



BECHTEL PROJECT NO.: 25161					MACTEC PROJECT NO.: 6468-09-2473					COUNTY: Louisa, VA					GEOLOGIST: A. Mwembeshi				
SITE DESCRIPTION: North Anna 3 Project Supplement 2										DRILLER: R. Landeros/D. Reneau					FLUID LEVEL (ft)				
BORING NO.: M-9					DRILL METHOD: Mud Rotary/Rock Core					DRILL MACHINE: CME-550X (ATL)					0 HR.		NA		
GROUND ELEV.: 327.3 ft (NAVD88)					NORTHING: 3,909,334 US ft (NAD83)					EASTING: 11,685,946 US ft (NAD83)					24 HR.		4.0		
TOTAL DEPTH: 153.6 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08							ROD TYPE: AWJ			HAMMER (ID):140-lb. Auto (MEC-05)						
DATE STARTED: 9/1/09			COMPLETED: 9/4/09			HOLE DIA.: 3"			CASING DEPTH: 105.0 ft			CORE SIZE: NQ3		BITS USED: 2-7/8" Drag					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION						
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100									
327.3					Ground Surface								327.3	0.0					
														No sampling from 0.0 to 8.1 feet due to soft dig utility clearance by Dominion Personnel					
319.2	8.1												319.2	8.1					
316.8	10.5	5	4	5						SS-1				RESIDUAL SOIL: Silty SAND (SM), yellowish brown (10YR 5/6), loose, moist, fine to medium grained sand, relict rock fabric					
314.4	12.9	3	2	5						SS-2									
311.9	15.4	5	6	5						SS-3				12.9 ft: Strong brown (7.5YR 5/8), medium dense, trace mica					
309.4	17.9	4	5	4						SS-4				15.4 ft: Brown (7.5YR 5/4), loose					
304.4	22.9	5	6	6						SS-5				17.9 ft: Medium dense, fine to coarse grained sand					
299.5	27.8	5	6	6						SS-6				22.9 ft: Light brownish gray (2.5Y 6/2), medium to coarse grained sand					
294.5	32.8	5	7	7						SS-7				27.8 ft: Brownish yellow (10YR 6/6), medium grained sand					
288.6	38.7	5	8	8						SS-8				32.8 ft: Very pale brown (10YR 7/4), medium to coarse grained sand					
283.6	43.7	8	9	9						SS-9									
279.5	47.8	8	9	9						SS-10									
274.6	52.7	5	11	23						SS-11				47.8 ft: Brownish yellow (10YR 6/8), dense, moist to wet, medium grained sand					
269.6	57.7	15	18	22						SS-12				52.7 ft: Very pale brown (10YR 7/3), few mica					
264.6	62.7	16	19	20						SS-13									
259.6	67.7	27	40	43						SS-14				62.7 ft: Light gray (10YR 7/2), very dense, fine to medium grained sand, trace mica, trace rock fragments					
254.6	72.7	20	26	45						SS-15				67.7 ft: Light reddish gray (2.5YR 7/1)					
		49	50/0.3							SS-16			256.3	71.0					

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: A. Mwembeshi			
SITE DESCRIPTION: North Anna 3 Project Supplement 2								DRILLER: R. Landeros/D. Reneau				FLUID LEVEL (ft)			
BORING NO.: M-9				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-550X (ATL)				0 HR.		NA	
GROUND ELEV.: 327.3 ft (NAVD88)				NORTHING: 3,909,334 US ft (NAD83)				EASTING: 11,685,946 US ft (NAD83)				24 HR.		4.0	
TOTAL DEPTH: 153.6 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						ROD TYPE: AWJ		HAMMER (ID):140-lb. Auto (MEC-05)					
DATE STARTED: 9/1/09		COMPLETED: 9/4/09		HOLE DIA.: 3"		CASING DEPTH: 105.0 ft		CORE SIZE: NQ3		BITS USED: 2-7/8" Drag					
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					
252.5		Continued from previous page													
249.6	77.7												WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), very pale brown (10YR 8/3 & 10YR 7/3), very dense, moist, medium grained sand, trace mica, few to little rock fragments) (continued)		
		39	50/0.4							SS-17					
244.6	82.7		50/0.4							SS-18					
239.6	87.7		50/0.4							SS-19					
234.6	92.7		50/0.4							SS-20					
229.6	97.7		50/0.2							SS-21					
223.2	104.1		50/0.1							SS-22					
219.5	107.8		50/0.2							SS-23	107.8 ft: Grayish brown (10YR 5/2)				
214.5	112.8		50/0.2							SS-24	112.8 ft: Pale yellow (2.5YR 7/4)				
209.4	117.9	35	50/0.4							SS-25	117.9 ft: Brown (10YR 5/3)				
205.4	121.9		50/0.0							SS-26	205.4 121.9 ft: Bit Refusal; SPT refusal with no penetration 121.9				
												HARD ROCK: Light to dark gray, slightly weathered to fresh, very close to wide fracturing, medium hard to hard, BIOTITE QUARTZ GNEISS			



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: A. Mwembeshi				
SITE DESCRIPTION: North Anna 3 Project Supplement 2						DRILLER: R. Landeros/D. Reneau			FLUID LEVEL (ft)				
BORING NO.: M-9			DRILL METHOD: Mud Rotary/Rock Core			DRILL MACHINE: CME-550X (ATL)			0 HR. NA				
GROUND ELEV.: 327.3 ft (NAVD88)			NORTHING: 3,909,334 US ft (NAD83)			EASTING: 11,685,946 US ft (NAD83)			24 HR. 4.0				
TOTAL DEPTH: 153.6 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ			HAMMER (ID):140-lb. Auto (MEC-05)				
DATE STARTED: 9/1/09			COMPLETED: 9/4/09			HOLE DIA.: 3"			CASING DEPTH: 105.0 ft				
						CORE SIZE: NQ3			BITS USED: 2-7/8" Drag				
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			
177.7					Continued from previous page								
													
													173.7 153.6 Boring and coring terminated at 153.6 feet. Boring closed by tremie method with cement-bentonite grout. 24 hour water level measured on 9/04/2009 prior to drilling. Borehole was at a depth of 121.9 feet.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09

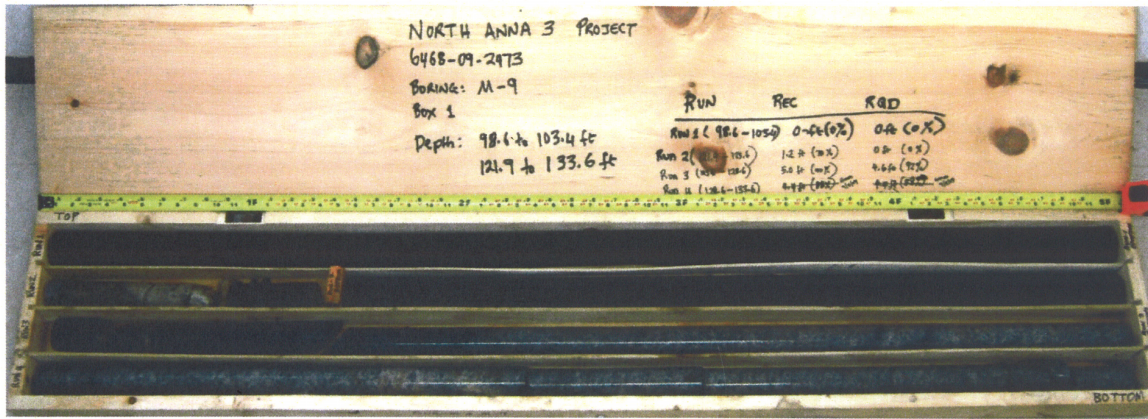


SHEET 1 OF 1

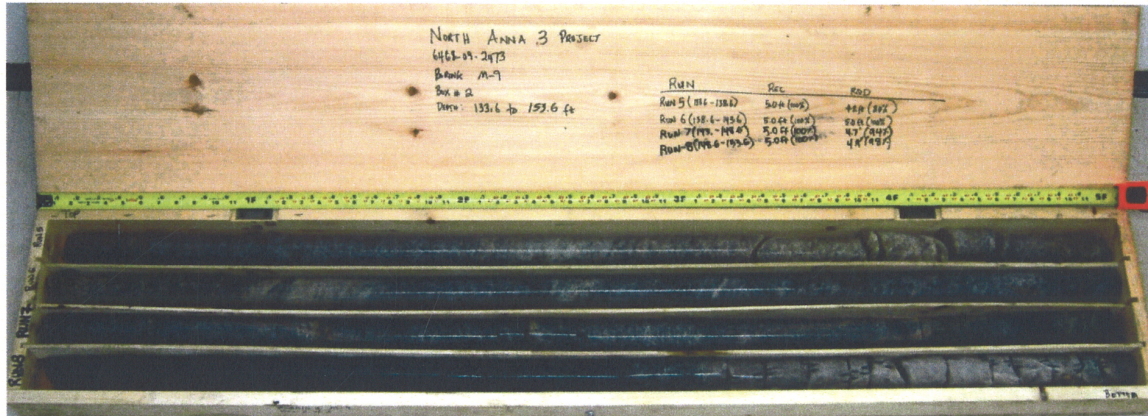
BECHTEL PROJECT NO.: 25161	MACTEC PROJECT NO.: 6468-09-2473	COUNTY: Louisa, VA	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: North Anna 3 Project Supplement 2		DRILLER: R. Landeros/D. Reneau	FLUID LEVEL (ft)
BORING NO.: M-9	DRILL METHOD: Mud Rotary/Rock Core	DRILL MACHINE: CME-550X (ATL)	0 HR. NA
GROUND ELEV.: 327.3 ft (NAVD88)	NORTHING: 3,909,334 US ft (NAD83)	EASTING: 11,685,946 US ft (NAD83)	24 HR. 4.0
TOTAL DEPTH: 153.6 ft	SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		HAMMER (ID): 140-lb. Auto (MEC-05)
DATE STARTED: 9/1/09	COMPLETED: 9/4/09	CASING DEPTH: 105.0 ft	CORE BARREL TYPE: Wireline NQ3 Triple Tube, series 6 bit

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 @ 98.6 ft
228.7	98.6	4.8	0:39 0:47 0:33 0:39 0:37	(0.0) 0%	(0.0) 0%	RUN 1	(0.0) 0%	(0.0) 0%		WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), very pale brown (10YR 8/3 & 10YR 7/3), very dense, moist, medium grained sand, trace mica, few to little rock fragments) (continued) (No Core Recovery - cont. boring with mud rotary and SPT sampling to bit refusal)
223.9	103.4		N=50/0.1			SS-22				
			N=50/0.2			SS-23				107.8 ft: Grayish brown (10YR 5/2)
			N=50/0.2			SS-24				112.8 ft: Pale yellow (2.5YR 7/4)
			N=50/0.4			SS-25				117.9 ft: Brown (10YR 5/3)
										121.9 ft: Bit Refusal; SPT refusal with no penetration
205.4	121.9	1.7	N=50/0.0 3:09	(1.2) 71%	(0.0) 0%	RUN 2	(31.2) 98%	(28.4) 90%		HARD ROCK: Light to dark gray, slightly weathered to fresh, very close to wide fracturing, medium hard to hard, BIOTITE QUARTZ GNEISS (2 joints at 30°, tight) (3 joints at 45°, tight)
203.7	123.6	5.0	1:41/0.7 1:41 1:52 3:28 3:01 4:23	(5.0) 100%	(4.6) 92%	RUN 3				(3 joints at 90°, open; several mechanical fractures)
198.7	128.6	5.0	5:15 8:34 5:43 5:57 12:12	(5.0) 100%	(5.0) 100%	RUN 4				(3 joints at 30°, open with trace clay; 1 joint at 45°)
193.7	133.6	5.0	1:17 1:47 2:02 0:45 1:46	(5.0) 100%	(4.2) 84%	RUN 5				(1 joint at 30°, tight with trace orange staining)
188.7	138.6	5.0	1:51 1:35 2:04 2:47 4:29	(5.0) 100%	(5.0) 100%	RUN 6				(3 joints at 15°, tight with trace brown-orange staining)
183.7	143.6	5.0	2:45 4:05 2:43 2:12 3:08	(5.0) 100%	(4.7) 94%	RUN 8				(2 joints at 45°, tight; several mechanical fractures; quartz vein with trace feldspar, calcite, and muscovite from 151.6 to 153.6 feet)
178.7	148.6	5.0	1:43 2:11 2:09 2:50 2:54	(5.0) 100%	(4.9) 98%	RUN 9				
173.7	153.6									Boring and coring terminated at 153.6 feet.
										Boring closed by tremie method with cement-bentonite grout.
										24 hour water level measured on 9/04/2009 prior to drilling. Borehole was at a depth of 121.9 feet.

NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



M-9 - Box 1



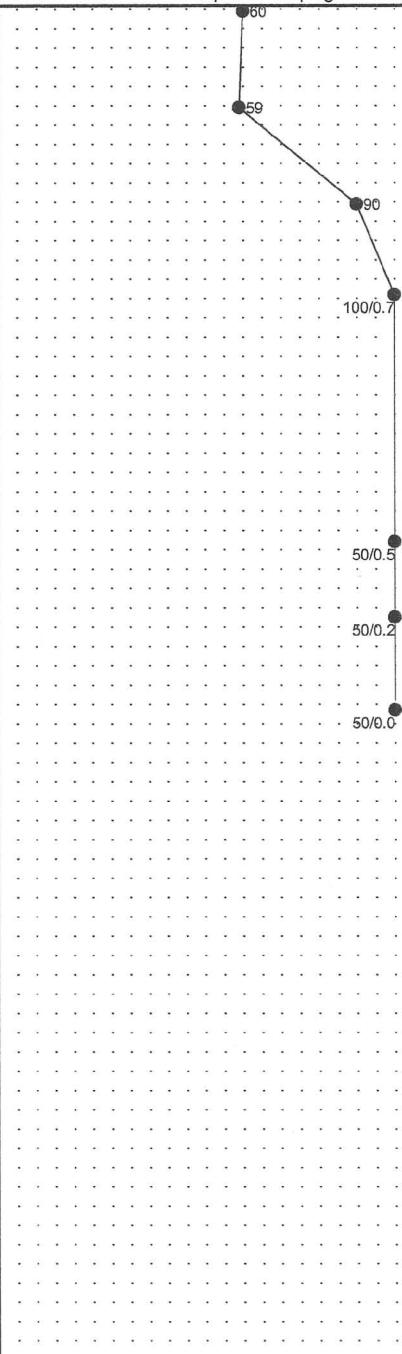
M-9 - Box 2



BECHTEL PROJECT NO.: 25161					MACTEC PROJECT NO.: 6468-09-2473					COUNTY: Louisa, VA					GEOLOGIST: K. Lloyd				
SITE DESCRIPTION: North Anna 3 Project Supplement 2										DRILLER: D. White/O. Smith					FLUID LEVEL (ft) 0 HR. NA 24 HR. 26.0				
BORING NO.: M-10 (DH)					DRILL METHOD: Mud Rotary/Rock Core					DRILL MACHINE: CME-55LC Track (RAL)									
GROUND ELEV.: 323.6 ft (NAVD88)					NORTHING: 3,909,244 US ft (NAD83)					EASTING: 11,685,962 US ft (NAD83)									
TOTAL DEPTH: 201.9 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08							ROD TYPE: AWJ			HAMMER (ID):140-lb. Auto (MEC-02)						
DATE STARTED: 9/1/09			COMPLETED: 9/9/09			HOLE DIA.: 4"			CASING DEPTH: 89.8 ft			CORE SIZE: HQ3			BITS USED: 3-7/8" Tri-Cone				
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	L O G	SOIL AND ROCK DESCRIPTION						
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100									
323.6					Ground Surface								323.6	0.0					
														No sampling from 0.0 to 8.8 feet due to soft dig utility clearance by Dominion Personnel.					
314.8	8.8	6	5	5						SS-1			314.8	8.8					
311.9	11.7	3	4	5						SS-2				RESIDUAL SOIL: Silty SAND (SM), yellowish red (5YR 5/6), loose, moist, trace to few black stains, relict rock fabric					
309.3	14.3	4	3	5						SS-3				11.7 ft: Red (2.5YR 4/8), little to some mica					
														14.3 ft: Dark red (2.5YR 3/6), trace black stains					
304.4	19.2	4	4	5						SS-4				19.2 ft: Strong brown (7.5YR 4/6)					
299.4	24.2	2	3	4						SS-5									
294.4	29.2	2	3	5						SS-6				29.2 ft: Dark yellowish brown (10YR 4/6)					
289.5	34.1	2	8	11						SS-7				34.1 ft: Brownish yellow (10YR 6/8), medium dense					
284.5	39.1	7	3	5						SS-8				39.1 ft: Yellowish brown (10YR 5/6), loose, fine to coarse grained sand, trace to few black stains					
279.5	44.1	3	3	7						SS-9				44.1 ft: Light yellowish brown (10YR 6/4)					
274.5	49.1	13	15	17						SS-10				49.1 ft: Very pale brown (10YR 7/3), dense					
269.5	54.1	15	15	17						SS-11									
264.5	59.1	20	25	36						SS-12				59.1 ft: Very pale brown (10YR 8/2), very dense, coarse grained sand, trace mica					
259.5	64.1	46	50/0.5							SS-13				WEATHERED ROCK: Severely weathered QUARTZ GNEISS (Sampled as Silty SAND (SM), very pale brown (10YR 8/2), very dense, moist, coarse grained sand, trace mica, few to little rock fragments)					
254.5	69.1	6	20	36						SS-14				RESIDUAL SOIL: Silty SAND (SM), brownish yellow (10YR 6/6), very dense, moist, little to some mica, fine grained sand, relict rock fabric					
249.5	74.1																		

NORTH ANNA 3 BORE, NORTH ANNA 3 PROJECT.GPJ, NORTH ANNA 3.GDT, 12/4/09



BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: K. Lloyd			
SITE DESCRIPTION: North Anna 3 Project Supplement 2								DRILLER: D. White/O. Smith				FLUID LEVEL (ft)			
BORING NO.: M-10 (DH)				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55LC Track (RAL)				0 HR.		NA	
GROUND ELEV.: 323.6 ft (NAVD88)				NORTHING: 3,909,244 US ft (NAD83)				EASTING: 11,685,962 US ft (NAD83)				24 HR.		26.0	
TOTAL DEPTH: 201.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						ROD TYPE: AWJ		HAMMER (ID):140-lb. Auto (MEC-02)					
DATE STARTED: 9/1/09		COMPLETED: 9/9/09		HOLE DIA.: 4"		CASING DEPTH: 89.8 ft		CORE SIZE: HQ3		BITS USED: 3-7/8" Tri-Cone					
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				NO.	
248.8					Continued from previous page										
244.5	79.1	14	17	43						SS-15			74.1 ft: Very dark bluish gray (10BG 3/1), fine to coarse grained sand, little mica, trace weathered rock fragments RESIDUAL SOIL: Silty SAND (SM), brownish yellow (10YR 6/6), very dense, moist, little to some mica, fine grained sand, relict rock fabric (continued) 79.1 ft: Very pale brown (10YR 7/3)		
239.5	84.1	14	24	35						SS-16					
237.6	86.0	27	41	49						SS-17			84.1 ft: Very pale brown (10YR 7/4), few weathered rock fragments		
234.5	89.1	50	50/0.2							SS-18			WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), very pale brown (10YR 7/4 and 10YR 7/3), very dense, moist, fine to coarse grained sand, little mica, little rock fragments)		
221.5	102.1	50/0.5								SS-19					
217.3	106.3	50/0.2								SS-20					
212.3	111.3	50/0.0								SS-21			212.8 HARD ROCK: Light tan with orange staining, moderately severe to moderately weathered, close fracturing, medium hard to moderately hard, BIOTITE QUARTZ GNEISS		
										RS-1			207.3 HARD ROCK: Light yellowish brown with orange staining, moderately to slightly weathered, close to moderately close fracturing, moderately hard to hard, BIOTITE QUARTZ GNEISS		
										RS-2					
													178.8 HARD ROCK: Light gray to gray, slightly weathered to fresh, close to wide fracturing, hard to very hard, BIOTITE QUARTZ GNEISS		
													144.8		



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: K. Lloyd		
SITE DESCRIPTION: North Anna 3 Project Supplement 2						DRILLER: D. White/O. Smith			FLUID LEVEL (ft)		
BORING NO.: M-10 (DH)			DRILL METHOD: Mud Rotary/Rock Core			DRILL MACHINE: CME-55LC Track (RAL)			0 HR. NA		
GROUND ELEV.: 323.6 ft (NAVD88)			NORTHING: 3,909,244 US ft (NAD83)			EASTING: 11,685,962 US ft (NAD83)			24 HR. 26.0		
TOTAL DEPTH: 201.9 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ			HAMMER (ID): 140-lb. Auto (MEC-02)		
DATE STARTED: 9/1/09			COMPLETED: 9/9/09			HOLE DIA.: 4"			CASING DEPTH: 89.8 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				
174.0					Continued from previous page									
											RS-3		HARD ROCK: Light gray to gray, slightly weathered to fresh, close to wide fracturing, hard to very hard, BIOTITE QUARTZ GNEISS (continued)	
											RS-4			
											RS-5			
													124.7 198.9 121.7 201.9	HARD ROCK: Dark gray, very slightly weathered, close to moderately close fracturing, very hard, QUARTZ BIOTITE GNEISS Boring and coring terminated at 201.9 feet. Boring closed by tremie method with cement-bentonite grout. 24 hour water level measured on 9/09/2009 prior to drilling. Borehole was at a depth of 196.6 feet.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



SHEET 1 OF 2

BECHTEL PROJECT NO.: 25161	MACTEC PROJECT NO.: 6468-09-2473	COUNTY: Louisa, VA	GEOLOGIST: K. Lloyd
SITE DESCRIPTION: North Anna 3 Project Supplement 2		DRILLER: D. White/O. Smith	FLUID LEVEL (ft)
BORING NO.: M-10 (DH)	DRILL METHOD: Mud Rotary/Rock Core	DRILL MACHINE: CME-55LC Track (RAL)	0 HR. NA
GROUND ELEV.: 323.6 ft (NAVD88)	NORTHING: 3,909,244 US ft (NAD83)	EASTING: 11,685,962 US ft (NAD83)	24 HR. 26.0
TOTAL DEPTH: 201.9 ft	SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		HAMMER (ID): 140-lb. Auto (MEC-02)
DATE STARTED: 9/1/09	COMPLETED: 9/9/09	CASING DEPTH: 89.8 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. (%)	RQD (%)		REC. (%)	RQD (%)		
										Begin Coring @ 89.8 ft
233.8	89.8	2.0	1:37	(0.0)	(0.0)	RUN 1	(0.0)	(0.0)		WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), very pale brown (10YR 7/4 and 10YR 7/3), very dense, moist, fine to coarse grained sand, little mica, little rock fragments) (continued) (No Recovery) (No Recovery) (No Recovery) (No Recovery)
231.8	91.8		1:15	0%	0%		0%	0%		
		5.0	0:41	(0.0)	(0.0)	RUN 2				
			0:32	0%	0%					
			0:39							
226.8	96.8		0:45							
		5.0	0:46	(0.0)	(0.0)	RUN 3				
			1:15	0%	0%					
			0:32							
			0:27							
221.8	101.8		1:07							
			1:00							
221.0	102.6	3.7	N=50/0.5	(0.0)	(0.0)	SS-19 RUN 4				(No Recovery)
			1:17	0%	0%					
			0:33							
217.3	106.3		0:42							
			0:41/0.7	(0.5)	(0.0)	SS-20 RUN 5				
217.1	106.5	4.8	N=50/0.2	10%	0%					
			0:42							
			0:45							
			0:39							
			0:42							
212.3	111.3		0:45/0.8	(5.0)	(3.3)	RUN 6	(5.5)	(3.3)		HARD ROCK: Light tan with orange staining, moderately severe to moderately weathered, close fracturing, medium hard to moderately hard, BIOTITE QUARTZ GNEISS (2 joints at 30°) (4 joints at 20-30°, open with orange staining; 2 joints at 60-70°, open with brown-orange staining)
		5.0	N=50/0.0	100%	66%		100%	60%		
			1:37							
			1:05							
			1:14							
207.3	116.3		1:38	(4.5)	(3.6)	RUN 7 RS-1	(27.6)	(22.0)		HARD ROCK: Light yellowish brown with orange staining, moderately to slightly weathered, close to moderately close fracturing, moderately hard to hard, BIOTITE QUARTZ GNEISS (4 joints at 30°, open with trace clay and orange staining) (4 joints at 30°, open with orange stain; 2 joints at 60-70°, open with trace clay)
		5.0	1:31	90%	72%		97%	77%		
			1:21							
			1:51							
			1:42							
			1:25							
202.3	121.3		1:56	(4.8)	(4.0)	RUN 8				(3 joints at 20-30°, open with trace clay; 2 joints at 45°, open with trace clay)
		5.0	2:07	96%	80%					
			2:09							
			2:21							
			2:39							
197.3	126.3		2:24	(5.0)	(4.1)	RUN 9				(3 joints at 30°, tight)
		5.0	2:48	100%	82%					
			2:33							
			2:17							
			2:12							
192.3	131.3		2:31	(5.0)	(4.2)	RUN 10				(2 joints at 30°)
		5.0	2:14	100%	84%					
			2:49							
			3:15							
			2:36							
187.3	136.3		2:45	(5.0)	(4.1)	RUN 11				(4 joints at 30°, tight)
		5.0	2:06	94%	57%					
			2:25							
			2:20							
			2:18							
182.3	141.3		2:39	(3.3)	(2.0)	RUN 12				
		3.5	2:18	94%	57%					
			2:40							
			2:05							
178.8	144.8		3:04/0.5	(1.8)	(1.8)	RUN 13	(53.0)	(50.5)		HARD ROCK: Light gray to gray, slightly weathered to fresh, close to wide fracturing, hard to very hard, BIOTITE QUARTZ GNEISS (2 joints at 20°, tight with trace orange staining) (4 joints at 30°, tight)
177.0	146.6	1.8	1:34	100%	100%		98%	93%		
		5.0	3:05/0.8	(5.0)	(3.2)	RUN 14				(3 joints at 0-10°, tight; 1 joint at 60°, tight)
			3:28	100%	64%					
			4:31							
			3:38							
			2:15							
172.0	151.6		2:06	(5.0)	(4.7)	RUN 15				(fractures are mechanical)
		5.0	4:20	100%	94%					
			4:58							
			5:05							
			5:50							
167.0	156.6		3:49	(5.0)	(5.0)	RUN 16				
		5.0	5:20	100%	100%					
			6:36							
			5:28							
			6:02							
162.0	161.6		4:58	(4.7)	(4.5)	RUN 17				(4 joints at 30°, tight)
		5.0	4:03	94%	90%					
			5:32							
			4:47							

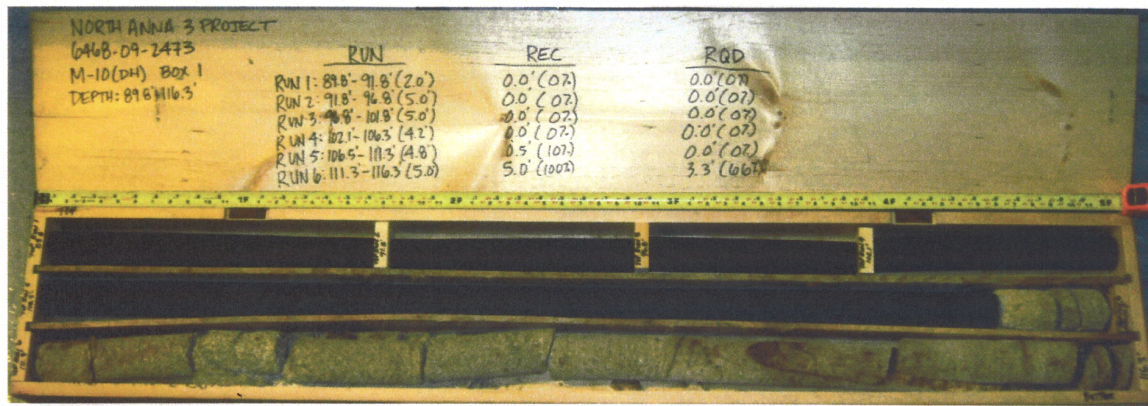
NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



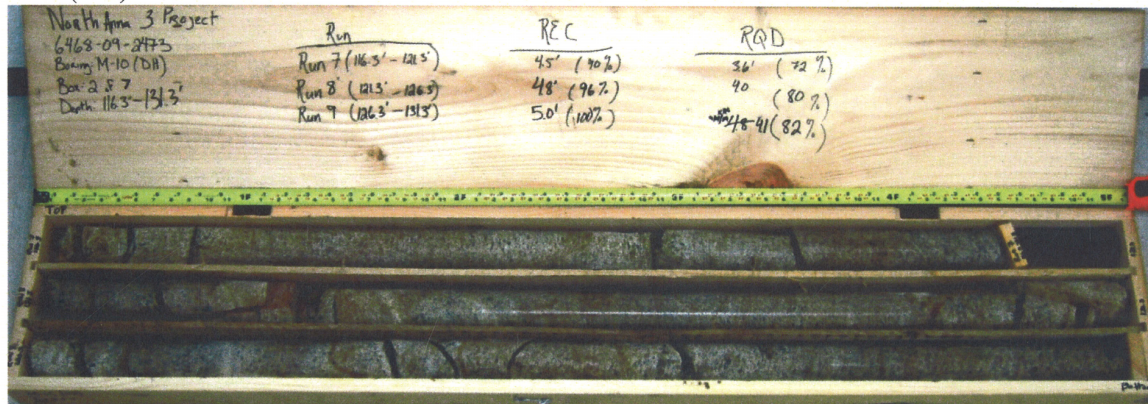
SHEET 2 OF 2

BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: K. Lloyd										
SITE DESCRIPTION: North Anna 3 Project Supplement 2								DRILLER: D. White/O. Smith				FLUID LEVEL (ft)										
BORING NO.: M-10 (DH)				DRILL METHOD: Mud Rotary/Rock Core				DRILL MACHINE: CME-55LC Track (RAL)				0 HR. NA										
GROUND ELEV.: 323.6 ft (NAVD88)				NORTHING: 3,909,244 US ft (NAD83)				EASTING: 11,685,962 US ft (NAD83)				24 HR. 26.0										
TOTAL DEPTH: 201.9 ft				SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08								HAMMER (ID): 140-lb. Auto (MEC-02)										
DATE STARTED: 9/1/09				COMPLETED: 9/9/09		CASING DEPTH: 89.8 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										
Continued from previous page																						
157.0	166.6	5.0	3:58 3:18	(5.0)	(5.0)	RUN 18										HARD ROCK: Light gray to gray, slightly weathered to fresh, close to wide fracturing, hard to very hard, BIOTITE QUARTZ GNEISS (continued) (1 joint at 30°, open with trace clay)						
152.0	171.6	5.0	4:32 6:20 7:15 11:34 10:45	100%	100%	RUN 19										(2 joints at 10-20°, tight with trace orange stain)						
147.0	176.6	5.0	3:38 4:45 6:08 10:32 8:02	100%	100%	RUN 20 RS-4										(3 joints at 10-20°, tight to open with trace clay and orange stain)						
142.0	181.6	5.0	4:21 6:05 5:52 8:42 10:45	100%	96%	RUN 21										(2 joints at 10-20°, tight)						
137.0	186.6	5.0	4:02 6:42 3:16 3:29 2:40	94%	94%	RUN 22										(No joints)						
132.0	191.6	5.0	3:15 3:45 4:17 4:12 4:17	100%	100%	RUN 23										(No joints)						
127.0	196.6	5.0	4:56 5:43 4:54 5:17 4:18	96%	96%	RUN 24										(No joints)						
124.7	198.9	2.3	3:16 3:10 3:25/0.3	(2.0) 87%	(2.0) 87%	RUN 25 RS-5										124.7						
121.7	201.9	3.0	3:37 3:37 2:52	(3.0) 100%	(2.8) 93%	RUN 25										(3.0) 100%	(2.8) 93%	121.7	HARD ROCK: Dark gray, very slightly weathered, close to moderately close fracturing, very hard, QUARTZ BIOTITE GNEISS (2 joints at 20-30°, tight)			
Boring and coring terminated at 201.9 feet.																						
Boring closed by tremie method with cement-bentonite grout.																						
24 hour water level measured on 9/09/2009 prior to drilling. Borehole was at a depth of 196.6 feet.																						

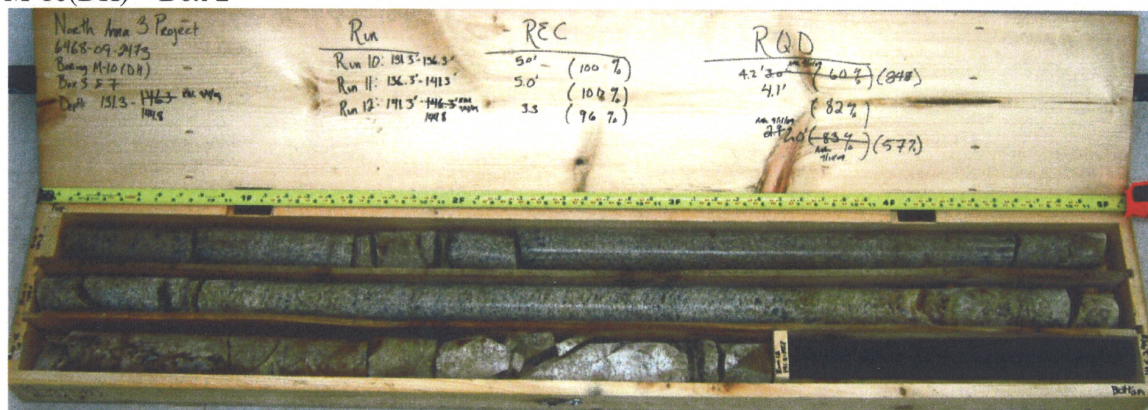
NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



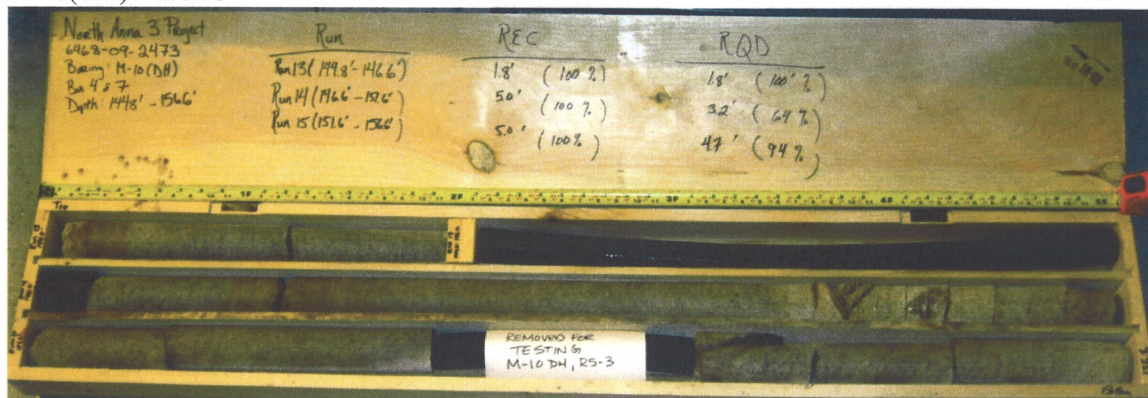
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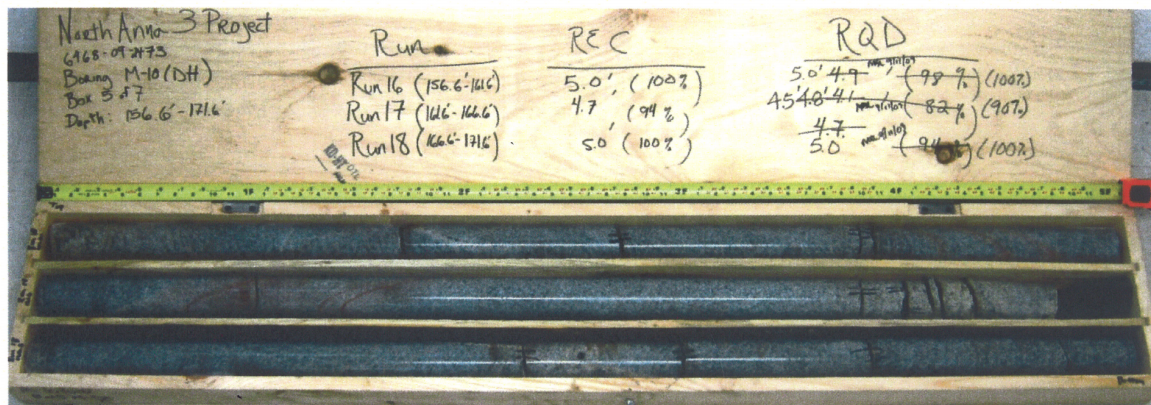
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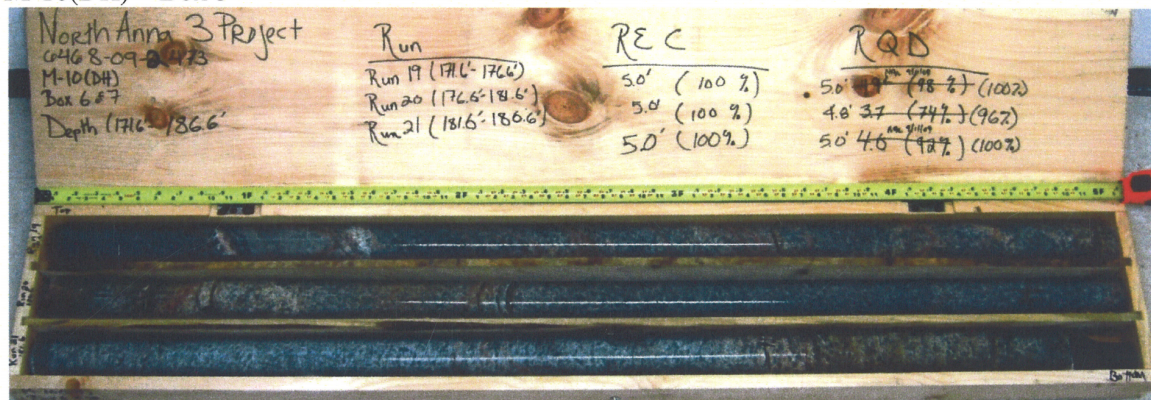
M-10(DH) - Box 3



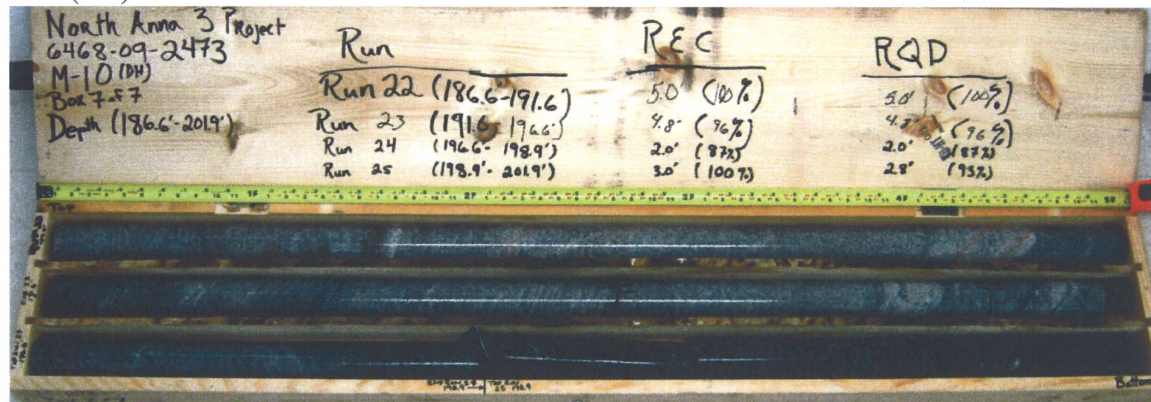
M-10(DH) - Box 4



M-10(DH) - Box 5



M-10(DH) - Box 6



M-10(DH) - Box 7



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin							
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)							
BORING NO.: M-11		DRILL METHOD: Mud Rotary		DRILL MACHINE: CME-55 Trailer (RAL)		0 HR. ND							
GROUND ELEV.: 325.9 ft (NAVD88)		NORTHING: 3,909,352 US ft (NAD83)		EASTING: 11,686,039 US ft (NAD83)		24 HR. ND							
TOTAL DEPTH: 148.7 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08				ROD TYPE: AWJ							
DATE STARTED: 9/1/09		COMPLETED: 9/4/09		HOLE DIA.: 3"		CORE SIZE: NA							
				CASING DEPTH: 8.4 ft		BITS USED: 2-7/8" Tri-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	L O G	SOIL AND ROCK DESCRIPTION
325.9					Ground Surface								325.9 0.0
													No sampling from 0.0 to 8.4 feet due to soft dig utility clearance by Dominion Personnel.
317.5	8.4	4	5	6						SS-1			317.5 8.4
315.0	10.9	4	5	5						SS-2			RESIDUAL SOIL: Silty SAND (SM), reddish yellow (7.5YR 7/6), medium dense, moist, fine to medium grained sand, little mica, relict rock fabric
312.5	13.4	4	6	5						SS-3			10.9 ft: Loose
310.0	15.9	5	6	6						SS-4			13.4 ft: Medium dense
307.4	18.5	4	6	6						SS-5			15.9 ft: Yellow (10YR 8/6), fine to coarse grained sand
302.0	23.9	6	8	8						SS-6			
297.0	28.9	6	11	12						SS-7			
292.0	33.9	5	6	6						SS-8			33.9 ft: Reddish yellow (7.5YR 7/6)
287.0	38.9	4	7	8						SS-9			
282.0	43.9	6	7	8						SS-10			
277.3	48.6	8	7	6						SS-11			48.6 ft: Reddish yellow (5YR 7/6)
272.3	53.6	8	14	13						SS-12			
267.3	58.6	11	13	17						SS-13			58.6 ft: Very pale brown (10YR 7/3)
262.3	63.6	12	23	25						SS-14			63.6 ft: Reddish yellow (7.5YR 6/6), dense
257.3	68.6	14	21	19						SS-15			68.6 ft: Pale yellow (5Y 8/3)
252.3	73.6	9	11	24						SS-16			

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25161				MACTEC PROJECT NO.: 6468-09-2473				COUNTY: Louisa, VA				GEOLOGIST: C. Baldwin			
SITE DESCRIPTION: North Anna 3 Project Supplement 2								DRILLER: P. Pitts/J. Tucker				FLUID LEVEL (ft)			
BORING NO.: M-11				DRILL METHOD: Mud Rotary				DRILL MACHINE: CME-55 Trailer (RAL)				0 HR.		ND	
GROUND ELEV.: 325.9 ft (NAVD88)				NORTHING: 3,909,352 US ft (NAD83)				EASTING: 11,686,039 US ft (NAD83)				24 HR.		ND	
TOTAL DEPTH: 148.7 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08						ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-425)					
DATE STARTED: 9/1/09		COMPLETED: 9/4/09		HOLE DIA.: 3"		CASING DEPTH: 8.4 ft		CORE SIZE: NA		BITS USED: 2-7/8" Tri-Cone					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100					
251.1					Continued from previous page										
247.3	78.6														73.6 ft: Pale yellow (2.5YR 7/3) RESIDUAL SOIL: Silty SAND (SM), reddish yellow (7.5YR 7/6), medium dense, moist, fine to medium grained sand, little mica, relict rock fabric (continued)
242.3	83.6	11	16	20							SS-17				
242.3	83.6	9	10	19							SS-18				83.6 ft: Yellow (10YR 8/6), medium dense
237.3	88.6	10	11	14							SS-19				
232.3	93.6	15	27	26							SS-20				93.6 ft: Very pale brown (10YR 7/3), very dense
227.3	98.6	9	21	36							SS-21				98.6 ft: Light brownish gray (10YR 6/2), some mica
222.3	103.6	37	48	52/0.3							SS-22			223.9	WEATHERED ROCK: Severely weathered BIOTITE GNEISS (Sampled as Silty SAND (SM), dark yellowish brown (10YR 4/4), very dense, fine to medium grained sand, some mica, few to little rock fragments)
217.3	108.6	44	56/0.2								SS-23			102.0	108.6 ft: Dark olive gray (5Y 3/2)
212.3	113.6	50/0.1									SS-24				
207.3	118.6	50/0.2									SS-25				118.6 ft: Light olive brown (2.5Y 5/4)
202.3	123.6	50/0.2									SS-26				
197.3	128.6	50/0.1									SS-27				
192.3	133.6	50/0.1									SS-28				133.6 ft: No recovery
187.3	138.6	50/0.1									SS-29				138.6 ft: No recovery
182.3	143.6	100/0.1									SS-30				143.6 ft: No recovery
177.3	148.6	50/0.1									SS-31			177.2	148.7

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25161			MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA			GEOLOGIST: C. Baldwin					
SITE DESCRIPTION: North Anna 3 Project Supplement 2						DRILLER: P. Pitts/J. Tucker			FLUID LEVEL (ft)					
BORING NO.: M-11			DRILL METHOD: Mud Rotary			DRILL MACHINE: CME-55 Trailer (RAL)			0 HR. ND					
GROUND ELEV.: 325.9 ft (NAVD88)			NORTHING: 3,909,352 US ft (NAD83)			EASTING: 11,686,039 US ft (NAD83)			24 HR. ND					
TOTAL DEPTH: 148.7 ft			SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ			HAMMER (ID):140-lb. Auto (MEC-425)					
DATE STARTED: 9/1/09			COMPLETED: 9/4/09			HOLE DIA.: 3"			CASING DEPTH: 8.4 ft					
CORE SIZE: NA			BITS USED: 2-7/8" 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		MOI		
176.3					Continued from previous page									
														148.6 ft: No recovery Boring terminated at 148.7 feet.
														Boring closed by tremie method with cement-bentonite grout.
														Note: Boring terminated prior to 150 depth was reached after discussion with Bechtel Site Representative.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09