



BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: K. Lloyd			
SITE DESCRIPTION: North Anna Power Station, Unit 3								DRILLER: P. Pitts				FLUID LEVEL (ft)			
BORING NO.: W-7				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55 Track (RAL)				0 HR. NA			
GROUND ELEV.: 303.1 ft (NAVD88)				NORTHING: 3,909,731 US ft (NAD83)				EASTING: 11,686,147 US ft (NAD83)				24 HR. 15.2			
TOTAL DEPTH: 151.2 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-21)					
DATE STARTED: 10/20/09		COMPLETED: 10/23/09		HOLE DIA.: 4"		CASING DEPTH: 63.1 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-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					
303.1					Ground Surface								303.1 0.0		
													No sampling from 0.0 to 9.5 feet due to soft dig utility clearance by Dominion Personnel		
293.6	9.5										SS-1		293.6 9.5		
291.8	11.3	3	6	9							SS-2		RESIDUAL SOIL: Silty SAND (SM), brownish yellow (10YR 6/6), medium dense, moist, fine to coarse grained sand, trace to few mica, relict rock fabric		
		5	7	7									11.3 ft: Light yellowish brown (10YR 6/4), few gravel sized quartz and rock fragments		
289.0	14.1										SS-3		14.1 ft: No quartz rock fragments		
		2	6	10									RESIDUAL SOIL: SILT (ML), dark yellowish brown (10YR 4/6), medium stiff, moist, few fine sand, some mica, relict rock fabric		
283.6	19.5										SS-4		286.1 17.0		
		1	2	3									281.1 22.0		
278.8	24.3										SS-5		RESIDUAL SOIL: Sandy SILT (ML), light brownish gray (10YR 6/2), stiff, moist, fine sand, some mica, trace quartz fragments, relict rock fabric		
		1	3	6									276.1 27.0		
273.8	29.3												RESIDUAL SOIL: SILT (ML), yellowish brown (10YR 5/8), medium stiff, moist, few fine sand, some mica, relict rock fabric		
		1	2	3							SS-6		271.1 32.0		
268.8	34.3												RESIDUAL SOIL: Silty SAND (SM), brownish yellow (10YR 6/6), medium dense, moist, fine to coarse grained sand, some mica, relict rock fabric		
		5	12	13							SS-7		266.1 37.0		
263.8	39.3										SS-8		RESIDUAL SOIL: Sandy SILT (ML), brown (10YR 5/3), very stiff, moist, fine sand, some mica, few quartz fragments, relict rock fabric		
		4	9	11									44.3 ft: Stiff		
258.8	44.3										SS-9		256.1 47.0		
		2	4	6									RESIDUAL SOIL: Silty SAND (SM), brown (10YR 5/3), very dense, moist, fine to coarse grained sand, some mica, relict rock fabric		
253.8	49.3										SS-10				
		18	35	50/0.1											
248.8	54.3										SS-11		247.1 56.0		
		25	20	50/0.2									WEATHERED ROCK: Severely weathered, BIOTITE GNEISS (Sampled as Silty SAND (SM), very dark grayish brown (10YR 3/2), very dense, moist, fine to coarse grained sand and rock fragments, some mica)		
243.8	59.3										SS-12				
		100/0.6													
238.8	64.3										SS-13		238.7 64.4		
		50/0.1											HARD ROCK: Dark gray to black, moderately severe to moderately weathered, close to moderately close fracturing, medium to moderately hard, BIOTITE GNEISS		
													68.7 ft: No recovery in severely weathered rock zone (BIOTITE GNEISS) to 76.2 ft		

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: K. Lloyd		
SITE DESCRIPTION: North Anna Power Station, Unit 3						DRILLER: P. Pitts			FLUID LEVEL (ft)		
BORING NO.: W-7			DRILL METHOD: Mud Rotary/Rock Core			DRILL MACHINE: CME-55 Track (RAL)			0 HR. NA		
GROUND ELEV.: 303.1 ft (NAVD88)			NORTHING: 3,909,731 US ft (NAD83)			EASTING: 11,686,147 US ft (NAD83)			24 HR. 15.2		
TOTAL DEPTH: 151.2 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ			HAMMER (ID): 140-lb. Auto (MEC-21)		
DATE STARTED: 10/20/09			COMPLETED: 10/23/09			HOLE DIA.: 4"			CASING DEPTH: 63.1 ft		
						CORE SIZE: HQ3			BITS USED: 3-7/8" Tri-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			
228.3					Continued from previous page								
													HARD ROCK: Dark gray to black, moderately severe to moderately weathered, close to moderately close fracturing, medium to moderately hard, BIOTITE GNEISS (continued) 78.2 ft: No recovery in severely weathered, fractured rock zone (BIOTITE GNEISS) to 80.2 ft 81.0 ft: Lost drill fluid circulation 82.5 ft: Regained approximately 50% drill fluid circulation
													211.9 HARD ROCK: Black, slightly weathered, close to moderately close fracturing, hard, BIOTITE GNEISS 98.3 ft: No recovery in severely weathered, fractured rock zone (BIOTITE GNEISS) to 99.3 ft
													186.9 HARD ROCK: Black, fresh, wide fracturing, hard to very hard, BIOTITE GNEISS
													116.2

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: K. Lloyd		
SITE DESCRIPTION: North Anna Power Station, Unit 3						DRILLER: P. Pitts			FLUID LEVEL (ft)		
BORING NO.: W-7			DRILL METHOD: Mud Rotary/Rock Core			DRILL MACHINE: CME-55 Track (RAL)			0 HR. NA		
GROUND ELEV.: 303.1 ft (NAVD88)			NORTHING: 3,909,731 US ft (NAD83)			EASTING: 11,686,147 US ft (NAD83)			24 HR. 15.2		
TOTAL DEPTH: 151.2 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08				ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-21)			
DATE STARTED: 10/20/09		COMPLETED: 10/23/09		HOLE DIA.: 4"		CASING DEPTH: 63.1 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-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					
153.5					Continued from previous page										
													151.9	151.2	Boring and coring terminated at 151.2 feet. Boring closed by tremie method with cement-bentonite grout. 24 hour water level measured on 10/21/2009 prior to drilling. Borehole was at a depth of 54.3 feet.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09

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 @ 64.4 ft	
238.7	64.4	1.8	4:03 3:48/0.8	(1.8) 100%	(1.4) 78%	RUN 1	(21.9) 82%	(15.1) 56%		238.7 HARD ROCK: Dark gray to black, moderately severe to moderately weathered, close to moderately close fracturing, medium to moderately hard, BIOTITE GNEISS (2 joints at 0-10°, open) (2 joints at 0-10°, open) 68.7 ft: No recovery in severely weathered rock zone (BIOTITE GNEISS) to 76.2 ft (4 joints at 20-30°, tight to open with trace clay; 5 joints at 60-70°, tight with trace clay) (2 joints at 10-20°, open with clay) 78.2 ft: No recovery in severely weathered, fractured rock zone (BIOTITE GNEISS) to 80.2 ft 81.0 ft: Lost drill fluid circulation (8 joints at 0-10°, open) 82.5 ft: Regained approximately 50% drill fluid circulation (4 joints at 20-30°, tight with trace clay and orange staining; 3 joints at 60-70°, tight to open with clay and orange staining)	64.4
236.9	66.2	5.0	5:26 4:33 3:48 3:38 2:39	(2.5) 50%	(1.2) 24%	RUN 2					
231.9	71.2	5.0	5:46 3:37 5:05 5:37 10:15	(4.6) 92%	(1.4) 28%	RUN 3					
226.9	76.2	5.0	3:27 4:06 3:04 4:16 6:32	(3.0) 60%	(3.0) 60%	RUN 4					
221.9	81.2	5.0	5:50 4:16 3:22 2:41 3:10	(5.0) 100%	(3.7) 74%	RUN 5					
216.9	86.2	5.0	5:08 3:34 4:15 6:08 3:27	(5.0) 100%	(4.4) 88%	RUN 6					
211.9	91.2	5.0	5:08 3:34 4:12 3:45 4:20	(5.0) 100%	(5.0) 100%	RUN 7	(24.0) 96%	(21.4) 86%		211.9 HARD ROCK: Black, slightly weathered, close to moderately close fracturing, hard, BIOTITE GNEISS (3 joints at 0-10°, open with clay; 1 joint at 20°, tight; 2 joints at 70-80°, tight with trace clay) (5 joints at 10-20, tight to open with clay and iron staining; 2 joints at 50-60°, open with clay and iron staining) 98.3 ft: No recovery in severely weathered, fractured rock zone (BIOTITE GNEISS) to 99.3 ft (1 joints at 10°, tight; 2 joints at 30-40°, tight)	91.2
206.9	96.2	5.0	4:02 2:50 3:03 3:02 3:24	(4.0) 80%	(2.6) 52%	RUN 8					
201.9	101.2	5.0	2:53 3:14 3:08 3:12 3:27	(5.0) 100%	(5.0) 100%	RUN 9					
196.9	106.2	5.0	3:31 4:34 3:11 4:13 4:07	(5.0) 100%	(4.8) 96%	RUN 10					
191.9	111.2	5.0	4:28 4:22 3:46 4:07 3:14	(5.0) 100%	(4.0) 80%	RUN 11					
186.9	116.2	5.0	3:48 4:20 3:18 4:38 4:20	(5.0) 100%	(5.0) 100%	RUN 12	(35.0) 100%	(35.0) 100%		186.9 HARD ROCK: Black, fresh, wide fracturing, hard to very hard, BIOTITE GNEISS (No joints) (2 joints at 50°, tight with trace clay)	116.2
181.9	121.2	5.0	4:21 4:30 3:02 4:06 4:17	(5.0) 100%	(5.0) 100%	RUN 13					
176.9	126.2	5.0	3:03 3:47 3:04 3:46 3:21	(5.0) 100%	(5.0) 100%	RUN 14					
171.9	131.2	5.0	4:09 3:01 3:20 4:01 3:32	(5.0) 100%	(5.0) 100%	RUN 15					
166.9	136.2	5.0	4:56 4:09 3:46	(5.0) 100%	(5.0) 100%	RUN 16					

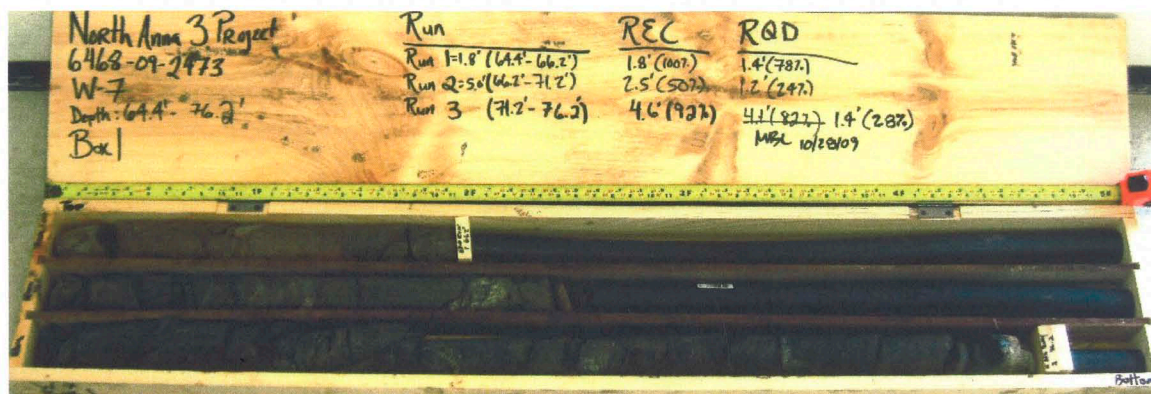


SHEET 2 OF 2

BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: K. Lloyd			
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BORING NO.: W-7				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55 Track (RAL)				0 HR. NA			
GROUND ELEV.: 303.1 ft (NAVD88)				NORTHING: 3,909,731 US ft (NAD83)				EASTING: 11,686,147 US ft (NAD83)				24 HR. 15.2			
TOTAL DEPTH: 151.2 ft				SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08								HAMMER (ID): 140-lb. Auto (MEC-21)			
DATE STARTED: 10/20/09				COMPLETED: 10/23/09				CASING DEPTH: 63.1 ft				CORE BARREL TYPE: Wireline HQ3 Triple Tube, series 6 & 10 bits			

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
161.9	141.2		3:37 3:11							 HARD ROCK: Black, fresh, wide fracturing, hard to very hard, BIOTITE GNEISS (<i>continued</i>) (1 joint at 70°, tight with trace clay) (No joints)
		5.0	3:17 2:41 3:10 3:35 4:17	(5.0) 100%	(5.0) 100%	RUN 17				
156.9	146.2									
		5.0	3:17 3:33 3:09 3:01 3:28	(5.0) 100%	(5.0) 100%	RUN 18				
151.9	151.2									151.9
Boring and coring terminated at 151.2 feet. Boring closed by tremie method with cement-bentonite grout. 24 hour water level measured on 10/21/2009 prior to drilling. Borehole was at a depth of 54.3 feet.										

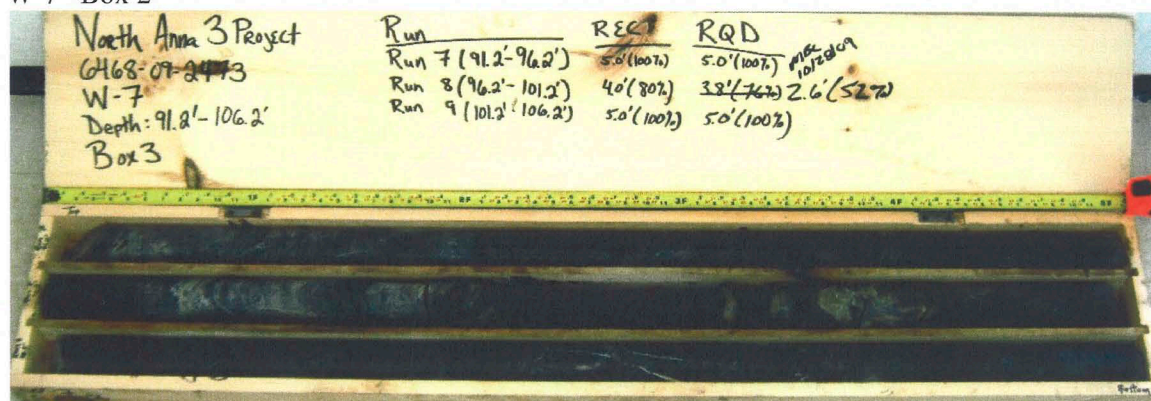
NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



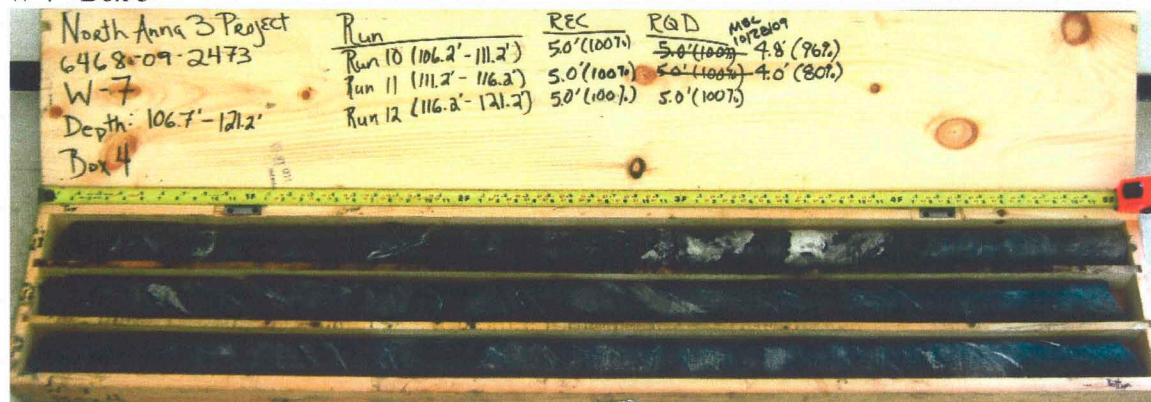
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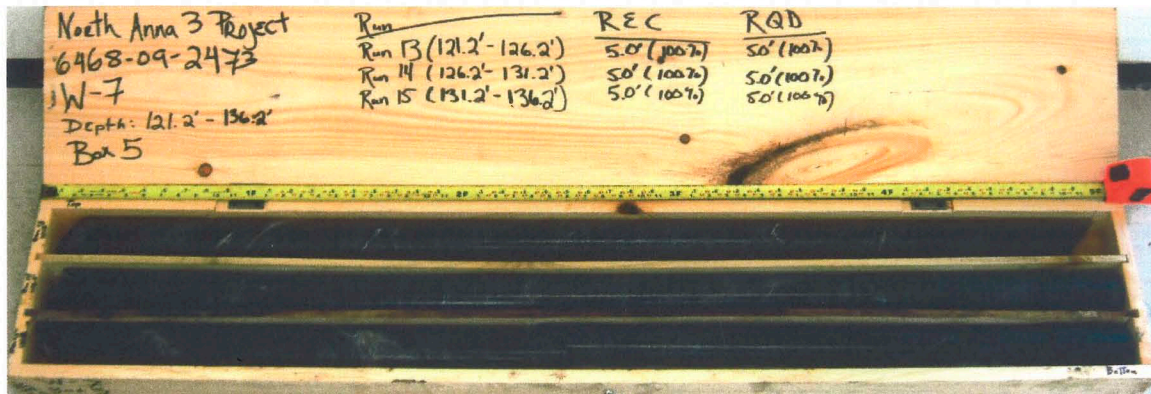
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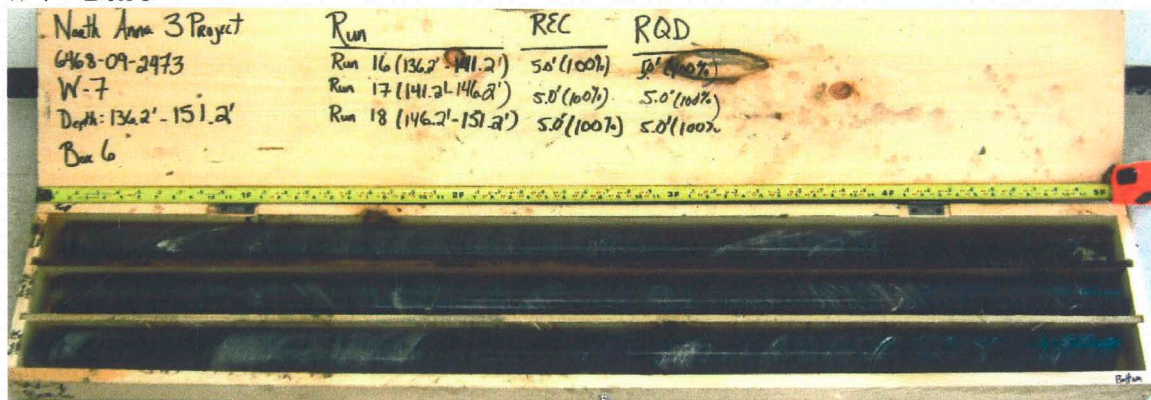
W-7- Box 3



W-7- Box 4



W-7 - Box 5



W-7 - Box 6

GEOTECHNICAL BORING LOG

Prepared By NAC Date 12/3/09
Checked By DSC Date 12-3-09

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: K. Lloyd			
SITE DESCRIPTION: North Anna Power Station, Unit 3								DRILLER: P. Pitts				FLUID LEVEL (ft)			
BORING NO.: W-8				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55 Track (RAL)				0 HR. ND			
GROUND ELEV.: 307.8 ft (NAVD88)				NORTHING: 3,909,768 US ft (NAD83)				EASTING: 11,686,273 US ft (NAD83)				24 HR. ND			
TOTAL DEPTH: 150.6 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						ROD TYPE: AWJ		HAMMER (ID):140-lb. Auto (MEC-21)					
DATE STARTED: 10/26/09		COMPLETED: 10/29/09		HOLE DIA.: 4"		CASING DEPTH: 78.6 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-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					
307.8					Ground Surface							307.8	0.0		
298.5	9.3											298.5	9.3		
295.9	11.9	2	2	3						SS-1		296.8	11.0		
293.4	14.4	1	2	3						SS-2					
		2	4	4						SS-3					
288.5	19.3														
		1	3	4						SS-4			19.3 ft: Wet		
283.5	24.3														
		4	7	6						SS-5			24.3 ft: Pale olive (5Y 6/4) to olive gray (5Y 4/2), stiff		
278.5	29.3											280.8	27.0		
		15	15	9						SS-6					
273.5	34.3														
		12	21	21						SS-7			34.3 ft: Dense		
268.5	39.3											270.8	37.0		
		7	8	8						SS-8					
263.5	44.3														
		12	15	12						SS-9			44.3 ft: Dark greenish gray (5G 4/1) and light yellowish brown (10YR 6/4)		
258.5	49.3														
		8	12	27						SS-10			49.3 ft: Dark greenish gray (5G 4/1), dense		
253.5	54.3														
		22	38	31						SS-11			54.3 ft: Very dense		
248.5	59.3														
		11	24	42						SS-12			59.3 ft: Dark greenish gray (5G 4/1) and brownish yellow (10YR 6/6)		
243.5	64.3											245.8	62.0		
		17	15	23						SS-13					
238.5	69.3											240.8	67.0		
		18	33	60						SS-14					
233.5	74.3											236.8	71.0		

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09

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SITE DESCRIPTION: North Anna Power Station, Unit 3								DRILLER: P. Pitts				FLUID LEVEL (ft)			
BORING NO.: W-8				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55 Track (RAL)				0 HR. ND			
GROUND ELEV.: 307.8 ft (NAVD88)				NORTHING: 3,909,768 US ft (NAD83)				EASTING: 11,686,273 US ft (NAD83)				24 HR. ND			
TOTAL DEPTH: 150.6 ft				SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08				ROD TYPE: AWJ				HAMMER (ID): 140-lb. Auto (MEC-21)			
DATE STARTED: 10/26/09				COMPLETED: 10/29/09		HOLE DIA.: 4"		CASING DEPTH: 78.6 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-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					
233.0					Continued from previous page										
228.5	79.3	100/0.5									SS-15		WEATHERED ROCK: Severely weathered BIOTITE GNEISS (Sampled as Silty SAND (SM), dark greenish gray (5G 4/1) to greenish black (10Y 2.5/1), very dense, moist, fine to coarse sand, micaceous) (continued)		
226.8	81.0	100/0.5									SS-16	227.8	80.0		
		50/0.0									SS-17		HARD ROCK: Dark gray, black, and greenish black, slightly to moderately weathered, close fracturing, moderately to medium hard, BIOTITE GNEISS		
												216.4	91.4		
													HARD ROCK: Dark gray to black, very slightly weathered to fresh, moderately close to wide fracturing, hard to very hard, BIOTITE GNEISS		
												181.4	126.4		
													HARD ROCK: Gray to dark gray, fresh, moderately close fracturing, very hard, BIOTITE QUARTZ GNEISS		



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: K. Lloyd							
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TOTAL DEPTH: 150.6 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08				ROD TYPE: AWJ		HAMMER (ID):140-lb. Auto (MEC-21)								
DATE STARTED: 10/26/09		COMPLETED: 10/29/09		HOLE DIA.: 4"		CASING DEPTH: 78.6 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-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						
158.2					Continued from previous page											
														157.2	150.6	Boring and coring terminated at 150.6 feet. Boring closed by tremie method with cement-bentonite grout.

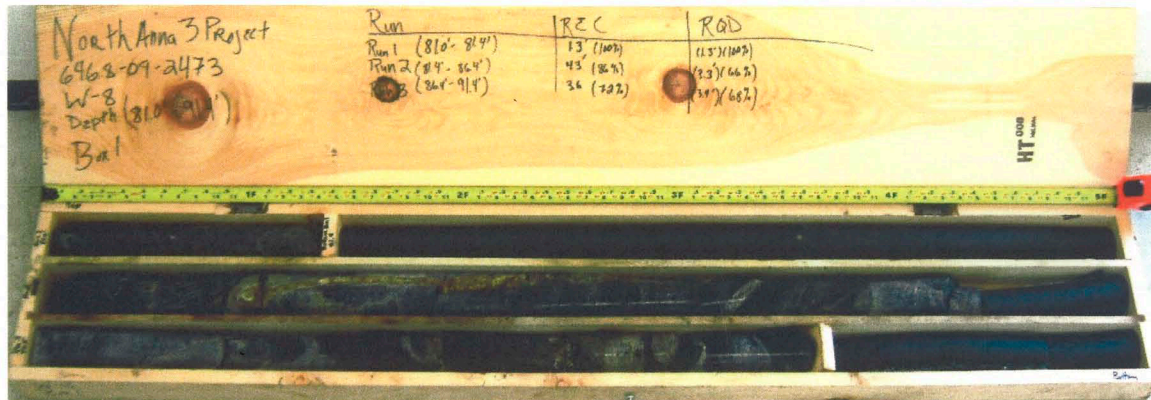
NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



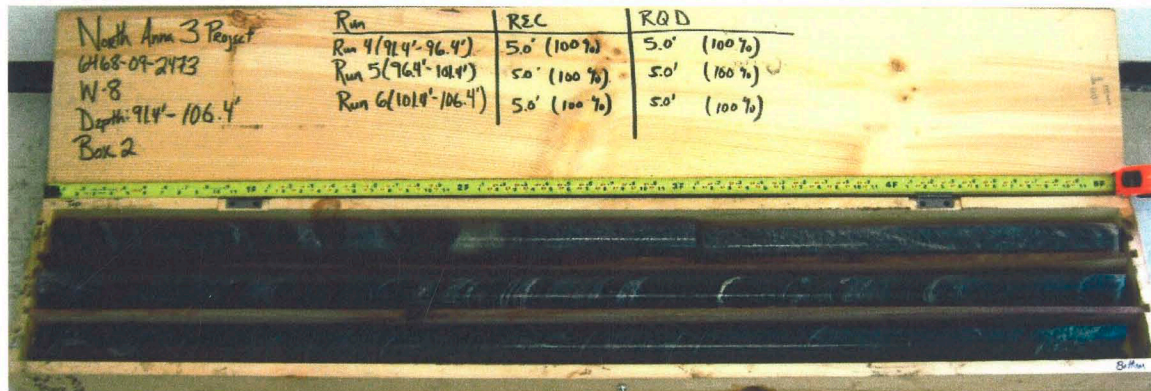
SHEET 1 OF 1

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GROUND ELEV.: 307.8 ft (NAVD88)				NORTHING: 3,909,768 US ft (NAD83)				EASTING: 11,686,273 US ft (NAD83)		24 HR. ND		
TOTAL DEPTH: 150.6 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						HAMMER (ID): 140-lb. Auto (MEC-21)			
DATE STARTED: 10/26/09			COMPLETED: 10/29/09		CASING DEPTH: 78.6 ft		CORE BARREL TYPE: Wireline HQ3 Triple Tube, series 6 & 10 bits					
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 @ 80.0 ft		
227.8 226.4	80.0 81.4	1.4 5.0	ND N=50/0.0 1:40/0.4	(1.3) 93%	(1.3) 93%	RUN 1 SS-17	(9.2) 81%	(8.0) 70%		227.8	HARD ROCK: Dark gray, black, and greenish black, slightly to moderately weathered, close fracturing, moderately to medium hard, BIOTITE GNEISS (1 joint at 60°, tight)	
			3:31 3:27 3:38 4:41 6:05	(4.3) 86%	(3.3) 66%	RUN 2					(2 joints at 10-20°, open with orange staining; 3 joints at 30-40°, open; 1 joint at 60°, open with clay and orange staining; 1 joint at 90°, tight with trace clay and orange staining)	
221.4	86.4	5.0		(3.6) 72%	(3.4) 68%	RUN 3					(3 joints at 20-30°, open with orange staining and clay; 2 joints at 60°, tight to open with clay and orange staining)	
			5:23 3:40 3:41 2:30 6:08									
216.4	91.4	5.0		(5.0) 100%	(5.0) 100%	RUN 4	(35.0) 100%	(35.0) 100%		216.4	HARD ROCK: Dark gray to black, very slightly weathered to fresh, moderately close to wide fracturing, hard to very hard, BIOTITE GNEISS (4 joints at 20-30°, open with clay)	
			3:24 3:02 3:43 4:38 6:38									
211.4	96.4	5.0		(5.0) 100%	(5.0) 100%	RUN 5					(No joints)	
			6:47 5:23 4:36 4:27 4:47									
206.4	101.4	5.0		(5.0) 100%	(5.0) 100%	RUN 6					(2 joints at 50-60°, tight)	
			5:58 4:01 3:58 4:53 4:31									
201.4	106.4	5.0		(5.0) 100%	(5.0) 100%	RUN 7					(3 joints at 50-60°, tight)	
			5:24 4:25 4:45 4:50 5:17									
196.4	111.4	5.0		(5.0) 100%	(5.0) 100%	RUN 8					(2 joints at 30-40°, open with clay; 2 joints at 40-50°, open with clay; 1 joint at 60°, tight with trace clay)	
			6:34 4:41 3:42 3:28 4:10									
191.4	116.4	5.0		(5.0) 100%	(5.0) 100%	RUN 9					(No joints)	
			4:27 4:13 4:18 4:11 3:50									
186.4	121.4	5.0		(5.0) 100%	(5.0) 100%	RUN 10					(1 joint at 10°, tight with trace of clay; 1 joint at 40°, tight with trace clay)	
			3:54 4:01 4:55 4:06 4:49									
181.4	126.4	5.0		(5.0) 100%	(5.0) 100%	RUN 11	(24.2) 100%	(24.2) 100%		181.4	HARD ROCK: Gray to dark gray, fresh, moderately close fracturing, very hard, BIOTITE QUARTZ GNEISS (4 joints at 50-60°, tight with trace clay; quartz vein at 130.8-131.0 feet)	
			4:45 4:56 7:41 11:31 12:50									
176.4	131.4	5.0		(5.0) 100%	(5.0) 100%	RUN 12					(quartz vein from 135.4-136.4 feet)	
			33:40 21:03 5:53 7:44 10:03									
171.4	136.4	5.0		(5.0) 100%	(5.0) 100%	RUN 13					(1 joint at 50°, tight)	
			9:16 13:26 20:08 11:21 7:14									
166.4	141.4	5.0		(5.0) 100%	(5.0) 100%	RUN 14					(1 joint at 50°, open)	
			7:22 7:09 7:38 8:29 10:25									
161.4	146.4	2.0		(2.0) 100%	(2.0) 100%	RUN 15					(No joints)	
159.4	148.4	2.2		(2.2) 100%	(2.2) 100%	RUN 16					(No joints)	
157.2	150.6									157.2	Boring and coring terminated at 150.6 feet.	
											Boring closed by tremie method with cement-bentonite grout.	

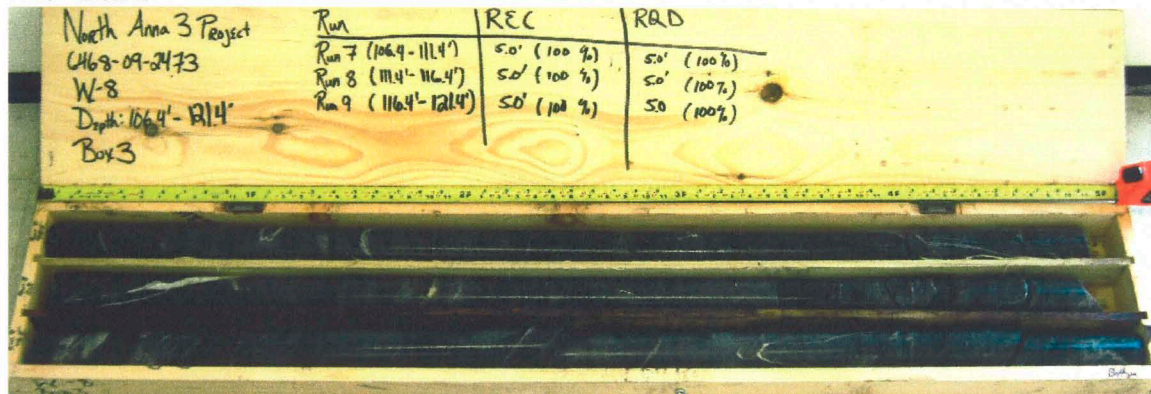
NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



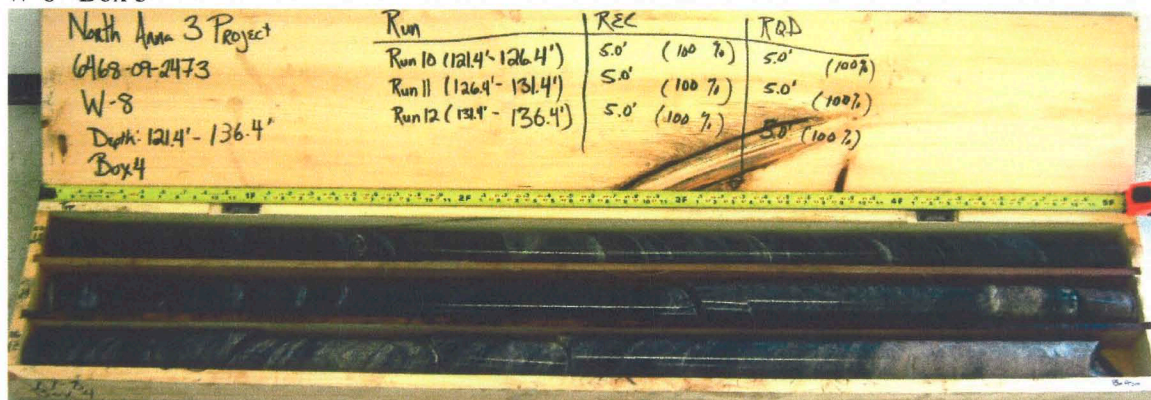
W-8- Box 1



W-8- Box 2



W-8- Box 3



W-8- Box 4



W-8 - Box 5