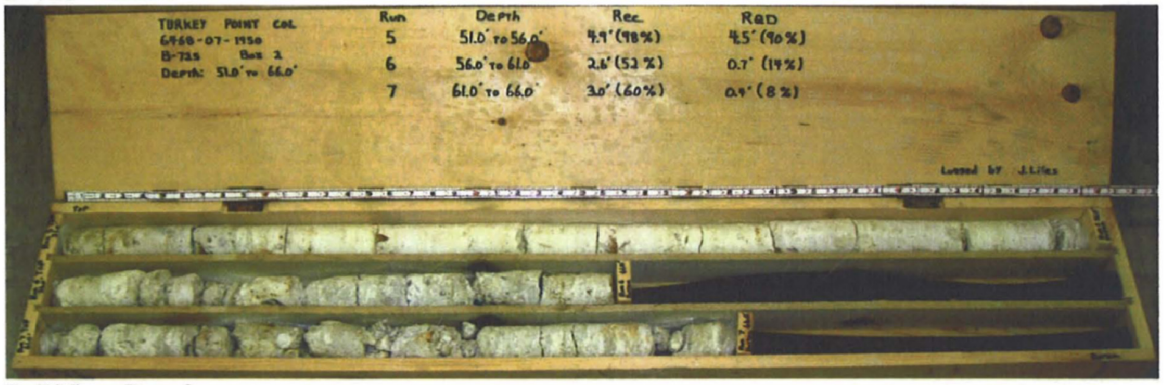
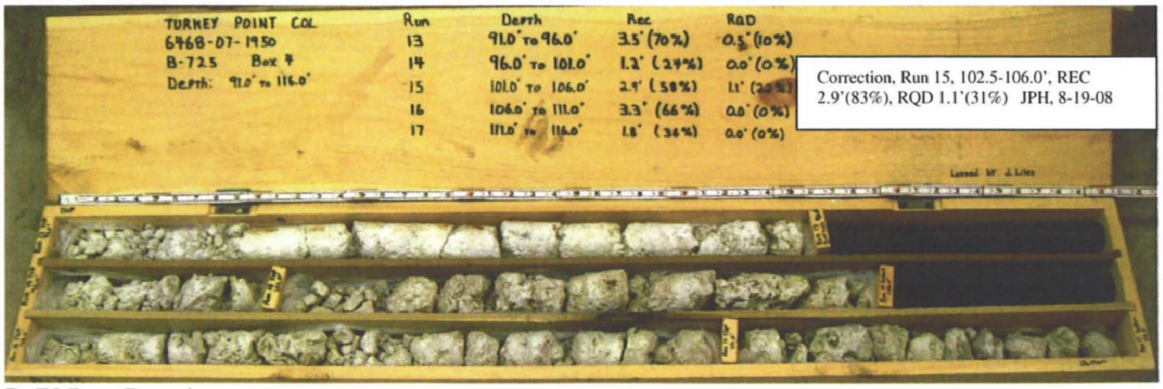
B-725 – Box 1

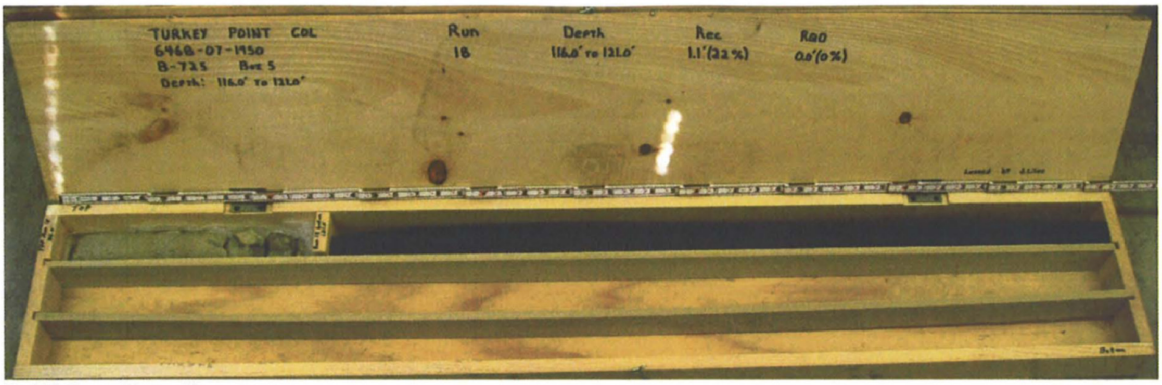


B-725 – Box 2

B-725 – Box 3



B-725 – Box 4


TURKEY POINT COL
6468-07-1950
B-725 Box 5
Depth: 116.0' to 121.0'
Run
18
Depth
116.0' to 121.0'
Rec
1.1'(22%)
RQD
0.0'(0%)

B-725 – Box 5

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5-30-08
Checked By [illegible] Date 5-30-08

SHEET 1 OF 2

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-726	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 396,876 US ft (NAD83/90)	EASTING: 876,004 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.5 ft	BORING DIAMETER: 4" to 25.2', 3" to 100.5'	CASING DEPTH: 4" to 25.2'	HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/12/08	COMPLETED: 3/13/08	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 / -4.1	0.0 / 2.7	WOH	WOH	WOH	WOH 0	726-1			MUCK, dark olive brown (2.5Y3/3), very soft, wet, strong HCl reaction
-6.3	4.9	WOH	14	14	28	726-2A&B			-4.7 / 3.3 LIMESTONE, boundstone, white (2.5Y8/1), soft, wet, trace sand, strong HCl reaction (Miami Formation) 4.9ft: very soft, oolitic
-8.7	7.3	9	8	9	17 (SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA)	726-3			
-11.3	9.9	8	6	3	9	726-4			
-13.9	12.5	2	4	4	8	726-5			
-16.4	15.0	9	10	8	18	726-6			
-21.2	19.8	8	11	34	45	726-7			15.0ft: medium dense
-28.4	27.0	3	5	10	15	726-8			19.8ft: very soft
-32.5	31.1	20	40	43	83	726-9			-25.4 / 24.0 LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation) 29.0ft: loss of circulation
-33.9	32.5	5	9	50/0.4	59/0.9	726-10			32.5: Switch sampling method to coring
-34.9	33.5					RUN-1			32.5ft: white (2.5Y8/1), hard, indurated, fossiliferous, strong HCl reaction, some vugs
-39.9	38.5					RUN-2			33.5ft: little vugs, trace coralline
-44.9	43.5					RUN-3			38.5ft: trace recrystallized calcite, coralline
-49.9	48.5					RUN-4			43.5ft: white (2.5Y8/1) to 46.2ft, then light gray (10Y7/1) to 48.5ft, few vugs
-54.9	53.5					RUN-5			-49.9 / 48.5 LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)
-59.9	58.5					RUN-6			53.5ft: trace vugs 56.0 to 73.0ft: possible sand interbeds as indicated by zones of fast drilling
-64.9	63.5					RUN-7			58.5ft: sandy, possible interbedded sand layers based on rapid drill rates from 58.5ft to 60.0ft
-69.9	68.5					RUN-8			63.5ft: possible interbedded sand layers based on rapid drill rates and poor recovery
-74.9	73.5					RUN-9			68.5ft: possible interbedded sand layers based on rapid drill rates and poor recovery
						RUN-10			

TURKEY POINT COL BORE 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: 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-726	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 396,876 US ft (NAD83/90)	EASTING: 876,004 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.5 ft	BORING DIAMETER: 4" to 25.2', 3" to 100.5'	CASING DEPTH: 4" to 25.2'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/12/08	COMPLETED: 3/13/08	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				
-79.9	78.5					RUN-11			LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* 78.5ft: moderately hard to hard, moderately indurated to indurated
-84.9	83.5					RUN-12			83.5ft: moderately hard, moderately indurated
-89.9	88.5					RUN-13			88.5ft: moderately hard to hard, moderately indurated to indurated, some vugs
-94.9	93.5					RUN-14			93.5ft: moderately hard, moderately indurated
-99.9	98.5					RUN-15			
-101.9	100.5								Boring Terminated at Elevation -101.9 ft

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

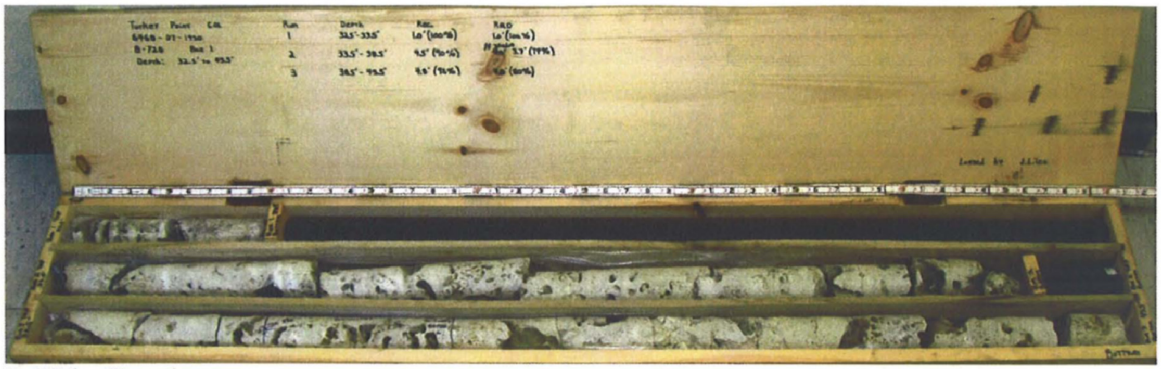
MACTEC

SHEET 1 OF 1

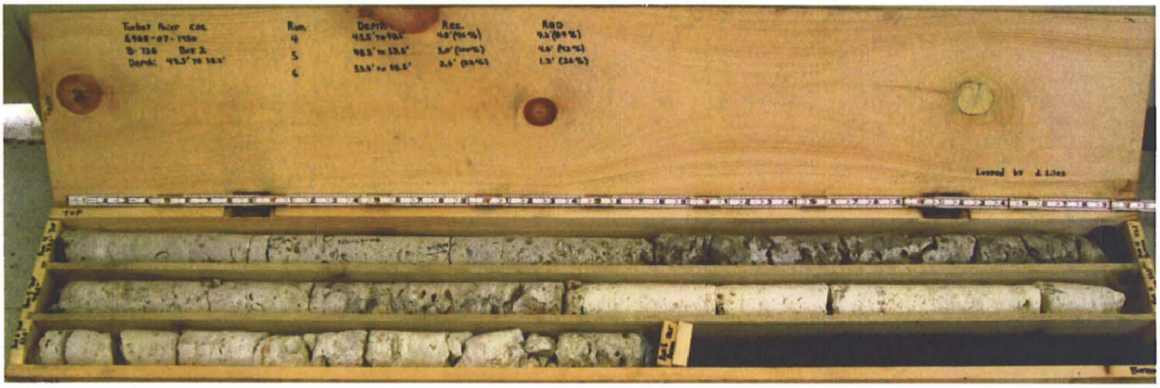
BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: J. Liles
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-726	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 396,876 US ft (NAD83/90)	EASTING: 876,004 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.5 ft	CASING DEPTH: 4" to 25.2'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/12/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 32.5 ft
-33.9	32.5	1.0	0:31	(1.0) 100%	(1.0) 100%	RUN-1	(15.1) 94%	(12.9) 81%		LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation) *(continued)*
-34.9	33.5	5.0	0:42 0:51 0:35 0:45 0:40	(4.5) 90%	(3.7) 74%	RUN-2				32.5ft: white (2.5Y8/1), hard, indurated, fossiliferous, strong HCl reaction, some vugs 33.5ft: little vugs, trace coralline
-39.9	38.5	5.0	1:11 1:17 0:48 0:58 0:46	(4.8) 96%	(4.0) 80%	RUN-3				38.5ft: trace recrystallized calcite, coralline
-44.9	43.5	5.0	1:06 0:45 0:28 0:49 0:44	(4.8) 96%	(4.2) 84%	RUN-4				43.5ft: white (2.5Y8/1) to 46.2ft, then light gray (10Y7/1) to 48.5ft, few vugs
-49.9	48.5	5.0	1:10 1:04 0:40 0:55 0:51	(5.0) 100%	(4.6) 92%	RUN-5	(32.6) 63%	(19.8) 38%		-49.9 48.5 LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)
-54.9	53.5	5.0	0:46 1:08 0:23 0:01 0:31	(2.6) 52%	(1.3) 26%	RUN-6				53.5ft: trace vugs 56.0 to 73.0ft: possible sand interbeds as indicated by zones of fast drilling
-59.9	58.5	5.0	0:05 0:39 0:53 1:15 1:20	(3.7) 74%	(3.2) 64%	RUN-7				58.5ft: sandy, possible interbedded sand layers based on rapid drill rates from 58.5ft to 60.0ft
-64.9	63.5	5.0	0:32 0:07 0:05 0:06 0:10	(1.0) 20%	(0.4) 8%	RUN-8				63.5ft: possible interbedded sand layers based on rapid drill rates and poor recovery
-69.9	68.5	5.0	0:38 0:56 1:04 0:44 0:19	(2.2) 44%	(1.4) 28%	RUN-9				68.5ft: possible interbedded sand layers based on rapid drill rates and poor recovery
-74.9	73.5	5.0	1:25 1:03 1:06 1:02 0:55	(4.3) 86%	(3.0) 60%	RUN-10				
-79.9	78.5	5.0	1:09 0:13 0:09 0:17 0:36	(3.1) 62%	(1.5) 30%	RUN-11				78.5ft: moderately hard to hard, moderately indurated to indurated
-84.9	83.5	5.0	0:37 0:08 0:28 0:54 1:34	(3.2) 64%	(1.2) 24%	RUN-12				83.5ft: moderately hard, moderately indurated
-89.9	88.5	5.0	1:00 0:34 0:25 0:22 0:17	(3.7) 74%	(1.8) 36%	RUN-13				88.5ft: moderately hard to hard, moderately indurated to indurated, some vugs
-94.9	93.5	5.0	0:30 0:30 0:23 0:22 0:08	(2.3) 46%	(1.4) 28%	RUN-14				93.5ft: moderately hard, moderately indurated
-99.9	98.5	2.0	0:28 0:25	(1.5) 75%	(0.0) 0%	RUN-15				-101.9 100.5
-101.9	100.5									Coring Terminated at Elevation -101.9

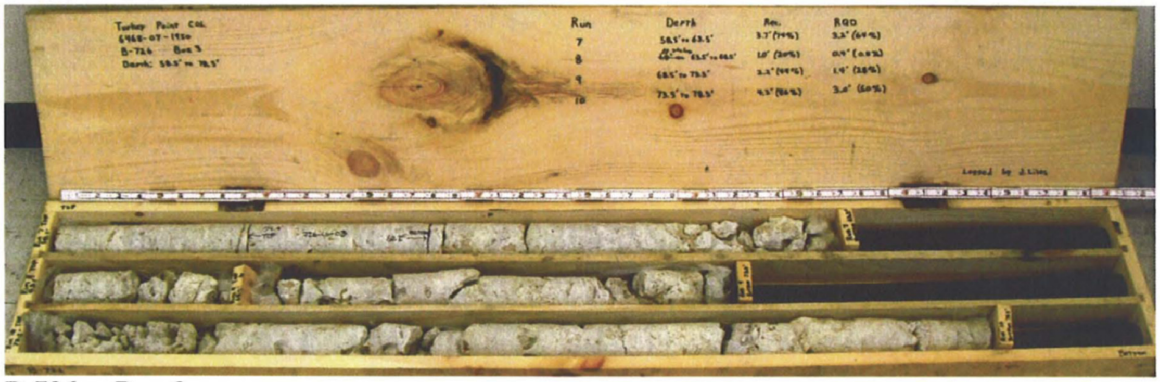
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



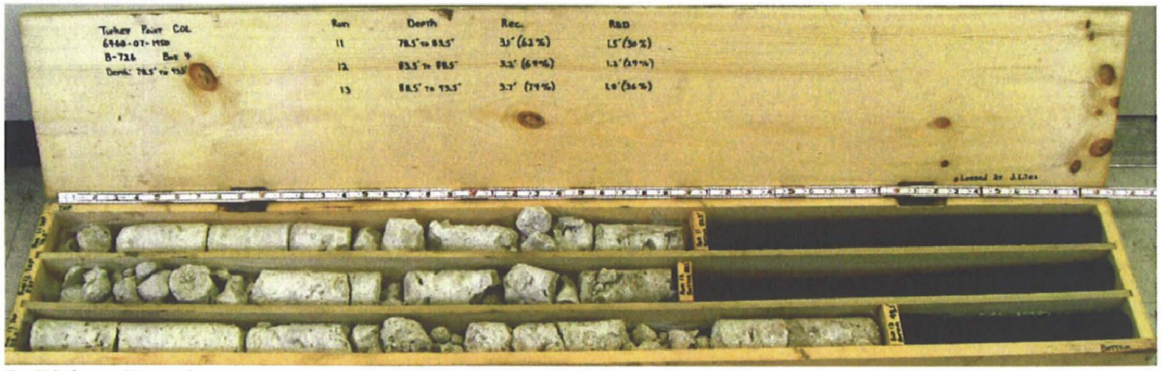
B-726 – Box 1



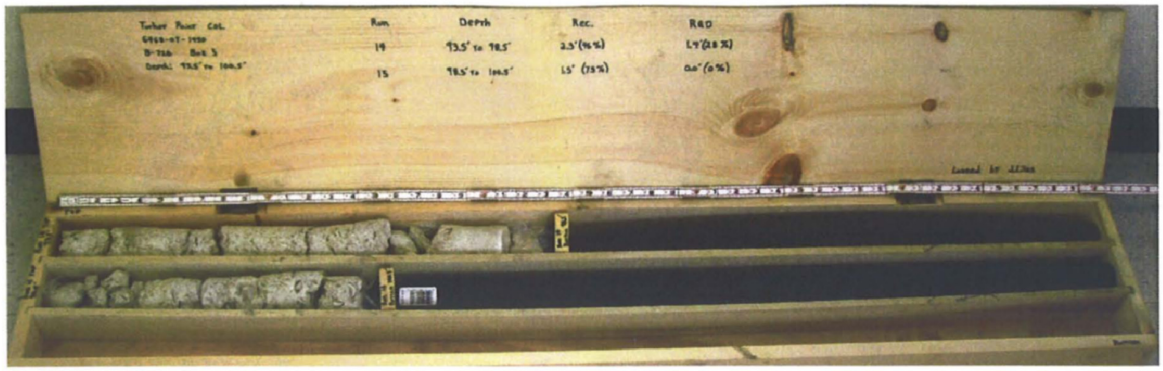
B-726 – Box 2



B-726 – Box 3



B-726 – Box 4



B-726 – Box 5

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5.30.08
Checked By [illegible] Date 5.30.08

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-727	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.3 ft (NAVD88)	NORTHING: 397,118 US ft (NAD83/90)	EASTING: 875,666 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.9 ft	BORING DIAMETER: 4" to 25.2', 3" to 100.9'	CASING DEPTH: 4" to 35.0'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 4/3/08	COMPLETED: 4/4/08	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
-1.3					Ground Surface				-1.3 0.0
-1.3 / -4.2	0.0 / 2.9	WOH	WOH	WOH	0 WOH	727-1			MUCK, black (2.5Y2.5/1), very soft, wet, strong HCl reaction, fibrous
-6.9	5.6	WOH	WOH	1	1	727-2A&B			-5.3 4.0 LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, some fine grained sand, strong HCl reaction, oolitic (Miami Formation)
-8.8	7.5	1	1	3	4	727-3			
-11.1	9.8	3	6	3	9	727-4			7.5ft: few sand
-13.5	12.2	3	5	5	10	727-5			
-16.3	15.0	4	11	9	20	727-6			12.2ft: soft
-22.8	21.5	5	13	42	55	727-7			15.0ft: moderately hard
-28.0	26.7	6	6	4	10	727-8			21.5ft: very soft, some sand
-32.4	31.1	4	15	35	50	727-9			26.7ft: moderately hard, fine to medium grained sand
-38.0	36.7	3	8	20	28	727-10			31.1ft: soft, little fine grained sand
									-35.3 34.0 LIMESTONE, boundstone, white (2.5Y8/1), hard, strong HCl reaction (Upper Fort Thompson Formation)
-38.2 / -39.2	36.9 / 37.9	50/0.2			50/0.2	727-11 / RUN-1 / RUN-2			36.9ft: Switch sampling method to coring 37.9ft: moderately hard, moderately indurated, little vugs, recrystallized calcite, coralline
-44.2	42.9					RUN-3			42.9ft: white (2.5Y8/1) grading to gray (2.5Y6/1), few vugs
-49.2	47.9					RUN-4			-50.2 47.9ft: gray (2.5Y6/1) to 48.9ft 48.9
-54.2	52.9					RUN-5			LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace vugs, strong HCl reaction, fossiliferous, trace shell molds and casts (Lower Fort Thompson Formation) 52.9ft: moderately hard to hard, moderately indurated to indurated, few vugs
-59.2	57.9					RUN-6			57.9ft: moderately hard, moderately indurated, trace sand
-64.2	62.9					RUN-7			62.9ft: medium hard to moderately hard, friable to moderately indurated, few to little sand
-69.2	67.9					RUN-8			67.9ft: moderately hard, moderately indurated
-74.2	72.9					RUN-9			72.9ft: soft to moderately hard, friable to

SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA

TURKEY POINT COL BORE 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: 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-727	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.3 ft (NAVD88)	NORTHING: 397,118 US ft (NAD83/90)	EASTING: 875,666 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.9 ft	BORING DIAMETER: 4" to 25.2', 3" to 100.9'	CASING DEPTH: 4" to 35.0'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 4/3/08	COMPLETED: 4/4/08	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
-76.1					Continued from previous page				
-79.2	77.9					RUN-10			moderately indurated, possible interbedded sand layers based on recovery and drill rates LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace vugs, strong HCl reaction, fossiliferous, trace shell molds and casts (Lower Fort Thompson Formation) *(continued)*
-84.2	82.9					RUN-11			77.9ft: medium hard to moderately hard, friable to moderately indurated, few to little fine grained sand
-89.2	87.9					RUN-12			87.9ft: moderately hard to hard, moderately indurated to indurated, trace vugs, trace to few sand
-94.2	92.9					RUN-13			92.9ft: moderately hard, moderately indurated
-99.2	97.9					RUN-14			97.9ft: medium hard to moderately hard, friable to moderately indurated
									-102.2 100.9 Boring Terminated at Elevation -102.2 ft

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

MACTEC

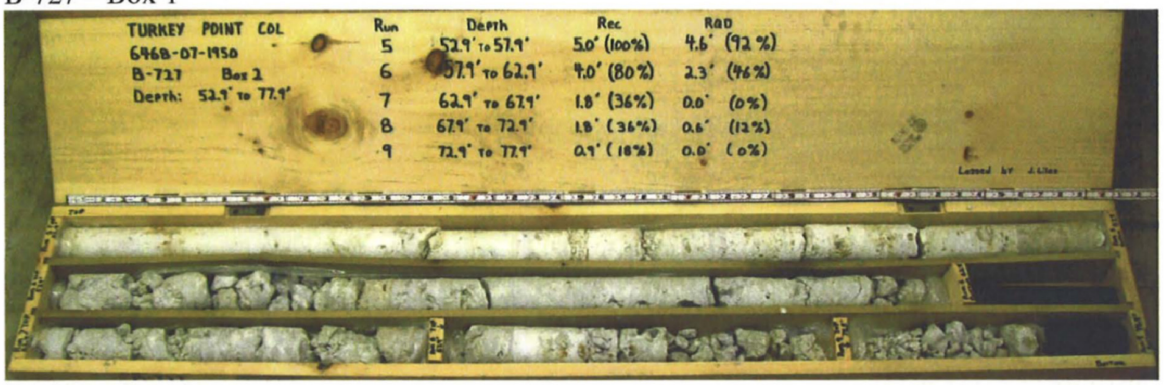
SHEET 1 OF 1

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-727	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.3 ft (NAVD88)	NORTHING: 397,118 US ft (NAD83/90)	EASTING: 875,666 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 100.9 ft	CASING DEPTH: 4" to 35.0'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 4/3/08	COMPLETED: 4/4/08	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) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 36.9 ft
-38.2	36.9	1.0	0:55	(0.0) 0%	(0.0) 0%	RUN-1	(7.6) 63%	(5.5) 46%		LIMESTONE, boundstone, white (2.5Y8/1), hard, strong HCl reaction (Upper Fort Thompson Formation) *(continued)*
-39.2	37.9	5.0	0:54 0:48 0:56 0:49 0:55	(3.7) 74%	(3.0) 60%	RUN-2				37.9ft: moderately hard, moderately indurated, little vugs, recrystallized calcite, coralline
-44.2	42.9	5.0	0:47 0:17 0:49 0:53 0:57	(2.9) 58%	(1.7) 34%	RUN-3				42.9ft: white (2.5Y8/1) grading to gray (2.5Y6/1), few vugs
-49.2	47.9	5.0	1:04 0:59 0:56 0:58 1:01	(5.0) 100%	(4.8) 96%	RUN-4	(33.1) 64%	(18.3) 35%		-50.2 47.9ft: gray (2.5Y6/1) to 48.9ft 48.9 LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace vugs, strong HCl reaction, fossiliferous, trace shell molds and casts (Lower Fort Thompson Formation)
-54.2	52.9	5.0	1:18 0:56 0:57 0:47 1:02	(5.0) 100%	(4.6) 92%	RUN-5				52.9ft: moderately hard to hard, moderately indurated to indurated, few vugs
-59.2	57.9	5.0	0:48 0:43 0:54 0:43 0:31	(4.0) 80%	(2.3) 46%	RUN-6				57.9ft: moderately hard, moderately indurated, trace sand
-64.2	62.9	5.0	0:24 0:29 0:24 0:20 0:30	(1.8) 36%	(0.0) 0%	RUN-7				62.9ft: medium hard to moderately hard, friable to moderately indurated, few to little sand
-69.2	67.9	5.0	1:01 0:32 0:36 0:54 0:47	(1.8) 36%	(0.6) 12%	RUN-8				67.9ft: moderately hard, moderately indurated
-74.2	72.9	5.0	0:35 0:12 0:07 0:05 0:23	(0.9) 18%	(0.0) 0%	RUN-9				72.9ft: soft to moderately hard, friable to moderately indurated, possible interbedded sand layers based on recovery and drill rates
-79.2	77.9	5.0	0:41 0:45 0:40 0:54 0:56	(2.7) 54%	(0.0) 0%	RUN-10				77.9ft: medium hard to moderately hard, friable to moderately indurated, few to little fine grained sand
-84.2	82.9	5.0	1:51 0:37 0:10 0:23 0:45	(3.3) 66%	(2.5) 50%	RUN-11				
-89.2	87.9	5.0	1:04 0:52 0:54 0:37 0:37	(3.7) 74%	(1.9) 38%	RUN-12				87.9ft: moderately hard to hard, moderately indurated to indurated, trace vugs, trace to few sand
-94.2	92.9	5.0	0:39 0:22 0:31 0:38 0:23	(3.8) 76%	(2.4) 48%	RUN-13				92.9ft: moderately hard, moderately indurated
-99.2	97.9	3.0	0:07 0:11 0:40	(2.1) 70%	(0.0) 0%	RUN-14				97.9ft: medium hard to moderately hard, friable to moderately indurated
-102.2	100.9									-102.2 100.9 Coring Terminated at Elevation -102.2

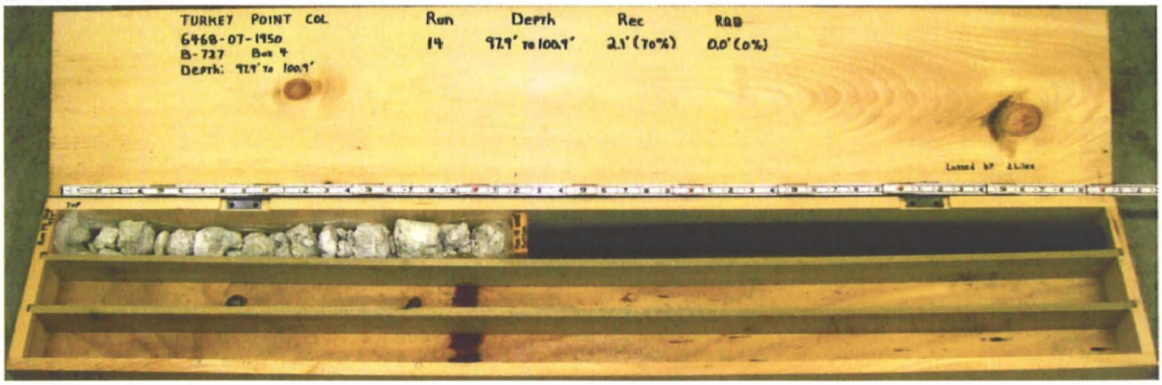
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08

B-727 – Box 1



B-727 – Box 2

B-727 – Box 3



B-727 – Box 4

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5-30-08
Checked By [illegible] Date [illegible]

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-728	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,071 US ft (NAD83/90)	EASTING: 875,620 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 126.6 ft	BORING DIAMETER: 4" to 25.0', 3" to 126.6'	CASING DEPTH: 4" to 25.0', 3" to 113.5'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 4/5/08	COMPLETED: 4/1/08	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 / -3.8	0.0 / 2.4	WOH	WOH	WOH	WOH, 0	728-1			MUCK, black (2.5Y2.5/1), very soft, wet, strong HCl reaction
-6.4	5.0	WOH	1	4	5	728-2A&B			-4.5 / 3.1 LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, strong HCl reaction, little fine grained sand, oolitic (Miami Formation)
-8.9	7.5	4	7	6	13	728-3			
-11.3	9.9	6	6	6	12	728-4			
-13.5	12.1	4	5	11	16	728-5			9.9ft: trace sand
-16.2	14.8	9	15	12	27	728-6			12.1ft: soft
-22.8	21.4	4	5	17	22	728-7			
-27.9	26.5	6	8	5	13	728-8			21.4ft: very soft 23.7ft: Switch sampling method to coring -26.4 / 25.0
-28.7 / -30.7	27.3 / 29.3	12	50/0.3		62/0.8	728-9 RUN-1			LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation) 23.7ft: moderately hard, moderately indurated, trace fine sand 29.3ft: hard, indurated, few vugs, coralline
-35.7	34.3					RUN-2			
-40.7	39.3					RUN-3			34.3ft: recrystallized calcite
-45.7	44.3					RUN-4			39.3ft: trace vugs
-50.7	49.3					RUN-5			44.3ft: fossiliferous
-55.7	54.3					RUN-6			49.3ft: white (2.5Y8/1) to 49.9ft, then gray (10YR5/1) to 51.0ft -52.4 / 51.0 LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, strong HCl reaction, fossiliferous, trace recrystallized calcite, few shell molds and casts (Lower Fort Thompson Formation) 54.3ft: moderately hard to hard, moderately indurated to indurated, trace vugs
-60.7	59.3					RUN-7			
-65.7	64.3					RUN-8			59.3ft: medium hard to moderately hard, friable to moderately indurated, few vugs, trace sand
-70.7	69.3					RUN-9			64.3ft: trace vugs, little fine grained sand
-72.2	70.8					RUN-10			69.3ft: hard, indurated
						RUN-11			70.8ft: moderately hard, moderately indurated, trace sand

SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA

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

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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-728	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,071 US ft (NAD83/90)	EASTING: 875,620 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 126.6 ft	BORING DIAMETER: 4" to 25.0', 3" to 126.6'	CASING DEPTH: 4" to 25.0', 3" to 113.5'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 4/5/08	COMPLETED: 4/1/08	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				
-77.2	75.8					RUN-12			LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, strong HCl reaction, fossiliferous, trace recrystallized calcite, few shell molds and casts (Lower Fort Thompson Formation) *(continued)*
-82.2	80.8					RUN-13			75.8ft: moderately hard to hard, friable to moderately indurated, little sand 80.8ft: moderately hard, moderately indurated
-87.2	85.8					RUN-14			85.8ft: trace vugs
-92.2	90.8					RUN-15			90.8ft: medium hard to moderately hard, friable to moderately indurated
-97.2	95.8					RUN-16			
-102.2	100.8					RUN-17			100.8ft: moderately hard, moderately indurated. little shell molds and casts
-107.2	105.8					RUN-18			105.8ft: medium hard to moderately hard, friable to moderately indurated, trace shell molds and casts
-112.2	110.8					RUN-19			
-115.4	114.0								POORLY GRADED SAND with silt (SP-SM), light gray (2.5Y7/2), dense, wet, fine grained sand, strong HCl reaction, trace limestone fragments (Tamiami Formation) 116.0ft: Switched sampling method to SPT
-117.4	116.0	7	20	12	32	728-10			
-126.5	125.1	3	7	13	20	728-11			
-128.0	126.6								125.1ft: greenish gray (10Y6/1), medium dense Boring Terminated at Elevation -128.0 ft

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SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (Miller)	DRILLER: R. White/ J. Dugger/ C. White	GROUND WATER (ft)
BORING NO.: B-728	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,071 US ft (NAD83/90)	EASTING: 875,620 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 126.6 ft	CASING DEPTH: 4" to 25.0', 3" to 113.5'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 4/5/08	COMPLETED: 4/1/08	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 @ 27.3 ft
-28.7	27.3	2.0	0:35 0:08	(0.5) 25%	(0.0) 0%	RUN-1	(21.7) 92%	(18.0) 76%		LIMESTONE, boundstone, white (2.5Y8/1), hard, wet, strong HCl reaction (Upper Fort Thompson Formation) *(continued)*
-30.7	29.3	5.0	0:49 0:37 0:45 0:48 0:44	(4.9) 98%	(3.5) 70%	RUN-2				23.7ft: moderately hard, moderately indurated, trace fine sand 29.3ft: hard, indurated, few vugs, coralline
-35.7	34.3	5.0	1:05 0:54 0:34 0:38 0:45	(5.0) 100%	(3.8) 76%	RUN-3				34.3ft: recrystallized calcite
-40.7	39.3	5.0	0:57 0:51 1:00 1:11 1:01	(5.0) 100%	(4.8) 96%	RUN-4				39.3ft: trace vugs
-45.7	44.3	5.0	1:08 1:06 1:01 1:17 1:04	(4.6) 92%	(4.6) 92%	RUN-5				44.3ft: fossiliferous
-50.7	49.3	5.0	0:53 1:05 0:56 0:48 0:41	(5.0) 100%	(4.6) 92%	RUN-6				49.3ft: white (2.5Y8/1) to 49.9ft, then gray (10YR5/1) to 51.0ft -52.4 51.0
-55.7	54.3	5.0	1:20 1:01 0:29 1:05 1:12	(3.4) 68%	(1.9) 38%	RUN-7	(44.3) 70%	(25.7) 41%		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, strong HCl reaction, fossiliferous, trace recrystallized calcite, few shell molds and casts (Lower Fort Thompson Formation) 54.3ft: moderately hard to hard, moderately indurated to indurated, trace vugs
-60.7	59.3	5.0	0:34 0:32 0:35 0:31 0:22	(3.2) 64%	(1.2) 24%	RUN-8				59.3ft: medium hard to moderately hard, friable to moderately indurated, few vugs, trace sand
-65.7	64.3	5.0	0:37 0:52 0:41 0:50 1:04	(3.5) 70%	(1.4) 28%	RUN-9				64.3ft: trace vugs, little fine grained sand
-70.7	69.3	1.5	0:32 0:22/0.5	(0.9) 60%	(0.8) 53%	RUN-10				69.3ft: hard, indurated
-72.2	70.8	5.0	0:36 0:32 0:38 0:40 0:58	(1.9) 38%	(1.1) 22%	RUN-11				70.8ft: moderately hard, moderately indurated, trace sand
-77.2	75.8	5.0	2:31 2:41 0:30 1:29 0:56	(3.2) 64%	(1.4) 28%	RUN-12				75.8ft: moderately hard to hard, friable to moderately indurated, little sand
-82.2	80.8	5.0	1:59 0:56 0:26 0:32 0:54	(3.9) 78%	(2.6) 52%	RUN-13				80.8ft: moderately hard, moderately indurated
-87.2	85.8	5.0	1:15 1:10 1:00 1:09 1:23	(5.0) 100%	(4.3) 86%	RUN-14				85.8ft: trace vugs
-92.2	90.8	5.0	2:09 0:59 0:45 0:53 0:26	(4.0) 80%	(2.5) 50%	RUN-15				90.8ft: medium hard to moderately hard, friable to moderately indurated
-97.2	95.8	5.0	0:32 0:28 0:29 2:05 0:46	(1.8) 36%	(0.0) 0%	RUN-16				
-102.2	100.8	5.0	0:52	(4.8)	(3.3)	RUN-17				100.8ft: moderately hard, moderately indurated, little shell molds and casts

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										Continued from previous page
-107.2	105.8		0:51 0:46 0:39 0:35	96%	66%					LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, strong HCl reaction, fossiliferous, trace recrystallized calcite, few shell molds and casts (Lower Fort Thompson Formation) *(continued)*
-112.2	110.8	5.0	0:39 0:39 0:34 0:43 0:31	(4.2) 84%	(1.9) 38%	RUN-18				105.8ft: medium hard to moderately hard, friable to moderately indurated, trace shell molds and casts
-117.2	115.8	5.0	0:40 1:37 1:06 0:12 0:30	(1.2) 24%	(0.0) 0%	RUN-19	(0.0) 0%	(NA)		-115.4 114.0 POORLY GRADED SAND with silt (SP-SM), light gray (2.5Y7/2), dense, wet, fine grained sand, strong HCl reaction, trace limestone fragments (Tamiami Formation) -117.2 115.8 Coring Terminated at Elevation -117.2

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5.30.08