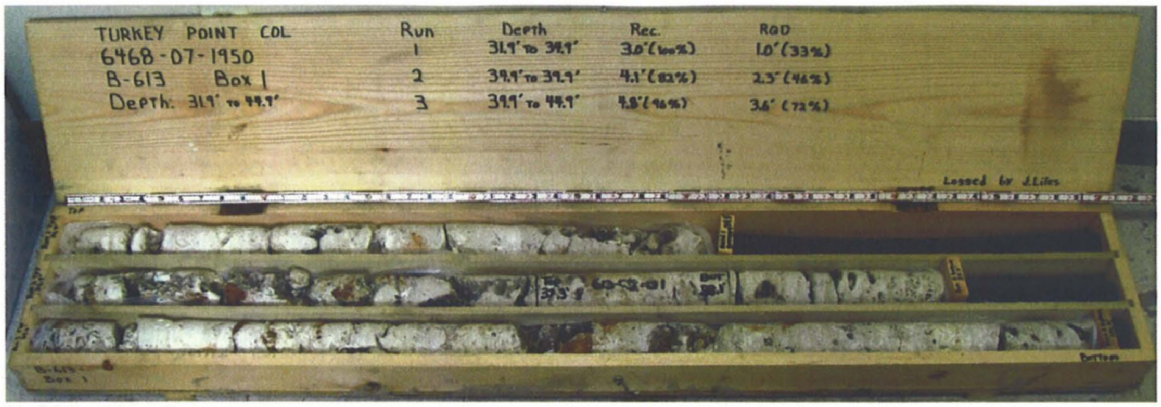
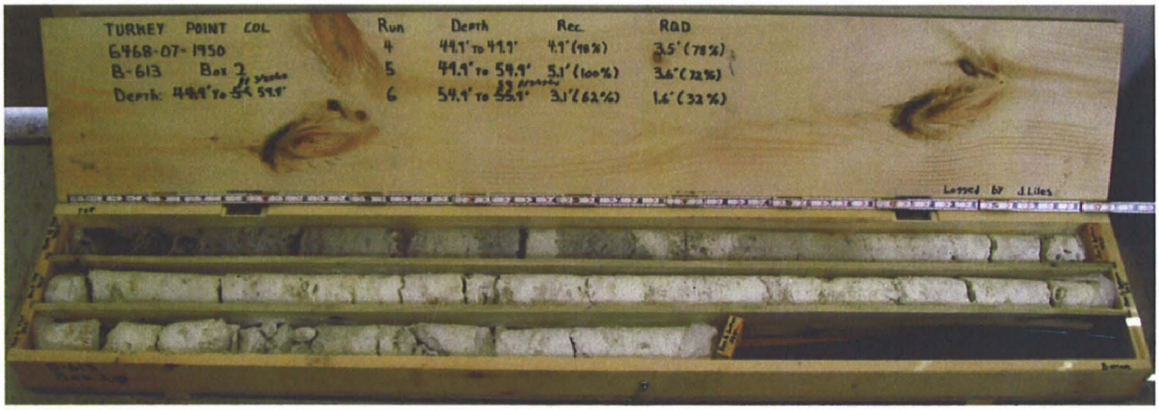
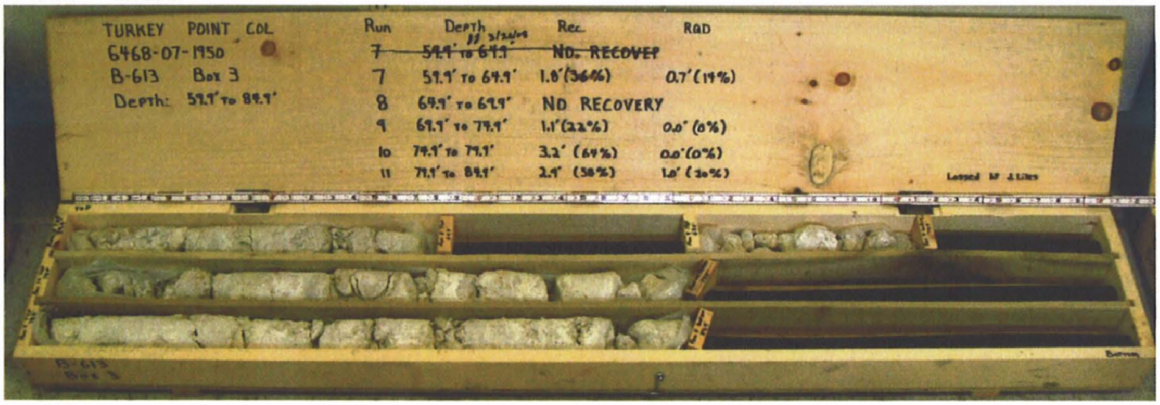


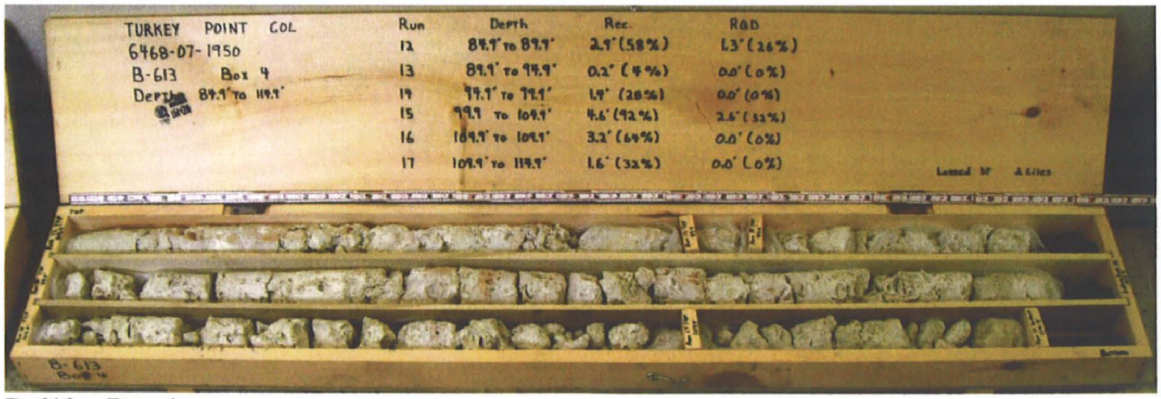
B-613 – Box 1



B-613 – Box 2



B-613 – Box 3



B-613 – Box 4

TURKEY POINT COL
6468-07-1950
B-613 Box 5
Run
18
Depth
Rec.
RQD
Correction: Run 18, RQD 0.4'(20%)
JPH, 8-18-08

B-613 – 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-614	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,204 US ft (NAD83/90)	EASTING: 876,871 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 128.0 ft	BORING DIAMETER: 4" to 30.0', 3" to 128.0'	CASING DEPTH: 4" to 30.0', 3" to 116.4'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/20/08	COMPLETED: 3/22/08	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
-1.5					Ground Surface				-1.5 0.0
-1.5	0.0	WOH	WOH	WOH	0	614-1			MUCK, black (2.5Y2.5/1), very soft, wet, fibrous, strong HCl reaction
-4.3	2.8								
		WOH	3	23	26	614-2			-5.3 2.8ft: soft 3.8
-6.6	5.1				SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA				LIMESTONE, boundstone, white (2.5Y8/1), soft, wet, strong HCl reaction, oolitic (Miami Formation)
		7	10	8	18	614-3			
-9.0	7.5								7.5ft: very soft, fossiliferous
		57	9	5	14	614-4			
-11.4	9.9								
		3	2	6	8	614-5			9.9ft: trace fine sand
-14.0	12.5								
		4	3	6	9	614-6			
-16.1	14.6								
		7	30	25	55	614-7			14.6ft: moderately hard
-23.7	22.2								
		3	6	2	8	614-8			22.2ft: very soft
									-26.5 25.0
-28.5	27.0								LIMESTONE, boundstone, white (2.5Y8/1), medium hard, wet, strong HCl reaction (Upper Fort Thompson Formation)
		4	33	7	40	614-9			
-33.5	32.0								
-33.9	32.4	50/0.4			50/0.4	614-10			32.0ft: hard
						RUN-1			32.4ft: Switch sampling method to coring
									32.4ft: white (2.5Y8/1), hard, indurated, strong HCl reaction, coralline
-37.9	36.4								
						RUN-2			36.4ft: moderately hard, moderately indurated, few vugs
-42.9	41.4								
						RUN-3			
-47.9	46.4								
						RUN-4			46.4ft: white (2.5Y8/1) to 48.1ft, then gray (10YR6/1) to 49.7 ft, indurated, fossiliferous, recrystallized calcite
									-51.2 49.7
-52.9	51.4								LIMESTONE, boundstone, white (2.5Y8/1), hard, moderately indurated to indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)
						RUN-5 614-CS-02			
-57.9	56.4								
						RUN-6			56.4ft: moderately hard, moderately indurated, trace vugs
-62.9	61.4								
						RUN-7			61.4ft: hard, indurated, trace shell molds and casts
-67.9	66.4								
						RUN-8			66.4ft: few vugs
-72.9	71.4								
						RUN-9			71.4ft: little vugs

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-614	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,204 US ft (NAD83/90)	EASTING: 876,871 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 128.0 ft	BORING DIAMETER: 4" to 30.0', 3" to 128.0'	CASING DEPTH: 4" to 30.0', 3" to 116.4'	HAMMER (ID):140 lb. Auto (M06)
DATE STARTED: 3/20/08	COMPLETED: 3/22/08	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
-76.3					Continued from previous page				
-77.9	76.4					RUN-10			LIMESTONE, boundstone, white (2.5Y8/1), hard, moderately indurated to indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* 76.4ft: few vugs
-82.9	81.4					RUN-11 614-CS-04			
-87.9	86.4					RUN-12			
-92.9	91.4					RUN-13			91.4ft: moderately hard, moderately indurated, little vugs
-97.9	96.4					RUN-14			96.4ft: sandy, few vugs, few shell molds and casts
-102.9	101.4					RUN-15			101.4ft: mostly vugs
-107.9	106.4					RUN-16			106.4ft: some vugs
-112.9	111.4					RUN-17			111.4ft: few vugs
-114.5									113.0
-117.9	116.4	12	6	11	17	614-11			POORLY GRADED SAND (SP), light gray (2.5Y7/2), medium dense, wet, fine grained sand, strong HCl reaction, limestone fragments decreasing with depth (Tamiami Formation) 116.4ft: Switch sampling method to SPT
-128.0	126.5								-128.0 126.5
		6	6	6	12	614-12			-129.5 Silty SAND (SM), greenish gray (10Y5/1), medium dense, wet, fine to medium grained sand, strong HCl reaction 128.0
									Boring Terminated at Elevation -129.5 ft

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-614	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,204 US ft (NAD83/90)	EASTING: 876,871 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 128.0 ft	CASING DEPTH: 4" to 30.0', 3" to 116.4'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/20/08	COMPLETED: 3/22/08	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 @ 32.4 ft
-33.9	32.4	4.0	0:58 0:49 0:56 1:28	(2.6) 65%	(0.0) 0%	RUN-1	(15.9) 92%	(10.0) 58%		LIMESTONE, boundstone, white (2.5Y8/1), medium hard, wet, strong HCl reaction (Upper Fort Thompson Formation) *(continued)* 32.4ft: white (2.5Y8/1), hard, indurated, strong HCl reaction, coralline
-37.9	36.4	5.0	1:53 2:17 1:25 1:05 1:06	(5.0) 100%	(3.9) 78%	RUN-2				36.4ft: moderately hard, moderately indurated, few vugs
-42.9	41.4	5.0	1:04 1:14 1:11 1:00 0:53	(5.0) 100%	(4.4) 88%	RUN-3				
-47.9	46.4	5.0	1:44 2:18 1:39 2:06 1:34	(5.0) 100%	(3.4) 68%	RUN-4				46.4ft: white (2.5Y8/1) to 48.1ft, then gray (10YR6/1) to 49.7 ft, indurated, fossiliferous, recrystallized calcite -51.2 49.7
-52.9	51.4	5.0	2:27 2:04 1:07 1:29 1:05	(5.0) 100%	(4.5) 90%	RUN-5 *614-CS-02*	(49.1) 78%	(31.4) 50%		LIMESTONE, boundstone, white (2.5Y8/1), hard, moderately indurated to indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)
-57.9	56.4	5.0	0:45 0:37 0:36 0:43 1:04	(4.2) 84%	(1.5) 30%	RUN-6				56.4ft: moderately hard, moderately indurated, trace vugs
-62.9	61.4	5.0	0:52 0:53 1:08 1:20 0:59	(4.4) 88%	(4.0) 80%	RUN-7				61.4ft: hard, indurated, trace shell molds and casts
-67.9	66.4	5.0	0:49 0:43 0:52 1:13 0:24	(4.5) 90%	(3.4) 68%	RUN-8				66.4ft: few vugs
-72.9	71.4	5.0	0:17 0:19 0:47 0:36 0:45	(2.4) 48%	(0.9) 18%	RUN-9				71.4ft: little vugs
-77.9	76.4	5.0	1:32 0:43 0:17 1:12 1:10	(3.6) 72%	(2.8) 56%	RUN-10				76.4ft: few vugs
-82.9	81.4	5.0	0:47 0:41 0:43 0:41 0:30	(3.6) 72%	(3.2) 64%	RUN-11 *614-CS-04*				
-87.9	86.4	5.0	0:21 0:27 0:46 1:58 1:16	(2.8) 56%	(1.4) 28%	RUN-12				
-92.9	91.4	5.0	0:54 0:42 0:41 0:34 0:22	(4.5) 90%	(2.0) 40%	RUN-13				91.4ft: moderately hard, moderately indurated, little vugs
-97.9	96.4	5.0	0:17 0:21 0:18 0:15 0:34	(2.6) 52%	(0.4) 8%	RUN-14				96.4ft: sandy, few vugs, few shell molds and casts
-102.9	101.4	5.0	0:23 0:12 0:18 0:24 0:23	(4.9) 98%	(4.0) 80%	RUN-15				101.4ft: mostly vugs
-107.9	106.4									

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: 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-614	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 397,204 US ft (NAD83/90)	EASTING: 876,871 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 128.0 ft	CASING DEPTH: 4" to 30.0', 3" to 116.4'		HAMMER (ID): 140 lb. Auto (M06)
DATE STARTED: 3/20/08	COMPLETED: 3/22/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

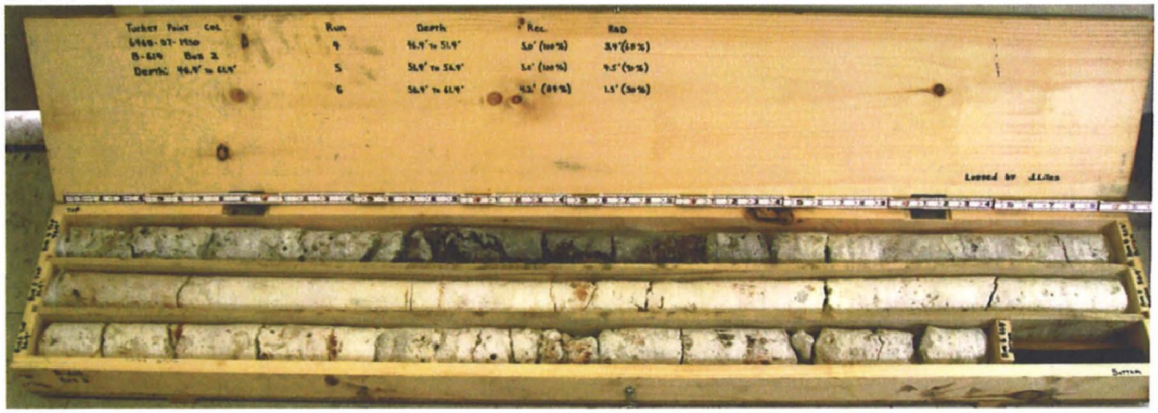
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
		5.0	0:15 0:26 0:35 0:41 0:43	(3.5) 70%	(1.6) 32%	RUN-16				106.4ft: some vugs LIMESTONE, boundstone, white (2.5Y8/1), hard, moderately indurated to indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*
-112.9	111.4									111.4ft: few vugs
		5.0	0:24 0:23 0:20 0:17 0:09	(1.4) 28%	(0.0) 0%	RUN-17	(0.0) 0%	(NA)		POORLY GRADED SAND (SP), light gray (2.5Y7/2), medium dense, wet, fine grained sand, strong HCl reaction, limestone fragments decreasing with depth (Tamiami Formation)
-117.9	116.4									Coring Terminated at Elevation -117.9

-114.5 113.0

-117.9 116.4

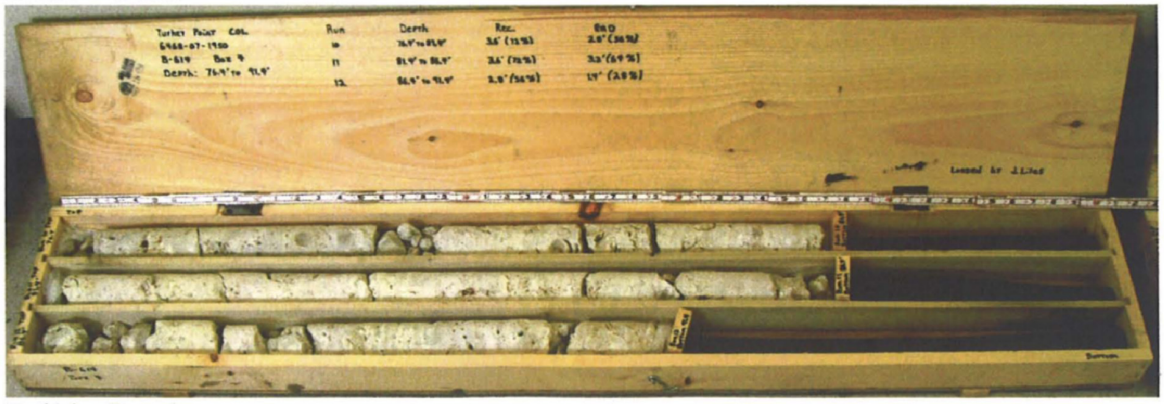
TURKEY POINT COL CORE TURKEY POINT GPJ TURKEY POINT COL.GDT 5.30.08

B-614 – Box 1

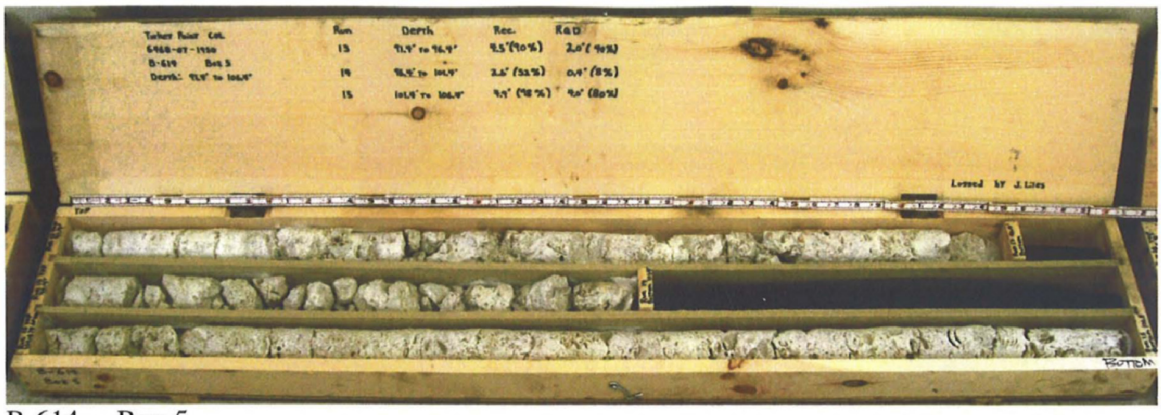


B-614 – Box 2

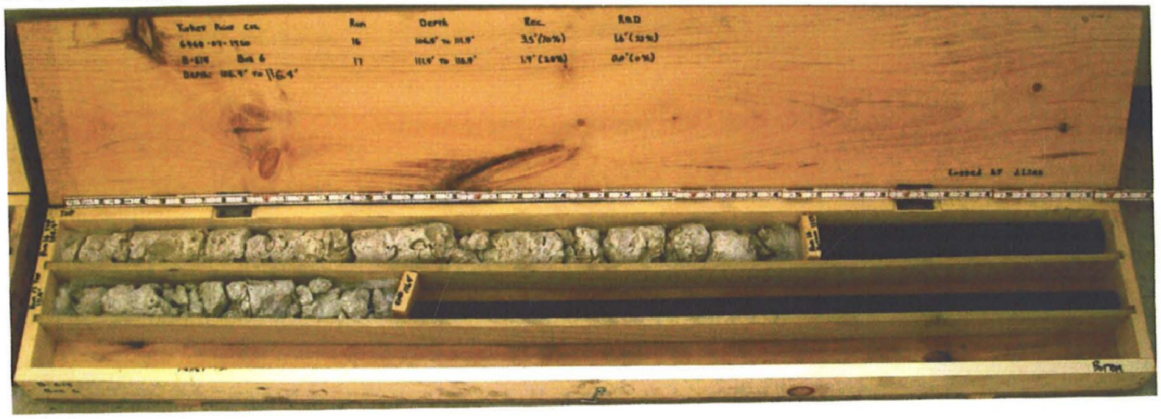
B-614 – Box 3



B-614 – Box 4



B-614 – Box 5



B-614 – Box 6