



SHEET 1 OF 2

MACTEC PROJECT NO.: 6468-06-1472					COUNTY Louisa, VA					GEOLOGIST J. Lachewitz/ S. Lehman							
SITE DESCRIPTION NORTH ANNA COL										GROUND WATER (ft)							
BORING NO. B-916			DRILL METHOD: Rotary Wash/Core			SAMPLE METHODS: SPT/CORE			0 HR. ND								
COLLAR ELEV. 276.2 ft (NAVD88)			NORTHING 3,910,050			US ft (NAD83)			EASTING 11,686,009			US ft (NAD83)			24 HR. ND		
TOTAL DEPTH 100.3 ft			DRILL MACHINE CME 45 Trailer			DRILLER: F. Cox/D. Rhodes			HAMMER TYPE 140 lbs Auto								
DATE STARTED 9/28/06			COMPLETED 10/4/06			CORE BARREL TYPE: HQ 3 triple tube-wireline											
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.	
276.2					Ground Surface								276.2	0.0			
274.7	1.5									916-1				SILT (ML) strong brown (7.5YR 4/6), moist, medium stiff to very stiff, sandy, micaceous (Residual Soil)			
272.7	3.5	1	2	3						916-2							
271.2	5.0	5	4	13						916-3			271.2	5.0			
		40	50/0.5											Fine to coarse SAND (SP) light brownish gray (2.5Y 6/2 and 10YR 6/2) and light yellowish brown (10YR 6/4), moist, very dense to dense, silty, micaceous, relict rock fabric (Residual Soil)			
268.3	7.9									916-4							
		13	12	33													
265.7	10.5									916-5							
		19	12	12													
263.3	12.9									916-6							
		5	16	25													
258.3	17.9																
		11	17	16						916-7							
253.3	22.9																
		12	16	12						916-8							
250.6	25.6									916-9			251.1	25.1			
		50/0.0											250.6	25.6			
														Weathered Rock: BIOTITE-QUARTZ GNEISS Hard Rock: White, moderately weathered to fresh, close to wide fracturing, moderately hard to very hard, BIOTITE-QUARTZ GNEISS with trace magnetite			



SHEET 2 OF 2

MACTEC PROJECT NO.: 6468-06-1472				COUNTY Louisa, VA				GEOLOGIST J. Lachewitz/ S. Lehman									
SITE DESCRIPTION NORTH ANNA COL										GROUND WATER (ft) 0 HR. ND 24 HR. ND							
BORING NO. B-916		DRILL METHOD: Rotary Wash/Core				SAMPLE METHODS: SPT/CORE											
COLLAR ELEV. 276.2 ft (NAVD88)		NORTHING 3,910,050		US ft (NAD83)		EASTING 11,686,009		US ft (NAD83)									
TOTAL DEPTH 100.3 ft		DRILL MACHINE CME 45 Trailer				DRILLER: F. Cox/D. Rhodes				HAMMER TYPE 140 lbs Auto							
DATE STARTED 9/28/06				COMPLETED 10/4/06				CORE BARREL TYPE: HQ 3 triple tube-wireline									
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							
201.4					Continued from previous page												
													Hard Rock: White, very slightly weathered to fresh, wide fracturing, hard to very hard, QUARTZ-BIOTITE GNEISS with trace magnetite (continued)				
																	192.4 ----- 83.8 Hard Rock: Light gray, fresh, close to wide fracturing, hard to very hard, QUARTZ GNEISS with biotite, trace magnetite and pyrite
																	175.9 ----- 100.3 Boring and coring terminated at 100.3 ft in Hard Rock: Hard, QUARTZ GNEISS with biotite

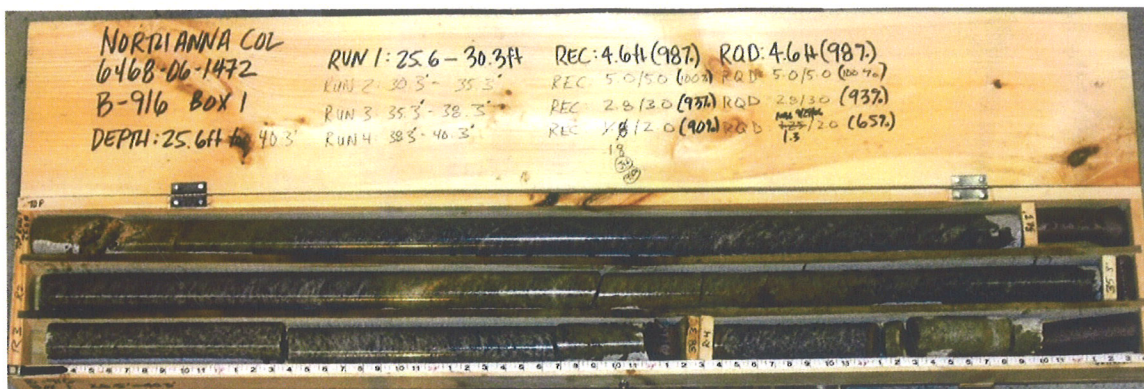


SHEET 1 OF 1

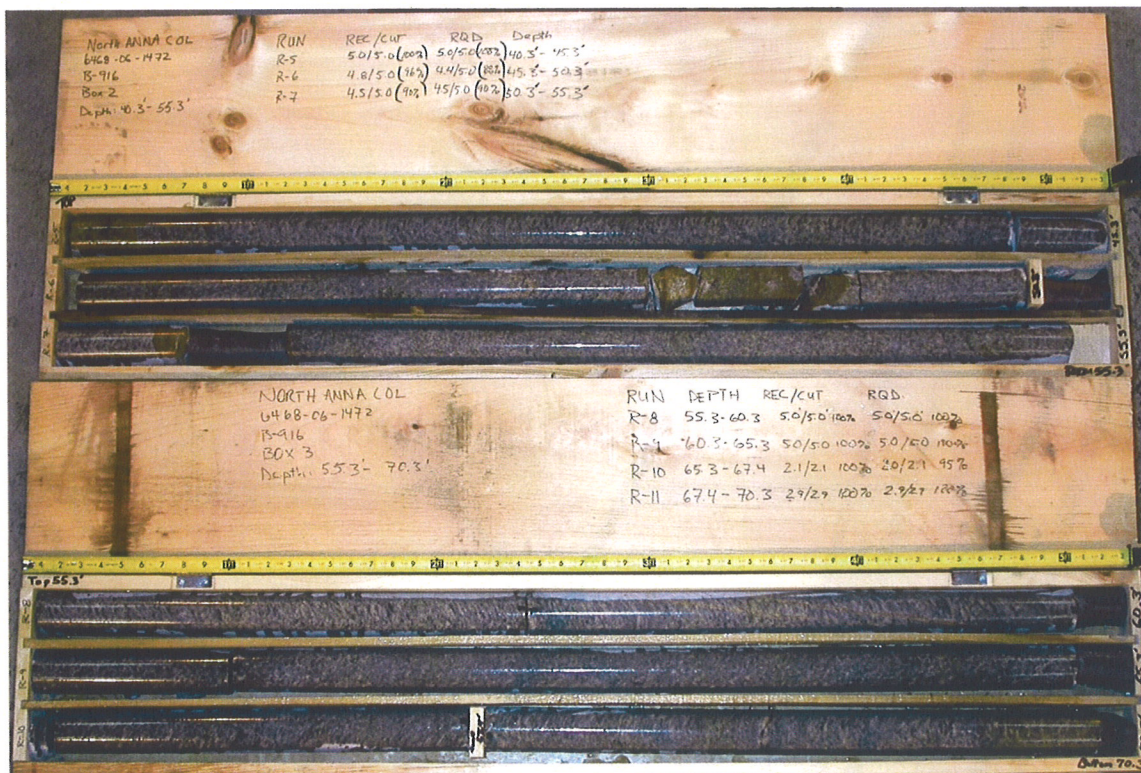
MACTEC PROJECT NO.: 6468-06-1472							COUNTY Louisa, VA				GEOLOGIST J. Lachewitz/ S. Lehman			
SITE DESCRIPTION NORTH ANNA COL											GROUND WATER (ft)			
BORING NO. B-916			DRILL METHOD: Rotary Wash/Core				SAMPLE METHODS: SPT/CORE				0 HR. ND			
COLLAR ELEV. 276.2 ft (NAVD88)			NORTHING 3,910,050		US ft (NAD83)		EASTING 11,686,009		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 100.3 ft			DRILL MACHINE CME 45 Trailer				DRILLER: F. Cox/D. Rhodes				HAMMER TYPE 140 lbs Auto			
DATE STARTED 9/28/06			COMPLETED 10/4/06				CORE BARREL TYPE: HQ 3 triple tube-wireline							
CORE SIZE HQ3			TOTAL RUN 74.7 ft											
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 @ 25.6 ft				
250.6	25.6	4.7	N=50/0.0 5:28 7:28 7:45 9:20	(4.6) 98%	(4.6) 98%	1				250.6	Hard Rock: White, moderately weathered to fresh, close to wide fracturing, moderately hard to very hard, BIOTITE-QUARTZ GNEISS with trace magnetite (1 joint at 50° weathered with Fe stain)		25.6	
245.9	30.3	5.0	10:27/0.7 7:39 7:23 4:58 4:56 8:23	(5.0) 100%	(5.0) 100%	2					(2 joints at 0-15° with Fe stain)			
240.9	35.3	3.0	12:30 9:36 3:10	(2.8) 93%	(2.8) 93%	3					(2 joints at 5° with slight Fe stain)			
237.9	38.3	2.0	3:29 2:43	(1.8) 90%	(1.3) 65%	4					(3 joints at 5-20° with Fe stain)			
235.9	40.3	5.0	4:43 4:49 5:27 8:16 11:41	(5.0) 100%	(5.0) 100%	5					-No Joints			
230.9	45.3	5.0	4:27 4:16 3:20 2:52 3:33	(4.8) 96%	(4.4) 88%	6					(4 joints at 0-45° weathered with Fe stain and trace clay)			
225.9	50.3	5.0	3:25 4:47 3:31 3:50 4:44	(4.5) 90%	(4.5) 90%	7				225.9	Hard Rock: White, very slightly weathered to fresh, wide fracturing, hard to very hard, QUARTZ-BIOTITE GNEISS with trace magnetite (2 joints at 25° with Fe stain)		50.3	
220.9	55.3	5.0	7:10 9:48 8:05 3:47 5:01	(5.0) 100%	(5.0) 100%	8					-No Joints			
215.9	60.3	5.0	10:12 5:34 3:54 4:17 4:31	(5.0) 100%	(5.0) 100%	9					-No Joints			
210.9	65.3	2.1	11:22 12:13/1.1	(2.1) 100%	(2.0) 95%	10					-No Joints			
208.8	67.4	2.9	5:05 2:56 2:37/0.9	(2.9) 100%	(2.9) 100%	11					-No Joints; 0.5 ft thick quartz vein+pyrite at 68.7 ft			
205.9	70.3	5.0	2:45 2:20 1:52 3:08 4:37	(5.0) 100%	(5.0) 100%	12					(2 joints at 20-25° slightly weathered)			
200.9	75.3	5.0	6:05 7:39 9:08 14:06 3:52	(5.0) 100%	(5.0) 100%	13					-No Joints			
195.9	80.3	3.5	4:55 6:02 7:26	(3.5) 100%	(3.5) 100%	14					-No Joints			
192.4	83.8	1.5	7:10/0.5 3:52	(1.4) 93%	(1.4) 93%	15				192.4	Hard Rock: Light gray, fresh, close to wide fracturing, hard to very hard, QUARTZ GNEISS with biotite, trace magnetite and pyrite		83.8	
190.9	85.3	5.0	7:32/0.5 3:49 3:43 3:53 5:35 9:18	(5.0) 100%	(5.0) 100%	16					-No Joints -No Joints			
185.9	90.3	5.0	4:20 4:50 5:40 8:12 12:42	(5.0) 100%	(5.0) 100%	17					-No Joints			
180.9	95.3	5.0	4:22 3:39 2:24 2:00 3:24	(5.0) 100%	(4.0) 80%	18					(8 joints at 45° weathered with Fe stain; 1 joint at 20° slightly weathered; moderately weathered fracture zone from 98.0-99.0 ft)			
175.9	100.3									175.9			100.3	
Coring terminated at 100.3 ft in Hard Rock: Hard, QUARTZ GNEISS with biotite														

Coring terminated at 100.3 ft in Hard Rock: Hard, QUARTZ GNEISS with biotite

NORTH ANNA COL CORE NORTH ANNA COL DATA REPORT REV0.GPJ NORTH ANNA COL GDT 1/19/07

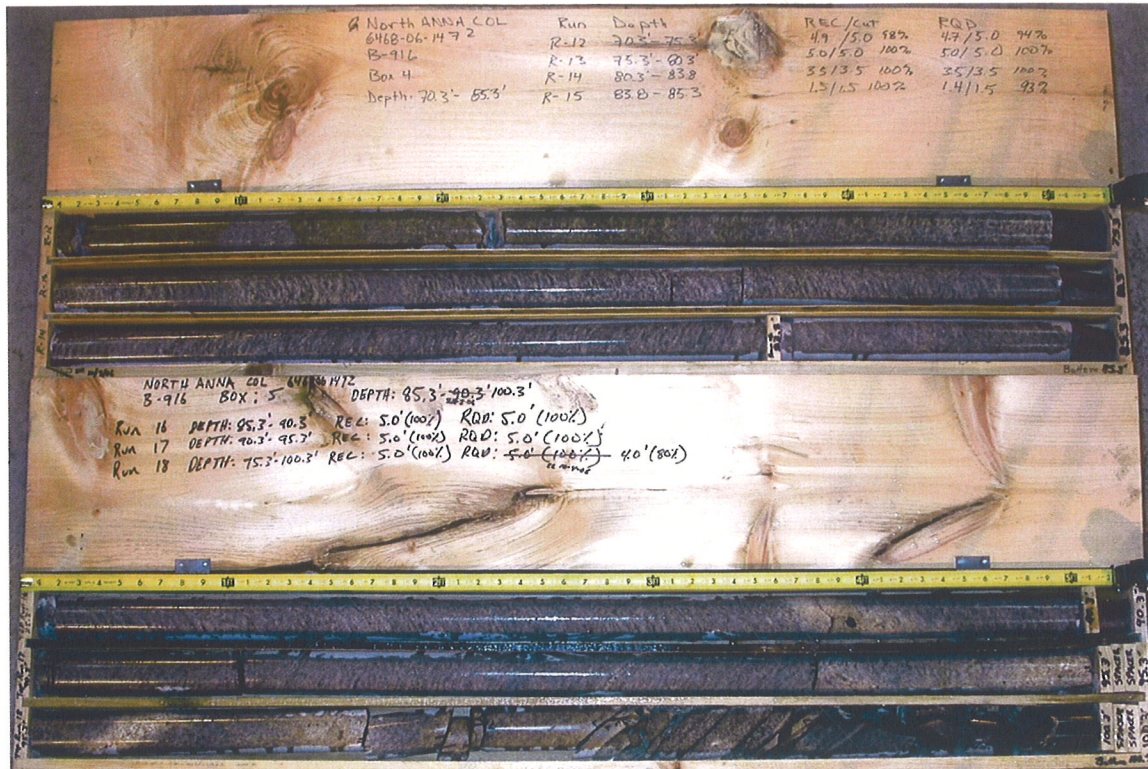


B-916 - Box 1



B-916 - Box 2

B-916 - Box 3



B-916 - Box 4

B-916 - Box 5