



CONTACT: STEVE CRISCENZO _____ PHONE: 919-949-1707 _____

BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 3.7 0 TO 200' 2015; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 201.5 *DATE 8/30/06*
CONDUCTOR CASING?: YES ☒ DEPTH TO BOTTOM OF CASING 80'; NO _____
DEPTH TO BEDROCK: ~80'
BOREHOLE FLUID: WATER ☒; FRESH WATER MUD _____; SALT WATER MUD _____;

LOGGING CREW: R. STELLER_____

[illegible]



B-909 ELOG FIELD LOG

SITE: NORTH ANNA COL DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: _____	OFFICE PHONE: _____
	CELL PHONE: _____
CONTACT: _____	OFFICE PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
DRILLER: _____	PHONE: _____
COMPANY: _____	PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-909 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 3.7 0 TO 200'; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES ☒ DEPTH TO BOTTOM OF CASING 78'; NO _____
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: NA
BOREHOLE FLUID: WATER ☒; FRESH WATER MUD _____; SALT WATER MUD _____
OTHER: _____
DEPTH TO BOREHOLE FLUID: NA TIME SINCE LAST CIRCULATION: NA

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: FREDERICKSBURG, VA DEPARTURE TIME: 6:15
ARRIVED ON SITE: 7:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 9:15 LOGGING COMPLETED: 9:33

SITE: NORTH ANNA COL B-909 DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 2

WINCH: COMPROBE SILVER ☒ OYO OTHER
MICROLOGGER 5301 ☒ OTHER
ELOG PROBE 5490 ☒ OTHER

PROBE OFFSET	2.50M(8.20 FT)
CASING STICK-UP	- .75 + 32.8 FT
DEPTH REF. OFFSET	40.25'

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B909 ELOG TPST 01	0	9:00	0	9:04
B909 ELOG WP 01	200.0'	9:15	35.25'	9:33

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



B-909 CALIPER FIELD LOG

SITE: NORTH ANNA COL DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: _____	OFFICE PHONE: _____
	CELL PHONE: _____
CONTACT: _____	OFFICE PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
DRILLER: _____	PHONE: _____
COMPANY: _____	PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-909 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 3.7" 0 TO 200'; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES ☒ DEPTH TO BOTTOM OF CASING 78'; NO _____
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: NA
BOREHOLE FLUID: WATER ☒; FRESH WATER MUD _____; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: NA TIME SINCE LAST CIRCULATION: NA

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: Fredericksburg, VA DEPARTURE TIME: 6:15
ARRIVED ON SITE: 7:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 9:51 LOGGING COMPLETED: 10:30

WINCH: COMPROBE ✓ SILVER OYO OTHER
MICROLOGGER 5301 ✓ OTHER
CALIPER PROBE 5368 ✓ OTHER

DEPT ZERO ON EXIT = 6.10'

CALIBRATION PLATE S/N 201		AS BUILT		
		1.968 IN (50 MM)	3.937 IN (100 MM)	8.000 IN 203.2 MM
AS MEAS.	FILE NAME B909 CALTEST 01	1.98	3.93	7.99
AS MEAS.	B909 CALTEST 02	2.02	3.97	8.04
AS MEAS.				
AS MEAS.				
AS MEAS.				
AS MEAS.				

4.507 IN
4.52
4.55

SUGGESTIONS, ADDITIONS, CHANGES:



B-909

TELEVIEWER FIELD LOG

SITE: NORTH ANNA COL DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: _____	OFFICE PHONE: _____
	CELL PHONE: _____
CONTACT: _____	OFFICE PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
CONTACT: _____	PHONE: _____
	PHONE: _____
DRILLER: _____	PHONE: _____
COMPANY: _____	PHONE: _____

DIRECTIONS TO SITE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-909 LOCATION: _____

COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 3.7" 0 TO 200'; _____ TO _____
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES ☒ DEPTH TO BOTTOM OF CASING 78'; NO _____
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 100'
BOREHOLE FLUID: WATER ☒; FRESH WATER MUD _____; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: NA 100' TIME SINCE LAST CIRCULATION: NA



SITE: NORTH ANNA COL B-909 DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: FREEDERICKSBURG, VA DEPARTURE TIME: 6:15
ARRIVED ON SITE: 7:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 11:00 LOGGING COMPLETED: 12:05

WINCH: _____ COMPROBE SILVER ☒ OYO _____ OTHER _____
MICROLOGGER 5301 ☒ OTHER _____
TELEVIEWER OPTICAL #5117 ACOUSTIC #5174 ☒ OTHER _____

PROBE TILT TEST 88.9° BRUNTON TILT 89°
PROBE AZIMUTH TEST 337.3° BRUNTON AZIMUTH 336°

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	- .75
DEPTH REF. OFFSET		<u>3.97'</u>
DEPTH ZERO ON EXIT = <u>4.05'</u>		

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B909 Ann u P 01</u>	<u>200.0'</u>	<u>11:00</u>	<u>2.0'</u>	<u>12:05</u>

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



P-S SUSPENSION VELOCITY FIELD LOG

SITE: NORTH ANNA COL B-909 DATE: 8/30/08
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 4

CONTACT: STEVE CRISCENZO OFFICE PHONE: 919-831-8047
CELL PHONE: 919-949-1707
CONTACT: OFFICE PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
DRILLER: PHONE:
COMPANY: PHONE:

DIRECTIONS TO SITE:

GENERAL SITE CONDITIONS/LOCATION:

EA#:
BOREHOLE DESIGNATION: B-909 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:
BOREHOLE CONSTRUCTION: CASED UNCASED ✓
DIAMETERS AND DEPTH RANGES: 3.7" 0 TO 200'; TO
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES ✓ DEPTH TO BOTTOM OF CASING 80'; NO
DEPTH TO BEDROCK: NA DEPTH TO WATER TABLE: 16'
BOREHOLE FLUID: WATER ✓; FRESH WATER MUD ; SALT WATER MUD ;
OTHER:
DEPTH TO BOREHOLE FLUID: 16' TIME SINCE LAST CIRCULATION: NA



SITE: NORTH ANNA COL B-909 DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 4

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: FREDERICKS BURGH, VA DEPARTURE TIME: 6:15
ARRIVED ON SITE: 7:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 12:30 LOGGING COMPLETED: 13:05
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 12:30 RAS LOGGING COMPLETED: _____
DEMOBILIZED TO: _____ ARRIVAL TIME: _____
ADDITIONAL DEMOB TIME: _____ REASON: _____

BATTERIES CHANGED BEFORE LOGGING: YES _____; NO ☒; STORED WITH NEW _____
WINCH _____ COMPROBE ☐ GREY ☐ OYO ☐ RG ☐ OTH ☒
INSTRUMENT OYO 12004 ☐ 15014 ☐ 19029 ☐ RG 160023 ☒ 160024 ☐
RECEIVER S/N 12008 ☐ 20042 ☐ 26066 ☐ 11001 ☐ 23053 ☐ 30086 ☒

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: RAC 8/30/06
DEPTH ZERO = 2.5m 2.27m
2.0m 2.3m = 1.77m.

GEOVISION SUSPENSION LOGGING FILE NO. 100

SITE: NORTH ANNA COL B - 909 DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 3 OF 4

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
-----------------	---------------	------------------------	----------------------	--------------------------------------

20.5	67.26			
21.0	68.90			
21.5	70.54			
22.0	72.18			
22.5	73.82			
23.0	75.46			
23.5	77.10			
24.0	78.74			
24.5	80.38			
25.0	82.02	1		3" PVC CASE TO 80'
25.5	83.66	2		WITH STEEL CASING SHOE
26.0	85.30	3		
26.5	86.94	4		
27.0	88.58	5		
27.5	90.22	6		
28.0	91.86	7		
28.5	93.50	8		
29.0	95.14	9		
29.5	96.78	10		
30.0	98.43	11		
30.5	100.07	12		
31.0	101.71	13		
31.5	103.35	14		
32.0	104.99	15		
32.5	106.63	16		
33.0	108.27	17		
33.5	109.91	18		
34.0	111.55	19		
34.5	113.19	20		
35.0	114.83	21		
35.5	116.47	22		
36.0	118.11	23		
36.5	119.75	24		
37.0	121.39	25		
37.5	123.03	26		
38.0	124.67	27		
38.5	126.31	28		
39.0	127.95	29		
39.5	129.59	30		
40.0	131.23	31		

GEOVISION SUSPENSION LOGGING FIELD NOTES

SITE: NORTH ANNA COL B-909 DATE: 8/30/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 4 OF 4

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
40.5	132.87	32		
41.0	134.51	33		
41.5	136.15	34		
42.0	137.80	35		
42.5	139.44	36		
43.0	141.08	37		
43.5	142.72	38		
44.0	144.36	39		
44.5	146.00	40		
45.0	147.64	41		
45.5	149.28	42		
46.0	150.92	43		
46.5	152.56	44		
47.0	154.20	45		
47.5	155.84	46		
48.0	157.48	47		
48.5	159.12	48		
49.0	160.76	49		
49.5	162.40	50		
50.0	164.04	51		
50.5	165.68	52		
51.0	167.32	53		
51.5	168.96	54		
52.0	170.60	55		
52.5	172.24	56		
53.0	173.88	57		
53.5	175.52	58		
54.0	177.17	59		
54.5	178.81	60		
55.0	180.45	61		
55.5	182.09	62		
56.0	183.73	63		
56.5	185.37	64		
57.0	187.01	65		
57.5	188.65	66		Bottom measurement?
58.0	190.29			Hit bottom @ 57.75m. →
58.5	191.93			Probe tip @ 201.6'
59.0	193.57			
59.5	195.21			
60.0	196.85			



LOGGING CREW: R. STELLER

[illegible]



B-909 CALIPER FIELD LOG

SITE: NORTH ANNA COL DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 2

CONTACT: _____	OFFICE PHONE: _____
CONTACT: _____	CELL PHONE: _____
CONTACT: _____	OFFICE PHONE: _____
CONTACT: _____	PHONE: _____
CONTACT: _____	PHONE: _____
CONTACT: _____	PHONE: _____
CONTACT: _____	PHONE: _____
CONTACT: _____	PHONE: _____
DRILLER: _____	PHONE: _____
COMPANY: _____	PHONE: _____

GENERAL SITE CONDITIONS/LOCATION: _____

BOREHOLE DESIGNATION: B-909 LOCATION: _____
COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 5" 0 TO 240' ; 3.7" 240 TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO ☒
DEPTH TO BEDROCK: 240' DEPTH TO WATER TABLE: NA
BOREHOLE FLUID: WATER _____; FRESH WATER MUD ☒; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: Ø TIME SINCE LAST CIRCULATION: 1/2 HR

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: Elmer's, Jr DEPARTURE TIME: 6:30
ARRIVED ON SITE: 7:45
STANDBY TIME: - CAUSE: _____
LOGGING STARTED: 9:35 LOGGING COMPLETED: 10:20

SITE: NORTH ANNA COL B-909 DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 2

WINCH: COMPROBE SILVER ☒ OYO ☐ OTHER ☐
MICROLOGGER 5301 ☒ OTHER ☐
CALIPER PROBE 5368 ☒ OTHER ☐

PROBE OFFSET	12 IN MAX 2.08M(6.82 FT)	24 IN MAX
CASING STICK-UP	ARMS - 1.58	ARMS -
DEPTH REF. OFFSET	5.24'	

2800 ON GALT = 5.20'

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B909 CALTEST 03	Ø	9:35	Ø	9:40
B909 CALUP 02	1100.0	9:54	Ø	10:08
B909 CALTEST 04	Ø	10:15	Ø	10:20

CALIBRATION PLATE S/N 201

		AS BUILT		
	FILE NAME	1.968 IN (50 MM)	3.937 IN (100 MM)	8.000 IN 203.2 MM
AS MEAS.	B909 CALTEST 03	2.01	3.97	7.99
AS MEAS.	B909 CALTEST 04	2.05	3.94	8.00
AS MEAS.				
AS MEAS.				
AS MEAS.				
AS MEAS.				

PVC CORPUS
4.57' IN.
4.55
4.55

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____



P-S SUSPENSION VELOCITY FIELD LOG

SITE: NORTH ANNA COL B-909 DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 1 OF 4

CONTACT: STEVE CRISCENZO OFFICE PHONE: 919-831-8047
CELL PHONE: 919-949-1707
CONTACT: OFFICE PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
CONTACT: PHONE:
PHONE:
DRILLER: PHONE:
COMPANY: PHONE:

DIRECTIONS TO SITE:

GENERAL SITE CONDITIONS/LOCATION:

EA#:
BOREHOLE DESIGNATION: B-909 LOCATION:

COUNTY: RANGE: TOWNSHIP: SECTION:
BOREHOLE CONSTRUCTION: CASED UNCASED ☒
DIAMETERS AND DEPTH RANGES: 5" 0 TO 40'; 3.7" 40' TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES DEPTH TO BOTTOM OF CASING; NO ☒
DEPTH TO BEDROCK: 40' DEPTH TO WATER TABLE:
BOREHOLE FLUID: WATER; FRESH WATER MUD ☒; SALT WATER MUD;
OTHER:
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 1 HR



SITE: NORTH ANNA COL B-909 DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 4

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: _____
MOBILIZED FROM: Fredericksburg, VA DEPARTURE TIME: 6:30
ARRIVED ON SITE: 7:45
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: 10:35 LOGGING COMPLETED: 11:31
STANDBY TIME: _____ CAUSE: _____
LOGGING STARTED: _____ LOGGING COMPLETED: _____
DEMOLISHED TO: _____ ARRIVAL TIME: _____
ADDITIONAL DEMOB TIME: _____ REASON: _____

BATTERIES CHANGED BEFORE LOGGING: YES ☒ ; NO _____ ; STORED WITH NEW _____
WINCH _____ COMPROBE ☐ GREY ☐ OYO ☐ RG ☐ OTH ☒
INSTRUMENT OYO 12004 ☐ 15014 ☐ 19029 ☐ RG 160023 ☒ 160024 ☐
RECEIVER S/N 12008 ☐ 20042 ☐ 26066 ☐ 11001 ☐ 23053 ☐ 30086 ☒

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: _____

SUGGESTIONS, ADDITIONS, CHANGES: _____

COMMENTS: DEPTH 2600 = 2.5m - .48m = 2.02m
EXT DEPTH 2600 = 2.03m

SITE: NORTH ANNA COL B-909 DATE: 1/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 3 OF 4

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
0.5	1.64	301		
1.0	3.28	302		
1.5	4.92	303		
2.0	6.56	304		
2.5	8.20	305		
3.0	9.84	306		
3.5	11.48	307		
4.0	13.12	308		
4.5	14.76	309		
5.0	16.40	310		
5.5	18.04	311		
6.0	19.69	312		
6.5	21.33	313		
7.0	22.97	314		
7.5	24.61	315		
8.0	26.25	316		
8.5	27.89	317		
9.0	29.53	318		
9.5	31.17	319		
10.0	32.81	320		
10.5	34.45	321		
11.0	36.09	322		
11.5	37.73	323		
12.0	39.37	324		
12.5	41.01	325		
13.0	42.65	326		
13.5	44.29	327		
14.0	45.93	328		
14.5	47.57	329		Vs ≈ 2200 m/s
15.0	49.21	330		
15.5	50.85	331		
16.0	52.49	332		
16.5	54.13	333		
17.0	55.77	334		
17.5	57.41	335		
18.0	59.06	336		
18.5	60.70	337		
19.0	62.34	338		
19.5	63.98	339		
20.0	65.62	340		

SITE: NORTH ANNA COL **B-909** DATE: **9/12/06**
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE **4** OF **4**

DEPTH METERS	DEPTH FEET	UNFILTERED FILE NO.	FILTERED FILE NO.	COMMENTS CASING, WATER, ROCK, ETC
20.5	67.26	341		
21.0	68.90	342		
21.5	70.54	343		
22.0	72.18	344		
22.5	73.82	345		
23.0	75.46	346		
23.5	77.10	347		
24.0	78.74	348		
24.5	80.38	349		
25.0	82.02	350		
25.5	83.66	351		
26.0	85.30	352		
26.5	86.94	353		
27.0	88.58	354		
27.5	90.22	355		
28.0	91.86	356		
28.5	93.50	357		
29.0	95.14	358		
29.5	96.78	359		
30.0	98.43	360		
30.5	100.07			
31.0	101.71			
31.5	103.35			
32.0	104.99			
32.5	106.63			
33.0	108.27			
33.5	109.91			
34.0	111.55			
34.5	113.19			
35.0	114.83			
35.5	116.47			
36.0	118.11			
36.5	119.75			
37.0	121.39			
37.5	123.03			
38.0	124.67			
38.5	126.31			
39.0	127.95			
39.5	129.59			
40.0	131.23			



COUNTY: _____ RANGE: _____ TOWNSHIP: _____ SECTION: _____
BOREHOLE CONSTRUCTION: CASED _____ UNCASD ☒
DIAMETERS AND DEPTH RANGES: 5" 0 TO 240'; 3.7', 240 TO 200'
BOREHOLE TOTAL DEPTH AS DRILLED: 200'
CONDUCTOR CASING?: YES _____ DEPTH TO BOTTOM OF CASING _____; NO ☒
DEPTH TO BEDROCK: 240 DEPTH TO WATER TABLE: _____
BOREHOLE FLUID: WATER _____; FRESH WATER MUD ☒; SALT WATER MUD _____;
OTHER: _____
DEPTH TO BOREHOLE FLUID: 0 TIME SINCE LAST CIRCULATION: 1.5 HR.



SITE: NORTH ANNA COL B-909 DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 2

LOGGING CREW: R. STELLER
VEHICLE(S) USED AND MILEAGE: RENTAL
MOBILIZED FROM: FREDERICKSBURG, VA DEPARTURE TIME: 6:30
ARRIVED ON SITE: 7:45
STANDBY TIME: CAUSE:
LOGGING STARTED: 12:00 LOGGING COMPLETED: 12:28

WINCH: COMPROBE SILVER ☒ OYO OTHER
MICROLOGGER 5301 ☒ OTHER
TELEVIEWER OPTICAL #5117 ACOUSTIC #5174 ☒ OTHER

PROBE TILT TEST 88.1° BRUNTON TILT 88.5° FREE HANGING @ 0.5°
PROBE AZIMUTH TEST 56.0° BRUNTON AZIMUTH 59.0°

PROBE OFFSET	OPTICAL 1.88M(6.17FT)	ACOUSTIC 1.44M(4.72FT)
CASING STICK-UP	-	- <u>1.58'</u>
DEPTH REF. OFFSET		<u>3.14'</u>

EXIT DEPTH REFERENCE = 3.14'

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
<u>B909A-UP 02</u>	<u>100.0</u>	<u>12:00</u>	<u>3.14'</u>	<u>12:28</u>

MAINTENANCE PERFORMED ON SITE: HARD ROCK @ 91.3'

EQUIPMENT PROBLEMS OR FAILURES:

SUGGESTIONS, ADDITIONS, CHANGES: ROCK GAIN @ 7 DB, SOIL GAIN @ 22 DB



Page 300 of 359

SITE: NORTH ANNA COL B-909 DATE: 9/12/06
CLIENT: MACTEC JOB: 6410
AUTHOR: R. STELLER PAGE 2 OF 2

WINCH: COMPROBE SILVER ☒ OYO OTHER
MICROLOGGER 5301 ☒ OTHER
ELOG PROBE 5490 ☒ OTHER

PROBE OFFSET	2.50M(8.20 FT)
CASING STICK-UP	<u>-1.50' + 32.80</u>
DEPTH REF. OFFSET	<u>39.42'</u>
<u>Exit 2610 = 39.40'</u>	

LOG NAME	START DEPTH	START TIME	END DEPTH	END TIME
B909ELOG TEST 02	0	9:07	0	9:10
B909ELOG UP 02	120.0'	12:41	25.2'	12:54

MAINTENANCE PERFORMED ON SITE: _____

EQUIPMENT PROBLEMS OR FAILURES: LONG PERSISTIVITY TEST @ 10 OHM-METER
SCALE NOT READING CORRECTLY, FAILURE OF TEST BOX.

SUGGESTIONS, ADDITIONS, CHANGES: _____