAL DEPTH: 615.5 ft	CASING DEPTH: 6" to 16.0', 4" to 457.5'	HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08	COMPLETED: 5/5/08	CORE SIZE: PQ3/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	
-96.6	95.5	5.0	0.49 0.55 0.47 0.36 0.35	(3.6) 72%	(1.6) 32%	RUN-16				90.5ft: soft to hard, friable to indurated, sandy LIMESTONE, boundstone, white (5Y8/1), to very pale brown (10YR8/3), hard, indurated, fossiliferous, little gastropod shell molds and cast, few vugs, strong HCl reaction (Lower Fort Thompson Formation) (continued)	
-101.6	100.5	5.0	0.41 0.22 0.05 0.33 0.41	(3.4) 68%	(1.4) 28%	RUN-17				95.5ft: moderately hard, moderately indurated 96.0 to 98.5ft: soft, friable, sandy zone	
-106.6	105.5	5.0	0.35 1.14 0.52 0.41 1.10	(5.0) 100%	(3.3) 66%	RUN-18				100.5ft: hard, indurated, few to little vugs	
-111.6	110.5	5.0	1.35 1.01 1.12 2.00 2.35	(5.0) 100%	(3.7) 74%	RUN-19				105.5ft: very soft to hard, friable to indurated	
-116.6	115.5	5.0	1.01 1.05 1.03 0.59 0.22	(3.7) 74%	(1.1) 22%	RUN-20				110.5ft: hard, indurated, some sand	
			N=9			701(DH)-8	(0.7) 70%	(NA) 0%		-115.6	115.5ft: Switched sampling method to SPT Silty SAND (SM), white (5Y8/1), loose, wet, strong HCl reaction, trace shell fragments, fine to coarse grained sand, few fine gravel-sized cemented sand fragments (Tamiami Formation)
			N=10			701(DH)-9					122.7ft: mostly fine grained sand
			N=10			701(DH)-10					127.5ft: light olive gray (5Y6/2), trace gravel-sized cemented sand fragments
			N=11			701(DH)-11					137.5ft: gray (5Y6/1), medium dense
			N=14			701(DH)-12					147.5ft: olive gray (5Y5/2)
			N=13			701(DH)-13					157.5ft: light olive gray (5Y6/2)

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 9 25 08



BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: R. Clark
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-750 (Miller)	DRILLER: G.Bilbrey/P.McKorkle/J.Tucker	GROUND WATER (ft) 0 HR. NA 24 HR. NA
BORING NO.: B-701(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.1 ft (NAVD88)	NORTHING: 396,976 US ft (NAD83/90)	EASTING: 875,792 US ft (NAD83/90)	
TOTAL DEPTH: 615.5 ft	CASING DEPTH: 6" to 16.0', 4" to 457.5'		HAMMER (ID): 140 lb. Auto (07)
DATE STARTED: 4/3/08	COMPLETED: 5/5/08	CORE SIZE: PQ3/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
			N=15			701(DH)-14				115.5ft: Switched sampling method to SPT Silty SAND (SM), white (5Y8/1), loose, wet, strong HCl reaction, trace shell fragments, fine to coarse grained sand, few fine gravel-sized cemented sand fragments (Tamiami Formation) (continued) 167.5ft: no recovery
			N=12			701(DH)-15				-173.6 Sandy SILT (ML), olive gray (5Y5/2), stiff, moist, mostly fine grained sand
			N=9			701(DH)-16				
			N=13			701(DH)-17				
			N=9			701(DH)-18				gray (5Y6/1), stiff, wet, strong HCl reaction, fine grained sand, trace gravel-sized cemented sand fragments
			N=7			701(DH)-19				-206.1 Silty SAND (SM), gray (5Y6/1), loose, wet, fine to medium grained sand, little fines, strong HCl reaction
			N=28			701(DH)-20				217.5ft: olive (5Y5/3), medium dense, some fines
			N=34			701(DH)-21				-223.6 Silty SAND (SM), olive gray (5Y5/2), dense, wet, strong HCl reaction, fine grained sand, little silt (Hawthorn Group)
			N=35			701(DH)-22				222.5

TURKEY POINT COL CORE TURKEY POINT I.G.PJ TURKEY POINT COL.GDT 9/25/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade	GEOLOGIST: R. Clark
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'			HAMMER (ID): 140 lb. Auto (07)
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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
										Silty SAND (SM), olive gray (5Y5/2), dense, wet, strong HCl reaction, fine grained sand, little silt (Hawthorn Group) (continued)
			N=25			701(DH)-23				247.5ft: gray (5Y5/1) medium dense
			N=33			701(DH)-24				257.5ft: greenish gray (10Y6/1), dense
			N=33			701(DH)-25				
			N=34			701(DH)-26				277.5ft: dark greenish gray (10Y4/1)
			N=30			701(DH)-27				287.5ft: medium dense
			N=40			701(DH)-28				297.5ft: olive gray (5Y5/2), dense, fine to medium grained sand
			N=33			701(DH)-29				307.5ft: olive (5Y5/3)

TURKEY POINT COL CORE TURKEY POINT L.GPJ TURKEY POINT COL.GDT 9 25.08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Billbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'				HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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
			N=66/0.9			701(DH)-30				Silty SAND (SM), olive gray (5Y5/2), dense, wet, strong HCl reaction, fine grained sand, little silt (Hawthorn Group) (continued) 317.5ft: light gray (5Y7/2), very dense, weak HCl reaction
			N=91/0.9			701(DH)-31				327.5ft: light gray (5Y7/1)
			N=92/0.9			701(DH)-32				337.6ft: gray (5Y6/1)
			N=90/0.9			701(DH)-33				-348.6 POORLY GRADED SAND with silt (SP-SM), gray (5Y6/1), very dense, wet, fine grained sand, few fines, weak HCl reaction 347.5
			N=100/0.9			701(DH)-34				357.5ft: light olive gray (5Y6/2)
			N=88/0.8			701(DH)-35				367.5ft: gray (5Y6/1)
			N=91/1.0			701(DH)-36				
			N=81/1.0			701(DH)-37				

TURKEY POINT COL CORE TURKEY POINT COL.GDT 9.25.08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'				HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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. (%)	RQD (%)		REC. (%)	RQD (%)		
Continued from previous page										
-466.6	465.5	0.9	4:57/0.1	(0.3)	(0.0)	RUN-23	93%	75%		464.6ft: green gray (10Y6/1), hard, indurated, fossiliferous DOLOSTONE, wackestone, light greenish gray (10Y7/1), soft, friable to moderately indurated, wet, weak HCl reaction (continued) 465.5ft: pale olive (5Y6/3), soft, friable to moderately indurated.
		5.0	2:50/0.9	33%	0%	RUN-24				
			1:54	(5.0)	(4.5)					
			1:18	100%	90%					
			1:09							
-471.6	470.5	5.0	2:28	(0.9)	(0.4)	RUN-25				-472.6 470.5ft: greenish gray (5GY6/1), hard, indurated Silty SAND (SM), no recovery-cuttings observed in drill fluid return, dark in color
			4:27	18%	8%		(0.0)	(NA)		
			1:21				0%	0%		
			2:49							
			4:58							
-476.6	475.5	5.0	1:47	(4.2)	(2.0)	RUN-26				-477.6 476.5ft: LIMESTONE, packstone, pale yellow (5Y8/2), soft to hard, friable to indurated, wet, strong HCl reaction, fossiliferous, mostly shell molds and casts, few vugs
			WOR	84%	40%		(9.2)	(5.0)		
			2:12				92%	50%		
			3:07							
			4:08							
			1:53							
-481.6	480.5	5.0	2:18	(4.0)	(2.6)	RUN-27				480.5ft: soft to very soft, friable
			4:04	80%	52%					
			4:24							
			3:38							
			3:27							
-486.6	485.5	5.0	1:14	(3.8)	(1.6)	RUN-28				-487.6 485.5ft: hard, indurated LIMESTONE, wackestone, pale yellow (5Y8/2), soft, friable to moderately indurated, wet, strong HCl reaction, fossiliferous
			1:58	76%	32%		(12.8)	(8.3)		
			4:48				91%	59%		
			3:23							
			5:11							
-491.6	490.5	5.0	3:44	(5.0)	(4.8)	RUN-29				490.5ft: medium hard to very soft, moderately indurated to friable
			3:14	100%	96%					
			2:52							
			2:58							
			4:20							
-496.6	495.5	5.0	1:34	(4.7)	(2.3)	RUN-30				495.5ft: soft to hard, friable to moderately indurated
			1:23	94%	46%					
			2:25							
			4:07							
			4:32							
-501.6	500.5	5.0	1:21	(3.8)	(1.8)	RUN-31	(1.1)	(NA)		-501.6 503.6 Silty SAND (SM), gray (5Y5/1), wet, strong HCl reaction, trace mica, some limestone fragments (Interpreted as medium dense to dense based on drill rate and recovery) LIMESTONE, packstone, pale yellow (5Y8/2), wet, soft, friable, fossiliferous, mostly shell molds and casts
			3:34	76%	36%		55%	0%		
			3:05				(20.8)	(14.2)		
			2:34				90%	62%		
			4:15							
-506.6	505.5	5.0	1:35	(5.0)	(5.0)	RUN-32				505.5ft: soft to medium hard, friable to moderately indurated, fossil-rich mud zones
			1:35	100%	100%					
			2:32							
			3:11							
			4:04							
-511.6	510.5	5.0	1:39	(5.0)	(3.6)	RUN-33				510.5ft: medium hard, moderately indurated, and soft, friable zones
			3:38	100%	72%					
			2:58							
			1:41							
			1:35							
-516.6	515.5	5.0	0:29	(3.5)	(1.9)	RUN-34				515.5ft: hard, indurated
			0:37	70%	38%					
			1:25							
			1:19							
			3:17							
-521.6	520.5	5.0	1:43	(4.6)	(1.9)	RUN-35				520.5ft: medium hard to moderately hard, moderately indurated to indurated, 524.5 to 525.5ft: soft zone
			1:01	92%	38%					
			1:48							
			2:03							
			1:45							
-526.6	525.5	5.0	1:50	(3.4)	(2.8)	RUN-36	(19.8)	(11.0)		-526.6 525.5ft: LIMESTONE, wackestone, white (5Y8/1), soft to medium hard, friable to moderately indurated, wet, strong HCl reaction, fossiliferous, shell molds and casts
			1:35	68%	56%		79%	44%		
			3:05							
			3:18							
			4:06							
-531.6	530.5	5.0	1:31	(3.7)	(1.3)	RUN-37				530.5ft: pale yellow (5Y8/2), soft to moderately hard, friable to indurated
			2:01	74%	26%					
			1:40							
			1:41							
			4:47							
-536.6	535.5	5.0	1:16	(4.1)	(3.0)	RUN-38				535.5ft: medium hard to moderately hard, moderately indurated to indurated
			3:03	82%	60%					
			5:40							
			2:35							

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 9:25:08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'				HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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. (%)	RQD (%)		REC. (%)	RQD (%)		
										Continued from previous page
-541.6	540.5	5.0	3:21 1:24 1:13 0:48 1:05 1:00	(4.9) 98%	(2.3) 46%	RUN-39				LIMESTONE, wackestone, white (5Y8/1), soft to medium hard, friable to moderately indurated, wet, strong HCl reaction, fossiliferous, shell molds and casts (continued) 540.5ft: moderately hard, moderately indurated
-546.6	545.5	5.0	0:37 0:34 2:00 2:35 5:04	(3.7) 74%	(1.6) 32%	RUN-40				545.5ft: trace dark phosphatic material, trace soft friable zone
-551.6	550.5	5.0	2:07 2:11 2:14 2:14 3:24	(5.0) 100%	(4.1) 82%	RUN-41	(38.3) 92%	(31.2) 75%		LIMESTONE, mudstone, light greenish gray (10Y8/1), moderately hard, moderately indurated, wet, strong HCl reaction, fossiliferous
-556.6	555.5	5.0	2:10 0:52 1:18 1:08 1:49	(4.4) 88%	(3.8) 76%	RUN-42				555.5ft: medium hard
-561.6	560.5	5.0	1:09 1:09 0:58 1:00 0:58	(4.3) 86%	(1.3) 26%	RUN-43				560.5ft: soft to medium hard
-566.6	565.5	5.0	0:16 0:22 0:39 1:34 1:12	(3.2) 64%	(2.9) 58%	RUN-44				565.5ft: soft to medium hard
-571.6	570.5	5.0	1:22 1:32 1:49 0:25 1:23	(5.0) 100%	(3.7) 74%	RUN-45				570.5ft: medium hard
-576.6	575.5	5.0	1:28 0:54 0:28 1:28 2:36	(5.0) 100%	(5.0) 100%	RUN-46				575.5ft: pale yellow (5Y8/2), very soft to soft, friable to moderately indurated
-581.6	580.5	5.0	1:22 0:59 1:06 2:33 4:03	(5.0) 100%	(4.0) 80%	RUN-47				580.5ft: light greenish gray (10Y7/1), to pale yellow (5Y8/2), very soft to medium hard
-586.6	585.5	5.0	2:04 2:54 2:37 2:04 1:42	(4.9) 98%	(4.9) 98%	RUN-48				585.5ft: light gray (5Y7/2), medium hard, trace fine grained sand-sized dark material (possible phosphate)
-591.6	590.5	5.0	0:58 2:22 2:24 3:20 2:20	(4.7) 94%	(4.1) 82%	RUN-49				590.5ft: pale yellow (5Y7/3)
-596.6	595.5	5.0	1:22 2:20 2:40 1:26 2:23	(3.0) 60%	(1.0) 20%	RUN-50	(1.0) 100%	(0.4) 40%		LIMESTONE, wackestone, white (5Y8/1), hard, indurated, fossiliferous, mostly shell molds and casts
-601.6	600.5	5.0	2:21 3:54 4:07 4:26 2:39	(5.0) 100%	(4.7) 94%	RUN-51	(2.7) 90%	(2.2) 73%		LIMESTONE, mudstone, white (5Y8/1), soft to medium hard, friable to moderately indurated, moist, strong HCl reaction, fossiliferous
-606.6	605.5	5.0	3:40 3:27 3:31 3:24 2:21	(3.2) 64%	(3.2) 64%	RUN-52	(1.0) 100%	(0.0) 0%		LIMESTONE, wackestone, white (5Y8/1), hard, indurated, moist, fossiliferous, mostly shell fragments, strong HCl reaction
-611.6	610.5	2.0	1:05 1:04	(2.0) 100%	(1.6) 80%	RUN-53	(14.9) 81%	(13.7) 74%		LIMESTONE, mudstone, pale yellow (5Y8/2), soft, friable, wet, strong HCl reaction, fossiliferous, trace fine grained sand
-613.6	612.5	3.0	2:21 5:13	(3.0) (3.0)	(3.0) (3.0)	RUN-54				LIMESTONE, mudstone, pale yellow (5Y8/2), soft, friable, wet, strong HCl reaction, fossiliferous, trace fine grained sand 600.5ft: light gray (5Y7/3), medium hard, moderately indurated
										592.0 593.0 596.0 597.0

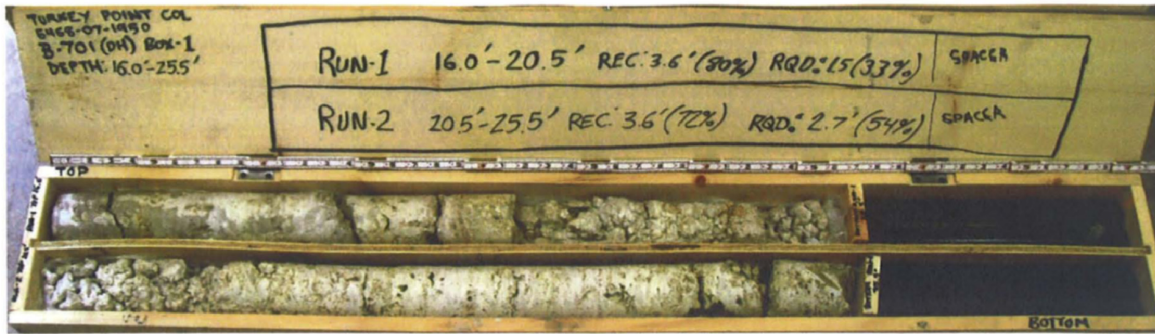
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL.GDT 9:25.08



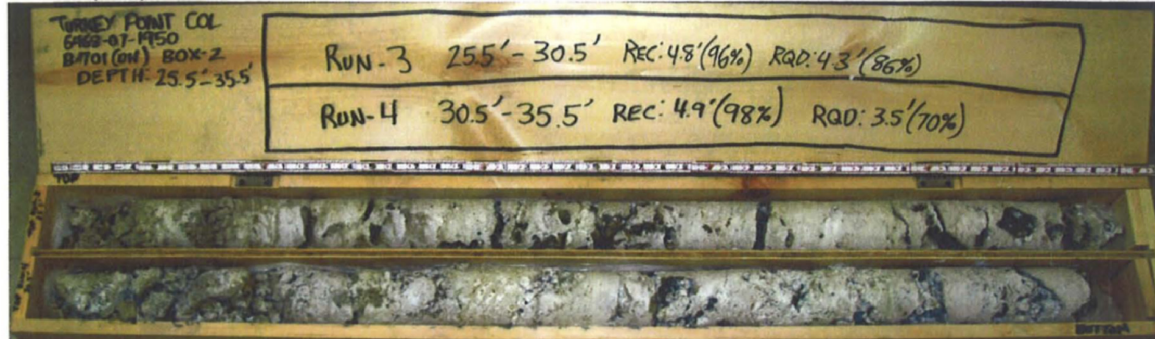
BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: R. Clark	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-750 (Miller)		DRILLER: G.Bilbrey/P.McKorkle/J.Tucker		GROUND WATER (ft)	
BORING NO.: B-701(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA	
GROUND ELEV.: -1.1 ft (NAVD88)		NORTHING: 396,976 US ft (NAD83/90)		EASTING: 875,792 US ft (NAD83/90)		24 HR. NA	
TOTAL DEPTH: 615.5 ft		CASING DEPTH: 6" to 16.0', 4" to 457.5'				HAMMER (ID): 140 lb. Auto (07)	
DATE STARTED: 4/3/08		COMPLETED: 5/5/08		CORE SIZE: PQ3/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) %		
-616.6	615.5		4.04	100%	100%					Continued from previous page
										Coring Terminated at Elevation -616.6

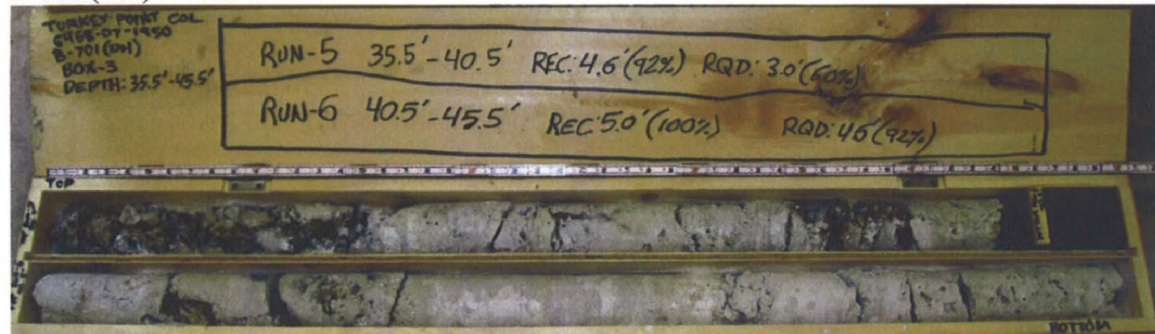
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 9:25.08



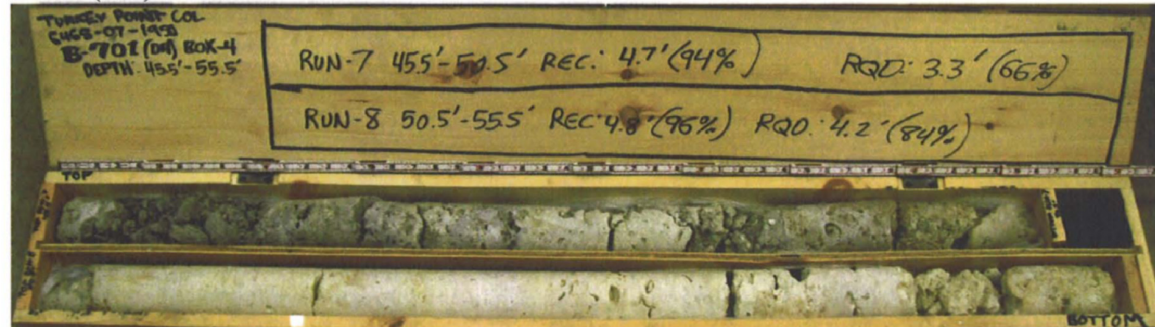
B-701 (DH) - Box 1



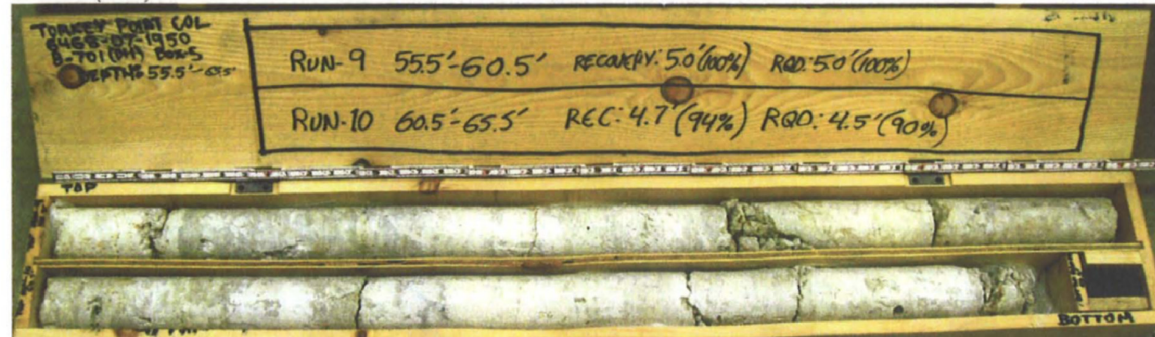
B-701 (DH) - Box 2



B-701 (DH) - Box 3



B-701 (DH) - Box 4



B-701 (DH) - Box 5